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ECONOMIC DEVELOPMENT PROGRAM FOR THAILAND

by

Visit Boonyakesanond

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Economics

Approved:

UTAH STATE UNIVERSITY
Logan, Utah

1962

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Visit Boonyakesanond

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CHAPTER I

GENERAL AND HISTORICAL INTRODUCTION

After World War II most governments in the world made economic rehabilitation the most important objective of their policy. The war destroyed not only material things but also cultural and spiritual values. Many countries faced serious unemployment problems as the soldiers returned to their homes. Crime increased enormously, establishing new records.

The underdeveloped countries started to restore their deteriorating economies, and then diversified and increased their economic growth by means of new economic plans. India and China, for example, began their first Five Year Plans in 1951 and 1953, respectively. Many came to feel that it was necessary for a nation to have a plan to achieve economic development.

Thailand is an agricultural country and more than 80 percent of the population earn their livelihood on farms. Yet it is almost impossible for a country to achieve economic development by concentrating on agriculture. In other words, industry must play an important and increasing role in the economic plan. After Thailand changed her regime from absolute monarchy to democracy in 1932, her economic growth continued slowly without much government intervention. In the meantime, there were many violent revolutions--conflicts between politicians and the military. Foreign observers said that Thailand was "the land of revolution of the Far East."

Economic development was neglected for a long time--until September

1957, when Field Marshal Sarit Thanarat, the Supreme Commander of the Armed Forces, assumed power. Thanarat's government controlled the country completely and started to involve itself in a program of economic progress. Though Thailand was not much damaged by the effects of World War II, her economy had not yet reached the pre-war level. The population after the war increased enormously so that the government faced both unemployment and under-production. Moreover, many Chinese immigrated from the mainland, Hong Kong, and Malaya, further complicating the problem of economic development. The government had to prepare plans for the limited resources competing with the growing demands.

Thailand lacks the basic fuel and metal resources needed for large-scale heavy industry, so there are only light manufacturing industries operated by both the government and private individuals. Manufacturing is confined largely to food processing for local use and the production of building materials, matches, cigarettes, sugar, furniture, and native handicraft. Minerals exist to a limited degree, with tin the most important. Gold, antimony, and precious stones are produced in small quantities.

One of the major problems of Thailand is lack of capital accumulation. For this reason, the government encourages entrepreneurs from other countries to make investments. Because of incomplete information and technology, Thai and other business men cannot manage their enterprises well.

The Historical Background¹

In the seventh century, the Tai were in Yunan, a province of present southern China, where they founded the Kingdom of Nanchao (Nankow). At

¹This section is condensed from Visit Boonyakesanond, "An Outline History of Thailand," Utah State University Library, 1962. The primary sources were: Luang Videt Yontrakich, Thailand (Bangkok, 1961) and Para Sarasas, My Country Thailand (Bangkok, 1960).

that time the present Thailand area was dominated by the three states: the eastern part of the Kmer, the central part by the Kingdom of Davaaravati inhabited by Mons, and the southern part by the Kingdom of Srivichai inhabited by Malaya. The Thai at Nanchao were invaded by the Chinese and had to move downward. The migration of the Thai was gradual and occurred over a period of several centuries. The Thai who were not willing to submit to the Chinese culture and rule made their trails down the length of three great river valleys:

a) Along the Salavin River. They settled in some parts of present-day Burma, became "Shans" and founded "Shan States." This group today is known as "Thai Yai" or "Older Thai."

b) Along the Mekong River. This group became "Laos"; they settled on the left bank of the Mekong River.

c) Along the Chao Phya River. This last group did not have any other name but Thai and were later called "Siamese" by foreigners. This group settled down in the north of present-day Thailand, on both banks of the Chao Phya River.

Between the thirteenth and eighteenth centuries the Thai were relatively independent of other peoples. There were frequent wars with the Burmese and Cambodians and occasional internecine difficulties.

In 1763 the Burmese, who had been almost continually at war with Thailand since the fifteenth century, invaded the country once more, and after a four-year contest captured the Thai capital, Ayudhaya, which they completely destroyed. The Kingdom of Ayudhaya came to an end after 417 years and 33 kings.

Soon after King Taksin proclaimed himself as the king of Thailand

under the name of Phra Chao Taksin, he gathered the scattered army and Thai people and succeeded in driving the Burmese away. In 1782 General Chao Phya Chakri, on his return from a victorious campaign against Cambodia, proclaimed himself king and established his residence on the eastern bank of the Chao Phya River, at what is now Bangkok.

Thailand entered the modern age from the beginning of Bangkok period. Relations between Thailand and Western nations began to revive during the reign of King Rama II, who ascended the throne in 1809. At that time Thailand was threatened with war by both the Burmese and the Annamite (Vietnamese). Relations with the British were resumed in the year 1822. The British East India Company wished to extend its trade to Thailand, so the Marquis of Hastings, who was then Governor General, sent Dr. Crawford as envoy to the Court of the King Rama II to propose a treaty of friendship and commerce.

American missionaries went to Thailand in 1818. After receiving permission from the government, they began to teach Christianity and to give medical help and treatment. The Thai at that period took the American missionaries to be physicians, and consequently called them "moh" (doctor). The same term is used to this day. American missionaries have introduced many beneficial things, including the method of printing Thai letters.

After Bangkok became the capitol, the trade between Thailand and China was carried on almost exclusively by the Chinese junks, some built and owned in Thailand and some in China. When the Europeans returned to trade at Bangkok, their ships were so improved and superior to the Chinese junks that the Thai began to adopt them.

By far the most brilliant and intellectual king of the Bangkok period was King Chulalongkorn (Rama V). King Rama V's reign of 42 years was the longest and the most progressive of the Chakri Dynasty. The European system of educational facilities was introduced in Thailand, along with administrative reforms--establishment of new government offices such as the Ministries of Justice, Finance, Education, and so forth. The master stroke of this beloved king was the abolition of slavery.

In the reign of King Rama VII, there were crises in many parts of the country caused by the world economic depression. Thailand's economy was also affected with unemployment, declining production, and financial stringency. Some of those displeased with the privileges granted to the royal families initiated an underground movement. Participating were some young civil and armed forces officers who had been educated in foreign countries. In the very early morning of June 24, 1932, a revolution broke out in Bangkok. The king was forced to sign a constitution drafted by the Revolution Party, putting the kingship under law. In 1933 a general, a rank royalist, a cousin of the king by the name of Prince Bavaradej, commanding an army corps in the north, noticing the loose gearing in the organization of the Party, seized upon the opportunity and marched his army upon the capitol. Furious fighting occurred. Fortunately, the people were on the side of the Party; the Royalist forces were at last defeated by the Revolution Party and Prince Bavaradej fled to Indo-China by an airplane. A year later, King Rama VII abdicated on March 2, 1934, on account of his differences with the government.

Structure of Government

In 1932 a group of young civil, military, and naval officers, most of them Western-educated, seized the power from the King in a bloodless coup d'etat and established a new system of government similar to those in democratic countries. Following the most recent coup d'etat (that of September 16, 1957) the King appointed the Council of Ministers, composed of the Prime Minister and not less than fourteen and not more than twenty-eight other Ministers of State. In carrying out the affairs of state, the Council of Ministers must perform its duties with the confidence of the Assembly of the People's Representative. Now there is only one National Assembly consisting of 123 members who were appointed by the King with the advice of the Prime Minister. The task of this Assembly is to draft the new Constitution of the nation. In actual practice the only man who completely controls the power of the country is the Prime Minister himself, Field Marshal Sarit Dhanarat, who also is the Supreme Commander of the Armed Forces. There will be no representative elected by the people until the completion of the Constitution, which is expected not earlier than the end of 1963.

At present there are thirteen Ministers; namely, Council of Minister's Secretariat, Ministries of Finance, Foreign Affairs, Defense, Interior, Health, Agriculture, Education, Economic Affairs, Industry, Communications, Cooperatives, and Judicial. Every Ministry is divided into six or seven departments.

In theory the government of Thailand is a limited monarchy, but some feel that it bears the stamp of dictatorship. The House of Representatives

is comprised of members of two categories in equal number. In the first category, the representatives are selected by universal suffrage. In the second category are men nominated by the government with the approval of the King. By theory and practice, the representatives of the second category have no more power than that of the first who actually are the representatives of the people.

The President of the State Council (Premier) is chosen by the House with the approval of the King, or on the other hand, he is chosen by the government-elected members. In accordance with the Constitution he must be a member of Parliament either of the first or second category. Ministers can be recruited from among the outsiders, that is to say, the Premier's favorites. The President of the Council forms his own cabinet which wholly and individually depends upon the confidence of the House. The King can veto the law, but it must be returned for another discussion. If the House confirms it, that bill becomes law after 15 days, even without the King's signature.

According to the Constitution of the Kingdom of Thailand B.E. 2475 (1932) as amended by the Constitution Amendments B.E. 2495 (1952), the King exercises legislative power by and with the advice and consent of the Assembly of the People's Representatives--executive power through the Council of Ministers; and judicial power through the courts established by law.²

Thailand is divided into 71 Changwats (provinces). In every Changwat

¹The Kingdom of Thailand, "The Constitution B.E. 2475" (1932) with Amendments, B.E. 2495 (1952)," article 7.

there is a Changwat governor who is appointed by the Minister of Interior. The governor takes full responsibility for all administration in his Changwat. His staff consists of a deputy governor, an assistant governor, a public prosecutor, a chief of police, and other senior officers of the central government departments, such as Revenue, Education, Agriculture, and Public Health.

Every Changwat is subdivided into five or six Amphurs (districts). In the entire country there are about 448 Amphurs. Every Amphur is in turn divided into Tambons (villages), and a Tambon is a group of Moobans (hamlets), which consist of a group of houses inhabited by about 200 people. The total population of Thailand at the latest census in 1960 was 26 million. The population has increased at the rate of 3 percent per annum from 1956.

CHAPTER II

THE ECONOMIC HISTORY OF THAILAND IN THE BANGKOK PERIOD

There are no records and information concerning the economy of Thailand in the period of Sukothai and Ayudhya. In the reign of King Rama IV (King Mungkut) of the Charkri Dynasty, Thailand had much contact with the West. A scholar of ability, he was convinced that Thailand would benefit from cultural and commercial contact with the West. It could be said that from the time of King Mungkut's reign, the Kingdom of Thailand was opened to the West.

Population

About 1850 the population of Thailand was estimated by the travellers very widely. Sir John Bowring thought 4.5 to 5.0 million was a good guess, with no population growth for some time.¹ At that time there were about 1.5 million Chinese in Thailand and immigrants coming in at the rate of 15,000 per year. However, there was no accurate record of population in Thailand in 1850, and there is no way to determine the exact number. In 1911, according to the revised figures of the first census, the population was 8.3 million.² There was no attempt to classify the population into various occupations, but it was clear that a large part of them was engaged in agriculture.

¹Sir John Bowring, The Kingdom and People of Siam (London, 1857), p. 81.

²Thailand, Department of Commerce and Statistics, Statistical Year Book of Siam, 1936-37 (Bangkok, 1939), p. 48.

Agricultural Production

From ancient times, most of the working population has been engaged in agriculture,¹ with rice as the main crop then as now. Rice was planted in the river valleys where water was sufficient to mature it.

Table 1. Population at official census (000 omitted)

Date	Center		All other		Total	
	Population	Index	Population	Index	Population	Index
1911	3,267	100	4,999	100	8,266	100
1919	3,520	108	5,687	114	9,207	111
1929	4,582	140	6,924	139	11,506	139
1937	5,748	176	8,716	174	14,464	175

Source: Department of Commerce and Statistics, Statistical Year Book of Siam, 1936-37, p. 153.

Man-made irrigation played a major role in agriculture because in many parts the natural flood did not remain long enough in the paddy fields. The cooperative system of irrigating fields was used by the farmers in many villages. A number of canals were dug to distribute the water. In the middle of the nineteenth century there were no statistics of the total area under cultivation, nor of the total annual output, but in 1925-29 the average area in paddy was 18.1 million rai, or approximately 7.2 million acres (one acre equals 2.5 rai); the annual yield of a paddy in this period was 72.5 million piculs (one picul equals 60 kilograms); and

¹Statistical Year Book 1936-37, op. cit., p. 417.

the average population was 11.0 million. The average yield of paddy per acre was 240 kilograms per acre (1 kilo equals 2.2 pounds), and the area cultivated was 1.6 rai (or 0.64 acres) per capita.

The yield per rai in 1850 was probably about the same as in 1925-29 because during the intervening period there was no change in the technique of rice cultivation. By a similar estimation, if the area in rice per capita was the same in 1850, the 5 million population would have cultivated 8 million rai (or 3.2 million acres).

Rice has been and still is the staple diet of Thailand. Other than its use in domestic consumption, it has been exported to neighboring countries since the ancient days. Bacon says that, "In 1856 there was rice enough in Siam to feed the native population and to supply the failure of rice crop in southern China . . ."¹ Sir John Bowring quotes a missionary, one Grandjean, as saying that in the northern part of Siam cultivation was almost entirely limited to rice.² Many foreign writers thought that Siam had the capacity to expand the cultivation and export of rice.

In response to the external demand for rice and the lure of foreign goods, the area planted in rice increased greatly during the course of the century beginning in 1850. By 1905-1906 the area had risen to 9.1 million rai (or 3.64 million acres). The vast extension of rice cultivation was carried on almost entirely by the Thai themselves. The Chinese and other immigrants did not become rice growers in competition with the Thai. The

¹George E. Bacon, Siam, Land of the White Elephants (New York, 1892), p. 82.

²Bowring, op. cit., p. 14.

land was brought under cultivation by the farmers themselves, and was not due to any encouragement by the government. In other words, as the farmers saw the possibility of earning cash incomes by growing rice, they began to clear and plant new land.

Table 2. Area planted in paddy (millions of acres)

Period	Center	All other	Total
1850	- - - - -	Acres - - - - -	- - - - -
1850			2.32 ^a
1905-09	2.72	.96	3.68
1910-14	2.96	1.72	4.60
1915-19	3.28	2.23	5.36
1920-24	3.84	2.68	6.52
1925-29	4.36	2.83	7.24
1930-34	4.72	3.32	8.04
1935-39	4.80	3.68	8.48
1940-44	5.64	4.56	10.20
1954-55	6.32	5.0	11.32
1957-58	6.04	4.64	10.68
1960-61	7.76	6.44	14.20

^aEconomic Report for March 1962, p. 55.

Source: Bank of Thailand Statistical Year Book of Siam, 1944, p. 44.

The land most accessible to transportation was the first to be taken up. During the last half of the nineteenth century this meant land in the Central Plain where the canal network and streams provided a cheap and convenient means for transportation of rice and paddy to Bangkok. Some canals had previously been dug for both transportation and irrigation. In a very interesting and valuable calculation made for the year 1905-1906, Van de Heide estimated that rice exports originating outside the Central Plain amounted to no more than 2 percent of the total exports for that year

of 840,000 tons.¹ In this period it was difficult to transport from Bangkok to the north and the northeast, and after the railways were constructed the transportation was more convenient. The paddy could scarcely reach Bangkok from the north and northeast by any other means of transportation. However, the ability of the north and northeast to export rice has also improved. Railways constructed to the north and northeast have facilitated the delivery of rice to Bangkok and the extension of cultivation in these regions has enabled them to become rice exporters along with the Center.

When the railway to Korat was completed in 1900, paddy began to move to Bangkok. At the beginning the amount was small, but in 1905 the amount of rice sent increased to 12,000 tons, and when the Northeast railway was extended in the 1920's the shipment increased rapidly. In 1925, 102,000 tons of rice and paddy came to Bangkok from the Northeast, and by 1935 the total reached about 276,000 tons,² nearly 20 percent of all exports. The same was true in the North when the railway to this region was completed. It could be said that railways were a great contribution to the expansion of agricultural products.

Table 3 shows the average yield of the paddy from 1906 but the figures before that date are not available. The amount of average yield per rai tended to decline due to an unchanging technique applied to a larger amount of land, and the increments of cultivated land were of poorer quality for rice growing. The decline in yield per rai took place

¹J. P. Van der Heide, "The Economic Development of Siam during the Last Century," *Journal of the Siam Society* (Bangkok, 1906), p. 22.

²*Statistical Year Book, 1944*, p. 51.

primarily in the outer provinces where cultivation was rapidly extended without benefit of irrigation.

Table 3. Average yield of paddy on planted area

Period	Kilograms per acre ^a
1906-09	117.1
1914-18	97.7
1921-24	108.0
1930-34	93.8
1940-44	75.1
1954-55	80.6
1957-58	83.3
1960-61	87.6

^aOne kilogram equals 2.2 pounds.

Source: Statistical Year Book of Thailand, 1944, p. 53; 1962, p. 55.

Table 4 shows the decline in percentage of export to the total production of rice, due to the increase in population and also the decrease in average yield per acre.

Table 4. Consumption and export of rice

Period	Percent of exports to total production	Average yearly retained rice (kilograms per capita)
1907-08 to 1909-10	51	108
1910-11 to 1914-15	42	144
1915-16 to 1919-20	42	144
1920-21 to 1924-25	39	168
1924-25 to 1929-30	44	150
1929-30 to 1934-35	48	132
1934-35 to 1939-40	50	102
1940-44 ^a	23	162
1955-56 to 1960-61	15	n.a.

^aWar period; n.a. - not available.

Source: Statistical Year Book of Thailand, 1944, p. 65.

The expansion of rice cultivation after 1850 was carried on by the native population of Thailand. Most of the increased labor was supplied by the increase in population which rose from 5 or 6 million in 1850 to about 7.3 million in 1900 and to 17.3 million in 1947. The fact is that almost all wage labor outside of agriculture has been performed by the Chinese. The Chinese population has steadily increased over most of the century since 1850 and restriction of immigration has been imposed only in recent decades.

Information on the relative importance of other crops is more difficult to obtain. Compared to rice, certainly, they were less important. While other crops probably accounted for more than 5 percent of the total cultivated land in 1850, the trend over the past century has been toward greater specialization in rice as well as toward a greater absolute area planted in rice.¹

It can be said that the area planted in other crops such as maize, tobacco, coconuts, and peas appeared to be constant in total area until the outbreak of World War II. After this period the government stimulated the production of these crops, especially in the post-war period. Nevertheless, even in 1948 the total area of the other crops was only 620,000 acres compared to 13,040,000 acres of paddy field, or less than 5 percent of the total planted area.²

Other Industries

Compared with agriculture the other industries in Thailand of 1850 were minor. A large portion of manufactured and consumers' goods were imported from foreign countries.

¹James C. Ingram, Economic Change in Thailand since 1850 (Stanford: Stanford University Press, 1955), p. 16.

²Ministry of Agriculture, Statistical Year Book of Thailand, 1948-50 (Bangkok, 1950), p. 45.

Fishing. Fish is one of the basic foods of the Thai people which were derived from the sea and from inland streams, ponds and lakes with aid of an immense variety of ingenious nets, traps, and other devices. Many travellers have described this equipment, which ranged from simple contrivances fashioned by one man in a few minutes to huge permanent traps erected at a cost of several thousand baht.¹ There were no statistics of the volume and value of the total catch for the early period, but it is clear that fish had always been an important source of the Thai diet.

Fish are still dried and preserved throughout the year, so it is not surprising that the Thai have fish as their meal all the time. Dried fish has long been exported to China and other nearby places, the large part of it a product of sea fishing along the Gulf of Siam.

Forestry. Little is known of forestry in the early Bangkok period. The teak industry had not developed for export at that time, although the native population often used teak for the construction of houses, temples, bridges, and boats.² The teak industry was largely in the hands of the Chinese and logs were sawed by hand into planks in Chinese sheds. The early traders were interested in woods of a higher unit value, such as sapan wood. This trade was only of minor importance, and there was little domestic trade in forest products. The Thai people satisfied their needs from the nearby jungle where it was easy to cut it for use. Public requirements were probably met by the mobilization of labor to cut wood in the forest. Forest products played an important part in the life of the people,

¹Ingram, *op. cit.*, p. 20.

²H. Warrington Smyth, Five Years in Siam (New York, 1898), p. 87.

but they did not form the source of much money income or full-time employment in the Siam of 1850, except possibly for internal trade in teak.

Mining. Tin has long been the most important mining product in Thailand. Most of the mines were in the hands of the Chinese who were attracted to the tin mines of southern Siam many centuries ago. They performed the entire mining operation, furnishing labor, capital, and management, and in addition operating their own smelters. In the seventeenth century, there were many Europeans in Thailand involved in tin mining, but in 1850 the Chinese still dominated the industry. The Thai people and their government showed little interest in it.

It was believed that iron ore must have been abundant in Thailand because iron was cheap in Bangkok. Whether ore was abundant or not, several mines were being worked, although the total output was probably small. This industry was also in the hands of the Chinese. Salt mines were mostly confined to the Gulf of Siam and the Korat Plateau, and then shipped into the north of Thailand and abroad.

Handicraft and Manufacturing

Outside of the categories discussed above, most production in Thailand could be classified under the general heading of "handicrafts." These handicrafts were partly pursued by specialists who devoted their full time to their crafts, but by far the most important part of such production was carried on as a part-time activity or "household industry."¹ Because of the self-sufficient nature of the economy, these handicrafts were an important part of the economic life of the whole nation.

¹Ingram, op. cit., p. 17.

Full-time specialization mostly existed in the households of rich or wealthy people who employed artisans to produce luxuries. These artisans were skilled in metalwork, lacquer gilding and inlaying, gold and silversmithing, and jewelry. However, important as they were, these full-time crafts probably were relatively minor when compared with the part-time activities carried on in nearly every household and village. The women played an important role in most of these part-time skills, and they spun and wove cloth and made garments. A great deal of clothing work around Bangkok was performed by women.

Women also dyed cloth, fashioned the crude pottery used in households, made hats and paper, and did a great deal of basket and lacquer work. Silkworms were grown chiefly in the North and Northeast, but silk weaving was an occupation of women everywhere, including even the wives of nobility.¹

Though these products were an important part of the standard of living of most people in Thailand, no record was left of the handicraft industries in any section.

Internal Trade

In the early Bangkok period most of the internal trade of Thailand was carried on through the barter system within the villages. Transactions between villages were small, however, because of inadequate and expensive transportation. Thus it was necessary for every village or region to produce the basic items needed. The only better transportation was by water which mostly existed in the Central Plain.

By 1950 the Chinese seem to have gained almost complete control of the interregional trade of Thailand. They carried goods into the regions

¹ Bacon, op. cit., p. 91.

accessible by water transportation, and to a lesser extent even into the remote interior villages, exchanging them there for money or for the produce of the people.¹ Among the Siamese the women were better traders than the men; they carried their products to the market place and bargained with the travelling Chinese traders. As in years after 1850, Thai traders seem to have made little effort to run businesses and compete with the Chinese. In the meanwhile, there were many Westerners coming into Thailand for trading purposes. It was apparent that the Chinese had the advantage over the Westerners in most transactions, for the Chinese were allowed to move around freely in the country, while the government tended to regulate the activities of the Westerners much more closely.

Another important reason for the supremacy of the Chinese is found in the government practice of granting monopolies in the trade of certain items. When the monopolies were granted to the Chinese, as they usually were, the monopolists could make arrangements with each other for sharing and operating in the trade of different regions.²

Before the Chinese monopolies, there were some other monopolies--the early kings reserved the right to export or import certain goods. These were called "royal monopolies." During the reign of King Rama III (1824-51), these royal monopolies began to be sold to the Chinese.

Foreign Trade

From 1700 to 1850 Thailand carried on foreign trade mostly with China and the Asian countries. The trade with European countries was relatively small until the beginning of the nineteenth century.

¹Bowring, op. cit., p. 85.

²Ingram, op. cit., p. 20.

Exports

By far the largest proportion of the exports of Thailand have consisted of unprocessed natural products. The four historically important items of Thailand exports have been rice, rubber, tin, and teak. Other items have been fish, birds' nests, raw cotton, iron and ironware, and pepper. Accurate data of the value of each was not available before 1900. From 1850 the rice export seemed to increase rapidly because of China's need to import foods.

Table 5. Percentage of total exports accounted for by four items

Period	Rice	Rubber	Tin	Teak	Percentage of all four
1867	41.1	-	15.6	-	56.7
1890	69.7	-	11.1	5.5	86.4
1903	71.3	-	6.4	10.4	88.2
1906	69.1	-	11.0	11.2	91.3
1909-10	77.6	-	7.8	6.4	91.9
1915-16	70.1	-	15.9	3.9	89.9
1920-24	68.2	0.8	8.6	4.9	82.1
1925-29	68.9	2.3	9.0	3.7	83.9
1930-34	65.4	2.0	13.8	3.9	85.1
1935-39	53.5	12.9	18.6	4.2	89.2
1940-44	60.5	12.1	11.6	1.6	85.9
1958-59 ^a	34.1	30.9	5.7	3.2	73.9
1959-60	29.9	29.8	6.3	4.1	70.1

^aFigures for 1958-1960 derived from the Bank of Thailand's Annual Economic Report for 1960, p. 45.

Source: Ingram, op. cit., p. 94.

Imports

The volume of imports of Thailand a century ago was not as large as it is today. It consisted mainly of manufactured articles, and most of these were consumer goods. The value and volume of imports in the old days were less than exports, the difference being made up by the importing of treasure such as gold and silver. The Bangkok calendar for 1847 reported that people were becoming fond of European goods and the principal imports were cotton piece goods, prints, muslins, silk, hardware, and crockery.

Government Revenue

Thailand changed from a predominantly subsistence, barter economy to a predominantly money economy after 1850. In the first stage of transition there was no banking system to provide for the transfer of money within the country, and little entrepreneurship except the foreigners or that supplied by government. Government receipts and expenditures, though small by Western standards, were the only large aggregation of liquid funds being spent and received within the economy, and were therefore a major generating force in the Thai economy. The amount of revenue accumulated by the government, and the uses to which these funds were put, were therefore of great significance to the economic development of the nation.¹ Since 1850 a great change has taken place in the government's revenue, both in value and in nature. The fiscal system and manner of collection were revised and modernized.

The fiscal system was not efficient in the early stage because

¹Ingram, op. cit., p. 175.

the administration of Thailand's finances was confused and badly organized. There was no budget, little or no audit, and no separation of the King's personal finances from the general revenues of the country. In 1892 the financial system was improved as part of a general reorganization of the government by King Chulalongkorn (King Rama V). A budget system and regular audit were introduced, and the Ministry of Finance was also established in this year to perform these tasks efficiently.¹ The King's personal expenditures were separated from the ordinary state expenditures, and improvements were made in the collection of taxes. By these improvements, revenue increased from 800,000 million to 2 million dollars between 1892 and 1902 without the imposition of any new taxes or a change in the tax rate.

In the early 1890's the two direct taxes (land tax and capitation tax) accounted for only 8 to 12 percent out of the total revenue. The opium monopoly and gambling farms accounted for about 40 percent, and commercial services and the royalties on mining and forestry yielded about 5 percent of the total revenue.² Other major sources were excise taxes (15 percent), inland-transit duties (5 percent), and customs duties (12 to 15 percent). In customs revenue, export duties made up about two-thirds, import duties one-third--further evidence that the balance of payment of Thailand at that time was favorable. One increasingly important source of revenue was commercial services, of which the largest part was derived from the net revenue of railways. This steadily increased as

¹Luang Videt Yontrakich, Thailand (Bangkok, 1958), p. 28.

²Ingram, op. cit., pp. 175-188.

railway construction proceeded. Altogether, the revenue from commercial services rose from almost nothing in 1892 to 13 percent of the total revenue in 1926. About 1900 state-licensed gambling was considered as an evil, and a tariff revision was made in 1917 to compensate for the abolition of gambling.

Table 6 shows that land taxes were transferred to municipal revenue after the war period, and the capitation tax was abolished in some year after 1938. There was no income and salary tax in the period of Absolute Monarchy until the Revolutionary Party seized power in 1932 and introduced this kind of tax in the government's revenue. In the first stage of this tax it was only a minor source of the total revenue, but since the war period it has been the major one. Gambling farms were abolished in 1917 and inland transit taxes in 1932. Opium income is no longer a source of government revenue because opium consumption has been illegal in Thailand since 1958.

Government Expenditures

In view of the scarcity of private capital for investment purposes and the importance of the government as an entrepreneur, the capital expenditures of government take on a critical significance. Limitations on the ability of government to direct funds into productive purposes greatly restrict its ability to aid and encourage economic development.¹

The government spent many years to get rid of limitations on its fiscal autonomy. These limitations slowed the growth of revenue and also the growth of expenditure because the expenditure varied and was dependent on revenue. The government was unwilling or unable to borrow internally or abroad.

¹Ingram, op. cit., p. 189.

Table 6. Source of revenue compared for different years

Source	1892	1905	1906	1915	1917	1926	1927	1938	1950
	----- Thousand U.S. dollars ^a -----								
<u>Direct taxes</u>									
Land tax	51.0	193.0	379.0	411.0	434.0	581.0	641.5	371.0	--
Capitation tax	22.5	207.0	246.5	384.5	417.0	503.0	502.0	387.0	--
Income & salary tax	--	--	--	--	--	--	--	92.5	5599.0
<u>Indirect taxes</u>									
Import duties	87.0	134.5	150.5	174.5	209.0	358.0	801.5	1529.0	28887.5
Export duties	--	139.5	143.0	183.5	185.0	202.5	250.0	273.0	8528.0
Excise taxes	165.0	208.0	197.5	311.0	431.0	543.5	607.5	349.0	17831.0
Inland transit	14.0	78.0	83.5	94.5	104.5	105.0	44.0	--	--
Gambling farms	214.0	432.0	332.5	373.0	16.5	--	--	--	--
<u>State Domains</u>									
Forest revenue	7.5	102.5	73.5	30.5	132.5	191.0	227.5	189.0	1360.0
Mining revenue	26.5	60.5	77.0	121.5	247.0	217.0	200.5	263.5	3268.0
<u>State Enterprises</u>									
Opium income	124.0	513.0	443.5	828.0	1059.0	900.5	909.0	519.5	5557.5
Commercial services	--	117.0	149.0	242.0	259.0	682.0	771.0	1055.5	19777.5
Fees, fines and licenses	13.0	177.0	194.5	278.0	380.0	358.5	410.0	632.0	7000.0
Others	94.5	161.0	305.5	236.0	248.5	387.5	507.0	200.5	3296.5
Total revenue	769.0	2523.0	2775.5	3718.0	4123.0	5002.5	5872.0	5911.5	106464.5

Source: Statistical Year Books of Thailand and reports of the Financial Advisers. Data for 1950 comes from Bank of Thailand.

^aRate of exchange, \$1 = 20 baht.

Table 7. Government revenue classified by sources

Period	Total revenue	Taxation		Sales and charges	Government enterprises	Miscellaneous
		Income tax	Other tax			
1959	301.8	19.0	245.1	19.4	11.5	6.8
1960	338.8	29.1	276.6	14.1	7.5	11.4
1961 ^a	283.9	27.1	235.8	.71	.56	.82

^aFiscal year 1961 covers a period of 9 months, i.e., January-September. Source: Bank of Thailand, Economic Report for March 1962, p. 21.

From 1892 to 1950 the current revenue exceeded the current expenditure in nearly every year except in the early 1920's and during World War II. The government public finance policy was one of maintaining a balance on current account. For this reason when revenue increased there was the pressure to increase expenditures correspondingly.

Capital expenditures in the early years were supported from current revenue and there was still a surplus accumulated in the treasury reserve. During World War I foreign loans could not be arranged and the treasury reserve from previous years was the source of capital expenditure, such as for railways and irrigation construction. During the war period defense expenditures increased rapidly, and the inflationary pressure arising from Japanese expenditures caused budget deficits. Since World War II current revenue has more than covered current expenditures, leaving a surplus on current account, but capital expenditures have been large

enough to convert these surpluses into deficits.¹ Expenditures have increased vastly in terms of baht. From 7.6 million dollars in 1941, current expenditures, increased to 27.8 million dollars in 1947, and 122.2 million dollars in 1951.²

¹Ingram, op. cit., p. 190.

²Bureau of Budget, Annual Budgets (Bangkok, various dates).

CHAPTER III

CHARACTERISTICS OF THE THAI ECONOMY TODAY

General Economic Organization

Geographic characteristics. Thailand is situated on the large central plain of the Indo-Chinese peninsula in Southeast Asia, with an area of approximately 518,000 square kilometres, or about two-thirds the size of Texas. It is located between the parallels of 5° and 21° north latitude and between the meridians of 97° and 106° east longitude. On the west Thailand is caressed by the Indian Ocean and divided by the massive mountains of Burma. On the east she is bounded by the Mekong River from Laos and Cambodia; on the south, by the Malay States; and on the north, by Burma and Indo-China. Thailand is completely under the tropical monsoon climate with three seasons--rain, summer, and winter. In the northern part there are several high mountains which protect the country from the cold wind from China. These mountains originate the four tributaries in the north: Ping, Wang, Yom, and Nan. A large plain in the north is used for agriculture, and also the small areas along the mountains' shoulders. The four tributaries meet together at Paknam Poh and become the Chao Phya River flowing down through the central plain to the Gulf of Siam at Bangkok. The Chao Phya River is the blood of Thailand, freshening the growth of agriculture all year round. The central plain is also fed by other rivers: Meklong (not Mekong), Bangpakong, and Tachin, all of which pour their contents into the Gulf of Siam.

This vast area of middle Thailand, about five times the size of

Belgium, is the most prosperous land for agriculture, especially rice. However, at the mouth of Chao Phya River, connecting to the Gulf of Siam, a serious problem arises. Owing to the deposits of silt from various rivers, all deep draught vessels are barred from entering the river, and the Gulf takes the form of an immense slop pail. It is necessary for government dredgers to dig night and day to allow ocean-going ships to pass through the entrance.

The eastern part of the country consists of a shallow basin and narrow strip of swamp with few rivers. It is surrounded by long green hills and deep forests in which the sunshine cannot reach the ground, thus causing fever and death. The northeastern area, where one-third of the population lives, represents the most dreary part of Thailand. People work on farms under poor living conditions. They must move to the cities after the cultivating season to find some other jobs for more income.

There are oceans on each side of southern Thailand--the Indian Ocean on the west and the Gulf of Siam on the east. The land is fertile but the valleys on either side of the mountain are too narrow for large farms. The people of this region live by agriculture, mining, and fishing.

The latest census in 1960 showed the total population of Thailand was about 25.5 million and the per capita income was approximately \$100, a little higher than that in the other countries in Southeast Asia. The rate of literacy was 57.1 for the population at the age of 10 years and over.

Natural Resources

Agriculture. Originally a few high ranking officials held a lot of land and rented it to the farmers and the revenue of the country was mostly derived from farm products. This condition continued for several hundred years until the Bangkok period when modern currency began to be used. Now, Thailand is one of the largest rice exporters of the world--much of it produced in the central part of the country.

The major crop next to rice is rubber, in which Thailand represents the world's third largest supplier. Rubber by its nature grows well where there is heavy rainfall; for this reason it is planted in the southern part of the country. The output is now far beyond pre-war levels. But, as in the case of rice, achievement of anything like Thailand's potential pace of rubber expansion will require more assistance, better organization, and better incentives for the rubber grower than he now receives.¹ The other main crops of Thailand are cotton, peanuts, fruits, sugar-cane, coconuts, tobacco, castor beans, corn, pea cassava, and various fibers. These products exceed the domestic consumption and the excess is exported to Thai neighbors, such as Hong Kong, Malaya, and Japan.

The agricultural development in the past seemed to be done in the North, the Northeast, and the Central regions of Thailand more than in the South. Although the general farms in the South are small because the southern area is a narrow strip between two oceans, it seems possible to raise the agricultural output by applying better irrigation and transportation. In the Central Plain the farmers plant only a single crop each

¹Report of a Mission organized by the International Bank for Reconstruction and Development at the request of the government of Thailand, A Public Development Program for Thailand (Baltimore: The Johns Hopkins Press, 1959), p. 5.

year, but if water from the upper tributaries of the Chao Phya River and the others were restored and distributed, it could produce two or more crops. This will increase the output and better living standard of the farmers.

Forests. Another income-producing export of Thailand is timber. Most of her forest products are in the North, especially timber. In the past, Thai forests were left solely in the hands of the forestry companies with little restriction on cutting. A very important national resource, the forests help to prevent flood and give humidity.

About 63 percent of the land is forested (world average 29 percent), but much of this is scrub timber. Teak is the most important forest product. In the North, lac output is valuable. Much wood goes into charcoal for home consumption. Resins and oils are also extracted from forest trees.¹

Fisheries. One of the most promising types of primary production is the fishery industry. Next to rice, fish is the important basic staple in the Thai diet, and there is ample scope for increasing both fresh water and marine supplies.¹ This industry is mostly carried on in the southern part and some area of the east seashore. The fish is carried to Bangkok and distributed to the North and East regions; the excess from domestic consumption is exported. At present, the government encourages the fresh-water fishing inland. The rivers, canals, rice fields, and irrigation reservoirs are excellent breeding grounds.

Minerals. The most important ore in Thailand is tin which is largely exported to the United States. Thailand is the third largest

¹United States Operation Mission to Thailand, U.S. Economic and Technical Assistance to Thailand (Bangkok: Thai-American Audio-Visual Service, 1958), p. CI 1.

²Report of the Mission of the World Bank, op. cit., p. 8.

supplier of tin in the world, and the tin resources amount to about 16 percent of the free world total. Relatively small deposits of gold, manganese, molybdenum, antimony, asbestos, lead, zinc, and copper are found. Very large deposits of salt and gypsum are known and several deposits of highgrade iron ore have been found.¹ Though domestic processing probably would not be economical, iron ore deposits exist which may prove suitable for export. Two famous steel companies in Germany and Japan have applied to establish factories in Thailand, but the contract is still not signed (1962) because of certain conditions in the contract yet to be worked out.

Fuels. Thailand lacks petroleum and so the growing domestic requirements are met mostly by imports from the United States and Great Britain. A large lignite deposit is found in the North with smaller deposits elsewhere in the country. The main fuel of domestic consumption is charcoal.

Thailand has a very large potential in hydroelectric power, especially on the upper tributaries of the Chao Phya River, and possibly also on the Mekong River. The Yanhee multipurpose project will provide power for Bangkok and about half the other provinces (changwards) of the country. At present the electric power is not sufficient to meet the demand of the factories and private consumers. It is hoped that the public power capacity will increase economic activity and improve the living conditions in both urban and rural areas. With the multiple benefits such projects yield in the form of irrigation, flood protection, and navigation, as well as power, exploiting them may prove preferable to other forms of power production.²

¹U.S. Operations Mission to Thailand, op. cit., p. CI 2.

²Report of the Mission of the World Bank, op. cit., p. 9.

Transportation. The railways began in Thailand during the last years of the nineteenth century and have been further developed in subsequent years. Today more than 2,200 miles of railway connect Bangkok with the other provinces or cities, and also with such neighbors as Cambodia and Malaya. New locomotives and coaches are imported to meet the increasing demand. Commodities and raw materials from every part of the country come to Bangkok by railway.

The other important transportation method next to railways is the highways. The condition of the roads is not good enough because of the minimum cost of construction. If improvements in the transportation system are carried out they should have broad beneficial effects on the economy.¹ Roads carried 20 percent of all rail, canal, and highway freight in 1956. The 6,000 to 7,500 miles of highways needed considerable improvement and connecting roads. Roughly 60 percent of the total are all-weather roads but few permit carrying heavy loads. Most freight use of roads is to connect with rail and water carriers.

Rivers and canals carried 20 percent of all freight in 1956. The four rivers are the main avenues of heavy travel from the North to the Central Plain. It is very useful to move the heavy things (timber logs and rice) in this way because it costs much less than other kinds of transportation. There are thousands of canals linking province to province all over the country. Bangkok port is one of the largest ports in the Far East open to ocean-going vessels. A modern air terminal capable of handling modern heavy aircraft is Donmuang International Airport at Bangkok which

¹Report of the Mission of the World Bank, op. cit., p. 9.

is served by many international air carriers. Because Bangkok is the headquarters of SEATO (South East Asia Treaty Organization), Donmuang Airport is now being improved for handling every kind of military plane. The internal air lines from Bangkok to the principal provinces are served by the Government-owned Thai Airways Company.

Manufacturing. Only 15 percent of Thailand's gross national products derive from manufacturing. Thai manufacturing can be divided into two categories: government and private. Thailand's small-scale industrial base, devoted to processing rice, rubber, and forest products, and manufacturing cement, textile bags, textiles, paper, sugar, and light consumer goods, is expanding. It is the policy of the Revolutionary government to encourage private investment and numbers of foreign entrepreneurs are showing interest in Thai branches.¹ The government is also expanding electric power to improve the contribution of manufacturing.

The industrial structure of Thailand consists of a large number of small and medium-sized activities which are similar to that of most other Eastern countries. The government is involved directly or indirectly with many commercial activities and various industrial enterprises.

Agriculture. Agriculture continues to be the mainstay of the economy of Thailand although there is a growing diversity in the country's economic activity. It provides a livelihood for about 84 percent of the 22.8 million people, producing almost half of the national income and is the source of 85 percent to 90 percent of Thailand's exports.² The agricultural production in the past was the result of the unguided and

¹U.S. Operations Mission to Thailand, *op. cit.*, p. GI 4.

²Central Statistical Office, Office of the National Economic Development Board, Statistical Year Book No. 23, 1956-58 (Bangkok, 1958), p. 258.

unassisted efforts of the individual Thai farmers, working on small areas of farms and depending on family labor. In recent years the government has realized the importance of this sector and tried to improve irrigation and transportation through cooperative and technical assistance.

Almost one-fifth of the total land area (24.6 million acres out of 128.5 million acres) of Thailand is in land holdings. However, only 15.5 percent, or 20 million acres, are under cultivation.¹ About 14.8 million acres, or nearly three-fourths of the cultivated area, is in rice farms while the remaining one-fourth is devoted to other crops such as coconut, para rubber, field crops, and fruit trees. Most of the lowland where the water can be drained into the padfield is used to produce rice. The average cultivated land per family is about 12 acres. Rice is easy to grow in all kinds of soil where there is sufficient water to be retained in the fields long enough to mature the crop.

Despite Thailand's potential for a more diversified agriculture and marked recent trends in this direction, rice farming continues to occupy more than 70 percent of the total cultivated area and to account for about 40 percent of the total value of agricultural output.² On the higher land the farmers plant upland crops such as cotton, peanuts, and corn, according to the season.

In the southern part of the country where the rainfall is high and the land is not flat, rubber, coconut, and fruit trees are to be found

¹Statistical Year Book No. 23, 1956-57, *op. cit.*, p. 262.

²Report of the Mission of the World Bank, *op. cit.*, p. 34.

along the sandy coast. Para rubber covers a large area of the hill slopes in the southern peninsular regions, while rice fields are located in the lowland.

Rice cultivation. The word "rice" in Thai is the same as "meal," because it is the basic food of the Thai people. About 86 percent of the agriculturists, or about 72 percent of the total population, are rice farmers. More than 80 percent of them own their farms, with an average size of 10.2 acres.¹

Rice farms in Thailand are divided into four groups according to geography, soil type, and rainfall. The Central Plain, which is the best area for rice production both in quantity and quality, comprises about 44 percent of the total area of rice production and 51 percent of all production. Because of the fine soil and existing water, the average yield per acre in this region is very high.

Farmers in the North grow rice in the three main valleys: Chiangmai-Lampoon Valley, Chiengrai-Lampang Valley, and Prae-Nan Valley. The soil here is rich, due to the deposit of silt brought by rain from the surrounding hills and mountains. This area accounts for about 6 percent of the total rice acreage and about 10 percent of total production. Most of the land in the Northeast is sandy loam soil which is low in fertility and with insufficient water conservation. The problem of water is particularly serious in the dry season. Rice yield from this part is only 29 percent of total production, although the land used under cultivation is about 43 percent of the total acreage. Rice produced in the South

¹Central Statistical Office, Statistical Bulletin Sept. 57 Vol. X No. 4, p. 48.

Table 8. Acreage and output of paddy in Thailand

Period	Harvest area (acre)	Rice production	
		Metric tons	Kg. per acre ^a
1954-55	11,409,651	5,708,998	505
1955-56	13,439,186	7,333,611	546
1956-57	14,405,247	8,296,782	576
1957-58	10,688,378	5,570,000	525
1958-59	12,770,729	7,186,270	552
1959-60	13,236,400	7,034,724	530
1960-61	14,193,600	7,788,000	547

Source: Rice Department, Ministry of Agriculture, Rice Cultivation Survey (Bangkok 1962), p. 131.

^aOne kilo equals 2.2 pounds.

represents about 7 percent of the total acreage and about 9 percent of total production. Rice is grown along small stream valleys and the coastal plains. The cultivation is later than other sections and depends on the northeast monsoon rain, while the others utilize the southwest monsoon.

Upland crops and trees. In addition to rice, the largest component of export and other important agricultural crops are pulses, maize, cassave, chillies, fiber, kapok, and tropical fruits. Although rubber is not truly an agricultural crop, it is considered as a plantation crop, and is second to rice in the value of exports.¹

Para rubber. Para rubber was first introduced into Thailand in 1900 and was planted at Trang (a province in the southern part of the country) and was first exported in 1910. From then on, rubber plantations in Thailand increased by leaps and bounds. In 1950 Thailand was able to export as much as 112,234 metric tons, thus ranking fourth among the world's producers. In 1955 Thailand's rubber export increased to 132,610 metric tons, ranking third, while her planting acreage was about 800,000 acres, against 419,254 acres in 1940.²

Rubber is mostly planted in the southern provinces of Thailand, but the average land on these plantations is only about 5 acres each. For this reason the management is not as efficient as it should be. The Mission of the International Bank for Reconstruction and Development which surveyed Thailand believed that rubber export could come to rival and eventually would exceed rice export. This promise would be not

¹United States Operations Mission to Thailand, op. cit., p. FS 1.

²Central Statistical Office, op. cit., p. 244.

easily fulfilled, however. Present rubber production comes from southern Thailand, operated almost entirely by small holders and planted for the most part with obsolete varieties of trees.¹ This enterprise was long neglected; only in recent years has the government become convinced that rubber requires an intensive improvement program.

The government of neighboring countries such as Malaya and Ceylon are conducting a small holder replanting program based on substantial inducements to replace old trees with new varieties. This program is now being considered in Thailand as a means of encouraging small holders to replant. An additional tax on rubber exports is being levied in order to finance this subsidy program.

Cotton. Native cotton has been grown in many parts of Thailand for supplying local needs. It is confined mainly to the North and Northeast. People all over the country suffered from lack of clothing during World War II because before the war period Thai clothing consumption depended mostly on imports.

Cotton is planted at the beginning of the monsoon season and is harvested at the end of this season. Because of insufficient machines and poor care on the part of the planter, cotton yields are too low to supply modern mills. The long staple Cambodia variety was introduced on trial in many parts of the country in 1935, such as at Loey, Sukothai, and Loburi provinces, but it needed better soil and more care than the native cotton. With the new techniques of fighting pests and diseases, along with proper planting time, the yield from the new crops has tended to increase. A cotton experiment station was started at Sukothai, one

¹Report of the Mission of the World Bank, *op. cit.*, p. 70.

of the cotton growing areas in the North. The work of this station consists mainly of the selection of the Cambodian cotton, as well as introducing foreign varieties. A considerable amount of breeding work has been done for the purpose of finding the hybrids most adaptable to the climatic conditions and for the non-irrigated land devoted to cotton growing.¹

Coconut. Coconut grows in all parts of the country. People get food, sugar, oil, fiber, thatches and drink from it. Coconut milk is considered a very important food for the Thai people. The amount of copra meal exported in 1955 was 5,620 tons, valued at 440,000 dollars.²

Most of the coconut plantations are confined to small home yards and fruit orchards. Larger plantations are found in the southern provinces where rainfall is high and soil is light, especially along the seashore. In Thailand there are two sources of sugar, namely from the coconut and sugar cane.

Coconut is another source of sugar for many Thai people. It is made from the juice tapped from unopened flower clusters. The spathe is bent down gradually, and the tip is sliced off very thinly with a sharp knife each day. After a few times of slicing, the sap begins to flow from the cut surface. The sap drips into a smoked bamboo tube in which a piece of tan-bark is put as a preservative. The sap or sugar juice is collected twice a day, and at each collection a new slice is made. The cutting is continued until the whole flower is all consumed by a series of slicing.³

Coconut is a source of income, not only for planters, but also for those engaged in producing sugar and oil.

¹The Publicity Committee Ninth Pacific Science Congress, Thailand Past and Present (Bangkok: Thai Wattana Press, 1957), p. 160.

²Bank of Thailand, Bank of Thailand's Report for December, 1956 (Bangkok, 1956), p. 48.

³Cholburi Sugar Plan, Sugar Industry (Bangkok: Frachachang Co., 1958), p. 22.

Fruit. Fruit produced in Thailand has played a minor role in exports; only a few kinds of fruit are sent abroad to neighboring markets. However, a large amount of fruit is consumed by people in the country and fruit growing is an important occupation for the Thai people. It is estimated that about 1.3 million acres are used in fruit production; large areas are located along the banks of the rivers and along large streams where the soils are composed of sediments and are relatively fertile. The other areas are on hill slopes and river terraces where water can be drained to feed trees. The most important region of fruit orchards both in quantity and quality is near Bangkok on the banks of Chao Phya River where good soil consists of the silt and clay and water supply is sufficient throughout the year. In the place of low rainfall as in the Northeast, fruit output could increase if the water from the Yanhee Dam could be distributed in the dry season.

Fruit planting is gradually changing, with the adoption of modern technical methods. Under the old method, many kinds of trees were planted too close together, and consequently were not able to develop normal growth due to lack of sufficient sunlight. Of the numerous kinds of fruit grown in Thailand, the following are commercially important: mango, mangosteen, durian, mandarin orange, pomelo, linchi, longan, rambutan, lanzon, pineapple, achras santol, banana, papaya, jack fruit, rose-apple, custard-apple, and carambola. The taste and quality of all these fruits have been well recognized by foreign visitors.

Forestry. According to the latest estimates of the Department of Forestry, the total area of land under forest cover of some kind or other

is approximately 321,289 square kilometres or 62 percent of the total land area of the country. With an increase in the population of over 20 millions, the forest area per thousand heads is only 10.6 sq. kms.¹ It is estimated that the area of mixed deciduous forests which is teak-bearing is approximately 65,000 sq. kms. The quality of Thai timber is well known throughout the world and is used for ship building and many other purposes. The Thai teak industry has been an important factor contributing to the progress and the development of the country for many decades.

Teak ranks fourth of the major items of exports of Thailand and accounts for 53 percent of the combined total export of timber and forest products. In 1956 teak export amounted to 92,984 cubic metres, with the assessed value of 15.3 million dollars.² Now there are more than 800 power sawmills with an estimated annual output of sawed timber of not less than 90,000 cubic metres, which does not include the output of hand sawmills. Because the lumber industry is essential to the country and is the source of employment to thousands of workers, the government takes it as a major task for development.

By the advice of FAO's Mission, forest reservation, inventory, working plans, and forest plantation (especially teak), are carried on with full support by the Royal Forestry Department. At present more than 33,000 sq. kms. are declared as reserved and protected forest.

¹Central Statistical Office, *op. cit.*, p. 295.

²Department of H. M. Customs, Import-Export for 1956 (Bangkok, 1957), p. 17.

Aquatic resources. Fisheries are under the responsibility and control of the Ministry of Agriculture. It was estimated in 1947 that the yield from this industry was about 150,000 metric tons, valued at 7.5 million dollars. It is a major source of government revenue and provides a livelihood for a large proportion of the population.

There are large and long marine fishing grounds in Thailand. On the east coast of the Indian Ocean from Burma to Malay, the distance is more than 2,500 kms. and on the west shore of the Gulf of Thailand from Malaya up to Bangkok. Freshwater fishing grounds are confined in many rivers, innumerable canals, many lakes, swamps, and streams. There are several kinds of both freshwater and marine fish, also crabs, shrimps, shipworn, reptiles, and batrachians.

Interior fishery is conducted in rivers, canals, swamps, and lakes. Here the kind of apparatus depends on the nature of the water and the kind of fish to be caught. The usual feature of the salt-nature fisheries is the timber stake-trap set in both shallow and deep water and consisting essentially of a circular enclosure made of timber poles driven funnel-shaped into the bottom, with a long harder and wing for intercepting the fish and directing them into the trap.¹

The consumers do not directly buy fish from the fishermen, but from the dealers. There are three kinds of wholesalers: those for salted fish, fresh sea fish, and live freshwater fish. A large quantity of fish is taken to Bangkok for further distribution to the inland parts of the country, and the excess over domestic consumption is exported to Malaya

¹Ninth Pacific Science Congress, *op. cit.*, p. 143.

and Hong Kong. The government derives revenue from fish export and fishing licenses or payment of fixed annual fees.

Since 1951 the fishing industry has received valuable technical and financial support from the United States through aid programs and from FAO.¹ However, at present the problems of fisheries are the marketing and fish store. The government is considering conservation of fish both in freshwater fish and marine fish.

Industry

Thai industry, from time immemorial, partook more or less of the nature of cottage-industrial activities in handicrafts such as weaving basketry, rice hulling, and the making of wares, crude wrought-iron works, and works in terre-cotta, specimens of which can be witnessed in all local museums.²

With an industrial structure that is similar to that of most other Eastern countries, most of Thailand's activities in this sector are confined to small and medium-sized enterprises. The most efficient of these, recently at least, have been erected directly or indirectly by various government organizations.³

In 1957 a survey was made concerning the main private industrial lines. Of the number of employees in 15,960 establishments shown in the table, only 306, or about 2 percent, were classed as large; i.e., with more than 50 employees.⁴ Table 9 shows that many enterprises depend on agricultural products such as rice mills and saw mills.

¹Report of the Mission of the World Bank, op. cit., p. 84.

²Ministry of Industry, Siam: Nature and Industry (Bangkok, 1957), p. 188.

³Ibid., p. 189.

⁴Report of the Mission of the World Bank, op. cit., p. 89.

Table 9. Number of industrial establishments and workers employed in Thailand, 1957

Enterprise	Number of establishments	Number of workers
Saw milling	1,736	130,154
Rice milling	4,921	58,459
Printing	484	17,288
Sugar mills	1,521	12,685
Weaving	409	12,470
Flour milling	1,336	11,982
Ceramics	90	11,694
Engine repair	528	7,219
Foundry and machine shops	810	6,931
Smithies	778	3,803
Ice factories	388	3,199
Aerated beverages	143	1,946
Others	2,816	38,108
Total	15,960	315,938

Source: Ministry of Industry, Siam: Nature and Industry, p. 190.

There are at least five government ministries that engage directly or indirectly in commercial and industrial activities. The organizational pattern of public industrial enterprises in Thailand may be classified into three categories: dependent, semi-dependent, and independent.

1. Dependent organizations are those of an experimental nature and consist of pilot plants and training centers. They are therefore not self-supporting, and depend upon the particular Ministry concerned for their capital and operating expenses.

2. Semi-dependent plants are those that were established as commercial enterprises where the managing director has more freedom of control. He is answerable to a Board of Director, of which the Director-General of the Ministry is a member.

3. Independent organizations are public industrial enterprises which have the same status as a private corporation. The government is merely a shareholder and the Managing Director is responsible to a Board of Directors appointed by the government.¹

In manufacturing the government monopolizes tobacco, potable and industrial spirits and playing cards. It dominates timber, sugar, paper, gunny sacks, and minerals other than tin. It has large interests in cement, glass, pharmaceuticals, batteries, tin, tanneries, and texties, and it operates a number of small plants making such diverse products as shoe polish, alun, rubber footwear, metal cabinets, paper clips, and ceramics.

The reasons for the government's entry into many industrial enterprises are as follows:

1. The government needs revenue to support its annual budget.
2. Some products are used by the government such as armed forces supplies.
3. The government runs the essential economic activities which are needed and important to the country, such as airlines, railways, and public utilities.
4. Needed enterprises which no private entrepreneur has been willing to undertake.

There are, of course, many defects in the governmental enterprises both in management and process of production which have proved unprofitable and unsatisfactory by commercial standards.

¹United Nations, Public Industrial Management in Asia and the Far East (New York, 1960), p. 122.

Although Thailand is not sufficiently rich with basic resources to be an industrial country, she can support light and medium kinds of industries and manufacturing if the limitations of technical and managerial skill can be removed.

Mining industry. There are many kinds of mining carried on in Thailand, but one of the most important is tin, despite a recent decline. Tin, in the form of cassiterite, is the most important mineral in Thailand. It is found mainly in the southern part of Thailand in provinces along the Thai-Burmese border and some provinces in the northern part. The provinces of Phuket, Phang-nga, Ranong, Nakornsrithamaratana, Suratani, Songkhla, Yala, and Chumporn are leading producers of tin.¹ Formerly, manual labor played an important role in tin production, but lately it has been gradually mechanized. In 1906 an Australian introduced the first bucket dredge in Phuket province and it was the first dredge in the Far East. Tin dredging has since become the most economical mining method in tin fields, both in Thailand and abroad. It is estimated that about 50 percent of the world's present tin production comes from dredging.²

Soon after World War II, tin producing and consuming countries attempted to establish the International Tin Agreement with its main objective to prevent excessive fluctuations in the tin price and to achieve a reasonable degree of stability of price. The Thai representative signed his name for Thailand in this agreement on June 29, 1954, as a producing country. It was then ratified in March 1957.

¹The Royal Department of Mines, Note on Mining (Bangkok: Lahoothod Press, 1957).

²Ibid., p. 40.

At the end of 1957 the tin supply much exceeded its demand, causing the price to decline in the world market. The Buffer Stock which had been buying tin in order to stabilize the floor price found itself beyond the limit of its permissible stock. The International Tin Council decided that there must be control among the producing countries. Tin export control was used for many years until September 30, 1960. Although it enormously decreased Thailand's tin export during the control period, tin export control showed it could prevent the kind of tin crisis which occurred in 1953.

As an export of Thailand, tin ranks behind rice and rubber. In 1956 and 1957 tin was exported at the rate of 14,175 and 17,561 metric tons, valued at 25.3 and 26.8 million dollars, respectively.¹ In 1958 the output was considerably decreased due to the restriction of Thailand's quota to not more than 10,000 tons under the International Tin Agreement.

The second most important mineral in Thailand is wolfram ore which is mostly wolframite. This kind of mineral is found only in lodes and veins alone or mixed with tin. Kanchanaburi, Mae-hongsawn, Nakornsrihamaratana, Songkhla, Tak, and Ranong are the chief producing provinces. Since 1954, as a result of world price reductions, wolfram ore production has decreased considerably. Antimony and lead are found mostly with zinc in many provinces, but the deposits are not large enough to be big-scale operations.

Before the Second World War, Thai Cement Company, Ltd., with the cooperation of the government, started iron mining at Lopburi and built

¹The Central Statistical Office, N.E.D.P., Monthly Statistical Economic Report for March 1960 (Bangkok, March 1960), p. 37.

an iron smelting plant at Saraburi. But because of shortage of investment capital to work, progress was greatly hampered. The government has desired the development of an iron and steel industry in the country. For this reason, and to attain such an aim, ground survey and geophysical air survey teams with German engineers have surveyed the country with the object of advising the government on the feasibility of erecting an iron and steel plant using lignite.¹

Distillery industry. The Ministry of Industry is now entrusted with the task of supervising all distillery business throughout the country. There are two kinds of distillery factories, one run by the state, and the other belonging to private enterprise under the supervision of the government.

The total output of all distilleries throughout the kingdom, originally amounted to not more than 20 million litres per year, but at present it is more than double that figure. The plants which are directly controlled and under the management of the Ministry of Industry are capable of yielding 4.5 million litres of famous "Mekong" whisky per year. The new alcohol distillery at Ayudhya (30 miles north of Bangkok), still under construction, will soon be complete and is expected to produce about 35,000 litres of alcohol daily.² In 1959 the state distillery plants earned more than 1.7 million dollars.³ Thai whisky is also exported to such neighboring markets as Laos and Malaya.

¹The report of the Mission of the World Bank, *op. cit.*, p. 112.

²The Ministry of Industry, *op. cit.*, p. 189.

³Bureau of Budget, Annual Budget for Fiscal Year of 1961 (Bangkok, 1960), p. 258.

Sugar industry. Sugar in Thailand can be produced from three sources: coconut, palmyra, and sugar cane. The first two of these are produced chiefly on a small scale as a part-time household industry. In total production they have sometimes been as important as sugar cane, and their production has been more stable. In 1938 the government put up the first cane sugar factory at Lampang (a province in the northern part) and four years later another factory was established at Utaradit. The erection of these two factories brought employment and prosperity to the inhabitants of this area. The next step was the establishment of similar factories in the northeastern towns, such as at Udorn and Ubolrajadhani. The objective was to supply the increasing demand for sugar and to encourage sugar cane plantations in this region. In 1959 the net profit derived from state factories was 1.09 million dollars.¹

Apart from these government-owned factories, there are many small and medium private-owned plants which exist mostly in the province of Cholburi. This production is just at the beginning stage and has received loans and technical aid from the government.

Other industries are in both public and private sectors. The government decision is not to compete with the private investment but rather to assist by filling the gaps in the industrial chain and by participating in new and yet untried industries that the private sector has not had the confidence to attempt.

Trade

Internal trade. The transaction of commerce in Thailand is similar to that of capitalist countries. Prices are a function of demand and

¹Annual Budget for Fiscal Year of 1961, op. cit., p. 199.

supply and other variables. In the public sector prices are set by the producers so as to cover the cost of production plus a moderate profit to be used by the government as a source for expanding its own production and for social benefits. Any excess over normal profits is transferred to the Ministry of Finance.

Bangkok is the largest commercial center of the country. Most commodities from provinces throughout the kingdom are sent to the middleman or agent at Bangkok for further distribution. There are three kinds of intermediaries between producers and consumers:

1. The middle man, who purchases the consumers' goods from the producers and disposes of it to the wholesaler at Bangkok or any province in which he wants to sell the goods. Frequently the middle man in the local area runs the business in the form of a firm and establishes his own partner or agent in Bangkok to execute each shipment and then shares the profit with him. Whenever the producer needs money for current expenses, the middle man usually pays him an advance.

2. Wholesaler. Most wholesalers establish their offices in Bangkok and distribute the goods received from the middleman to the dealers. Many wholesalers act as exporters and, at the same time, distribute goods to the retailers within the country.

3. Retailer. There are thousands of shops run by the retailers selling every kind of goods to consumers. Many large department stores are also found in Bangkok in the central area selling both domestic products and imported goods. Cooperatives set up super markets to distribute farm products received directly from the farmers. More than

50 percent of the retailers are foreigners, especially Chinese. In recent years, shops owned by the Thai have sprung up rapidly to compete with foreign merchants.

Foreign trade. Foreign trade is very important to the economy of Thailand. In the past hundred years, this kind of trade was carried on primarily with neighboring Asian countries; European trade was a relatively small part of the total. Before World War II the trade with European countries and the United States increased considerably and the balance of payments was favorable.

Rice has been the most important export and brings much income to the country. Rubber and tin represent the second and third, respectively, and the fourth is teak. In 1956, despite the growth of rice exports over the previous year, the value of rice was less than that of 1955 because the increase of rice supply in the free world market caused a decline in the price. The same was true in rubber, for the output in the chief producing countries increased rapidly, affecting its price.

The volume of Thailand's exports also depends on good and bad harvests. In 1959 rice exports totalled 1,097,691 tons and its value was 129.5 million dollars, which tended to decrease from the level of the previous years. This was probably due to the increase of supply in the producing countries, and Thailand also lost part of her market (particularly to India) at the beginning of 1959.¹ Some old customers cancelled sale contracts and purchased from other producing countries. However, the low price of rice in Thailand was compensated for by higher

¹Bank of Thailand, Annual Report, 1959, op. cit., p. 3-4.

prices of rubber, which replaced rice as the principal export item in 1960.²

Rubber exports in 1959 were at a high level. The volume and value of rubber exported were 174.4 million tons and 116.8 million dollars as against 135.5 million tons and 66.3 million dollars in 1958, reflecting 29 percent and 76 percent in volume and value increase, respectively. This higher level of rubber was attributed to the renewal of industrial growth in industrialized countries and to the fact that the use of synthetic rubber is limited. The largest quantity of rubber export went to the United States, which bought 108,308 tons, or about 62 percent of the total.²

Thailand's tin production in 1959 registered an increase of 23.7 percent over that of the previous year. This was due to the fact that on July 1, 1959, the International Tin Council raised Thailand's quota of export from 8.35 percent to 8.80 percent, and consequently permitted the increase in tin export of Thailand. In 1959 tin exports were at 13,737 tons and valued at about 21.7 million dollars, including 2,567.7 tons of tin valued at 4.1 million dollars which was shipped to the United States under a barter agreement for tobacco leaves.

Since World War II the value of imports has increased considerably due to the increase of population and various kinds of both consumer and producer goods. The percentage of capital goods--machinery and equipment--showed an immense increase, far beyond the pre-war level. Some imported food products are widely consumed, although they form a negligible part

¹United Nations, Economic Survey of Asia and the Far East 1960 (Bangkok, 1961), p. 22.

²Bank of Thailand, op. cit., p. 4.

Table 10. Principal exports of Thailand, 1959-1960

Commodity	1958			1959			1960		
	Volume (metric tons)	Value (thou.U.S. dollars)	As % of total export	Volume (metric tons)	Value (thou.U.S. dollars)	As % of total export	Volume (metric tons)	Value (thou.U.S. dollars)	As % of total export
Rice	1,132,930	148,399	46.04	1,097,691	129,525	34.19	1,098,551	129,071	29.87
Rubber	135,508	66,289	20.57	174,409	116,802	30.84	169,657	128,971	29.85
Tin	9,096	12,748	3.95	13,737	21,712	5.73	17,089	27,020	6.25
Teak	72,554 ^{m3}	11,940	3.70	73,453 ^{m3}	12,217	3.23	101,155	17,867	4.13

Sources: Bank of Thailand, Annual Economic Report for 1959, p. 44-45, and data in 1960 derived from Department of Customs, Annual Report for 1960, p. 24.

Table 11. Export of Thailand trade by commodity group

Commodities	1955	1956	1957	1958	1959	1960
Food	183.2	172.6	207.7	179.8	172.6	195.6
Beverage & tobacco	.4	3.1	5.4	4.7	1.0	1.2
Crude material	160.5	150.9	142.2	118.1	181.7	215.2
Animal and vegetable						
oil	.4	.5	.45	.35	.5	.1
Chemicals	.6	.6	.5	.35	.35	.4
Manufactured goods	3.1	4.9	5.0	3.6	3.9	4.8
Machinery	-	.05	.05	.15	-	.05
Misc. manufactured goods	1.3	1.4	1.3	.7	.5	.7
Misc. transaction and commodities	6.4	11.9	14.2	14.5	2.2	3.0
Re-export	-	-	-	-	15.1	9.6
Total	355.9	346.9	376.7	321.9	377.8	430.6

Source: Bank of Thailand, Monthly Economic Report for March 1962, p. 29.

of the total diet. For the most part, and certainly for the bulk of the population, imports are luxury goods which can be dispensed with rather easily when money income falls. The nature of her imports and their relationship to the economy gives Thailand an extremely high income-elasticity of demand for imports, which in turn is a major reason why she has been able consistently to maintain a strong export balance of trade.¹

¹James C. Ingram, Economic Change in Thailand since 1850 (Stanford: University Press, 1955), p. 126.

Table 12. Principal destination of exports of Thailand

Country of destination	1939	1954	1955	1956	1960
----- Million U.S. dollars -----					
United States	.4	67.3	104.8	86.1	60.2
United Kingdom	.3	6.3	8.4	10.8	18.8
Germany ^a	.2	1.6	4.1	4.9	21.5
Netherland	.2	10.6	10.5	10.4	8.2
Singapore	3.0	48.2	42.9	49.1	48.3
Malaya	.2	10.5	20.3	50.9	67.6
Japan	.7	66.6	62.7	32.1	76.5
Fenang	3.1	20.0	21.4	28.7	32.0
Hong Kong	1.2	24.6	30.1	29.3	37.6
Others	2.2	49.9	50.4	44.0	59.6
Total	11.5	305.6	355.6	346.3	430.3

^aPost-war figures signified West Germany only.

Source: Bank of Thailand, Annual Reports for 1939, 1954-1956 and 1960, pp. 32, 54, 41, 37, 27.

Table 13. Imports of Thailand by commodities (million U.S. dollars)

Commodities	1955	1956	1957	1958	1959	1960
Food	33.1	30.5	34.7	39.0	40.6	39.2
Beverage and tobacco	7.9	8.5	10.1	9.8	8.5	5.4
Crude materials	3.8	4.0	3.7	3.6	3.5	7.1
Mineral fuels and lubricants	34.6	38.7	46.4	45.0	47.2	51.2
Animal & vegetable oils and fats	1.4	1.4	1.0	1.2	1.5	1.0
Chemicals	29.0	32.7	37.7	37.8	46.1	48.7
Manufactured goods	138.0	148.9	157.4	148.2	155.8	164.4
Machinery	69.1	76.1	95.3	93.0	110.0	119.5
Misc. manufacturing goods	45.8	27.6	24.5	23.5	24.3	26.1
Misc. transaction & commodities	12.3	14.1	15.9	10.4	11.6	18.3
Total	375.0	382.5	426.7	411.5	449.1	481.9

Source: Bank of Thailand, Monthly Economic Report for March 1962, p. 30.

Table 14. Imports of Thailand by countries (millions of U.S. dollars)

Countries	1955	1956	1957	1958	1959	1960
United States	72.2	57.7	70.0	70.9	74.2	80.2
United Kingdom	41.5	43.8	47.9	43.5	47.0	48.3
Germany	21.9	23.1	30.2	27.0	30.6	40.5
Netherlands	30.8	22.9	28.2	20.7	25.7	23.2
Switzerland	4.8	6.1	6.2	5.4	5.2	7.6
Hong Kong	37.7	61.7	37.7	45.1	34.7	31.3
India	8.3	6.0	8.4	5.4	6.2	5.9
Singapore	25.2	30.1	29.6	31.8	34.2	35.4
Malaya Federation	11.6	13.5	15.7	10.4	11.6	10.2
Japan	68.9	62.8	87.3	94.5	112.7	123.2
Indonesia	12.2	13.0	17.3	14.9	14.4	14.0
Other countries	39.9	40.3	47.8	41.8	53.9	61.2
Total	375.0	382.0	426.3	411.4	449.4	481.0

Source: Bank of Thailand, Monthly Economic Report for March 1962, p. 28.

There are several factors concerning the market for imported consumer goods in Thailand:

1. Some items have a very small market which is limited to the foreign community, upper-income Thai, and a few Chinese.
2. Some items (such as kerosene and canned milk) are widely consumed in all parts of the country.
3. Some items are erratically purchased as novelties. The buyers of these goods change from year to year, and the group is composed of people in all income levels and geographic regions. The consumption of this category of import varies directly with the money income.
4. A large number of people purchase no imported goods. This large group includes people at the bottom of the money-income scale, many of whom live in the more remote provinces of the North and Northeast.¹

From Table 15 it is evident that the balance of payments of Thailand was not so bad because after all, this was a period of post-war rehabilitation and development. Machinery, equipment, and building materials were imported with a large value. It should be noticed that the exports of Thailand also increased considerably. The balances of payment were favorable in three years out of six years when we consider only the merchandise items, excluding invisible trade. The government hopes that the balance of trade will be favorable in the next few years.

Foreign trade policy. The present foreign trade policy of Thailand is based on the principle of free trade. After World War II there was a shortage of foreign exchange which required the institution of exchange and import controls. The government has attempted to liberalize trade and has succeeded to a great extent, especially in the past few years.²

At present import restriction is limited to only a few items, many of which are not completely banned but are allowed to be imported on a

¹Ingram, *op. cit.*, p. 131.

²Ministry of Economic Affairs, Economic Review, January 1958 (Bangkok, 1958), p. 40.

Table 15. Balance of payment on current account (millions of U.S. dollars)^a

Item	1952	1953	1954	1955	1956	1957
Exports of goods and services						
Merchandise export						
(f.o.b.)	299.1	290.0	301.1	358.0	374.7	407.0
Foreign travel	2.8	1.9	2.3	3.7	2.7	2.8
Transport & insurance	4.2	4.4	2.7	3.6	4.5	8.8
Investment income	3.4	1.4	.6	3.2	4.4	9.4
Government n.i.e	2.0	2.3	1.8	7.9	7.7	7.2
Miscellaneous	1.2	1.6	.9	7.4	8.3	9.3
Total goods & services	312.7	301.6	309.4	383.8	402.3	444.5
Import of goods and services						
Merchandise imports						
(c.i.f.)	282.5	301.0	334.0	346.4	367.6	415.5
Non-monetary gold	23.8	22.7	18.1	11.4	4.0	5.2
Foreign travel	6.4	6.9	6.6	8.3	10.4	13.2
Transport & insurance	7.1	6.9	6.3	6.3	5.8	9.1
Investment remittances	2.0	4.6	2.9	8.9	12.4	17.8
Government n.i.e	3.6	4.4	4.8	10.9	5.7	4.7
Miscellaneous	4.8	7.3	5.3	11.8	7.8	4.6
Total goods and services	330.2	353.8	378.0	404.0	413.7	475.1
Current account balance						
Merchandise trade	16.6	-1.1	-33.0	11.6	7.1	-8.5
Invisible trade	-34.1	-41.1	-45.8	-31.7	-18.5	-22.1
TOTAL CURRENT BALANCE	-17.5	-52.2	-68.8	-20.1	-11.4	-30.6

Source: Report of the Mission of the World Bank, op. cit., p. 275.

^aThese figures were adjusted by the Bank of Thailand and differ somewhat with the other tables because of difference in the conversion rate used and some other errors.

quota basis. Many kinds of goods are controlled in order to prevent the liquidation of domestic industry. Subject to licensing regulations, all goods can be exported to any country outside Communist China and North Korea. Until 1956, 16 categories of goods including food and timber were banned from export to Communist China and North Korea, in response to the United Nations Regulation No. 500, dated May 18, 1951. As there is a truce in Korea now, merchants are free to trade with all Communist countries and only strategic goods are not to be exported to Communist China and North Korea.¹

Thailand has a single tariff system; i.e., there is no special treatment on goods sent to any country; every country is equally considered in terms of tariff being collected on goods. Duties on imports and exports are levied only for revenue purposes. Some kinds of exported goods are exempted from duties in order to encourage domestic industry.

¹Ministry of Economic Affairs, Economic Review, Jan. 1958 (Bangkok, 1958), p. 41.

CHAPTER IV

EARLY GOVERNMENT PLANNING FOR ECONOMIC DEVELOPMENT

Early Postwar Surveys

As with other underdeveloped countries in Asia, Thailand lacked the necessary governmental offices needed for economic development. The information and data of various activities had not been recorded for a long time, and some were destroyed during the war period. It was difficult to evaluate any section of the economy. For example, it was known that rice was the largest component of Thailand's exports, but no accurate value in the early years was available. After World War II the government became increasingly concerned with this matter and began to fill in the gaps.

Nevertheless, the economic progress was not really effected because no government could completely hold power in the country or secure the cooperation of the people. Most of the governments tended to spend far more money on defense than on economic development--at least until a coup d'etat of September 1957. The new premier appointed experts in various fields to be his ministers and launched the nation on a program of economic development.

It was, of course, impossible for Thailand to work out such a program without the assistance of technicians and experts from other countries. The former premier, Field Marshal Pibul Songram, had previously sent a request to the International Bank for Reconstruction and Development for technical assistance. The Mission, consisting of many

experts from various countries, went to Thailand in July 1957 for a survey of the economy. The purpose of this survey was to advise the government on the forms of organization which were likely to be most effective in fostering social and economic development. The Mission also advised the government on the public development funds likely to become available and suggested allocations of these funds in accordance with its view of development priorities. This report provided sound guidance for Thailand's further development plans and economic policies.

Other than the report of the Mission, other reports which contributed to drafting an economic plan came from the United Nations Economic Commission for Asia and the Far East, the Food and Agriculture Organization, and the United States Operations Mission to Thailand.

The Organization of Planning

The report of the World Bank Mission proposed the establishment of many governmental offices which still direct the nation's program of economic development. The first body to be set up was the "National Development Board," consisting of the Prime Minister as chairman, and the Ministers of Finance, Economic Affairs, Interior, Agriculture, Industry, Communication, and Education. This Board has the primary responsibility for the determination of plans and policies relating to Thailand's economic development. In the Mission's view, a small group composed of the Ministers with the great interest in the problem of economic growth would be a more effective forum than the Council of Ministers as a whole for the discussion and determination of programs

and policies in this area.¹ However, any decision made by this Board must be approved by the Council of Ministers.

Planning Secretariat. In order to undertake the necessary work of analysis and appraisal and to make concrete recommendations embodying the results, the Board established a professional secretariat as the technical arm of the National Development Board. It is headed by an officer with the rank of Permanent Ministerial Undersecretary, with the title of Secretary General, who also serves as Executive Secretary of the Development Board.² Besides directing the work of the Planning Secretariat, he is responsible for submitting its recommendations and evaluation on economic development to the Development Board, including the results of professional study of the priorities, of coordination and the financing of development, and of policies influencing either public or private activities in this area.³

The Planning Secretariat gives guidance in coordinating the annual budgetary allocations for development, and receives the cooperation of the Ministry of Finance in working out sources of finance, such as raising or adjusting taxes, introducing new forms and tapping new sources of public borrowing, and reallocating other expenditures in favor of development. The Secretariat works out the detail and comprehensiveness of the five-year plans, including recommending the annual budget for development and long-term investment. The costs of the proposed projects must be received from each ministry with complete justifications in terms of

¹A Public Development Program for Thailand, op. cit., p. 209.

²Thailand, National Economic Development Board Act B.E. 2502, Sec.7.

³The Mission of the World Bank, op. cit., p. 209.

benefits to be derived from each project. To perform the task effectively, the Secretariat must follow the program all the time, conduct a periodical review, and report regularly on each process. The Secretariat must also closely watch the course of the nation's economy--the output and process of production, changes in prices and money supply, trade, government expenditures and revenues, and the balance of payment and trade. These indicators reflect the performance of the economy, and as they vary, the Secretariat must decide whether the pace of development expenditures as a whole should be accelerated or slowed down.¹ It is also the duty of the Secretariat to stimulate economic development in the private sector by suggesting to the government what alternative should be taken, such as changing the incidence of particular tax or custom duties, regulation of foreign and domestic trade, and other policies which will affect private enterprise.

Because of its concern with the wide and comprehensive task of national development, the Secretariat employs well-trained economists, and also experts in agriculture, industry, communication, transportation, power, and irrigation. According to the National Economic Development Board Act of Thailand, the Council of Ministers can appoint the Secretary-General and not more than nine other members, with such powers and duties as may be assigned by the National Economic Development Board.² It is difficult to find suitably trained and sufficiently experienced Thai personnel who can be appointed to these positions, but foreign experts in economics and other important fields have been employed. It is

¹The Mission of the World Bank, *op. cit.*, p. 211.

²Thailand, The National Economic Development Board Act, B.E. 2502, Sec. 18.

expected that the young Thai students will be trained and educated from these experts and in the foreign countries, such as the United States. When they obtain sufficient experience and knowledge, they will become candidates for these high positions.

Central statistical office. Information and technical data are very important and necessary in evaluating and considering the proposed projects. The Secretariat must collect a wide variety of data on national income, production, prices, employment, foreign trade, balance of payments, and financial and monetary conditions.

The Central Statistical Office was established in Thailand in the year 1952. Before this time the statistical task was diversified in various governmental offices and the work was not complete. Even after 1952, however, the work of the office was not as efficient as it might have been. There were only a few statisticians and these were not well-trained to carry on this important task. According to a recent report of Philip M. Hauser of the United Nations, the Thai statistical situation is still critical; after five years of United Nations technical assistance, the Central Statistical Office was still unable to conduct modern censuses, sample surveys, or statistical analytical work without the assistance of outside experts.¹ Mr. Hauser also pointed out that Thailand's Statistical Act of 1952 is one of the most comprehensive acts in the world for providing a strong, coordinated statistical system. What is required is a carefully planned approach to the extension of coverage and improvement of quality of statistical data, and the training of a competent statistical

¹The Mission of the World Bank, op. cit., p. 217.

staff. I.C.A. and other foreign aid agencies granted the funds to the government for this improvement. The training of 30 statistical officers overseas will be completed over a period of six years. Some five or six officers are sent abroad yearly for study and training, most of them in the United States.

Experts from foreign countries are employed for the planning of a statistical program in Thailand. Their tasks are as follows:

1. Survey available statistical materials and the practicable possibilities for collection of additional data.
2. Survey essential needs for economic, financial, and social statistics.
3. Prepare a program of statistical priorities based on the above.
4. Prepare an administrative plan for the allocation of statistical responsibilities among the Central Statistical Office and other government agencies.
5. Inaugurate and supervise the collection and processing of data to provide the kinds of statistical end-products desired.¹

In order to perform effectively the statistical task, twenty ministries and most government offices have set up their own statistical units, and more than 300 employees are employed for this work. Each ministry and important department concerned with economic planning has appointed an officer to be in charge of its development activities, present his agency's view and projects and discuss them with the Secretary-General and other planning officers.

Thai Technical and Economic Committee (TTEC). It is almost impossible for Thailand to develop her economy without external technical and economic aid. For this reason, the Thai Technical and Economic Committee was set

¹The Mission of the World Bank, *op. cit.*, p. 217.

up to formulate the requests of the government for foreign aid, considering the priorities or necessities of the proposed programs for foreign financial assistance.

Board of Investment. This new government body was set up before the economic plan was launched with the objective of encouraging investment. It is concerned only with investment in the private sector and does not include public or government investment. We can divide its task into two kinds:

1. Internal investment. The task in this category is to encourage the investment which can be financed internally. The Board of Investment grants technical assistance and other advantages to new enterprises and to Thai entrepreneurs.

2. Investment of external capital. This special division was set up to encourage foreign entrepreneurs to invest in Thailand. Because capital formation within the country is not sufficient to maintain the optimum level of economic well-being, it is necessary to obtain such funds from foreign countries. Another reason is that there are several industries which have not appeared in Thailand before and Thai entrepreneurs have no experience in it. The investment of the foreign entrepreneurs is expected to assist in creating full employment in the urban and rural areas; training the Thai people in business and management; and reducing imports of goods not produced in the country before.

Early Expansion of Construction

An effective program of economic development requires an adequate system of transportation and communication. After World War II communication and transportation in Thailand were in bad condition because of the effects of the war. The necessity of an integrated primary highway system had been recognized by the government of Thailand for a number of years, and a great amount of work had been done toward the development and construction of this national highway network. However, it was apparent that the construction of such a primary highway system could not be completed in a short time. The five-year plan of construction was started in 1956 for 3,629 kilometers of state highways, and 8,100 meters of major bridges and also to improve 5,300 kms. of old highways.¹

For the provincial highway which is under the responsibility and control of the Public Works and Municipal Department, Ministry of Interior, there was also a five-year plan to construct 5,600 kms. of highways linking up most villages and townships with the state highways and railways throughout the country. The provincial highways were transferred back to the state highway department in 1958 for better and more economical management.

New standards for highways and bridges are being adopted to meet the increasing demand of modern and fast traffic. When the highways are completed, it will serve every community throughout the Kingdom. However, it is impossible to avoid delay in construction due to the international situation and the financial problems of the country. Up

¹Thailand, State Highway Department, Ministry of Communication, Annual Report for 1960, p. 44.

to the end of 1957 there were 7,449,465 kms. of state highways and 1,692,180 kms. of provincial highways opened to traffic; and over 5,772,340 kms. of state highways and 1,929,958 kms. of provincial highways under construction.¹

The main highways throughout the country which are under the plan are as follows:

1. The main route from Bangkok north to Chiangmai.
2. The main route from Bangkok to the Northeast, branching off from the Bangkok-Chiangmai route at Saraburi and running through Korat to Nongkai on the Mekong River.
3. A main southern route from Bangkok down the eastern coast of the Kra Peninsula to the Malayan border.
4. A branch to Phuket on the western edge of the peninsula, connecting with the main southern route at Chumporn.
5. Another southern route from Bangkok down the eastern side of the Gulf of Siam as far as Trad.
6. An east-west route across North Central Thailand from Mae Sod on the Burma border to Nakorn Panom on the Mekong River in the Northeast.
7. An eastern branch of the Northeast route running from Korat to Ubol.
8. A route from Bangkok to the Southeast to reach the Cambodian border at Aranyaprades.²

Friendship Highway (Route No. 2) which was financed by U.S. foreign aid was constructed as a modern highway with American methods of design and construction. The major purpose of this route was to promote the economic development of the northeast Thailand. The only highway between Bangkok and Korat, the gateway to the Northeast and its 8 million people, has been 404 kms. long. About 300 kms. of this was tortuous and rough, with impassable muddy stretches in rainy seasons, rocky passages through the mountains, and dozens of narrow flimsy wooden bridges.³ Replacement of this part of the road between Saraburi and Korat was considered the

¹ State Highway Department, op. cit., p. 45.

² Ibid., p. 18.

³ U.S. Operations Mission, op. cit., p. 29.

most needed link in the improvement of Thailand's highway system. Design and construction of the highway was carried out under contracts with the American firms of Sverdrup and Parcel Engineering Company (engineering), and Raymond Construction Company (construction).¹ During the building of this road, some 1,500 Thai were trained in the various duties of operation of equipment, maintenance, repair, welding, quarry operation, etc. Moreover, many Thai Highway Department personnel and some provincial officials were given on-the-job training in modern techniques of bridges, road design, and building. The highway, named by the government the "Friendship Highway," was turned over to the Thai government in July 1958.

The cost of construction was approximately 20.5 million dollars, and other equipment was purchased by the Raymond Company. When this highway was finished the equipment was moved to construct the East-West Highway. After the completion of this job, all remaining equipment will be turned over to the Thai Highway Department for reconditioning and repairing in the future. The drive from Bangkok to Korat and the North-east has been shortened by about 150 kms. Now it is used for transporting goods and raw materials as well as for passenger cars and buses.

The East-West Highway has never been an all-weather road between the North and Northeast of Thailand, thus preventing the development of commerce in these two regions of the country. Lack of roads has also retarded development of the large sparsely-settled area lying between these regions which is believed to have mineral resources as well as large tracts of timber and farming possibilities.²

¹U.S. Operations Mission, op. cit., p. 29.

²Field Marshal Sarit Thanarat, The Prime Minister's Speech Introducing the 1961 Budget to the Constituent Assembly (Bangkok: Dhana Press, Nov.1960), p. 9.

It was very difficult to build this highway because most of its length passed through mountains making the cost prohibitive. The Thai government therefore requested assistance from I.C.A. in constructing this road. I.C.A. approved this request in view of its economic and military significance and opportunity to provide training of Highway Department personnel in road construction through difficult country. Engineering and construction were performed by the same companies that completed the Friendship Highway between Saraburi and Korat.

It could be said that the most beautiful and modern highway in Thailand is the Friendship route and next to it is the East-West Highway. Other highways are expected to be completed within a few years. The Highway Department is now preparing a road construction and replacement plan for the next phase of construction.

Railways. During World War II many railway lines were built for military purposes, as well as for economic purposes, but most of them were bombed and needed repair. Under its investment program for 1955-59 the State Railway Organization gave top priorities to rehabilitation and improvement of the existing network rather than to extensions.¹ The so-called Korat cut-off line, with a distance of about 200 kms., from Genkoi to Euayai, was also built. The area which this line served has a considerable potential for economic growth and the completion of this line should provide significant stimulus to increase agricultural output and trade. The existing line through Korat was steep with many sharp curves which caused delays in traffic and required special locomotives.

¹The Mission of the World Bank, op. cit., p. 123.

In the earlier postwar period the freight traffic tended to grow considerably as a result of the recovery from the abnormal low level to which activity had fallen as the result of war damage. The average rate of growth in recent years has been about 5 percent and this rate is expected to continue for the next 5 or 10 years.¹ In addition to the need for expanded facilities to meet this expected growth, there remains the task of completing a number of basic capital improvements in the existing system which are highly desirable because they will substantially increase efficiency.² The main recommendations on investment priorities for 1960-1964 which was suggested by the World Bank Mission and now appears in the State Railway of Thailand's plan is shown in Table

The State Railway of Thailand received a loan from the World Bank for improvement and extension as shown below:

1. After World War II, in the year 1950, the Minister of Finance borrowed a total of \$3 million. This amount was loaned to finance the reconstruction of the locomotive repair factory at Magasarn (in Bangkok), and it is now paid up.
2. The State Railway of Thailand borrowed from the World Bank for improvement and reconstruction under the first five-year project from 1955-59. The total of this loan was \$12 million and about \$3 million has been repaid.
3. A loan contract was signed by the representative of State Railway of Thailand on April 28, 1961 for a total of \$22 million, for the contribution of economic development from 1961-1966.³

The other sources which can finance the development program of the State Railway of Thailand are the current surplus of the SRT, the grant

¹State Railway of Thailand, Annual Report for 1960, p. 11.

²The Mission of the World Bank, op. cit., p. 125.

³International Bank for Reconstruction and Development, Sixteenth Annual Report, 1960-1961 (Washington D.C., 1961), p. 23.

Table 16. Investment in railways, 1955-1964

	Five year total	
	1955-59	1960-64
	(Million of U.S. dollars)	
New line development	10.0	15.0 ^a
"Top priority" improvement program on existing lines	56.2	58.5
Shift from steam to diesel locomotives	4.3	11.2
Replacement of rails and switches	23.0	11.7
New freight cars	3.9	7.5
Station yard remodeling and extension of sidings	3.6	5.0
Repair and replacement of bridges	2.0	5.8
Diesel rail cars	1.7	3.9
Telecommunication	2.9	.4
Automatic couplers	3.7	-
Other "top priority" investment items	11.1	13.7 ^b
Other investment in railways	10.0	5.0
Total investment in railways	76.2	78.5

^aKorat cut-off.

^bIncluding 5.5 million dollars for contingencies.

Source: Thailand government's Annual Budget for 1960, State Railways of Thailand Section, p. 312.

from the government budget, and I.C.A. aids. It is hoped that after the completion of 1960-1964 program, the revenue of the SRT will tend to increase to be used as the source of a loan payment to the creditor.

Ports and harbors development. The most important port of Thailand is Bangkok Port which handles about 95 percent of the nation's import trade and about 70 percent of her export trade. The remainder of Thailand's trade is handled at other little ports along the Kra Peninsula, such as Songla and Puket. The Bangkok Port is situated at Klongtoi, about 20 kms. from the mouth of the Chao Phya River. Its buildings consist of 1,660 metres of modern wharf with transit sheds, sufficient to accommodate nine average-size ocean going cargo ships. This wharf is rail-and-road served and is well equipped by modern standards. Besides this wharf, both the private oil companies such as Standard Vacuum Oil Co., Inc., and Shell Co., Ltd., and the government's Fuel Oil Organization have oil jetties.

The growth of traffic has been at an average of 5 percent over the past five years and is estimated to continue at this rate into the future. The World Bank Mission gave the view concerning Bangkok Port that it could handle a 50 percent increase in traffic above the record of 1957's level without further large-scale investment. Thus, there is no economic justification at the present time for entertaining the suggestion that a new deep water port should be built on the Gulf of Siam. The saving in dredging costs that would be realized by moving the port to a deep water site would certainly not begin to justify the large investment required.¹

¹The mission of the World Bank, op. cit., p. 143.

The only major problem of Bangkok Port at present is how to maintain depths alongside and in the channel through the bar at the mouth of the river. Constant dredging is necessary. In recent years the rate of silting has increased substantially, and the Port Authority has only five dredgers, two of which are old and inefficient. New dredgers are expected to be financed by the U.S. Development Loan and U.N. Special Fund.¹

Air transport. In relation to the size of the country, domestic air service is not adequate to meet the present and future requirements of the economy. The Thai Airways Company now operates with only 12 craft, consisting of five DC-3's, three DC-4's, one Norseman, and three Super Constellations. Not all of the airfields are all-weather, and the provincial air fields still lack radio equipment and runway lighting to permit night flying.

I.C.A. has recently undertaken several projects designed to improve civil air transport in Thailand. These consist of construction and improvement of provincial airfields, an overhaul and maintenance program, and projects to improve meteorological services, navigational aids, and traffic control, as well as various training programs for Thai personnel. In total, the funds committed by I.C.A. in this sector amounted to about 10 million dollars as of mid-1958, although actual expenditures were only about 2.5 million dollars. These projects should make a substantial contribution to the development of civil air transport in the near future.²

¹Bureau of Budget, Annual Budget for 1962, p. 280.

²Ibid., p. 402.

Table 17. Investment in ports and harbors, 1959-63

Item	Cost (Million U.S. dollars)
Port of Bangkok	
Silting investigation	1.7
New dredgers	2.0
Mechanical equipment, etc.	1.2
Tug	.5
Lighter basin	2.5
Others	1.5
Other ports	
Songkla, new lighterage and coaster wharf	.7
Puket, new lighterage and coaster wharf	.7
Kentang, new lighterage and coaster wharf	1.2
Total	12.0

Source: The Mission of the World Bank, *op. cit.*, p. 143.

Donmuang Airport at Bangkok is the most modern international airport in Asia next to Tokyo International Airport. It now serves both civil aircraft of more than ten world-wide airlines and military aircraft of the Royal Thai Air Force, and also the Air Base of SEATO. It is adequate for present aircraft, but in order to receive jet airliners it needs more improvement and extension. Additional construction is now being done at a cost of 2.5 million dollars, and it is expected to be completed in 1963.

Table 18. Investment in air transport--five-year totals, 1959-63

Million of U.S. dollars	
Donmuang Airport	2.5
Provincial and feeder airfields	2.0
Overhaul and maintenance (equipment and service)	2.7
Ground service improvement (navigational aids, traffic control and meteorological services)	2.8
Feeder aircraft	1.0
Replacement of principal aircraft (net after sale of Constellations)	3.0
Total	14.0
Financing:	
I.C.A. aid	6.5
Central government	7.5

Source: The Mission of the World Bank, *op. cit.*, p. 149.

Telecommunication. Telecommunication facilities in Thailand are not adequate for present needs. An automatic telephone system with a total of about 16,500 lines served the Bangkok metropolitan area in 1958, but much of the existing wire plant was in poor condition. In order to perform effectively, the telephone enterprise was transferred from the government Post and Telegraph Department to the Telephone Organization of Thailand, a semi-dependent office of the government under the Telephone Organization of Thailand's Act, February 24, 1955.

The new organization started its plan for expansion and development and up to the end of 1960 its improvement and reconstruction were as follows:

1. The establishment of a head office at Plern Chit Avenue. The capital, according to the Act, amounted to 100 million

baht with total assets of 2.6 million dollars which was transferred from the Government Post and Telegraph Department. At the end of 1961, the total current assets increased to 13.8 million dollars.

2. Six telephone junctions were established with 29,500 lines, and the next plan is expected to increase the new lines up to 50,000 in the area within Bangkok and Dbonburi. The present plan started in 1961 with a cost of 6.5 million dollars.
3. At the end of 1961 the total cable was about 125 million pair meters long and 202 public telephone were completed.
4. The long distance facilities have been constructed to connect the main provinces with Bangkok and it was expected to be completed in 1963.¹

The project will provide for the improvement and expansion of existing telecommunication facilities into an integrated network for the country as a whole and for integration with the system of neighboring countries.

Table 19. Investment in telecommunications for 1959-63

	Million of U.S. dollars
Rehabilitation and expansion of telephone system in Bangkok, including 10,000 new lines and connection of existing capacity	4.0
Rehabilitation and expansion of provincial telephone systems, including conversion to automatic dial operation and total of 10,000 new lines	2.2
Long distance facilities	9.7
Training5
Others5
Total	17.0

Source: Telephone Organization of Thailand, Report for 1959, p. 23.

¹Bureau of Budget, Annual Budget for 1962, Government Enterprises Section, p. 518.

Electric Power

Before World War II Bangkok had only two electric plants at Wat Liab and Samsen. During the war both of these were bombed by Allied planes. People suffered severely from lack of electricity through the end of the war. After the war the government was enthusiastic to rebuild these two plants to meet the demand which had increased considerably. The total consumption of power and heat throughout the country in 1954 was found to be 97,294 kilowatts, according to a census made by the National Energy Authority of Thailand.¹ A yearly increase of 10 percent is estimated for a period of 10 years from 1966-1975, bringing the total demand to 723,967 kilowatts in 1975. From 1976-1985 the yearly increase is estimated at 8 percent and from 1986-1995 at 7 percent, bringing the total demand 33 years from now to 3,071,667 kilowatts.²

Electric power in Thailand was reorganized and the developments are described below.

Metropolitan electric organization. It was established under the Metropolitan Electric Act of 1958 under the control of the Ministry of Interior, which purchased the enterprise from Thai Electric, Inc. for 560,000 dollars. The sources of funds for expansion are as follows:

1. Reserve for expansion of the old company, 6.7 million dollars.
2. Loan from the Committee of Economic Development, 1.8 million.
3. Loan from the Ministry of Finance, 1.6 million dollars.
4. Loan from the U.S. Development Loan Funds, 5 million dollars.³

¹National Energy Authority of Thailand, Power In Thailand (Bangkok, 1958), p. 22.

²Ibid., p. 24.

³Bureau of Budget, op. cit., p. 260.

In 1958 1,000 kilowatt diesel units were installed in Bangkok, and a year later an additional 1,000 kw. units were added. Half of the total cost of these new electric generators was financed by I.C.A. aid. The new thermal power plant planned for Bangkok has a capacity of 75,000 kw. and came into operation in 1961. The cost of this project was 16 million dollars which was financed from the U.S. Export-Import Bank to the amount of 13.5 million dollars.

After the completion of the Yanhee hydroelectric project, the N.E.O. will transfer all of the existing plants to the Yanhee Hydroelectric Organization which will act as sole electric producer throughout the country. The M.E.O. is the only distributor of electricity in the metropolitan area. The modernization and expansion of Bangkok's distribution system is essential if Yanhee power is to be used there. The present system is hardly adequate to handle the existing load. It is estimated that improvement and expansion will cost about 24 million dollars, of which 20 million dollars is a loan from the U.S. Development Loan Funds. This project is now underway and started with the change of 110 volts of resistance cable to 220 volts.

Provincial electric organization. This organization was established according to the Provincial Electric Act of 1960, with a capital at the beginning of 4.1 million dollars. At present the area in which the P.E.O. operates contains 15 provinces and 131 districts. Other than this, there are 64 electric plants which connect the operation with municipalities.

The government proposed to the German government to send three

experts to come to Thailand to assist the development in management, administration, accounting, and engineering. At the same time, Roger Engineering Company, Ltd. sent a representative for improvement of the Yanhee project. The Fangbuatlong municipal electric corporation will transfer its activity to the F.E.O. in the next few years. The next project is to build the lines from provinces to every district and from districts to Ampers (smaller district or larger village) which should be completed in 1962. This project includes the purchase of private electric companies and construction of 15 electric plants in various districts which still lack electricity.

Yanhee Hydroelectric Authority. Power supply for Bangkok and Dhonburi has been obtained from the repaired power plants which were damaged by the war and from other additional diesel electric generating sets being installed. Also, a large number of industrial plants, theatres, and hotels have gone to the expense to set up their own diesel electric generating sets. In spite of this, the power supply has not met the increasing demand. If public electric utility can produce adequate electric supply for sale at a lower rate than that produced by private individuals, the industrial plants will certainly spring up with increasing numbers. This would act as an incentive to increase foreign investment and at the same time contribute to the general improvement of the economy.

For the above reasons, and after having studied the various methods of power production from the technical and economic standpoints, both on

short and long range programs, it was agreed upon that, of all proposed projects the Yanhee Hydroelectric Project as proposed by the Royal Irrigation Department of the Ministry of Agriculture, was the most feasible.¹ By virtue of the power vested upon the National Energy Authority Act B.E. 2496 (1953), the Royal Irrigation Department was authorized to carry out the construction of the Yanhee Hydroelectric Project. Approval was given by the government in B.E. 2500 (1957) that the Y.E.A. request a loan from the International Bank for Reconstruction and Development for the construction work.

The Yanhee Hydroelectric Project is one of the projects in the Royal Irrigation Department's long-range program for multi-purpose development of water resources. By means of constructing a huge dam at the gorge, known as Yanhee, crossing the Ping River in Tak province, about 540 kms. north of Bangkok, a great reservoir will be created to retain the desired stream flow.² In order to transform the potential energy into kinetic energy, the water in the reservoir is conveyed through individual penstocks to drive turbines. Each turbine is directly coupled with each generator which will produce the electric power.³ In addition to the power production, the dam and reservoir will provide means for flood control, increased irrigation, and navigation improvement.

The Yanhee Hydroelectric Project is a multi-purpose development.

¹Ministry of Agriculture, Report of the Royal Irrigation Department, June 1960, p. 15.

²Ibid., p. 18.

³Ibid., p. 23.

It is estimated that the total cost of construction will amount to about 175 million dollars, which is divided into 100 million for the first period and 75 million for the long-range. When this project was drafted, the government requested a long loan from the World Bank to finance this project; the Bank approved 66 million dollars for this purpose.¹

¹World Bank, Loans at Work (Washington D.C. March 1960), p. 28.

CHAPTER V

THE PRESENT PLAN FOR ECONOMIC DEVELOPMENT

From the early stage of the Thai Kingdom, Thailand has been the only free country in Southeast Asia. Because of fruitful national resources and general contentment there was no great interest in economic development, although the country lacked industry. Thai agriculturists could produce enough foods and farm products to feed her nation and to export at a value greater than imports of consumer and manufactured goods. It was said that starvation was impossible in Thailand--a land of happiness and peace. For this reason, many thousands of Chinese immigrated yearly from the mainland.

Two main reasons that the Thailand economy continued with a slow rate of industrial growth were: (1) the abundance of foods produced per year with little natural danger from flood and drought; and (2) the political situation. Before 1932 Thailand had an absolute monarchy and the king was above the law. After 1932 when Thailand changed her regime to democracy, many political parties fought one another, trying to hold power for the benefit of particular groups.

After World War II, many new countries both in Europe and Asia initiated programs of economic development. India, for example, after receiving her independence, launched her first Five-Year Plan in 1951 and China in 1953. Ceylon, Burma, and Philippines have tried to develop their countries with full speed and modern methods. Moreover, the United Nations established a special organization, the Economic

and Social Council to assist underdeveloped areas with their development programs. These caused Thailand to realize her real situation compared with other countries. The possible way of development was the major topic discussed in the Cabinet of Ministers, and the result was that something must be done. In the meantime, the Prime Minister of Thailand was changed from Field Marshal Pibulsongram to Field Marshal Sarit Thanaratana. The new premier enthusiastically invited technicians and experts in many fields to assist with the nation's development. A few years later the economic development plan for a six-year period, from 1961-1966, was drafted. After revision and approval by the Parliament and the Cabinet of Ministers, it was at last launched in the year 1961.

The National Economic Development Program for
Thailand, 1961-1966

Targets of the plan.¹ The government during the period of its economic development program is endeavoring to attain the following nine goals:

1. The rate of growth of the gross national product which was at the rate of 4 percent per annum in 1959 is to be increased to 5 percent. The rate of increase of per capita income which was 2 percent per year in 1959 will be (hopefully) raised to the level of at least 3 percent.

2. The 1959 average rate of capital formation which was estimated to be in the neighborhood of 14 to 15 percent of the gross national product, is to be maintained at a level not less than 15 percent per annum.

¹Thailand, The National Economic Development Program, B.E. 2504-2509.

3. Agricultural production is to be increased by 3 percent per annum. The production of important crops is to attain the following targets:

- a. Rice production is to be increased at the annual rate of 1.3 percent.
- b. Rubber production in the first three-year period (1961-63) is to be increased by at least 6 percent from the 1959 level.
- c. Corn production is to be gradually increased to double the 1959 output by 1963.
- d. The production of teak, in the period from 1961 to 1963 may be reduced by about 5 percent per year, and must be compensated by increased production of timber of other varieties. At the same time there is to be reforestation and conservation of the existing teak forest.
- e. Efforts will be made to increase cassava production, the target being to increase it by 15 percent between 1959 and 1963.
- f. During the first three-year period (1961-63) adequate attention will be given to step up the sticklac production by the introduction of improved techniques.
- g. In the field of livestock, it is planned to increase the production at the minimum rate of 3 percent per year. As regards fishing, the 1963 target is 50 percent increase over the 1959 level.

4. The rate of increase of national income contributed by the industrial sector, which stood at 10 percent per year in 1959, will be raised to the level of 12 percent by 1963. The important industries are to raise their outputs in terms of percentages based upon 1959 figures as estimated below:

Table 20. Percent rate of increase of outputs in industries, based upon 1959 level

Item	Percent
Cement industry	50
Textile	100
Sugar	8
Paper	400
Cunny sack	50
Tobacco	50
Tin	40
Lignite	300
Gypsum	300

5. The construction of the Yanhee Hydroelectric Dam previously mentioned in Chapter IV, will be completed in 1963. This dam, in its initial stage, is expected to generate electric power of 140,000 kilowatts. However, the modernization of the power distribution system in the metropolitan areas of Bangkok and Dhonburi as well as in some provinces must be completed before the completion of the dam. By the end of 1963 there will be a total power supply of 370,000 kilowatts as compared with 138,000 kilowatts available in the whole country in 1959.

6. The government in undertaking to improve the existing highways and waterways. Governmental enterprises in the field of transportation and communication will be made self-supporting when possible in order to relieve the financial burden of the government. Thai Airways Company, for example, in 1959 sustained annual losses and the government had to support it in the form of annual subsidy.¹ Between 1961 and 1963 it is planned to add 1,000 kilometers of highways to make up for deficiencies in existing trunk roads; some 295 kilometers of this work represents a new stretch running from Chumporn to Nakorn-srithamaratana.

7. The government plans to expand, in accordance with financial feasibility, public health and general education services as far as possible, with special emphasis on vocational education.

8. The balance of trade of the country is to be maintained in order to stabilize the overall economic situation. External markets are to be sought for the increase of output of local produce. Attention will be centered on foreign trade in order to keep the volume of both exports and imports of the nation in balance, while allowing an annual increase of 4 percent in both.

9. The government will endeavor to stabilize the value of baht currency at all times, and, if necessary to revise taxes to prevent inflation and to facilitate economic growth. From 1961 to 1966 it is estimated that annual public expenditure will increase by 25 million dollars. The expenditure on economic development in 1961 was 19.5 percent of the total government outlay, but it appeared in the appropriated

¹Bureau of Budget, Annual Budget for 1960, Government Enterprises Section, p. 401.

budget which was approved by the Parliament at 20.88 percent of the total outlay (1,854.1 million baht).¹ It is intended to raise the proportion for economic development to 28.7 percent by 1966.

The government may borrow 175 million dollars from foreign countries to meet its economic development expenditures during the first three years. This amount includes undisbursed loans of 750 million dollars, which are to be gradually drawn upon throughout the period of six years, beginning from 1961 to 1966. The government may also receive financial assistance from foreign sources in the form of economic cooperation and technical assistance.

In developing the economy of the nation, the state undertakes to adhere to the following overall economic policy.

Agriculture

General. Agricultural productivity will be increased through a comprehensive irrigation program with particularly higher priority given to the Chao Phya and Yanhee Dam Projects. Other irrigation projects, such as the Kang Kra-Jan project, are expected to increase production in other parts of the country.

The government is promoting the improvement of production techniques by disseminating knowledge of agricultural sciences to farmers through the demonstration method. The primary aim here is to persuade Thai farmers to engage in crop diversification, mixed farming, and quality improvement, and to make extensive use of improved rice strains. Experimental work on fertilizers as well as the control of pests and diseases will be undertaken by the government.

¹Bureau of Budget, Simplified Annual Budget for P.E. 2505 (Bangkok, November 1961), p. 19.

The forest conservation program will be improved and expedited, regulating the permanent flow of timber supply for future uses. This includes the maintenance of the existing forests and reforestation particularly in the watershed areas. In order to accomplish these purposes, it is necessary that the existing Forest Conservation Law be amended to suit present conditions. It is planned to extend the forest conservation program to cover 50 percent of the total area of the country.¹

It is the duty of the state to improve and maintain existing areas for the culture of fish and other marine and freshwater produce and to create new production areas. The state will also conduct constant study and research leading to better conservation and increase of aquatic products. Animal husbandry activities will also be encouraged and work on control and elimination of animal diseases will be extended. Attention will be placed upon the implementation of community development projects in rural areas, with special emphasis on the improvement of agricultural practices. Various methods will be experimented upon in each region and only those which produce concrete results will be chosen and employed. Priority will be given to the Northeast region.

The government will conduct a land use survey for proper land classification so that future agricultural land can be determined and protection of forests facilitated, and also improve the existing self-help land settlements.

¹Field Marshal Serit Thanarat, The Prime Minister's Speech in Presenting the 1960 Budget to the Constituent Assembly (Bangkok: Dhana Press, Nov. 1959), Agriculture Section, p. 8.

Irrigation. The irrigation development program in the first three years consists of expediting the present unfinished irrigation works. Emphasis is given to the completion of canal digging works of the Chao Phya Project and construction of the Yanhee Dam in order that the expected irrigation benefits and electricity power are brought into use as soon as possible. The second three years of the program will be the construction of other important irrigation projects, namely, Mae Tang (Chieng-Mai province), Kampengpetch (Nakorn Sawan), Ayudhaya's Western Land Development, MaeKlong River (Karnchanaburi), Sao-Thong (Nakornsri-thamaratana), Lam Pao, and Lam Pra Plerng.¹

In 1960 it was estimated that the total irrigated land area was in the neighborhood of 3.6 million acres.² This figure will be raised after the completion of the six years irrigation development program to about 4.8 million acres, representing 20 percent of the total cultivated land area of the country.

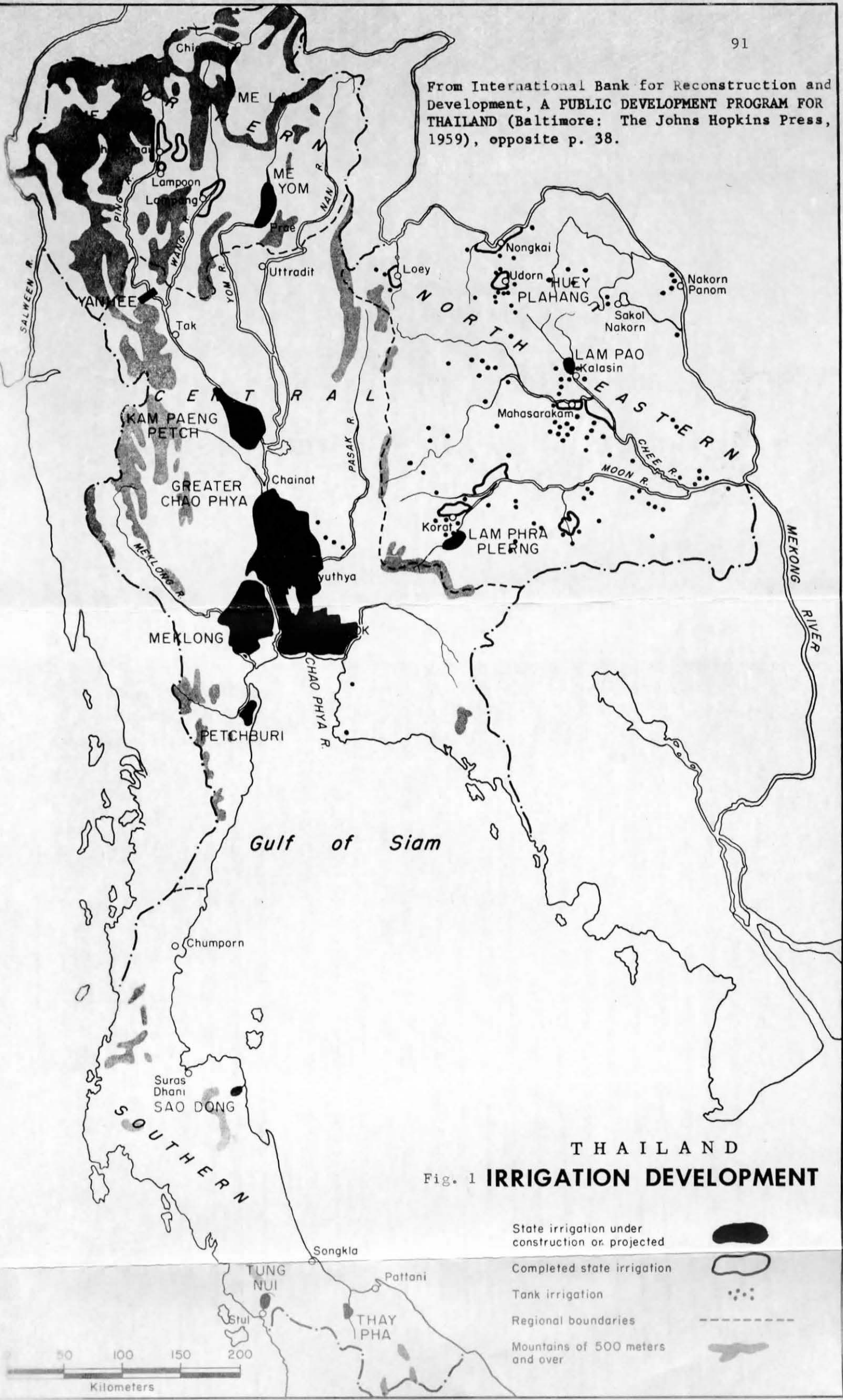
After completion of all the irrigation projects, the government will undertake to impose water rates upon the users of irrigation water in order to pay for the cost of repairing and maintaining irrigation works.

Agricultural research and extension work. The research and extension activities of the government will be strengthened and extended to the farm level, by application of modern techniques resulting in higher efficiency and lower costs of production.






¹Ministry of Agriculture, Future Agriculture in Thailand (Bangkok: Thai Wattana Press, 1960), pp. 41-42.

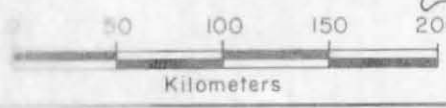
²National Economic Development Program E.E. 2504-2509, p. 16.

From International Bank for Reconstruction and Development, A PUBLIC DEVELOPMENT PROGRAM FOR THAILAND (Baltimore: The Johns Hopkins Press, 1959), opposite p. 38.



THAILAND
Fig. 1 IRRIGATION DEVELOPMENT

- State irrigation under construction or projected 
- Completed state irrigation 
- Tank irrigation 
- Regional boundaries 
- Mountains of 500 meters and over 



The output of rice, coffee, pepper, corn, kenaf, jute, cotton, and other annual crops and fruit will be increased and studies in soils, fertilizers, plants, pests and diseases will be made.

The first requirement is the recruitment of an adequate number of technicians who will be given approximately two years of training in their respective fields before being appointed. At present the number of administrative staff is sufficient in both central and rural areas and it will not be increased unless a necessity arises. The second requirement is to draw up working plans that will facilitate operational and advisory work at the farm level.¹ To assist the several agricultural agencies in meeting their technical problems, an agricultural research institute will be established to conduct basic research and experimentation. The institute will be equipped with modern laboratory facilities with specialists in several branches of agricultural science.² The effectiveness of this institute will depend on cooperation between the various agencies.

Marketing. The Ministries of Agriculture, Industries, and Economic Affairs will closely cooperate in market research and in establishing for the principal crops, the standards to meet buyers' requirements. Cooperation of this type in the disposal of rice has existed for some time, and it was proposed to cover other important crops in the same manner.

Minimum guaranteed prices are under consideration, but it may be that a price support program will be proved desirable only for locally

¹Future Agriculture in Thailand, op. cit., p. 51.

²The National Economic Development Program, op. cit., p. 17.

consumed products.¹ In such case, the government may request the governmental agencies or government-owned factories to purchase their requirements at reasonable prices. A price support policy for important export products might produce a surplus which can be disposed of only at a loss and would be harmful to the whole economy. The institution of production quotas is another possible measure that could stabilize the price but it is fraught with many difficulties. In general, it is the government's policy to attempt to maintain prices in order to protect producers from the middleman, as is already done in the case of rice.

Rubber. An important project started in 1961 was the improvement of rubber cultivation. The necessary personnel were recruited and trained, and a detailed plan drawn up, the execution of which would take about six years.²

Fisheries and livestock. The major part of work contained in the Fisheries Development Program is concerned mainly with the conservation of fish. Some financial assistance in the form of a loan is also rendered to fish operators as a part of the overall fisheries promotion plan. The successful operation of the proposed development is likely to result in an increase in the supply of the catch sufficient to meet the increase in market demand.

In the field of livestock industry, the responsibility of the government is restricted to livestock breeding and disease control. Such services had been performed previously and are being continuously carried

¹Bangkok Bank Ltd., Annual Economic Report for 1962, Sec, III
Bangkok: Krung Dep Press, 1962), p. 41.

²Field Marshal Sarit Thanarat, oc. cit., p. 22.

on and extended under the plan. At present, the livestock industry seems to be a profitable enterprise and can be immediately expanded because there is at the present time a ready market to absorb the increasing output. Hong Kong and Singapore are the important markets for this Thai produce. However, little attention has been given to the improvement of traditional methods and techniques of raising animals. During the six years of the plan more intensive efforts will be made to encourage animal production so that more will be produced to meet the domestic demand and for export.¹

Forestry and land distribution. About 13 percent of Thai farmers are landless, and approximately one million, consisting largely of hill tribes, do not have permanent settlements.² The general cultivation practice by which these farmers increase production is to illegally cut down timber and use the area for crops. This action severely damages forest resources. Land classification to distinguish land suitable for cultivation and forest land to be reserved, and the distribution of land for the unsettled farming population, constitute economic measures of first priority.³ Existing Land and Forest Law are to be amended to suit the new plan. The amendments include the incorporation into Forest Law of heavy penalties for those who commit violations, and the insertion of a new clause into the Forest Reserve Law making its enforcement a joint responsibility of the Department of Forestry and the Ministry of Interior.⁴ The enforcement of the new law and the prescribed aims will require the constant attention of the authorities.

¹Economic Development Program P.E. 2504-2509, op. cit., p. 30.

²Statistical Year Book for 1958, op. cit., p. 128.

³Economic Development Program P.E. 2504-2509, op. cit., p. 32.

⁴Field Marshal Sarit Thanarat, op. cit., p. 23.

Nonagricultural Development

Industry. The plan provides for government promotion of private investment in different industries, with an emphasis upon industries which use local raw materials, and those producing import. However, such promoted industries must be efficiently run and capable of producing products in great quantities. Their quality must be equal to those of comparable products of foreign make. In addition, they must prove themselves capable of standing on their own feet after a reasonable length of time.

The state shall not compete with private interests in setting up parallel enterprises, but shall undertake to continue and improve the efficiency of those already established. The government will promote the exploration and conduct surveys of untapped natural resources--in particular, through mining and geological surveys. The government will also undertake training programs for skilled labor. Cottage industries will be helped to gain a firm footing in business by way of providing them with up-to-date technical knowledge and marketing facilities.

Mining, water resources and geophysical surveys. Among many industrial projects, mining, water resources, and geophysical surveys have high priority and are encouraged to the full. With limited financial and technical manpower resources, the surveys to be undertaken will be limited to mineral possibilities such as phosphate, potash, natural salt, bauxite, and copper. It is expected that private interests will assist in widening the scope of exploration and survey after the

communication system of the country has been improved and become convenient. Because of the shortage of water in many parts of the country, underground water surveys will be of great benefit to economic development. At present an underground water exploration is being undertaken with I.C.A. assistance in the Northeast region.

After the termination of this foreign aid project in 1962, the work will be continued and extended by the government with its own resources to other regions. From the economic development point of view, groundwater exploration serves three purposes, namely: (1) It makes possible the geological survey; (2) discovery of sources of underground water; and (3) water will be made available for domestic consumption and irrigation.¹

For these reasons, the groundwater explorations have become a joint project now sponsored by three ministries--Industry (Mines Department), Health, and Interior. The government is aware of the importance and benefits of a country-wide physical survey. The expansion of the project from its present status, however, needs foreign assistance in the form of technical knowledge and equipment.

Scientific analysis and research. Scientific analysis and research activities are essential for the control of the standard and quality of industrial products. They also open up avenues for industrial utilization of natural resources. Similar support is given to atomic energy under the Peaceful Purposes Project, in order that the operations prescribed in the project are accordingly carried out. At

¹Economic Development Program N.E. 2504-2509, op. cit., p. 22.

the present time and throughout the period from 1961-63, efforts will be concentrated upon the research and training aspects, a preparation in anticipation of the intensive use of atomic energy for peaceful purposes in the future.

Industrial promotion. Industrial promotion is wide in scope. In Thailand it is important that government encourage private industrial investment; thus, the industrial promotion program has been made a joint responsibility of various ministries.¹ The Ministry of Industry is charged with the duty of collecting data on raw material, production, and technical information and of furnishing it to those interested. The Ministry of Agriculture is in charge of promoting agricultural production in terms of quantity as well as quality to meet the increasing demand of the industrial sector. The Ministry of Economic Affairs is assigned the task of protecting infant industries within the country through temporary imposition of import controls and through other means. The Ministry of Communications is responsible for providing transport services and facilities. The Ministry of Interior and local governments are concerned with the provision of basic services such as power, water supply, and industrial location. The Ministry of Finance is required to initiate the tax reform which will be conducive to industrial growth. The Investment Board is to assume the function of rendering assistance and of providing protective means to certain promoted industrial activities. The government will also assist industrial development in other ways; for example, by setting up financial institutions for industrial

¹Bangkok Bank Ltd., op. cit., p. 15.

development (i.e., the Industrial Finance Corporation), Industrial Development Center, and by granting patent rights to inventors.¹

Among numerous industrial promotion projects, raw materials and industrial surveys will be made in order that available data of raw materials and existing industrial activities are available to the government agencies engaged in industrial promotion activities and the industrial producers.

Power. The four steps of power development are listed in summary below:

1. To complete the Yanhee Hydroelectric Project within scheduled time in 1963. The total project cost of 175 million dollars, inclusive of loan money from the World Bank, has been appropriated and made available to cover the cost of construction.

2. To make necessary preparation for the absorption of electric power from the Yanhee Project. These include the construction of distribution systems in the supplied provinces. The completion of the Lignite Thermal Power Plant at Rama VI bridge (near Bangkok), and the erection of power transmission lines for Bangkok Metropolitan Electricity Authority and the Provincial Electricity Organization, are also in the plan, together with substations, distribution lines, and the installation of transformers, safety equipment, and meters. An additional lignite thermal power plant will also be constructed in Krabi province.

3. To undertake the survey of fundamental power sources. This survey includes the Mekong River Development, Kan Reang, National

¹National Economic Development Program B.E. 2504-2509, op. cit., p. 25.

Electricity Distribution, and Power Sources Survey in Southern Thailand.

4. To construct the projects listed in No. 3 above, after the survey results are known and costs estimated. Thus, cheap power should be produced to meet the increasing demand at present, for the total productive capacity is only 138,000 kilowatts. By the end of the six-year period, the needed capacity is expected to reach about 400,000 kilowatts.

Transportation and Communications

Highways. The total length of all national highways combined and now opened to public use is 8,000 milometers, 2,000 kilometers of which are asphalted. It would greatly facilitate economic development if Thailand had a complete network of highway systems connecting its various regions. The Highway Development Program to be implemented during the period 1961-66 is to rehabilitate existing highways, making them more durable, and to construct new highway routes linking up different sectors of the country. The rehabilitation work should lessen considerably the repair and maintenance costs which are rather heavy at the present time.¹

Toll charges will be collected on all-weather highways. The funds collected will be used to finance the future costs of repairing and maintaining those particular roads, or be spent to improve other substandard highways. The Highway Development Program will result in an additional 1,000 kilometers of roads. This includes the Chumporn-Nakornsriathamarat route, of which the cost of construction is to be met with the Development Loan Fund's credit.² The construction of the new Bangkok-Saraburi Highway

¹Annual Budget for 1961, op. cit., p. 265.

²Simplified Budget for 1962, op. cit., p. 21.

which is to be financed by the U.S. aid program, is expected to be completed in 1963.

Railways. It is estimated that the rate of increase of railroad traffic will be 4 percent per annum compared with the 5 percent estimated by the Mission of the World Bank.¹ The present railroad capacity will not be adequate to meet the increased demand, so more investment in the form of equipment is necessary. The present problem facing the traffic operator is the strengthening of railway bridges, and this will be taken care of. The construction of a new railway line from Kong-Koi to Bua Yai will be continued, thus providing additional facilities for goods traffic from the Northeast.

The expansion of railroad services for the six-year period requires a total investment of about 75 million dollars, which is to be financed by external loans as well as by budgetary and the organization's own resources. The revision of railway fares and freight rates in 1961 will provide enough surplus in this state enterprise to contribute larger funds for its expansion program.

Civil air transport. Air transport development projects include the improvement of the Donmuang Airport and of domestic air services. The single runway strip at Donmuang Airport is inconvenient and unsafe, and the taxiway ground equipment and building facilities are inadequate for the present volume of traffic. To get rid of deficiencies, it is necessary to change the single runway into a double type, to enlarge the apron, taxiway, and other structures. To render it more convenient

¹State of Railways of Thailand, Report for 1960, p. 12; also see The Mission of the World Bank, *op. cit.*, p. 125.

for airline passenger, the Civil Aviation Building will be extended so that there are separate quarters for income, outgoing, and transit passengers.¹ In addition, there is to be a separate airfield in the suburban area of Bangkok, serving the needs of local traffic, and leaving Donmuang for the International Airport only.

In the area of domestic air transportation, improvements in aeronautical radio services and air traffic control will be made. However, the improvement of air fields to serve domestic services will be undertaken at the rate of one air field a year in order that such performance shall not impose undue strain on the annual budget.

Harbor organization of Thailand. The government has undertaken to improve the Bangkok Port, with the purpose of facilitating the docking of large ocean-going vessels. The sum spent for this purpose is enormous. Though the task of continuous dredging to allow vessels to travel up the river to the harbor is a very costly operation, it is necessary because of the high silting rate. In trying to cope with this problem, the government hopes to receive technical assistance from the United Nations, which will investigate and recommend appropriate measures to reduce maintenance costs.² In the meantime, the dredging operation will be continued irrespective of cost, for it is more than compensated by the economies obtained on transport costs.

Other important projects are the improvements of the harbors at Songla and Phuket, which will facilitate the expansion of coastal transportation. These two projects are to be commenced at the beginning of the second three-year period.

¹Economic Development Program B.E. 2504-2509, *op. cit.*, p. 26.

²*Ibid.*, p. 28.

Post, telegraph, radio, and telecommunications. The improvement of postal and telegraphic services includes the extension of postal and telegraphic services in Bangkok and Phnomburi as well as in the provincial area. The rehabilitation and construction of new post and telegraph offices are also to be undertaken. The projects will improve and provide for more efficient post and telegraph services, and are expected to be completed within the six-year period. Concerning the extension of post and telegraph services in provincial areas, ten post offices will be established annually, as well as six central post offices for the newly-divided postal areas in Bangkok and Phnomburi during the first three-year period.¹

In order that improved and efficient telephone services be made available in the provinces, the provincial telephone services which once had been in the hands of the Post and Telegraph Department were transferred to the jurisdiction of the Telephone Organization of Thailand.

The government realizes that one of its many functions is the responsibility of providing telegraph services, but the expansion of telegraph services is temporarily suspended while maintenance and repair work are performed in order to keep the existing telegraph lines in proper working order.²

Included in the communication development program is the construction of the telecommunication system. Its estimated cost of about 17 million dollars, which will be financed by 10 million dollars from the U.S. Aid Program, and a 7 million dollar loan. The project will be carried out to completion as planned.³

¹Bureau of Budget, op. cit., p. 44.

²Ibid., p. 45.

³Economic Development Program E.E. 2504-2509, op. cit., p. 28.

Since the development of an adequate communications system requires technical knowledge that is lacking in Thailand, there is need for foreign assistance in the form of expert services, equipment, and practical training. The development projects require large capital outlays. During the six-year period, external loans as well as capital aid projects such as highway construction are necessary. The total financial requirement for the six-year period is estimated at 250 million dollars. As large funds are involved, the value of these projects will be examined to confirm their economic justification.

Internal Affairs

Community development program. The 1961-1966 economic development plan of Thailand includes the following four purposes:

1. To teach the people how to help themselves, and to orient them to take initiative in developing their community--e.g., the execution of local public works for community use. The villagers will be asked to contribute their labor for the construction of these public facilities.
2. To train community leaders who will be the key personnel in persuading their fellow citizens to cooperate with community development officers and other officials.
3. The government will provide technical and financial assistance and the necessary material and equipment in conjunction with voluntary labor contributed by the people to carry out community development work.
4. The implementation of the community development project requires cooperation and coordination between the provincial technical personnel

and community development officers who are working in unison with community leaders.

The main principle of the community development program is that people must learn to help themselves. They must try to improve and develop their own communities by mutual cooperation. Local resources must be used before the government contribution, and along with the local labor available.

The important types of community development work consist of: (1) the sinking of permanent water wells; (2) the construction of feeder roads; (3) the promotion of improved agricultural and livestock techniques.

On technical matters, the community development will be dependent upon existing government technical staffs--in particular, officers who give advice on improved agricultural techniques.

Water supply distribution system. The Department of Municipality and Public Works has two important projects on its work list; namely the extension of the Bangkok water supply system and the extension of provincial water supply systems. The target of the former is to produce 308,869 cubic meters from its own filter tanks and 123,890 cubic meters from the underground wells.¹ When this target has been accomplished, perhaps in 1962, two additional filter tanks will be installed. These should increase the daily supply of water by 80,000 cubic meters. In addition to the installation of two additional filter units, the water supply canal (26 kilometers long) will be dredged so as to increase the supply of water.

¹Bureau of Budget, op. cit., Ministry of Interior Section, p. 40.

With respect to provincial water supply systems, the government will take over the outstanding debts incurred for this purpose by 57 municipalities. There are also a number of other water supply projects aimed at providing water supply in the rural areas--for instance, the underground water survey to be undertaken by the Ministry of Industry, the irrigation tanks projects in the Northeast, and water well projects in the Community Development Program.

Commerce. A commercial institute was established with the function of supervising and assuring that the standards and grades of the principal exports are measurable to those established, and to draw up a list of screened legitimate businessmen eligible for foreign trade engagement through a registration method.¹ This selected group is required to maintain stocks of products which are to be exported. To help facilitate the export trade of principal products, the Bank of Thailand must be ready at any time to offer discount services for foreign bills accepted by commercial banks.² The degree to which Thailand will be able to maintain her position in the world market for these products is dependent upon the success of the commercial institute in control of quality.

General commercial activities are to be left in private hands. The Warehouse Organization is to follow closely the movements of market prices. If the prices offered to producers are too low and cause loss, the organization should immediately intervene by making purchases for

¹Bank of Thailand, Economic Report for July 1961, p. 18.

²Ibid., p. 18.

its own stocks. In making purchases, the organization may commission one of its affiliates to buy the goods for its own account. The stock of the goods built up in this way may be partly exported. Thus, the organization will be required to comply with regulations on standards and grades similarly required of other businessmen.

Whereas the Ministry of Economic Affairs is charged with the duty of maintaining the price level of exportable goods, and of locating markets for various products, it is expected to make available to the Warehouse Organization and its affiliates revolving funds sufficient to effectively conduct the business. But the Warehouse Organization and its affiliates must manage their business strictly on a business basis. For instance, they are required to exercise good judgment as to whether the price they pay for a particular commodity is appropriate to its quality. In making purchases to maintain the prices, they are exercising their sound judgment as to what are "reasonable prices," taking into consideration prevailing world prices and transportation costs.¹

Warehouses will be built in provincial areas where the supply of commodities in trade are adequate. In the Bangkok area, new warehouses are not necessary as the existing facilities are sufficient to meet the present need.

The export promotion activity which is a joint responsibility of the Ministry of Economic Affairs and the commercial institutes is to be assisted by various departments of other ministries, such as the Department of Agriculture, Department of Public Welfare, and Department of Land Cooperatives.

¹Economic Report for July 1961, op. cit., p. 20.

Public Health. In the area of public health, four major principles are to be strictly observed:

1. The health of the Thai people is to be improved by extending health services in both central and provincial areas. This includes the eradication as well as prevention of epidemic and other communicable diseases.
2. Medical services to the sick are to be provided by establishing hospitals in various populated areas.
3. To make possible the attainment of the two objectives mentioned above, it is necessary that doctors, nurses, and other health officers be thoroughly trained in sufficient numbers to meet the need of the country.
4. A system of analysis and supervision for food and medicine, together with medical research, must be installed.¹

In implementing this public health program, aimed at accomplishing the four main objectives described above, the Ministry of Health is required to coordinate various basic projects such as sanitation and research in medical service. Thailand also receives from the United States government through I.C.A. counterpart funds for economic and technical programs in health and sanitation. For the decade of 1951-1960, this section received 10 percent of the total amount of the program. For the present decade, the proportion of this section of the total amount is not available yet, but tends to increase.²

Social welfare. This includes two projects: housing and public welfare.

1. Housing. There will be more housing projects for the low income group. The government encourages private investment in housing, since it can considerably relieve the government burden in this field.

¹Economic Development Program E.E. 2504-2509, op. cit., p. 35.

²Embassy of the U.S., Bangkok, Thailand, A Decade of Thai-American Cooperation, 1951-1960 (Bangkok: American-Thailand Audio-Visual Service, September 1960), p. 5.

2. Public welfare. Reasonable care and assistance will be given to the destitute, the low income groups, and unsupported children and aged, the disabled and the victims of calamities.

Financing of the Plan

It is a hard task to estimate the cost of the plan during the six-year period, but the National Economic Development Board estimated the approximate amounts for the various sectors of the economic development. The following revenue and expenditure estimates for the six-year period were calculated on the maximum revenue basis, warranted by prevailing conditions, the currency stabilization policy, and economic measures which have been and are being taken:

Table 21. Revenue estimated for the period 1961-1966 (million of U.S. dollars)

	1961	1962	1963	1964	1965	1966
Revenue from taxes and public enterprises	327.0	355.0	380.0	405.0	426.5	450.0
5% increased tax revenue arising out of economic expansion	16.3	17.0	19.0	21.5	23.5	25.0
Revenue from the revised Revenue Code	11.7	6.0	6.0			
Sub-total(#1,2,3)	355.0	380.0	405.0	426.5	450.0	475.0
Internal loans	55.0	57.5	60.0	63.5	65.0	65.0
Combined internal revenue (#4,5)	410.0	437.5	465.0	490.0	515.0	540.0
External loans				200.0		
Foreign aid				150.0		

Source: Thailand, The National Economic Development Program, P.E. 2504-2509, p. 10.

Table 22. Sources of economic development funds (million U.S. dollars)

	1961	1962	1963	1964	1965	1966
National budgetary appropriation ^a	69.4	95.0	110.0	125.0	140.0	155.0
External loan estimated	45.2	61.9	46.8	20.8	12.5	6.4
Foreign aid estimates	22.9	26.9	25.1	25.2	25.1	25.0
Profit from public enterprises	6.9	6.2	3.9	3.7	1.4	2.2
Total	148.4	190.0	184.8	174.7	179.0	188.6

^aIncludes only 9 months' appropriation (1961).

Source: Thailand, The National Economic Development Program B.E. 2504-2509, p. 12.

Table 23. Expenditure based upon government appropriation (million U.S. dollars)

	1961 ^a	1962	1963	1964	1965	1966
General funds	79.1	79.7	80.3	82.4	83.9	85.5
General administration funds for noneconomic development agencies	98.5	100.7	103.0	106.5	107.6	108.8
General administration funds for economic development agencies	152.3	162.1	171.7	176.0	183.4	190.7
Economic development funds	80.0	95.0	110.0	125.0	140.0	155.0
Total budget expenditure	410.0	437.5	465.0	490.0	515.0	540.0
Percentage of economic development budget as against total budget funds	19.5	21.7	23.7	25.5	27.2	28.7

^aThe 1961 fiscal year includes only 9 months (Jan. to Sept.). All expenditures pertaining to this year should be apportioned proportionally.

Source: Thailand, The National Economic Development Program B.E. 2504-2509, p. 11.

Table 24. Economic classification of government economic development expenditures (million U.S. dollars)

	1961	1962	1963	1964	1965	1966
<u>Economic Development expenditures^a</u>	69.4	95.0	110.0	125.0	140.0	155.0
<u>Agricultural sector</u>	21.8	27.0	18.6	40.1	41.7	41.1
Ministry of Agriculture	18.7	23.6	25.0	32.1	35.0	37.2
Ministry of Cooperative	1.1	1.3	1.2	2.6	2.8	2.8
Ministry of Interior	1.7	1.9	2.2	5.3	3.9	4.1
Public Enterprises	.3	.2	.2	.2	-	-
<u>Industrial Development Funds</u>	21.1	13.4	10.2	2.8	2.7	3.0
Ministry of Industry	.9	1.2	1.1	1.1	1.0	1.2
National Energy Authority	.2	.2	.2	.3	.3	.4
Ministry of Interior	3.2	3.9	3.6	1.4	1.4	1.4
Public Enterprises	16.8	8.1	5.3	-	-	-
<u>Communication Development Funds</u>	15.8	30.8	37.4	40.6	45.4	51.6
Ministry of Communication	9.0	23.6	29.5	27.5	33.5	40.0
Ministry of Interior	2.0	3.0	3.1	4.1	4.8	5.2
Public Enterprises	4.8	4.2	5.8	9.0	7.1	6.4
<u>Social Development Funds</u>	10.0	17.4	22.3	23.6	26.7	30.0
Ministry of Education	5.0	10.0	13.7	15.0	16.2	17.5
Ministry of Public Health	2.4	3.5	4.1	4.7	6.3	7.5
National Council of Education	1.7	2.8	3.3	3.8	4.2	5.0
Ministry of Interior	.9	1.1	1.2	.1	-	-
<u>Commercial Development Funds</u>	.7	.4	.2	-	-	-
<u>Reserve Funds for various departments and ministries</u>	-	6.0	11.3	17.9	23.5	19.3

^aError in some total derives from rounding figures.

Source: Thailand, The National Economic Development Program B.E. 2504-2509; Bank of Thailand; and the Ministry of Finance, op. cit.

CHAPTER VI

ANALYSIS OF THE PRESENT PLAN: TARGETS

An economic development plan for Thailand had been contemplated by the People's Party as long ago as 1932. Unfortunately, the party was split into many groups with different ideas, and each group attempted to obtain power. Nai Pridi Phonyong, one of the leaders of the party, presented his five-year plan of economic development to the party and the Council of Ministers for consideration in the 1930's, but it was not adopted because the plan was framed according to Communist patterns. However, as many countries (India, China, Indonesia, and Philippines) launched their first five-year plans during the decade of the 1950's, Thailand watched with interest and began to prepare for her own plan. Until 1960 the first plan was drafted in accordance with the report of the World Bank's Mission and the lessons of other countries in Asia and Europe were incorporated.

In line with the government's policy of speeding up the economic development of the country so as to maintain stability and improve the people's standard of living, a National Economic Development Plan was proclaimed on October 20, 1960 to take effect in January 1961. The plan covers two periods of three years each: i.e., 1961-1963 and 1963-1966. The targets of the plan are similar to those of other underdeveloped countries, but is different in degree and emphasis in various sectors according to Thailand's natural resources and other characteristics.

The development plans of the various countries detail the public

investment projects, technical assistance, manpower training, and new regulations and institutions. They include quantitative production targets in various sectors of the economy. Although such multiple target planning may lose sight of the ultimate goal of raising productivity in the economy as a whole, it may provide useful gauges of the success of the development program and focal points for public discussion.

A development program may succeed in raising overall man-hour productivity and yet be inadequate because certain strategic sectors of the program fail to share proportionately in the progress. There is always some danger in using any single average to measure the effectiveness of economic policy. The average may hide over-concentration in some fields and neglect of other important sectors. In order to avoid unwarranted satisfaction with an increase in the productivity of the economy as a whole, it may be worthwhile to lay down additional subtargets in quantitative terms.

It should be noted that the Thai plan relates only to development projects in the government sector. With regard to the first three-year period of the plan, it should also be mentioned that, as the funds allotted were limited, the number of new projects to be carried out was relatively small. Consequently, most of the development activities of this period represent the continuation of projects which are now being undertaken by various governmental agencies.

From the principal objectives of the plan, it is clear that the plan contains modest targets. The gross national product, which now stands at 4 percent increase per annum, will be raised to 5 percent,

compared with the target of the plan in the Philippines to raise national income from 5 to 6 percent per annum. In India's first Five-Year Plan, the target was to increase the national income, in real terms, by some 11 percent, and by 25 percent in the second plan.¹ There is a similar relationship in the increment of per capita income and the rate of capital formation to be maintained in the economy.

A Target for Foodstuffs

In many development plans, increasing production of foodstuffs is a top priority project. It is desirable to cast this objective quantitatively, either in terms of expansion of local production or in terms of reduction of imports. For Thailand, agricultural production has exceeded domestic consumption, thus leaving a substantial amount for export. One possible means of raising the national income, then, was to increase agricultural production. The first Five-Year Plan of India (1951-1955), for example, was dominated by agriculture, transportation, and power development projects, with industry receiving relatively small emphasis. Thus, irrigation and electricity, and transportation and communication absorbed more than half of the total development expenditures, and agricultural and rural development was allocated nearly double the sum devoted to industries and minerals.²

The economic development of the U.S.S.R. is another example. At the beginning of her development program, Russia gave agriculture top priority, with the objective of producing a surplus for the benefit of

¹Adamantois Pepelaisis, Leor Mears, and Irma Adelman, Economic Development (New York: Harper & Bros., 1961), p. 401.

²Ibid., p. 400.

the industrial sector. The same was true in Red China, Poland, and other Iron Curtain countries.

Thailand wanted to increase the productivity of the agricultural sector, not only to supply domestic consumption due to the growing population, but also to contribute to other sectors in the nation's economy. As with other countries, Thailand divided the agricultural sector into many subtargets. Each subtarget is checked during the period of the plan and will be altered if defects appear. The rate of increase in the production of each kind of crop set in the plan appears to be moderate. This is because the yield of rice and other products is heavily influenced by the amount of rainfall each year. It will also be difficult to increase output until the completion of irrigation projects. Other subtargets in agriculture concentrate on the major products which are the important source of income to the nation. In the field of livestock, the subtarget is also a moderate increase in production. In the old days, the farmers had nothing to do during the off-season, but at the present time, livestock production is another source of income.

Fisheries rank next to agriculture in the extent and value of production. They have a three-fold importance: (1) the source of an indispensable food; (2) the means of livelihood for a large proportion of the population; and (3) a source of revenue to the government.

Targets for Industrial Production

It is useful to set forth a target in terms of the desired increase in aggregate industrial production over the period covered by the plan, and to break this target down into smaller categories, such as power

capacity, transportation facilities, and manufactured goods. The planners of every economic development plan realize that it is impossible to make the country prosperous by concentration on agriculture alone.

In Thailand industrial enterprises had been neglected for a long time. As late as 1960 income from this sector accounted for only 16.5 percent of the total national income, excluding communication and transportation.¹ Because of the lack of capital, most basic industries in the country are run by governmental agencies. The target under the plan is to encourage private investment in order to relieve the burden of government, and also to increase the production of existing various industries undertaken by the private sector.

It is essential to promote private investment, particularly in industries which: (1) use mainly local raw materials and produce for the home market large quantities of products comparable in quality to those of foreign make; and (2) efficiently operated industries which will be able to carry on without government assistance after a reasonable length of time.

Of course, it is impossible for Thailand to become an industrial country in a few decades because of the lack of some basic national resources such as iron ore. However, from the report of recent surveys in this field, it is believed that some quantities of iron deposits exist in the northern provinces. As previously mentioned, the government is

¹Bank of Thailand, Monthly Economic Report for March 1960, p. 65.

considering the proposition of German and Japanese steel enterprises to create a steel plant in Thailand.

While thorough surveys still need to be made, the mineral and solid fuel resources so far discovered are comparatively unimportant. Although the hydroelectric potential is large, the chances are remote that basic heavy industries able to meet international competition can be established.¹ For the time being, limitations of technical and managerial skills also are a handicap.

It is essential for the satisfactory future development of Thailand, however, that the relative importance of manufacturing activity in the economy should be increased. This is already happening. As we have seen, the growth of private manufacturing in the post-war years has been remarkable, although it has taken the unspectacular form of many individually small additions to industrial capacity.²

In considering industrial targets, the government sought to encourage basic and light industries. Most of them are government-owned enterprises or controlled by semi-government agencies, and include such enterprises as textile, sugar, tobacco, and paper. This industrial production is not great enough to meet the growing demand and a large amount of these goods is imported annually.

According to the report of the Mission of the International Bank for Reconstruction and Development, the potential for continuing growth in Thailand is good. Business initiative is not lacking in Thailand, and the evidence shows that risk capital is, or could be, forthcoming on a scale large enough to ensure that the rate of development would be higher in manufacturing than in other sectors.³ After considering the

¹A Public Development Program for Thailand, *op. cit.*, p. 95.

²*Ibid.*, p. 95.

³The Mission of the World Bank, *op. cit.*, p. 96.

import lists, there are many market opportunities in other fields, particularly light engineering, textiles, and assembly plants.

The number of newly-created enterprises is not as yet satisfactory, and the ministers and high officials have frequently declared their recognition of the need for encouragement of private industries and for attracting foreign capital. It is noticed that the real objective under the plan is to increase industrial production owned by Thai entrepreneurs and businessmen. At present there are so many enterprises carried on by the Chinese that some Thai leaders have a real fear that an indiscriminate policy of encouraging industry might lead to dangerous predominance of the Chinese community.¹ The problem is a difficult one and the government still desires to place its reliance on the Thai. However, any attempt to do so may restrain the economic progress of the nation.

There is little case for a "forced draft" program of industrialization based on government investment and operation in industry. What is wanted instead are policies and measures that stimulate and assist private initiative, both domestic and foreign.² As far as investment is concerned, such assistance should be supplied for further development of basic facilities in transport, communication, and power, as well as for some specific services to private industrial enterprises. If national resources are used for those purposes which will achieve the greatest benefits, the government will have little to spare for new industrial ventures of its own. Eventually, there may be opportunities for ambitious

¹The Mission of the World Bank, op. cit., p. 96.

²Ibid., p. 97.

schemes for starting iron and steel mills, fertilizer plants, and other heavy industries, but not in the near future.

The plan has wisely put the emphasis on social overhead capital and on agricultural production rather than on industry. Most development economists believe that in most backward countries, top priority should be given to agriculture. In the development plans of Indonesia and the Philippines, the objective was to raise production in both agriculture and industry. The development expenditure in agriculture was 13 percent of the total public investment in Indonesia and 8.5 percent in the Philippines, competing with 25 and 23 percent in industry and mining, respectively.¹ However, the top priority which absorbed the largest amount of expenditure in both countries was irrigation and transportation.

Why did these countries concentrate so heavily on industry in the first stage of development? The main reason was that the Philippines and Indonesia had just received independence after World War II--after more than three centuries of being colonies. Fortunately, the "colonial powers" left them with good and effective systems of administration, technology, production processes, and personnel training. Moreover, both countries were blessed with abundant natural resources, especially Indonesia.

China represents the extreme in emphasizing the establishment of new industries. The Kuomintang government failed to solve the problem of starvation and declining economy, and the Communist Party achieved

¹Benjamin Higgins, Economic Development (N.Y: Norton & Co., Inc., 1959), p. 749.

domination. Though foodstuff was a prime problem, the first Five-Year Plan placed emphasis on industry. From 1953 to 1957 the total amount of realized state investment for basic development came to 49.3 billion yuan, of which three-quarters went to industry (56 percent), transportation and communication 18.7 percent, and only 8.2 percent to agriculture and forestry, including water conservation.¹ This was possible because of abundant natural resources and technical and financial assistance from Russia. However, China still experiences agricultural failures.

Thailand has not been much acquainted with industry and lacks experience, technology, personnel, and modern processes of production. It might have been beneficial for her to initiate development with a moderate touch of specific industries for the first plan, while giving most attention to agriculture, power, transportation, and communication.

A Target to Achieve Equilibrium in the Overall
Budget and Balance of Payments Position

From the experience of the past, it is clear that the most underdeveloped countries had to face problems of budget and balance of payments deficit. Most countries tried to restrict imports in order to hold foreign exchange reserves, but the budget deficit tended to be dangerous and create inflationary pressure.

The dangers of "creating" money are sufficiently well known. Such a course means the depreciation of the existing currency and consequent inflation of prices and, if carried beyond certain limits, may completely undermine public confidence in the currency with catastrophic results. Deficit

¹Pepelasis, Mears, and Adelman, op. cit., p. 372.

financing can be countenanced only if there is an assurance of steady supplies of essential commodities of consumption. The injection of increased purchasing power into the system is apt to increase demand for basic commodities and, if their supply cannot be expanded quickly, their prices rise and push up the cost of living. It will be thus apparent that the scope for deficit financing is intimately bound up with the policy of controls.¹

In the economic development of Thailand, the government seeks to maintain a balance of trade with the view to stabilizing the overall economic position. The restriction of imports and the encouragement of exports to external markets are contributing devices. The government has obligated itself to stabilize the value of the baht currency at all times in order to maintain a stable climate for investment. Though the value of the baht has been rather stable for a long time, careful attention will need to be paid to the large increase in the money expenditures during the plan's operation. To prevent inflation the quantity of commodities should increase in the same proportion as the rise in the money income of the people. It might also be feasible to revise taxes so as to prevent instability and facilitate economic growth.

A Target for Capital Accumulation

A closely related target would be the overall rate of capital accumulation, stated in absolute amounts or as a percentage of national income.² The increment of investment--capital formation--both in the public and the private sector, will almost certainly increase the national income, and the rate of growth depends on the working of the

¹Government of India Planning Commission, cited in Higgins, *op. cit.*, p. 712.

²*Ibid.*, p. 639.

multiplier. It is necessary for the planners to carefully calculate the rate of capital to be invested annually in order to achieve the desired increase in national income.

In the economic development program for Thailand, the target is set up with a rate of at least 15 percent of gross national product for annual capital formation during the plan's period. The existing rate in 1960 stood at 10 percent. In India the rate of investment was 7 and 12 percent in the first and second plans, respectively.¹ The proportion of gross investment to gross national product of Turkey rose from 9.3 in 1950 to 14.4 percent in 1955. It is apparent that the target rate of capital formation in Thailand is moderate for the beginning of economic development. The rate of capital formation of the Communist countries, such as Red China, was not mentioned here for comparison because in such countries this rate is certainly higher than that of the democratic countries because of "forced saving."

A Target for Social Welfare and Manpower Training

Manpower training should be a major part of any development program. This target should state the number of persons to receive training in each major field of industry and agriculture, the number at various levels of training, and the length of the training program. Although the plan of Thailand does not state this target, there are many sub-projects concerning this matter in various ministries, especially those that participate in economic development.

The same is true in the social and public welfare fields. The projects are undertaken by the various ministries and departments. A

¹Pepe-lasis, Mears, and Adelman, op. cit., p. 404.

self-help settlement project is an important one which is under the responsibility of the Ministry of Interior. The Ministry of Health is also assigned to carry on the improvement of public health with the technical and financial assistance of many foreign aid agencies.

Because there is a close relationship between education and economic development, the government has the duty, through the Ministry of Education and the National Education Council, to raise the level of educational advancement.

A Target for Transfer of Population from
Agriculture to Industry

As a rule, economic development requires a net transfer of population from agriculture to industry. It would be helpful to translate this "target" into as precise quantitative terms as possible, the goal being expressed in terms of thousands of persons. In determining this target, account must, of course, be taken of the rate of net population growth. Thus, a "target" with respect to net increase in population is implied.¹

This kind of target does not appear in Thailand's plan, because there is no need for her in the first period of development to move population from agriculture to industry. The existing labor force at the present time is enough to meet the desired labor in both sectors.

¹Higgins, op. cit., p. 639.

CHAPTER VII

ANALYSIS OF THE TECHNIQUES PROPOSED FOR
APPROACHING THE TARGETSAgriculture

As mentioned, the principal target or objective of the Thai plan is the improvement of production. This was in accordance with the reports of the Mission of the World Bank, many United Nations agencies and the failure in economic development of certain other countries.

In agriculture many modern processes were assigned to the various governmental agencies: land reform, irrigation projects, the agricultural services, higher agricultural education, fertilizer distribution, livestock extension program, and so forth. The new techniques are also applied to farming practice. While it is difficult to change the primitive methods of cultivation of Thai farmers, they seem to be willing to apply them when they realize the advantages of improved practices. Before the plan was put into operation, there were also many agricultural experts and technicians of the advanced countries and the F.A.O which gave good advice, thus conditioning the farmers to suggestions for improvement.

Irrigation

In a country like India, the way to higher agricultural productivity lies not through mechanization, which is more or less ruled out by the existing land-population ratio, but through more effective irrigation, better selection of seeds, etc.¹

In the United States mechanization seems to offer many advantages

¹Pepelasis, Nears, and Adelman, op. cit., p. 399.

to American farmers. Only about 10 percent of the total population of the United States are farmers and they produce output enough to feed the nation and still leave a sizable surplus. This rate is good evidence of the effectiveness of mechanization. A similar program of mechanization was considered for Thailand, but it has only just begun. A large number of implements will be acquired to provide mechanical plowing service to Thai farmers. Two main objections to this service are: (1) heavy funds must be invested in the machines; and (2) the problem of management and personnel. The failure of the machine tractor station in the U.S.S.R. is an example worthy of study.¹ The cost of the machine is too expensive in Thailand and a lot of funds must be reserved for maintenance. If the cost of service is too high, the farmers will prefer their primitive method. Moreover, most of the cultivated areas in different parts of the country are too small to employ such service, and communication in the provincial areas is not yet good enough.

In the field of agricultural extension service work the achievement will depend on the training and suitability of extension workers.

The most effective extension influence is the neighbor who is one step ahead. Most farmers are unresponsive to organized talks and demonstrations, but are quick to learn from what goes on in neighboring fields. An extension worker must therefore be a man of patience, prepared to spend considerable time with the farmers, to listen to their troubles, and to win the friendship and confidence of at least a few in each village.²

The other main problem lies in the fact that agricultural officers have to do regular office work in the province and district, having little time for technical field operations. To solve this problem, a larger

¹William N. Louck, Comparative Economic Systems (6th Ed., New York: Harper & Bros., 1961), p. 461.

²Mission of the World Bank, op. cit., p. 57.

number of extension workers should be engaged to perform technical duties which are different from administrative ones. They should be organized in mobile units, attached to the Rice Department and the office of Regional Agricultural Extension.¹ This kind of organization was effective in India's economic development during the first and second Five-Year Plans. The mobile units of the Ministry of Agriculture should have vehicles and equipment necessary for extension operations, and also seeds for distribution to the farmers.

Rubber

The Rubber Replanting Project, which was passed in 1961, will play an important role in the development of rubber. A large fund has to be invested for this purpose which may be inconvenient for small holders. The government is now helping them with subsidies which are to be financed by an additional tax on rubber export. Such a program is a desirable means of stimulating the production of rubber.

Investment by efficient estates and small holdings in high yielding rubber thus appears to be justified by what seem to be reasonable expectations for future markets and by the increase in output to be realized at reduced unit costs.²

In 1955-59 the replanting program of Malaya succeeded in increasing the output of rubber. The small holders received both financial and technical assistance from the government. This program had been carefully considered in Thailand before the Rubber Replanting Law was passed. It is hoped that this will contribute to the rubber development as it has in Malaya.

¹Mission of the World Bank, op. cit., p. 57.

²Mission of the World Bank, The Economic Development of Malaya (Baltimore: The John Hopkins Press, 1955), p. 49.

The problem is the fluctuation in the rubber price, for the government has no project to stabilize the price. The only means at the present time is the sale contract between Thailand and the United States, in which the U.S. government agreed to purchase annually a specific amount of rubber from Thailand at a reasonable price, unrelated to the world market price.

In 1959 the total rubber export of Thailand was 174,409 tons, and was valued at 116.8 million dollars. About 59 percent of this went to the United States.¹ The government may find it necessary to seek some other way to assist the rubber planters such as in the case of tin.

The other problem in rubber production is the growing synthetic rubber production, which tends to compete with natural rubber.

In recommending a rubber expansion program we are aware of the fact that prospects for rubber production in Thailand are affected by the competition of synthetic rubber. Present costs of production of general purpose synthetic rubber in the United States are around 18-20 cents per pound. These costs can be reduced appreciably in only two ways--if the raw material costs (primary butadiene, a petroleum product) should fall drastically, or if radically new techniques were applied in synthetic rubber production.²

If synthetic rubber production can be produced at low cost, it will undoubtedly hurt the natural rubber industry in Thailand, as well as in other countries whose income depends on it. This is an important problem facing the Thai government now and it must be solved for the sake of the economic well-being of the nation.

¹Bank of Thailand, Annual Economic Report for 1959, p. 5.

²World Bank's Mission to Thailand, op. cit., p. 73.

Industry

As previously mentioned, the industrial sector received less attention under the national plan than agriculture, as was true in India's first Five-Year Plan. The planners seem to have realized that it is difficult to transform the country into an industrial nation within a short time. An underdeveloped country like Thailand must first provide the basic facilities needed for industrialization; that is, the construction of power plants, and transportation and communication facilities. Transportation and communication funds represent 32 percent of the total cost of the whole plan during the six-year period, excluding power and irrigation which are mostly financed by the World Bank loans.¹ The allocation of this sector in India's first Five-Year Plan was 26.4 percent of the total outlay, and 28.9 percent in the second.²

Though Industrial Development funds represent only one-fourth the amount going to agricultural development, it is probably enough for Thailand for the first period of industrialization. The most important project needed at the outset is a careful and extensive survey of resources. The availability of information about natural resources, manpower, and behavior patterns contributed to the development of Libya and Italy; the lack of such information hindered the progress of India and Indonesia.³ Other current data are also useful in determining development potential in assigning priorities. Realizing this, Thai planners set up tasks in this field to be undertaken by the government--underground water exploration, mineral resource surveys, serial geophysical surveys, and power surveys.

¹The National Economic Development Program, *op. cit.*, p. 12.

²Higgins, *op. cit.*, p. 713.

³*Ibid.*, p. 761.

Private Investment

In addition to the National Plan of Thailand, there are also some measures for encouragement of private investment. However, the Board of Investment, which was established for this particular purpose may be ineffective in carrying out this task alone. Nor are technical assistance and other advantages enough to encourage internal private investors. The real need is capital, which is now so scarce in Thailand. The government should consider the establishment of lending institutions which advance funds for industrial purposes at reasonable rates of interest. At present there is only one of such institutions existing in Thailand which is effective--the National Economic Development Corporation.

The National Economic Development Corporation Limited (NEPCOL) has been successful in attracting private foreign loans. It is legally a private firm, though formed by top government officials, including cabinet officials. The fact that it has strong government support has attracted two big foreign investors--the Bank of America and the French Societe de Fives Lille--which have made loans totalling over \$30 million. The government, which has an excellent reputation for paying off its foreign loans, has guaranteed NEPCOL's loans and has provided it with tariff and other forms of protection. Whether the firm will be successful in producing a profit with the aid of this protection, however, remains to be seen.¹

This corporation alone is not sufficient to supply financial assistance to investors. In order that the economic development of the country may proceed, the public must be induced to save more. The strengthening of the government's financial position in 1960, and the improvement in the stability of the baht, will provide an incentive to save. The introduction of a few minor changes such as an income tax exemption on interest earned on bank deposits would probably promote savings somewhat.² In

¹Amos Yoder, "Pattern of Foreign Investment in Thailand," Far Eastern Survey, XXVI (November 1957), p. 172.

²Bank of Thailand, Annual Economic Report for 1961, p. 34.

view of the keen competition among commercial banks in trying to attract depositors, it is also desirable that the steps should be taken by the government and commercial banks to ensure that this competition is carried on in such a way as will foster the stability of the banking system.

Since commercial banks are the major source of capital to investors, the government should exercise some direction over them. This responsibility is lodged with the Bank of Thailand and the Ministry of Finance. In practice, the banks pay higher rates of interest on customer deposits in order to make them attractive. But this increases the cost to those who want to use these funds as a source of investment. What is needed now is a provision for control of the interest rates paid by commercial banks. At the same time careful attention should be paid to the interest rate of government bonds, which is now rather high and competes with the market rate.¹

Other measures in the plan for the encouragement of private investment include the establishment of an information service, lending institution, provision of facilities, technical assistance, protection of domestic industries, management and productivity development, etc.

Foreign Investment

It is helpful for underdeveloped countries to receive investments from advanced foreign countries. The United States, Canada, Australia, New Zealand--the richest countries of the world today--all relied heavily on capital and skills from abroad during their periods of take-off and for a long time after.² Thailand also hopes to receive such contributions

¹Bank of Thailand, Monthly Economic Report for June 1960, p. 31.

²Higgins, op. cit., p. 765.

from foreign investment. The Act to Promote Industry of October 1954 was passed to attract domestic and foreign capital by offering various guarantees and facilities for industries desired. When the present government decided to use the National Economic Development Program, this Act was revised to make it more effective.

To promote foreign investment in the country the present government issued Announcement No. 33 relating to the Industrial Promotion Act which became effective on October 25, 1960:

1. The state will not create new industrial establishments to compete with authorized industries.
2. The state will not transfer private industrial establishments to state ownership.¹

The announcement also provides that the following special privileges will be automatically granted to authorized industries:

1. Exemption from import duties on machinery, accessories, and equipment to be used by industrial establishment as they are first set up or for major expansion.
2. In case the industrial undertakings are corporation or limited companies, exemption from payment of income tax for a specific period of time.
3. Permission for the remittance of capital and profits derived from capital brought into the country from abroad after payment of taxes as required by law.
4. Permission to bring in skilled workers and industrial experts in excess of immigration quotas.²

It is hoped that this announcement may provide assurance and confidence to foreign investors.

In 1960 the Fiat Company of Italy proposed to the Thai government the establishment of an automobile assembling plant and an aluminum factory. The construction of these plants will be completed in 1962.

It is believed that there will be more foreign investors to run the new

¹The Far Eastern Division, Office of Economic Affairs, U.S. Dept. of Commerce, "Industrial Promotion Act of Thailand," World Trade Information Service, Part I, No. 61-57 (Aug. 1961), p. 2.

²Ibid.

industries in Thailand in the near future.

Thailand makes a good case study. For a number of reasons, it ranks high among Far Eastern countries as a field for investment; both major Thai political groups are friendly towards the West; there is no important legislation discriminating against foreign investors, who can remit their profits without restrictions; and in the past few years a sense of security has been restored to the area with the ending of the war in Indo-China and with the establishment of SEATO alliance strengthened with a large military aid program for Thailand. Further, the country's output appears to be expanding at over 4 per cent a year in real terms, its foreign exchange reserves have increased, and the foreign exchange value of its currency has remained stable.¹

From the experience with economic development in various countries such as India, Indonesia, the Philippines, Italy, Libya, and others, there has always been difficulty in stimulating the private sector. The plan of each of these countries shows recognition of the fact that no government can make precise plans for the private sector of the economy, and the planning team can only design a public investment program and formulate policies to encourage and direct private investment.² This is also true in Thailand, for industrial development depends in part on the expansion of social overhead capital. The Thai government is making efforts, with assistance from the United States and various international organizations, to raise standards in these fields.

Government Enterprises

Because of the uncertainty of control of private investors and the fact that most of the basic industries in Thailand are being undertaken by the government or semi-government, industrial development in this period concentrates on government enterprises. From various measures

¹Amos Yoder, op. cit., p. 170.

²Higgins, op. cit., p. 763.

and projects assigned to many agencies, these seem to be effective. The principal problem is the ineffectiveness of the operation of each enterprise, and there is no project under the National Plan to correct or improve it.

The report of the Mission of the World Bank, which carefully considered the governmental companies and state industries, concludes that several weaknesses were noted in government enterprises:

1. The enterprises were too often initiated by persons with political influence, who had no special knowledge of the industry or particular concern about ultimate success. Consequently, there was little control over expenditures during the course of construction.
2. As a result, the fixed assets tend to be overvalued. Because of their political origin, the projects were not properly studied at the beginning. Supplies of suitable raw materials were not assured, equipment was not always appropriated, competent managers were wrongly assumed to be available and the problems of marketing were ignored.
3. Working capital has been allowed to grow out of all proportion to fixed capital and turnover. Inventories are reasonably low only in the newer factories, which are not yet in full production. Both assets and liabilities are swollen by loans to and borrowing from other government agencies--a pernicious system which not only makes the balance sheets unintelligible but is obviously open to abuse. On the other hand, the revolving funds at the disposal of the factory managers are usually inadequate for the day-to-day conduct of operations, and certainly not enough to provide for the minor improvements and alterations necessary to keep up efficiency.
4. Both the factory managers and the senior officials directing them at ministerial headquarters lack commercial and industrial experience. The evidence of poor management is to be seen not only in procurement and marketing methods, but also in idle labor, poor maintenance, inefficient use of plant, and bad housekeeping. Some of the managers and factory staff have been trained in subjects totally different from those they have to deal with. It has been too lightly assumed that anybody with a university degree can run any kind of factory. Modern equipment demands modern techniques, and good management requires qualified men with long experience in their chosen field. Inevitably they are scarce in Thailand.

5. Labor being cheap and the tempo of working slow, all establishments tend to employ more workers than do their Western equivalents. But the disproportion is even greater in the government plants. Political reasons are said to be responsible. In any event, the Mission believe that the excessive number of employees of all ranks is another reason for the high costs of production in the state industries. If the managers cannot easily dismiss redundant or inefficient workers, they become resigned to inefficiency of all kinds, and the results are apparent throughout the organization.¹

Though it is difficult and takes time to remove these imperfections, the government should begin this important work for the sake of progress in this sphere and for the overall economic development of the nation.

Balance of Payments

At the present moment, there is some concern felt over the sizable deficit in the balance of trade, but in actual fact the current trade and payment situation of Thailand presents no serious problem. First of all, it should be borne in mind that as Thailand is in the process of developing her economy, there is naturally a big demand for imported goods. In 1960 imported capital goods accounted for 40 percent of all goods imported.² At the same time there was a large proportion of imports under aid and loan projects for which no current payments had to be made. International reserves increased considerably during the year 1960, and this provides a clear proof that Thailand prospers well on a free trade system.

With regard to ways and means of preventing and overcoming this pending deficit in the balance of payments, receipts as well as payments have to be examined. There is no way of improving receipts in the short

¹The Mission of the World Bank, op. cit., pp. 93-94.

²Bank of Thailand, Annual Economic Report for 1960, p. 11.

run since the main exports which form the main source of foreign exchange earnings cannot be expected to increase in volume and also improve in quality. The problem of technical improvement requires considerable knowledge and skill, and this takes time. It is also difficult to better the prices of the country's principal commodities, as selling prices depend on the prices fixed by the world market.

Although the improvement could not be quickly achieved, the authorities should not be complacent. In order to correct the country's future financial position, the officials concerned should be charged with the responsibility of finding and considering means to improve and expand production and export of other commodities to the highest level possible.

Foreign Economic Assistance

Another important income is foreign economic aid, which may be brought in to relieve the immediate problem. But Thailand should not expect this aid to support the economic and financial position of the country because such aid depends on political moods and other circumstances. The granting countries may change their minds or stop this aid at any time.

As regards foreign exchange payments, it may be modified and curtailed in several ways; for example, a restriction of import of luxurious and unnecessary goods, including the reduction of gold import. Such restriction should be carried out through price measures by raising taxes or by using stringent credit control. In addition to this, attention should be paid to realistic reduction of foreign exchange expenses incurred for services, donation, capital exports and family maintenance.¹

The government should also find some way to get rid of the black market.

¹Annual Economic Report for 1960, op. cit., p. 12.

of foreign currencies. This kind of illegal institution is the major cause of smuggling and disorder of foreign exchange.

U.S. Foreign Aids

In 1961, which was the first year of economic development, the U.S. government granted to Thailand \$24.8 million (496.5 million baht), which consisted of technical support, defense support, and special assistance. The technical support was directly concerned with the improvement of technique and personnel. Thai authorities were sent to the United States for training and higher education, and the U.S. government also provided American experts and technicians to train Thais in Thailand and advise the public administration in various fields. This sector received 4.8 million dollars from the U.S. government and 8 million dollars additional from the Thai government.¹ The total amount for technical and personnel improvement was 12.8 million dollars.

United Nations Aids

Under the privileges of membership, Thailand has been receiving grants from the United Nations since 1949, which provide:

1. Experts and technicians to advise and train Thai government officials.
2. Scholarships to Thai government servants for training in advanced countries.
3. Equipment and facilities.

The United Nations also established a regional office in Thailand for this purpose and the Thai government has to pay for such funds as

¹Bureau of Budget, Annual Budget for 1962, p. 110.

office expenditures, expert compensation, and overhead expenses. In 1961 the total grants from the United Nations to Thailand was 1.3 million dollars, excluding 150,000 dollars which was added by the Thai government.¹ The benefits of these funds went to various ministries and department, especially agriculture, education, public health, and industry.

Colombo Plan

The Colombo Plan is the British Commonwealth assistance for economic development and technical aids to the underdeveloped countries in Asia, in the form of scholarships for studying and training, providing experts, and equipment and facilities for the improvement of administration. This program will provide such assistance to any government that applies for it.

The Thai government also received technical assistance from other countries such as the United Kingdom, Australia, India, New Zealand, Japan, Germany, and so forth. This is designed to improve personnel and gain new techniques. What needs to be emphasized, however, is not the quantity of the training provided, but its quality and suitability to the particular jobs individuals are going to fill.

Social Services

After considering the development of social welfare in the National Plan, there are many projects which the government is anxious to fulfill. The Community Development Program seems to offer the greatest contribution to raising the living conditions of people in rural areas. A similar program was effective in the first Five-Year Plan of India. Development

¹Annual Report for 1962, *op. cit.*, p. 220.

was based on mutual aid, self-help, and cooperation among the people in the villages. The government provides only the officials to coordinate with them, financial and technical assistance and other facilities. This program is widely spreading throughout the kingdom.

In the field of education there is a separate project from the National Plan concentrating on higher and vocational education. From 1961, this sector has been allocated the largest amount for development from the annual budget.

The other important task of the government is the improvement of public health and the provision of medical services to the sick by establishing hospitals in various areas and other means. The projects of this plan tend to be financed with technical and financial assistance from foreign aid agencies. The general health of the population has improved in recent years, owing largely to success in fighting malaria and other tropical diseases, better sanitation, and increased medical care.¹

Finally, the government also has a housing project attached to the Department of Public Welfare, which will benefit the low income group. Housing projects are now under construction in both Bangkok and Dhonburi, as well as in the other provinces. In this program, it should be noticed that the down payment of each house under the installment system is moderate but the monthly payment is too high for the low income class. The agencies concerned should give further study to the contract, terms, and other conditions affecting the poor people.

¹Mayer, Paul A., "Basic Data on the Economy of Thailand," World Trade Information Service, Part 1, No. 60-45 (Sept. 1960), p. 4.

CHAPTER VIII

PUBLIC ADMINISTRATION

Governmental Authorities.

In analysis of public enterprise, much stress has been laid on the legal status of the undertaking, and on the provision in its constituting statute and in other laws which prescribe its relationship with the governmental authorities--the responsible Minister, the Cabinet or Prime Minister, the Legislature, and such specialized "control" organizations as have been established.¹ It is difficult to tell what is the right balance between public accountability and the autonomy necessary for business efficiency.

There is now abundant evidence to show that, whatever degree of autonomy the management of an enterprise ought to possess, it cannot be guaranteed simply by legal prescription. However it is organized, as a government department or as a public corporation or as a joint stock company with total or majority state participation, the measure of freedom which an enterprise actually enjoys and the kinds of control to which it finds itself subject proceed from the development of certain conventions and understandings which grow up, so to speak, in the interstices of the laws. For if an enterprise is:

1. Dependent, directly or indirectly, on the government for its capital finance
 2. Subject to directions in matters of policy from the Minister or Cabinet, and
 3. Governed by personnel appointed by and dismissable by central authorities,
- its autonomy is just as wide as politicians are prepared to allow it or as it is able to persuade them to grant.²

This does not mean, however, that the law is unimportant, particularly in countries where respect for law is well established.

¹U.S., Public Industrial Management in Asia and the Far East (New York, 1960), p. 11.

²Ibid., p. 12.

Enterprises undertaken in Thailand have had to maintain delicate relations with politicians and high officers of the Armed Forces, and there is no provision in the law to prevent or guarantee against "political interference" which is the greatest weakness of Thailand in this field. However, the law should do at least three important things:

1. By exempting the enterprise from the rules relating to finance and personnel applicable to ordinary Government departments, it can assist the enterprise to operate as a rationally-organized commercial concern;
2. By limiting the number of managerial decisions that require to be submitted for approval to higher authority, it can ensure that such ministerial intervention as occurs, outside these matters, is deliberate and not merely automatic, and thereby encourage the management to accept responsibility and the Minister to exercise self-restraint;
3. By indicating, in general terms, the type of relationship between the enterprise and higher authorities that is considered desirable, it can promote the growth of appropriate conventions in this field.¹

This deficiency is not easy to be promptly removed in such a country as Thailand, and it requires a government strong enough for this matter. At present most government enterprises in every field are dominated and controlled by the powerful politicians and Armed Forces generals. Some of these have tried to appoint their relatives to positions in these enterprises. It has become common tradition that government officials offer high rank in governmental commercial agencies to their acquaintances in exchange for certain royalties. Most of these appointees have had little or no experience, and know little of the duties of high ranks they receive as gifts. This is the great obstacle to the management of such enterprises. The problem is how long this tradition will continue.

¹Public Industrial Management in Asia and the Far East, *op. cit.*, p. 12.

Problem of organization. Skilled personnel and well-trained civil servants alone cannot execute the public business and governmental activity; their effectiveness depends on an organization that will concentrate, not disperse, the responsibility for getting particular jobs done. In Thailand such organization has not been perfected. Many similar projects or schemes are assigned to various ministries, the same thing being done by different ministries without suitability, cooperation, and close relation.

Dispersal of functions causes the duplication of staff and more expenses with no definite responsibility. In general, effective organization requires that a particular job should be performed by a specific governmental unit. Before placing any job to any organization it is not difficult to consider its suitability and characteristics. However, there still are many projects which require the performance and cooperation of more than one ministry, and it should be carefully assigned and dispersed.

Government salary. Nearly all of the high and middle classes of people in Thailand have been government servants, especially in the period of absolute monarchy. People are fond of this profession because of the honor attached and the privileges they receive over other classes. A man who is a civil servant usually wants his descendants to continue in the profession. Since the end of World War II this concept has changed considerably. Earnings in other fields (commerce, industry, etc.) became attractive and important. Moreover, the postwar inflation has cut the purchasing power of government employees.

Though the general price level rise dangerously in the early years,

Table 25. Cost of living index (1950 = 100)

Year	Index
1950	73.47
1951	81.81
1952	90.34
1953	100.00
1954	100.22
1955	104.93
1956	111.13
1957	117.75
1958	124.61
1959	118.63
1960	117.63

Source: Bank of Thailand, Annual Economic Report for 1960, p. 38-39.

the government has tried to hold it down with some success, as indicated in the years of 1959 and 1960.

Compared with the pay of persons in other professions in the private sector, government salaries have risen slower, although the government has attempted several times to bring civil service pay into line with that in the private sector. In 1952 there was a cost of living adjustment, but it was unsuccessful because prices subsequently rose as much as the pay increase--the production of goods and services did not increase commensurate with the rise in purchasing power. The problem of low pay in the government sector has not yet been solved. In this period of economic development there should be a balance--an optimum level in the income distributed to various sectors. If civil service pay is still lower than that of the private sector, government officials will likely resign in order to accept better paying jobs in other sectors. Only the long-standing prestige of government service and extra security it offers enable it to attract and hold its personnel.

Rather than make piecemeal adjustments to the present salary structure, the Government should undertake a thorough study of the whole problem. The study should lead to the preparation of a plan to standardize and adjust salaries that would take into account salary levels in the private sector and also recognize the growing need to provide adequate pay to attract the engineers, economists, statisticians, educators and administrators the Government needs now and will need increasingly in the future.¹

Special attention should be paid to overstuffed governmental agencies which waste government funds. In some governmental bodies there are too many officials with too little to do. The government should establish new needed services and transfer these supernumeraries from the offices where work is of low priority. New positions must be carefully considered in terms of qualification and personnel before being assigned to anyone. Because of the low pay, government servants, especially the subordinate group, are often absent from the office using official time in earning supplementary income.

Corruption and bribery. Thailand, as in most underdeveloped countries, still suffers from the corrupt action of her officials. It has been said that before World War II there was no corruption existing in Thailand, and that the modern outbreak is due to the effects of the war. Whatever the truth of this contention, corrupt practices must be eliminated if Thailand is to have a strong and efficient government.

During the postwar period many consumer and luxury goods were imported into Thailand, and the cost of living rapidly increased, while the income of the government officials remained relatively static. In order to maintain accustomed standards of living, families sought additional

¹Development Program for Thailand, op. cit., p. 227.

sources of income--sometimes by illegal means. The resulting corruption was spread into many governmental agencies, and to both the higher and subordinate officials and was especially prevalent in the decade of the 1950's.

Effective government performance has also been spoiled by bribes originating with Chinese merchants, with no provisions of law to punish them. The Bureau of Special Investigation was established by the former government to attack this problem, and also a provision prohibiting bribes was passed; but the Bureau of Special Investigation had done ineffective work countering it. The new government of Field Marshal Sarit Dhanarat seems to be enthusiastic in this matter. In recent years, a Minister of Finance and his secretary were imprisoned under a charge of corruption and illegal use of their appointed duties for personal benefit. This case may set a good example and lesson to other officials not to imitate them. In Burma there is a governmental office similar to the BSI and the trial of suspected officials is severe. At least one high official who was universally regarded by his colleagues as a completely honest and capable public servant was imprisoned for an offense--the granting of a mining permit--which was at worst a technical violation of a law subject to alternative interpretation.¹ The trial of any suspected person should be carefully done, else innocent officials would fear that mistakes in judgment might lead to criminal prosecution.

¹Hagen, Everett E., The Economic Development of Burma (Washington D.C.: National Planning Association, 1956), p. 59.

CHAPTER IX

SUMMARY AND CONCLUSION

In view of the "revolution of rising expectations" over the world, it was inevitable that the Thai government institute a program of economic development. Such a plan was carefully drafted with the suggestion of the World Bank's Mission and other specialized agencies of the United Nations.

In the field of agriculture there appears to be no serious obstacle to the attainment of the plan's objectives. There is ample labor, land, and water. Irrigation projects are an important aspect of the plan, as are the establishment of an agricultural and extension service, the increased use of seed selection, and pest and disease control. In the case of rice, tin, and tung there are not many restraints on the desired development.

Though the Ministry of Economic Affairs was assigned to expand foreign markets for Thai exports, many competing suppliers are springing up, particularly in rice. The quality of goods and grading restrictions should be given more attention in this decisive period. In the case of rubber, the primary problem is the competition from synthetic rubber. The government has not yet worked out a method of solving this problem, which probably can be solved only by the cooperation of the governments of the principal producing countries--Indonesia, Malaya, and Thailand.

In the industrial sector, which has only secondary emphasis in the first plan, a large outlay is now being made on the construction of

basic facilities needed for future industrialization. Two main factors which will play a major role in this sector are governmental enterprise and capital formation from foreign investors. The success of the first factor rests with the effectiveness of the management and operation of the governmental enterprises. Success in the second category depends on variable world circumstances. However, Thailand has tried to prove herself as a region of profitable investment. The Industrial Promotion Act, for example, contains many provisions for attracting and maintaining the continuous support of investors. New hydroelectric power, facilities, and the cheap cost labor provide financial inducements to investors.

In recent years, the government has sold some industrial enterprises to private investors. This should be continued and expanded to include other kinds of activities. It may relieve the financial burden of the government, and may serve to train Thai entrepreneurs.

The plan gave some attention to social welfare by provisions with respect to public health, education, and housing. It is believed that upon the completion of the first plan, the Thai people will have a higher level of living and be in a good position for further economic growth.

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