

CHAPTER I INTRODUCTION AND SUMMARY

A. Statement of the Problems

From the city's foundation in 1782 until the present, Bangkok has held a remarkable concentration of the nation's wealth. It has been the chief port, the largest centre of non agricultural employment, the seat of government and administration and, the largest urban centre of Thailand. The overwhelming dominance of the Bangkok area has created an unusual distribution of the urban and rural population. In 1947, Bangkok's population was 20 times the size of the second largest city, Chiang Mai. In 1960, the ratio with respect to Chiang Mai's population was 26 to one, in 1970 35 to one, and in 1980 55 to one.¹ Bangkok's proportion of Thailand's total population has risen steadily over the years, from under 5 percent in the 1940s to some 10 percent in the 1980s. Bangkok's population formed around 60 percent of the total urban population in the 1980s. Even today Bangkok is an explosive growing city of some 8 million; Korat, the second largest city, contains around 300,000. By 1980, Bangkok accounted for 75 percent of the nation's telephones and about half its motor vehicle, consumed 61 percent of its electricity, generated 70 percent of its income tax, held 20 percent of all commercial bank deposits, generated 75 percent of the annual value of Thai manufactures, contributed 32 percent of Gross National Product, and handled 95 percent of Thailand's sea-borne foreign trade.² Bangkok's urban primacy is among the most striking in the world. Meanwhile, the environmental consequences of such expansion have become increasingly evident. With polluted air, rivers and canals mounting traffic congestion, multiplying slums, urban Bangkok is facing ever-increasing pressures upon its inadequate infrastructure.³ Bangkok faces numerous problems, including population congestion, especially from migration into Bangkok and peripheral provinces in search of higher income; inefficient land use, which appears as ribbon development without plans for proper classification; and insufficient Bangkok Metropolitan Administration revenue to meet the costs of developing basic services within its responsibility.⁴

¹Malcolm Falkus, "Bangkok: From Primate City to Primate Megalopolis", in Theo Barker and Anthony Sutcliffe (eds), *Megalopolis: The Giant City in History*, London : The Macmillan Press, 1993, p.144.

²*Ibid.*, p.145.

³Malcolm Falkus, "The Economic History of Thailand", in *Australian Economic History Review*, XXXI, no.1 (March, 1991), Special Issue: Exploring Southeast Asia's Economic Past, edited by G. D. Snooks, A. J. S. Reid, and J. J. Pincus, p.69.

⁴Patya Saihoo, "Thai Culture and Lifestyle in the Changing Urban Environment", in *Symposium on Environment and Culture with Emphasis on Urban Issues*, The Siam Society, Bangkok, 1993, pp. 110-111.

If economic dominance and "primacy" have been one feature of Bangkok's development, another has been periods of striking growth, in population, industrialization, physical expansion and other aspects. As we shall show, such periods of growth may be found in earlier times, but especially remarkable has been recent growth. In 1950, the city had around one million inhabitants. It was still then a largely non-industrial place, without high rise buildings, with physical development focused upon numerous canals, and with commercial development still largely confined to the few kilometres of roads in close proximity to the river. By 1970 the city had 3 million inhabitants, today perhaps over 8 million. And now Bangkok is transformed into a sprawling megalopolis of high rise buildings and multiplying commercial, industrial and residential centres.

Surprisingly, the economic history of Bangkok has been neglected in Thai scholarship. Economic historians have not been alone in neglecting Bangkok's development and its role as primate city. Few studies are directly concerned with this topic. While many works have explicit references to Bangkok's problems since the early 1970s, most of these writings are concerned with current topics, and for the most part long-term changes remained unexplored⁵. Economic historians have often been interested in rural development rather than the urban economy. Thailand had long been dominated by rural agricultural production. The vast majority of population lived and worked on the land and agricultural commodities made up the bulk of production and exports. Even today some sixty percent of Thais live in rural areas and most are engaged in peasant farming. Prior to 1950, Thailand was largely a rice growing society. Rice production was not only the largest source of export income but also

⁵Works concerning the current issues of Bangkok that gave a picture of growth, structural changes and the urban problems in Bangkok include, Medhi Krongkaew and Pawadee Tongudai, "The Growth of Bangkok: The Economics of Unbalanced Urbanization of Development", Bangkok, Thammasat University, Faculty of Economics, May 1984 ; Larry Sternstein, **Portrait of Bangkok**, Bangkok Metropolitan Administration, Bangkok, 1982; **Thailand : Environment of Modernisation**, Sydney: McGraw-Hill, 1976; **Planning the Developing Primate City: Bangkok 2000**, Australian National University, Department of Geography, Occasional Paper 9, June 1971 ; Jeff Romm, **Urbanization in Thailand**, Ford Foundation, International Urbanization Survey, 1972 ; Thai University Research Associates [TURA], **Urbanization in the Bangkok Central Region**, Bangkok: the Social Science Association of Thailand, 1975 ; The Faculty of Economics, Thammasat University, **Thailand is Bangkok?**, papers presented to Annual Symposium Conference, 1983; Sidney Goldstein "The Demography of Bangkok: A Case Study of Differentials Between Big City and Rural Population", Research Report no 7 Chulalongkorn University, Institute of Population Studies, Bangkok, 1968 ; Bruce London, **Metropolis and Nation in Thailand : The Political Economy of Uneven Development**, Colorado: Westview Press, 1980 ; Marc Askew, **The Making of Modern Bangkok: State, Market and People in the Shaping of the Thai Metropolis**, The 1993 TDR Year-End Conference, Who Gets What and How?: Challenges For the Future, 1993 ; and Paritta Chalermpong Koanantakool, **Urban Life and Urban People in Transition**, The 1993 TDR Year-End Conference, Who Gets What and How ? : Challenges for the Future, 1993.

contributed the largest source of employment. Village settlements cultivating rice on permanent fields constituted the basic elements of Thai society. Large areas of the country remained physically and economically separate from the few centres of urban commerce, including Bangkok. Rural-urban economic relationships have seldom been studied. Most studies focused upon the rural sector, and few on the urban⁶. A number of studies of demographic changes, internal migration, and some economic consequences of rural migration on population change in Bangkok have been completed since the early 1970s, when rural-urban migration became increasingly significant.⁷

Stretching back to its 18th century foundation, Bangkok has always been the leading city. During the course of the 19th century, the dominant role of the city in the Thai economy was consolidated and enhanced. Falkus has noted, "While Bangkok's establishment as a royal city was one cause of this primacy, the other was trade. Port and city developed together and trade gave to Bangkok many of its social and physical characteristics which remain to the present."⁸ Since Bangkok's development in the 19th century was tied to foreign trade, trade brought foreign ideas and technology, capital (chiefly British after the 1890s) and labour (chiefly Chinese). Trade induced an influx of Chinese immigrants. They worked as labourers and merchants and were found in virtually all non-agricultural activities. They provided not only a major component of Bangkok's population, but also provided a wide range of skills. They played an important role in developing the commercial sector and had a significant influence upon the development of Bangkok as a primate city.

Generally speaking, the existence of a sizable cosmopolitan urban centre provides many advantages of internal and external economies of scale in trade and production. The cosmopolitan cities are the region's eyes and ears perceiving the

⁶ Works on the rural economy include, D. B. Johnston "Rural Society and the Rice Economy of Thailand, 1880-1930", Ph.D Dissertation, Yale University, 1975 ; David Feeny, **The Political Economy of Productivity: Thai Agricultural Development 1880-1975**, Vancouver and London: University of British Columbia Press, 1982; Chatthip Nartsupha and Suthy Prasartset, **The Political Economy of Siam 1851-1910**, Bangkok: The Social Science Association of Thailand, 1979; and Chatthip Nartsupha, **The Village Economy of Thailand in the Past**, Bangkok: Progressive Press, 1990.

⁷ For example see, Sydney Goldstein, "Urban Growth in Thailand, 1947-1967" in **Journal of Social Science**, The Faculty of Political Science, Chulalongkorn University, Vol 6, no 106, April 1969 , pp. 100-118; Visid Prachuabmoh and Penporn Tirasawas, **Internal Migration in Thailand, (1947-1972)**, Bangkok : Institute of Population Studies, Chulalongkorn University, Paper No 7, 1974 ; ESCAP, **Population of Thailand**, ESCAP Country Monograph Series, no. 3, Bangkok, 1976 ; TURA, **Urbanization**. ; and ESCAP, **Migration, Urbanization and Development in Thailand**, New York : United Nations, 1983.

⁸ Malcolm Falkus, "The Port of Bangkok", n.d. p.1

outside world. "Foreign" ideas, capital, goods and technology have much to contribute to the development of cities and regions. They are often the main seedbeds of "innovation and new adaptation" that involve the genesis of new techniques, new products and new firms. The existence of sizable urban centres is necessary to stimulate the economic growth of advanced economies with a high and wide range of productivity.⁹

As the main market, centre of wealth and production, magnet for rural migration, centre of trade and industry, and leading port, Bangkok's growth has been a major contributing factor to the high economic growth rate of Thailand since the 1950s.

This thesis examines Bangkok's primacy, its growth and development in historical perspective. In particular, we shall be concerned with three questions.

First, how was Bangkok's primacy established? What role did Bangkok play in Thai economic development?

Secondly, what major factors affected Bangkok's primacy and Bangkok's structural changes?

Thirdly, why was Bangkok's growth so spectacular after the 1950s?

B. Objectives and Scope of the Study

The primary purposes of this study are, **first**, to describe some major factors affecting the historical origins of Bangkok's emergence as a primate city between 1820 and 1970, and **secondly**, to seek interpretations and explanations of Bangkok's growth.

In discussing the historical origins of Bangkok's emergence as a primate city, four broad phases of development can be distinguished: 1820-51, 1851-1932, 1932-1950, and from 1950 to the 1960s.

(1) 1820-1851

Some key characteristics determining the development of Bangkok as a primate city that occurred around the 1820s and in the decades following are discussed. The key roles of

⁹For the discussion of a conceptual framework for the role of cities in regional development, see Edgar M. Hoover, *An Introduction of Regional Economics*, New York : Alfred A Knof, second edition, 1975, chapter 9; and see also Richardson, *Regional Economics*, London : Weidenfield and Nicolson, 1969, chapter 7.

"Suay", "state administration", "Chinese immigrants" and "canal construction" in the development of Bangkok as the dominant city of Thailand are examined.

(2) 1851-1932

We discuss the economic significance of canal and road construction on Bangkok's development. Around the 1900s, roads helped the city gradually transform from a "floating-city" to "a land-based city". Factors determining the growth of road construction are discussed. The economic significance of roads is examined through the growth of trade and business, the investment in row house construction by the Privy Purse Bureau, the expansion of urbanized area, and the increase of land transportation. Also the thesis presents estimates of Bangkok's population in the 1900s and 1910s, considers the role of the Ministry of the Capital (1892-1922) as a contributing factor to Bangkok's growth, and examines some aspects of Chinese immigration.

(3) 1932-1950

The effects of economic depression and the Second World War on the Chinese immigration, labour market in Bangkok and the growth of Thai nationalism towards Chinese migrants are discussed.

(4) 1950-1960s

The thesis focuses on the very rapid growth of Bangkok after 1950. It discusses (1) population change in Bangkok and rural migration into Bangkok; (2) economic consequences of rural migration to Bangkok on the labour market and unskilled labour wages; (3) the rice premium as a factor which possibly kept wages low; (4) some aspects of trade and industrialization in the growth of Bangkok; and (5) the impact of tourism and of the Vietnam War on the diversification of construction activities in Bangkok.

In considering Bangkok's growth and the establishment of the city's primacy, two key features are emphasized and analyzed. One is Bangkok increasing significance as a focus for in-migration, which determined to a large extent both the pace of overall growth and the nature of development. The second is the late, and critical development of a road system centering on Bangkok, which consolidated Bangkok's primacy in the years after the Second World War.

The research deals with the growth of labour supply in Bangkok based upon the changing rural conditions between 1900 and 1970. A key theme is the influence of population change on labour supply and wage rates in the provincial areas. Also we look at the role of the network of national highways before and after 1950. The establishment of highways after 1950 in particular provided economic integration of Bangkok and the provincial areas through growing trade and migration. The lack of a system of national highways prior to 1950 inhibited the growth of Bangkok as national metropolitan centre.

C. Scope and Findings of the Study

This thesis looks at the establishment and consolidation of Bangkok's primacy through the lens of social and economic history and therefore emphasizes socio-economic factors underlying the process. Socio-economic factors cannot, of course, be dissociated from the political environment. Bangkok was established as the seat of the royal dynasty in 1782 and, as the centre of government, was deeply influenced by the centralizing reforms of the 1890s and by the constitutional changes taking place in the wake of the 1932 revolution.

Although the thesis covers a broad period, the analysis focuses on two principal periods and three principal themes. The first period is that of the 1890s to the 1920s. Here we find an enormous growth in the physical size and economic diversification of Bangkok and in the nature of Bangkok's primacy. Briefly, we find in those years a change from a city based on water (river and canals) to one based on streets and roads. This was the era of the railway, the tram and other innovations. It was also the era of a large influx of Chinese migrants. Two of the themes we highlight are (1) the growth of Bangkok as a major international port; and (2) the role of investment, particularly by the Privy Purse Bureau, in changing the physical shape of the capital. We may note that in emphasizing change in the 1890s, we are somewhat altering the more familiar perspective of Thai historiography that usually looks at the various reigns as separate entities.

The second period is that of the 1960s (more particularly the period of "early modernization" from 1957 to 1970). Here we find momentous changes indeed in the nature of Bangkok's primacy, associated with migration, a vastly expanding population, and extensive road construction to the provinces. These changes link with

the third major theme: the development of Bangkok from an international, outward-looking, port city, to that of a developing and industrializing megalopolis based on cheap migrant labour.

We show in the thesis how these themes and periods intertwine, and we show how, at all stages, they resulted in the elevation of Bangkok to an economic and social significance of a quite exceptional degree of primacy.

CHAPTER II BANGKOK IN THE PERIOD, 1820-1851

Abstract: This chapter focuses upon some key characteristics determining the development of Bangkok as a primate city in the early 19th century, including "Suay", state administration, and Chinese immigration.

I Some Key Characteristics Affecting the Origins of Bangkok's Primacy

Although founded as late as 1782, Bangkok was soon established as the country's leading urban centre. Of course, the emergence of a clearly identifiable geographically delineated, country of Siam was a slow progress. But even though we cannot strictly speak of a nation in early 19th century Siam, it is clear that by around 1820, Bangkok surpassed other Thai-speaking centres in terms of size and commercial significance. We might even speak of "primacy", although this was as much a product of the small size of provincial centres as it was of Bangkok's eminence.

As other scholars have noted, estimates of population sizes in early 19th century Siam, whether of Bangkok, provincial centres, regions, or the whole country are very speculative. Interpreting even the scattered estimates we have is fraught with difficulty. Skinner and Terwiel show that contemporary accounts varied widely. For example, Bangkok's population in 1822 was estimated by Crawford at 50,000, in 1826 by Malloch at 134,090, in 1828 by Schurman at 410,000, in 1828 by Tomlin at 77,300, 1835 by Dean at 505,000, in 1839 by Malcorn at 100,000, in 1843 by Neal at 350,000, in 1849 by Malloch at 160,154, in 1854 by Pallegoix at 404,000, and in 1855 by Bowring at 300,000.¹

If the size of Bangkok cannot be estimated with confidence, even more uncertain are estimates for other centres. Yet such data as we have suggest beyond doubt that from an early period no other Thai-speaking centre approached Bangkok in size or economic significance. According to Terwiel and Sternstein, in 1827 other urban centres were much smaller than Bangkok. Ayutthaya contained 41,350 people

¹G.W. Skinner, *Chinese Society in Thailand: An Analytical History*, New York : Cornell University Press, 1957,p.81 and B.J.Terwiel, *Through Travellers'Eyes : An Approach to Early Nineteenth Century Thai History*, Bangkok: Editions Duang Kamol, 1989, Table 9.1, p. 226.

(26,200 according to a 1849 estimate²), Chanthaburi 36,900, Saraburi 14,320 and Phitsanulok 5,000.³

It is not hard to account for Bangkok's early ascendancy. Bangkok was a royal city, main religious centre, and port of international trade. As such it drew goods and people from the countryside and also brought an influx of migrants (mostly Chinese). Also swelling the population were "forced migrants" (war prisoners). Above all, though, we should stress the geographical features in Bangkok's primacy: the river and canals.

Bangkok's population in the 19th century has received some attention in the literature. Sternstein, in 1966, found that: "Broadly then, Bangkok with a population of not less than 300,000 was surrounded by some hundred-odd centres within the kingdom proper....whose size tended to increase with distance from the capital but seldom exceeded five thousand" ⁴, and he argued that Bangkok's control of Siam was "based primarily upon population" ⁵ The actual size of Bangkok's population in the 19th century, though, is a controversial matter, Terwiel's most recent study suggests that Sternstein overestimated Bangkok's population, and in the middle of century the city may have had only 50,000 to 100,000 inhabitants, while a postal census of 1883 indicated a population of around 120,000.⁶ A further discussion of the problem of estimation of Bangkok's population is given in Chapter IV.

Roots of Primacy

Three key elements contributed to Bangkok's dominance of Siam, and to Bangkok's early primacy among Thai-speaking centres: the control of Suay and manpower; canal construction; and the role of Chinese immigrants.

² *Ibid.*, p. 142.

³ Lawrence Sternstein, "Settlement in Thailand: Pattern of Development", Ph.D thesis, Australian National University, 1964, pp. 300-305, and Terwiel, *Through Travellers' eyes*, Table 2.5, p. 31.

⁴ Larry Sternstein, "The Distribution of Thai Centres at mid- Nineteenth Century", *Journal of Southeast Asian History*, Vol.7, no.1 (March, 1966), p. 69.

⁵ *Ibid.*, p.67. He further noted that "The location of centres in the mid-nineteenth century appears to have been quite similar to that of some seventy five years earlier and since but few startling changes have occurred in the past century, very like the pattern of today" (*ibid.*, p. 67).

⁶ Terwiel, *Through Travellers' Eyes*, pp. 224-33.

(1) The Control of Suay and Manpower

The first feature to note is the impact of Suay or tribute taxes in kind⁷ on Bangkok's development. Junko Koizumi has argued perceptively that :

Suay is commonly understood as a substitution of corvée labour obligation levied and collected in kind. But the fact that those products levied and collected as *suai* supplied part of the commodities for the royal trade up until the middle of 19th century lends the *suai* system an extra meaning beyond a mere sub-set of the corvée system. In other words, *suai* can be seen as a point of intersection where foreign trade and the economic system touched each other. Therefore, it is proper to suppose that the relation between the two economic spheres is reflected in the *suai* system in one way or another.⁸

Suay and the growth of foreign trade

Until around the middle 19th century, some of the principal Siamese exports were obtained by Suay. Hong Lysa argued that "Foreign trade was a lifeline of Thonburi and early Bangkok",⁹ and the contribution of international trade as a chief source of the state revenue remained throughout the first half of the 19th century. As noted by Vella:

A considerable portion of the revenue of Siamese governments was derived from exactions on foreign trade. This was a logical development for a country whose capital city was also a thriving port. Aside from charges on vessels and duties on a number of exports, the government exercised the right of the first choice in purchasing imports and exclusive right to deal in certain export articles.¹⁰

Until the early 1820s, foreign trade was largely under royal monopoly. Until the 1840s, China was the main destination. The royal trade monopoly and the China trade combined to concentrate activity in Bangkok. Crawford noted in the early 1820s, that Bangkok acted as entrepot port, receiving commodities from India, the Malay peninsula, and elsewhere for shipment to China. He further noted that:

⁷See Damrong Rajanuparb, "The Manner of Government in the Ancient time", in **the Foundation of History, Society and Politics, Bangkok : Thammasat University, 1973, p.15**; and H.G.Q.Wales, **Ancient Siamese Government and Administration**, New York : Paragon Book Reprint Corp, Reprinted, 1965, pp. 199-200.

⁸Junko Koizumi "The Commutation of Suai from Northeast Siam in the Middle of the Nineteenth Century", **Journal of Southeast Asian Studies**, 23,2 (September 1992), pp. 276-277.

⁹Hong Lysa, **Thailand in the Nineteenth Century : Evolution of the Economy and Society**, Singapore: Institute of Southeast Asian Studies, 1984, p. 48.

¹⁰Walter F. Vella, **Siam Under Rama III, 1824-1851**, New York: J.J. Augustin Incorporated Publisher Locust Valler, 1957, p. 22.

The inland and coasting trade is very considerable: the principal part of this domestic traffic is carried out on the Menam [i.e. the Chaophraya river] and its branches, and the procedure is carried in flat boats or on large rafts of bamboo. The upper part of the menam [the river] where it begins to be navigable, is practicable in the months of August and September. Boats which quit Lao [i.e. the northern regions of Thailand] in these months, do not arrive at Bangkok until November and December, when the river is crowded with them. Grain, salt, cotton, sapanwood, oil and timber are brought to the capital by this mode of conveyance.¹¹

Thus from Crawford, we get a clear impression of the significance of trade for Bangkok's development, and of the significance of waterways (above all the great Chaophraya) in this process (Map 2.1).

Vella noted that the principal exaction on foreign trade, however, was imposed in a form of a royal monopoly on the handling and sale of a number of commercial articles: cardamoms, birds' nests, sapanwood and other woods, lead, tin, pepper, ivory, elephant. The revenue from these monopolies, according to figures of the 1820s, was more than 2.5 times that derived from all other levies on foreign commerce.¹² The junk trade between Bangkok and China's ports made a substantial profit. Burney suggested that in the 1820s the net profit was high as 300% for its owners, even if one out of two junks was wrecked along the way. Burney wrote:¹³

[F]rom 20 to 45 large junks from Cantor, and from Eurin, Mangpo, and the other parts of China between which last and Bangkok the trade is profitable as to yield at least 300 per cent. In this last trade the king and the most of the officers of Siam are engaged, and it is said that large profits are realized even only one out of two vessels return. Many junks are annually lost, but that [? though] they are easily replaced [it is] to be feared [they can] never succeed in opening so profitable and extensive a channel in Siam as Mr. Crawford anticipates.

Significant state expenses in the 1820s were financed by the profits from trade. Prince Damrong wrote later:

Taxes of the second reign were duties on farm, orchard, gambling, transit, market, import and export and capitation tax. Tax revenue was not sufficient to defray the state's expenses. Government ship-trading was required to supplement the deficiency of tax revenue... In some years, state's revenues were not adequate to pay bia wat of the officials. One half or one third had to be reduced from the normal payment. In some years, cloths stored in the treasury had to be taken out for distribution as a supplement to bia wat.¹⁴

¹¹ John Crawford, *Journal of an Embassy to the Courts of Siam and Cochin China*, Singapore: Oxford University Press, 1967, p. 406

¹² Vella, *Siam Under Rama III*, p. 23.

¹³ *The Burney Papers*, Vol II part IV (November 1824-June 1827), Bangkok: Vajiranana National Library, 1911, p. 80.

¹⁴ Damrong Rajanuparb, *The Royal Chronicle of the Second Reign of Rattanakosin* Bangkok: Thai Press, 1916, p. 391 cited in Wira Wimoniti, "Historical Patterns of Tax Administration in Thailand", M.A. thesis, Thammasat University, 1961, p. 49.

The profit from the junk trade in the 1820s was a large part of the entire annual state revenue. At the same time, import and export duties constituted another large portion.¹⁵

Suay remained the basis of Siam's export trade until the 1830s. A large profit encouraged the expansion of foreign trade, by developing many centres around Bangkok and in the provincial areas to supply Suay to Bangkok for exports. Suay cardamoms, for example, were sent from NakhonChampasak, Ubon Ratchatani, Kalasin, Rattanakaburi, Suwanapur, Khemmarat, Mukdaharn, Surin, Chachoengsao, Pratabong, Prachin Buri, Yasothorn, Wattananakorn, Saraburi, Chumphon, Nakhon Sawan, Ratchaburi and Roi Et.¹⁶ A list of major products for export in the 1820s and 1830s shows that forest products constituted the largest items including sticlac, sapanwood, cardamoms, bark, and so on.

Foreign trade and economic significance of Bangkok's port before 1851

Bangkok's trade expanded and the port of Bangkok developed as the nation's major centre of internal, coastal and foreign trade.

Bangkok is a river port. It lies on a bend of the Chaophraya river, some 20 miles from where the river enters the Gulf of Thailand near Paknam. In geographical terms, Bangkok and the central plain were linked to the north by the Chaophraya river, its tributaries (Ping, Wang, Yom and Nan), and a system of canals. The link with the peninsular south was the sea trade route along the coast. The contact between Bangkok and the northeast region could be made by the difficult journey across the Dongrak mountain range and the malarial Dong Phraya Fai forests. The journey by land to the northeast region was usually made via Korat.

¹⁵More details of tax collection in particular reference to tax rates, tax administration, are given in **The Burney Papers**, Bangkok : Vajirayarn National library, 1910-1914, 5 volumes reprinted. In 1826, the duties paid in Bangkok by European vessels were a duty of 8 per cent ad volorem levied on imports. A fixed tariff upon Exports when free trade was allowed, and which in the example of sugar, the staple of exportation was one and a half ticals per Picul, a measurement duty of 118 ticals per fathom on the breadth of a ship (*The Burney Papers*, Vol I, part IV, p. 740). According to list of the port and Anchorage duties at Bangkok upon the ship. Captain Johnson, of 235 Tons berthed, as delivered by the Minister, Chaophraya Phaklang to Captain Burney Envoy to the court of Siam. It was noted that measurement duty at 80 Ticals per Siamese fathom for example (*The Burney Papers*, Vol I, part II, p. 288).

¹⁶ Boonrawd Kaewkhanha, "The Collection of Suay During the Early Ratanakosin Period, 1782-1868", M.A. thesis, Chulalongkorn University, 1975, pp. 91-92.

At the same time, Bangkok had another major advantage, namely, the agricultural fertility of the central plain which could be reached by waterways. From the geographical viewpoint, Bangkok is in the flood plain region of the Chaophraya river, the most significant river in terms both of agriculture and of transport in Siam. Throughout the Ayutthaya and Bangkok periods of Siamese history, the delta was the centre of agricultural production, mainly rice. The central plain played a vital role in providing agricultural products such as surplus rice to feed urban areas.

Geography determined Bangkok's development and helped Bangkok become the dominant city in Siam. Bangkok acted as a centre for the collection and distribution of commodities supplied from diverse points in the provinces and carried to Bangkok for export. The Chaophraya river and its canal network provide a good connection between the north and the central plain with the provinces and with the southern sea. Thus the location of Bangkok near the river mouth served principally as a gateway for international trade - the entrance for foreign traders and the exit for exported products. Furthermore, the role of canals as well as rivers needs emphasis as a factor consolidating Bangkok's dominance. They helped to transport regular Suay from the provinces to Bangkok; they facilitated Bangkok's control over the townships in the hinterland; and they conveyed the Chinese from Bangkok to the remote areas.

By the early 1820s, Crawford thought the foreign trade at Bangkok "far exceeds that of any other Asiatic port not settled by Europeans, with the single exception of the port of Canton in China."¹⁷ Sarasin Viraphol noted:

A large portion of the east coast trade (traffic along the eastern seaboard of continental Southeast Asia) had come to centre at Bangkok, making it an important entrepot in the South China seas. At a time when Macao was on the decline as a port and Hongkong had not yet gained prominence, there was no other significant port dominated by the Chinese lying as close to south China or as centrally located as Bangkok.¹⁸

The expansion of exports gave an increasing role to the port of Bangkok. Crawford noted that in 1821 at least five junks from Siam went to trade with Malacca and Penang carrying approximately 25,000 piculs of cargo.¹⁹ Crawford estimated that in the early 1820s there were some 140 junks, Siamese and Chinese, engaged in the China trade with the total tonnage of these vessels at around 35,000 tons. Apart from

¹⁷Crawford, *Journal of an Embassy*, p. 145.

¹⁸Sarasin Viraphol, *Tribute and Profit : Sino-Siamese Trade, 1652-1853*, Harvard East Asian Monographs, Harvard University, 1977, p. 85.

¹⁹*The Crawford Papers*, reprinted by order of Vajirayana Library Bangkok, 1915, p. 120.

the China trade, he estimated that there were around 200 junks or approximately 28,125 tons engaged in Bangkok's coastal trade, both with other Siamese ports and with Indochina and the Malayan peninsula (including Singapore and Penang)²⁰. Between 1820 and 1821 (a twelve-month period), the total value of trade between Siam and Penang was 207,750 silver dollars.²¹ The value of Siam's exports to Singapore between 1820 and 1830, amounted to 1,128,785 rupees.²² The main exports were: sugar (370, 242 rupees), rice and paddy (166,185), tobacco(139,493), stielac(77,208), sapanwood(72,633), salt (68,647), tin (57,573) and others (176,804).²³ In 1831, Singapore imported 14,010 piccolos of rice and 1,000 piculs of sapanwood from Bangkok.²⁴ In 1852, Malloch said that "the trade next in importance to China with Siam is that of Singapore, principally in piece goods and opium, in barter for sugar, pepper, rice, sapanwood gamboge, benjamin, ivory, deer's horns, and so on suited for the English market".²⁵ Apart from this, Bangkok traded with Batavia, Saigon and Bombay. During the period 1829-51 the number of Siamese ships calling at Singapore was as follows.²⁶

Year	Number of Junks
1829-30	31
1832-33	37
1835-36	23
1838-39	23
1841-42	28
1844-45	22
1847-48	20
1850-51	63

Figures of number of junks frequenting Siam at Bangkok's port during the third reign compiled by D.E.Malloch were as follows:²⁷

1825: 265 ships	1836: 302 ships
1826: 249 ships	1843: 314 ships
1827: 275 ships	1850: 332 ships

²⁰Crawford, *Journal of an Embassy*, pp. 414-416.

²¹Chai Ruengsilp, *The Thai History : Economic Aspects, B.E. 2352-2453*, Bangkok : Thai Wattana Panich, 1979,p. 83.

²²Waraphorn Thipanon, "Thai Junk Trade in the Early Bangkok Period", M.A. thesis, Chulalongkorn University, 1979, p. 79.

²³ Ammar Siamwalla, "Foreign Trade and Domestic Economy in Siam" (Bangkok:mimeo), n.d. p.3.2 based on *The Burney Papers*, Vol.III Part I pp. 187-189.

²⁴Jennifer W.Cushman, "Fields from the Sea : Chinese Junk Trade With Siam During the Late Eighteenth and Early Nineteenth Century". Ph.D.thesis, Cornell University, 1975,p. 98.

²⁵ D.E.Malloch, *Siam: Some General Remarks on its Productions, and Particularly on its Imports and Exports, and the mode of transaction Business With the People, Calcutta : J.Thomas Baptist Mission Press, 1852, p. 31.*

²⁶Sarasin , *Tribute and Profit* ,p. 209.

²⁷Malloch, *Siam*, p. 65.

Taken together, these figures show a lively, and overall growing, foreign trade in the first half of the 19th century. Three points are worth emphasis. First, foreign trade was a significant part of Bangkok's commercial development long before the Bowring Treaty in 1855 "geared" Siam to foreign trade with the West. Secondly, through growing contact with Singapore, Bangkok was well open to products and ideas from the West long before the formal Treaty of 1855. Thirdly, Bangkok developed as an Asian commercial port, with a dominant part played by Chinese products, merchants and ships. This strong Chinese influence on Bangkok's character and development was to remain as a legacy long after the Chinese trade itself declined in importance.

Trade and city developed together. Bangkok became a mainstay of foreigners (mostly Chinese immigrants). The Chinese were found in all activities associated with foreign trade, for example as coolies, crews, blacksmiths. The Chinese were also engaged in all levels of non-agricultural work in Bangkok. At an early stage, they constituted a substantial component of entire Bangkok's population (fuller discussion is given in the next section).

Contact with the west was another, and more tortuous process. In 1820, the Portuguese established their consulate in Bangkok. After warehouses were built²⁸, a few British and American ships called to trade at Bangkok each year, loading on and off along the Chaophraya river. Falkus has noted that "a number of British merchants sought their fortunes in Bangkok in the 1820s, although the only one to stay any length of time was Robert Hunter. Hunter settled in Bangkok in 1828 and together with his partner James Hayes, conducted a thriving import-export business under royal patronage until a dispute with the king led Hunter to leave the country in 1844".²⁹ Consulates, missionaries and western merchants were allowed to settle on the west bank of Bangkok. A number of residences and warehouses of western companies were also located on the Thonburi side.³⁰ In the growing international intercourse, the part played by Christian minorities (because of their exposure to foreign contacts and their language abilities) was significant. Earl, when he visited Bangkok in 1837, wrote: "Many native Christians are to be found at Bangkok, probably about five or six

²⁸Damrong Rajanuparb, *The Bangkok Dynastic Chronicle, the Second Reign*, Vol 2, Bangkok: Kurusapa Publishing Office 1962, pp. 12-13; and M.R. Sangsom Kasemsri and Wimol Pongphiphat, *The History of Krung'attanakosin, King Rama I- King Rama III (1782-1851)*, Bangkok: Department of Fine Arts, 1982, pp. 249-258.

²⁹ Falkus, "The Port of Bangkok", p. 8.

³⁰Chulalongkorn University, *The Composition of Physical Growth of Bangkok, Bangkok : Chulalongkorn University Press, 1991, p. 80.*

hundred. These people are either descendants of the Portuguese who formerly traded on the coast, or converts to the Jesuits of the Propaganda mission, several of whom are established in Siam. The Christians inhabit a portion of the town near the factory, called Santa Cruz, the greater part of which was burned to the ground a short time before my arrival.... their communication with Europeans has enabled them to acquire a more extensive degree of knowledge than the natives and some of them are consequently employed as interpreters and pilots, the captain of the port also belonging to this class".³¹ Although the size of Bangkok's western communities was relatively small, however, they were responsible for many changes.

Trade brought many ancillary industries, among them the most important being shipbuilding. Shipbuilding was a significant source of employment for Chinese immigrants. By the beginning of the 19th century, many trading vessels, including a large number of vessels engaged in China's external trade, were constructed in Siam.³²

Ships in Bangkok were also built for the Southeast Asian and Indian trades. Crawford wrote in the early 1820s:

Almost all the junks employed in the commerce between the Indian islands and maritime Southeast Asia are built at Bangkok on the great river [the Chaophraya] of Siam, and the capital of that kingdom. This is chosen for convenience, and the extraordinary cheapness and abundance of fine timber, especially teak, which it affords. Those parts of the vessel under water are constructed of ordinary timber, but the upper works of teak.³³

Crawford also further noted that :

Six to eight junks of " the largest description" (the size of junks depended on which port in China the junks were calling at) were annually constructed at Bangkok at 6.25 Siamese taels per ton, as compared to 42 and 32 Spanish dollars at Amoy and Chang-lin respectively. Crawford stated that in the late 1820s a junk of 8,000 piculs or 476 tons burden cost 7, 400 Spanish dollars to build at Siam, 16,000 at Changlin, and 21,000 at Amoy. One important reason for the large difference in costs was the scarcity of wood along the Southeast China coast during the period.³⁴

³¹Office of the Prime Minister , **Foreign Records of the Bangkok Period up to 1932**, published on the Occasion of the Rattanakosin Bicentennial, Bangkok, 1982, p. 21.

³²Sarasin, Tribute and Profit, p. 180.

³³ Ibid., p. 180.

³⁴ Ibid.,p. 181.

Bangkok's trade and the economic relationship between Bangkok and the provinces before 1851

According to Sarasin Viraphol, the demands of overseas markets in the 1820s and 1830s, meant that often the tax in kind, collected by the state under the Suay system was inadequate.³⁵ As a result, market transactions developed: "The King also purchased large sums of the following articles: cardamoms, eagle wood, gamboge, birds's nest, turtle eggs, and sapanwood. These were also monopolized by him - that is he had pre-emption over their acquisition ; they were normally given to the government as a tax by commoners exempt from corvee labor."³⁶ It was also a duty of the Royal Warehouse to ensure that any commodity which was not acquired in sufficient quantities through tax collection should be purchased at the right time and at the lowest market price.³⁷ Moreover, the Chinese and nobles were heavily engaged in private foreign trade:

They had to purchase whatever they needed for trade from the people. The Chinese were allowed unrestricted travel into the countryside; this was of immense benefit to trade for they were able to negotiate directly with the producers for better prices and secure goods more regularly. They penetrated into remote areas hitherto unconnected with buying and selling, and cultivated new crops which were good export potential, the most successful of these being pepper and sugar.³⁸

The outcome of these developments was that the port of Bangkok played an important role in receiving goods from the provinces and supplying goods overseas. Bangkok was increasingly connected to the provinces, in particular, to the provinces in central plain where the network of waterways was established. Transport costs there were relatively less than in the north and the northeast where carriage was largely done by pack men and pack animals. In this situation, some towns in the central plain developed into collecting centres for the export of products to Bangkok. Sugar was cultivated extensively in a belt running from Nakhonchaisri west of Bangkok to Chachoengsao to the east, as well as along the eastern seaboard, particularly at Chon Buri and Chanthaburi. The cultivators of the cane were probably Siamese, while pepper was cultivated by the Chinese in Chanthaburi and parts of Peninsular Siam.³⁹ Pallegoix

³⁵Ibid., p. 183.

³⁶Ibid., p. 183.

³⁷Boonrawd, "The Collection of Suay", p. 25.

³⁸Hong, Thailand, p. 50.

³⁹Crawford, Journal of Embassy. There are some doubts about the cultivators. According to Crawford in The Crawford Papers, p. 111. "Sugar was first produced in Siam from the cane about 13 years ago, when the Chinese, in consequence of some additional privilege conferred upon them by the court, entered upon the cultivation of the cane". For more discussion in this controversy see Ammar, "Foreign Trade" (n.d.) p. 4.1-4.2.

estimated in the early 1840s that around Nakhonchaisri there were more than 30 sugar factories, while 20 sugar factories were located at Chachoengsao, each employing two to three hundred Chinese workers.⁴⁰ Pallegoix estimated the populations of the main sugar and pepper producing areas in the early 1840s as: Samut Prakarn, 6,000-7,000; Chanthaburi 6,000; Thachin (San ut Songkhram) 5,000; and Maeklong (Samut Sakhon) 10,000.⁴¹

Foreign trade influenced the growth of Bangkok in several ways. First, as foreign trade expanded, more and more Chinese were engaged in it. The Chinese formed a new merchant class. In his pioneer work, "Department of the Port (*Krom Tha*) and the Thai economy; an analysis in structure and change from Thonburi period up to the Bowring Treaty, 1767-1855", Adisorn Muakpimai has laid out the role of this merchant class in the department of the port.⁴² Chinese merchants who had close connections to the Siamese court included Phraya Choduek Rajasethi (Thongchin), the head of the bureaucratic department of the port (*Krom Tha Sai*) in the period of the Third reign (1825-1851), who made his capital accumulation from the junk trade, a sugar factory and tax farming.

In addition, the nobles were increasingly engaged in foreign trade. Cushman noted that a "square-rigged vessel with a cargo investment of Sp.\$ 19,358, was sponsored by Camun Waiworanat (Chuang Bunnag) one of the most influential men of his day, while the junk with the largest investment (Sp.\$ 12,284) was owned by a son of Rama II, Phraongcao Thinnakon (1801-56)".⁴³ A number of officials in the department of the port invested in export production. Chaophraya Phraklang (Dis Bunnag) and his brother Chaophraya Sripipat (Tud Bunnag) owned sugar mills with a large capital in the 1840s.⁴⁴ Ammar Siamwalla noted the impact of foreign trade upon the growth of the concentration of wealth and power:

⁴⁰Pallegoix, *Description du Royaume Thai ou Siam*, (Thai Version), Bangkok : 1962, p. 74 and 95.

⁴¹Pallegoix, *Description*, pp. 63-92.

⁴²Adisorn Muakpimai, "Krom Tha and Thai Economy: An Analysis in Structure and Change from Thonburi Period up to the Bowring Treaty, 1767-1855", M.A. thesis, Thammasat University, 1988, pp. 249-269. The department of the port was mainly in charge of commerce, foreign trade and affairs and finance. It had task of shipping precious items [product collected from the provinces-Suay] to China and management of goods and money received (Chaiyan Rajchagool, *The Rise and Fall of the Thai Absolute Monarchy, Foundations of the Modern Thai State From Feudalism to Peripheral Capitalism*, Bangkok : White Lotus, 1994, p .5). Under these tasks, the department of the port's economic power was enhanced since it controlled to some extent, trade and imported tax and other activities related foreign trade. It was the department of the port, in which a channel for the Chinese to make profit while they served the king and foreign trade.

⁴³ Cushman "*Fields From the Sea*", p. 158.

⁴⁴Adisorn, "Krom Tha", p. 292.

There was an alternative locus of political power sometimes co-operating with the king. This alternative source of power, interestingly enough, was centered in the Bunnag family whose control over the Prah Klang's office [Ministry of Finance] in particular enabled them to amass a great deal of wealth and influence.⁴⁵

Secondly, before 1851, Bangkok's influence reached into regions hundreds of kilometres away, especially in the areas of the central plain where commercial production of sugar and pepper was in progress. As trade expanded, Bangkok was able to exercise its power over the provinces. For example, officials in the Department of the Port in Bangkok were appointed to manage the public administration in the following townships: Chanthaburi, Trat, Rayong, Banglamung, Chon Buri, Sakhonburi, Samut Prakarn, Nonthaburi and Samut Songkhram. All of these were seaboard townships along the east coast where commercial activities were concentrated. Government officials appointed from Bangkok were obliged to control trade and production and ensure products were then exported to Bangkok.⁴⁶ This enhanced the development of Bangkok as the dominant city in Siam.

Bangkok's influence also extended to other commercial areas such as Nakhonchaisri. As noted by Hong Lysa: "Beside exhortations to the new appointee to be conscientious in tattooing the Phrai and to ensure that they did not evade corvee, the governor was urged to develop the economic potential of his province."⁴⁷ This encouragement of economic activities appeared in a letter of appointment to the new governor of Nakhonchaisri in 1843. It reads as follows:

Nakornchaisri is an area in which the people plant sugar cane and process sugar. Because sugar is an export crop, it brings revenue to the government. Nowadays, more and more ships are coming to Bangkok than ever before, and there is not enough sugar to meet their demands. If more sugar was produced, even more ships would come, and government revenue from collecting fees would be increased. This would benefit the people and the prestige and the honour of the capital will rise. Therefore, the governor, as the representative of the king in the province, should encourage the Chinese, Lao, Khmer and the people of Nakornchaisri to plant cane more extensively than before. In those *tambon* which are suitable for sugar plantation, the governor should approach the owners of the vacant land to cultivate the crop. If the holding was too large for the owner to manage, the governor should arrange for it to be cultivated with cane by others, and not left vacant. The governor was also to persuade the people to set up more mills for the processing of sugar...⁴⁸

⁴⁵Ammar, "Foreign Trade", p. 4.8.

⁴⁶Adisorn, "Krom Tha", pp. 308-311.

⁴⁷Hong, Thailand, p. 54.

⁴⁸Ibid., pp. 54-55.

Suay and Bangkok's construction

Suay not only constituted the largest portion of Siam's exports, but was also significant for royal construction activities in Bangkok, such as temples, palaces and canals. The growth of such construction generated a large demand for non-agricultural employment, chiefly, of Chinese; drew resources from the provinces; induced Bangkok to tighten its administrative control over the townships; and diverted the royal profits from foreign trade.

Suay contributed to royal construction in many ways and many forms. Some Suay came in the form of goods, some as labour services, and some as cash. Some formed part of regular Suay extractions, and some was raised as Suay Ken or special-purpose Suay.⁴⁹

Under the Sakdina system, Bangkok ruling class obtained manpower from the townships. All able-bodied men of 18 to 60 years of age were obliged to work for the king and the ruling noblemen. Men were used for public and royal construction activities such as forts, palaces and canals. Men were also allowed to commute these labour services into payments in cash or kind, Suay Ngern or Suay Singkong. In cash the commutation rate was 6 Baht per month or 18 Baht per three months.⁵⁰ In more distant places which had products in demand by the ruling classes, payments in kind were more common.⁵¹ Jit Phoumisak noted:

For example, people who had settled on the fringes of the Phraya Fai jungle [nowadays, Phraya Yen around Korat and Saraburi provinces] were allowed to collect bat droppings in the mountain caves of that jungle and to boil the droppings for saltpeter which was then sent to the centre to be made into gunpowder.... If the phrai were unable to provide the state with Suai in kind according to the annual quota, they had to pay cash to the state to make up the difference, or if they could not provide any goods at all they had to pay the entire amount in cash.⁵²

⁴⁹ This type of Suay can be also other irregular conscription without pay, which was extra conscription [in Thai word, called Suay Ken] owing to the occasional demand from the king and the government in Bangkok.

⁵⁰ Ingram pointed out that "Men were allowed to pay money in lieu of serving in the corvée as long ago as the late seventeenth century. Wales cites La Loubere, who says such commutation was well established in the reign of King Narai (1657- 88). From the time La Loubere wrote to the first half of the nineteenth century, the period of service was shortened from six to three months, but the money payment to secure exemption was raised from 12 to 18 Baht. This, Wales says, reflects the government's increasing need for money " (James C. Ingram, **Economic Change in Thailand, 1850-1970**, Stanford: Stanford University Press, 1971, p. 30).

⁵¹ An excellent work concerning the corvée system in the Sakdina system, see, Craig J. Reynolds, **Thai Radical Discourse: The Real Face of Thai Feudalism Today**, Southeast Asian Program, Cornell University, 1987.

⁵² Ibid., p. 116.

There was a considerable amount of Suay sent from the countryside to the capital in the form of money and in kind, for instance:

In 1813, Chaophraya Nakhon Si Thammarat was ordered to send goat leather, and wood to Bangkok in order to construct a music instrument. Suay Ken were sent from these provinces: timber was conscripted from Chachoengsao to build ships, elephants were conscripted from Vientiane, Nan, Chiang Mai, Phitsanulok, and Saraburi to use in wars.⁵³

Teak logs were conscripted as special-purpose Suay for building temples in Bangkok.⁵⁴ In 1830, it was recorded:

I am Phraya Srisuriya Rajrajaapirapapaha who brought a letter from the king [Rama III]. His Majesty needs to build Wat Kulyanimit. I and the department of wood cutting were conscripted to cut the teak logs with the length of 8 wa 2 sok and circumference of 11-12 kum. The schedule to float raft downstream was in the 12th month [November]. At present, the cutting of teak logs is completed.⁵⁵

In 1844, the following timber products were ordered by Bangkok from Phitsanulok:

Sky tassel: circumference 12 kum the total amount 1
 Door: its length 4 wa, circumference 13 kum amount 1
 Door: its length 3 wa, circumference 13 kum amount 1
 Timber: its length 4 wa, circumference 8 kum amount 11
 Timber: Its length 4 wa, circumference 9 kum amount 2
 Timber: its length 5 wa, circumference 6 kum amount 5

Phraya Pichai and his committee ordered Khun Muan Chuan, and the Phrai had the responsibility to send this Suay ken, while the balance of Suay ken would be sent afterwards.⁵⁶

Royal construction projects sourced materials through Suay payments in kind. But when the materials were insufficient, as often happened for large projects, the state satisfied its requirements by purchase, for example:

Samuhanayok gave money to Phraya Pichai and his committee amounting to 7 Chang 14 Tumlueng in order to purchase teak logs at Muang Pichai at the market price and then sent them to Bangkok.⁵⁷

⁵³Suvit Theerasawas, *The Economic and Political History of Thailand Since Taksin Reign to the Third Reign (1767-1851)*, Bangkok : The National Research Council of Thailand, 1982, p. 189.

⁵⁴Much useful information that contains the special conscription from 1820 to 1850 was for example, *The Record of King Rama II*, Bangkok, 1970 ; and *The Record of King Rama III*, 4th volume, Bangkok : Sahapracha Printing Office, 1987.

⁵⁵N.L.The Record of the Third Reign,L.E 1193 (1831), no. 23.

⁵⁶ N.L.The Record of the Third Reign,L.E.1205 (1844), no. 90. It appears in the letter of Phraya Jreupaholpakdi to Phraya Pitsanulok who was in charge in the provincial administration in Pitsanulok to order the bulk of lumber to supply to Bangkok (N.L.The Record of the Third Reign,L.E.1205 (1844), no. 90).

⁵⁷N.L.The Record of the Third Reign,L.E 1195(1833), no. 27.

Suay gold was one of the most important items supplied to construct palaces and temples in Bangkok. Records are incomplete, but we have an interesting record relating to the single year 1830 of Suay gold coming from the northeastern provinces.⁵⁸ (Fuller information of the Suay collection from the provinces to Bangkok is given in Appendix Table 2.1).

Muang Chaiyaphum(lek 670) gold weighing 4 Chang 3 Tumlueng 3 Baht,
 Muang Chatturat(lek203) gold weighing 1 Chang 5 Tumlueng 3 Baht
 Muang Pukiew(lek 344)Suay gold weighing 2 Chang 3 Tumlueng
 Muang Bumnetnarong(lek 116) gold weighing 14 Tumleung 2 Baht
 Muang Paktongchai(lek 156) gold weighing 19 Tumlueng 2 Baht
 Muang Nakornchantuek(lek 35) gold weighing 4 Tumlueng 1 Bath 2 Salueng
 Muang Nakhon Ratchasima, gold weighing 2 Chang 4 Tumlueng 1 Baht 3 Salueng
 Muang Chonabot, gold weighing 2 Chang 10 Tumlueng
 Muang Nong Khai, gold weighing 6 Chang 1 Tumlueng 2 Salueng, 1 Fuang

The information above shows that Suay gold was supplied from various regions in the northeast. Since we have a scant record, it is hard to interpret the data on Suay gold such as, what kinds of gold was it, how much was collected, from which provinces, and how were dues assessed. But the record of extraction shows that the administrative power of Bangkok over the provincial areas was intensive and extensive prior to 1851. This relationship enhanced Bangkok's development as a dominant city since the nation's resources were remitted to Bangkok in a one-way direction. Between 1820 to 1851, large amounts of Suay Ken and Suay Ngern from all over the kingdom were remitted regularly to Bangkok. The variation in value of the Suay in money or kind was due not only to the wealth and resources of each township but also to the power Bangkok could exercise over the provinces. Materials obtained from ken were a large component of the total materials used in the buildings of the capital, palaces, Buddha images, temples, and in the equipment for royal ceremonies and cremations. Bangkok had political and economic power over townships many hundreds of kilometres and several days' travel distance away, including for example Nong Khai. Last but not least, since gold was not mined in most Siamese provinces, Suay gold supplied from the provinces implies that "trade activities brought money to the people in Bangkok".⁵⁹

Junko Koizumi, in her pioneer work on "The commutation of Suai from Northeast Siam in the middle of the nineteenth century" gave some interesting findings about the northeast economy. For example, the Suay accounts from the northeast

⁵⁸ Adapted from Boonrawd "The Collection of Suay ", pp. 112-113 based on N.L.The Record of the Third Reign L.E.1192(1830) and N.L.The Record of the Third Reign L.E.1202 (1840), no. 26.

⁵⁹Junko, "The Commutation ",p. 303.

indicated that a commercial economy existed even in the most backward regions in the kingdom. In her words:

We can see from the Suai accounts that commercial economy in the region had developed, at least, to such an extent as to bring forth the steady and rapid replacement of Suai payments in kind by payment in money by the mid nineteenth century. If this region were the most underdeveloped in the kingdom, then, we may conclude that the commercial economy had already existed before the Bowring treaty even in the most backward region of the kingdom.⁶⁰

The controlling power of Bangkok through Suai collection was not only over the provincial areas but also covered the tributary states. As noted by Bangkok Calendar in 1869:

[T]he Laos chiefs are accustomed to send an annual tribute to the government of Siam, and the Malayan tributary provinces are expected to send an annual tribute to the government of Siam, and the Malayan tributary provinces are expected to send to the supreme government a triennial tribute, consisting principally of silver and gold artificial trees of various sizes from three feet to six feet high with corresponding branches and leaves.⁶¹

Not only did Bangkok exercise power over the countryside in terms of Suai, but also sent representatives from Bangkok to travel extensively in provinces under Bangkok's control, assessing the number of fruit trees, the amount of rice land, exacting money from the farmers and so on.⁶² The taxes and imposts were collected by his authority and transmitted to the capital.⁶³

Suai therefore helped finance the growth of Bangkok at the expense of the countryside. Table 2.1 indicates that the growth of construction activities in Bangkok directly related to the supply of Suai increased significantly from the late 18th century.

⁶⁰*Ibid.*, p. 306.

⁶¹Bangkok Calendar, 1869.

⁶²Fuller discussion, see Yada Prapaphant, *A System of Tax Farmers in the Early Bangkok Period*, Bangkok : Progressive Press, 1981, pp. 107-124.

⁶³Bangkok Calendar, 1869.

Table 2.1 Some Major Public Construction in Bangkok, 1782-1851

Item	Detail	Number
1. Number of Temples	Rama I (1782-1809)	6
	Rama II (1809-1824)	10
	Rama III (1824-1851)	83
2. Number of Palaces	Rama I (1782-1809)	29
	Rama II (1809-1824)	49
	Rama III (1824-1851)	72
3. Canal Construction (Kilometres)	Rama I(1782-1809)	7.1
	Rama II(1809-1824)	9.1
	Rama III(1824-1851)	62.2

Sources: 1. and 2. calculated from Chulalongkorn University, *The Composition of Physical Growth of Bangkok*, Bangkok : Chulalongkorn University Press, 1991, pp. 26-68.

3. Robert V. Hubbard, "Canal Construction in the Chaophraya River System Central Thailand", in *the History of Inland Waterway development in Thailand*, Michigan : Ann Arbor ,1977, pp. 28-37.

Note: The figures show the number of temple, palace, and canal projects in each reign; they are not cumulative numbers.

Table 2.1 above also shows that construction activity in Bangkok increased rapidly between 1809 and 1851, especially in the period of the Third Reign (1824-1851). Some 83 new temples and 72 palaces were built and 62.2 kilometres of canals were dug. These construction activities were financed not only by Suay from the countryside but also by the profits of foreign trade. Ships carrying a variety of internally produced goods for exports to neighbouring countries earned a considerable revenue for the Treasury.⁶⁴ Contemporary Thai sources indicate that revenue from the profit of foreign trade was 4,599,600 Baht in 1837, 2,759,600 Baht in 1795, and 610,000 Baht in 1816.⁶⁵ While the profits from trade increased, the revenue from corvee taxes tended to decline in relative importance from around 1830. Trade and the associated construction activity also stimulated the use of money in the Thai economy. In the Third Reign, in addition to constructing a new 38 temples, this devout king set aside a considerable sum for restoring and improving over 30 others (19 of which, we know, cost around 104,000 Baht)⁶⁶ Temples of this reign were well-known for construction skills and techniques as well as the grandeur, craftsmanship and artistry of their builders. Examples include Wat Prachetupon Wimonmangkalam, Wat Rajoroh and Wat Ratchnutda.

⁶⁴One of the most interesting works based on the Thai archival sources that contains revenue from profit from international trade is a work written by Suwit, *The Political and Economic History*, 1982.

⁶⁵*Ibid.*, Table 4.33 p.192 based on the Thai archival sources from Bangkok National Library.

⁶⁶N.L.The Record of the Third Reign,L.E. 199 (1837), no. 17.

In the 1840s, it has been suggested there was a recession in the Thai economy⁶⁷, although, there was little discernible effect upon the growth of Bangkok. Terwiel noted that "instead of cutting its own expenditures and offering tax relief it [the government] mercilessly continued to impose its recently-introduced heavy tax burden upon a poverty-stricken farming population".⁶⁸ The government of Rama III (1824-1851) spent a large portion of expenditure on donations to construct and to repair temples, on canal construction, and for public administration, ceremonies and so on. The government also made intensive efforts to increase state revenue to cover these items. Some 38 new taxes were introduced,⁶⁹ and considerable revenues were thereby remitted to the capital. It is very difficult to give reliable estimates of the amount collected in specie. Vella gave a figure of estimated revenues both in money and in kind of well over 14 million Baht a year during the Third Reign, a considerable increase over the estimated annual revenue of 5,149,468 Baht during the Second Reign.⁷⁰

Some expenditure was allocated to canal excavation and construction. Canals were necessary for trade and as a means of communication in both peace and war. Between 1820 and 1851, certain canals were cut with the main goal of moving troops and supplies. An important example was the Saen Saeb canal, 54 kilometres in length from Bangkok to the Bangpakong river. The total cost of digging was estimated at 96,500 Baht.⁷¹ The network of canals linking Bangkok and the central region was also important to facilitate Suay collection from the provinces, and the economic significance of the canal system soon outstripped its purely military purposes.

⁶⁷B.J.Terwiel, "The Bowring Treaty : Imperialism and the Indigenous Perspective", *JSS*, Vol.79, Part2, 1991, p. 42.

⁶⁸*Ibid.*, p.42.

⁶⁹ According the Thipakornwong in the Bangkok Dynastic Chronicle of the Third Reign, he wrote that taxes prevailed in the Third Reign were as follow: Chinese gambling, lottery, various products loaded on junks, six kinds of prohibited goods, pepper on purchaser who loaded on junks, and on cultivators,, rose wood collected from purchasers and the sellers at the rate of ten per cent, saute, coconut oil, various kinds of oil; pands, rubber-trees, torches, resin, firewood, atap, rope, wild bamboo, small bamboo, house bamboo, betal, logs, planks, ship-rudders, anchors, handles of the rudders, teak, cotton, tobacco, jute, indigo, dried meat, dried fish, prawn paste, brown sugar, palm sugar, cane sugar, areca nuts, sugar refineries, Chinese and other sweets, playing cards, tallow candles, meat, lime, carts, ferry boats and tow boats.

⁷⁰Vella, *Siam Under Rama III*, p. 20.

⁷¹ Chaophraya Wongsanupapat, *The History of the Ministry of Agriculture*, Cremation Volume, Bangkok : 1944, p. 16.

Corvee labour and the growth of Bangkok

Corvee labour was a significant component of total investment in royal construction. The greater parts of religious and other works were carried out by the extensive forces of unpaid labourers and skilled craftsmen, which, even when allowance was made for those who were illegally retained by the officials for their own purposes, were at the disposal of the king.⁷² The king and royal family could directly control manpower in various forms, using corvee labour to work on the state affairs or their personal works. Between 1809 and 1905, the people of Siam were legally Phrai or state serfs and most were forced to donate their labour for a period of three months every year.⁷³ The ordinary people were divided into four classes. Most fell into the categories of Phrai Luang and Phrai Som who were registered for corvee labour service. Phrai Luang worked for the king and the state's affairs, while Phrai Som worked largely for noble masters. Phrai Suay paid an annual fee in Suiy in lieu of labour services. Some paid in kind, such as honey, bamboo, or plant extracted oil, for example, while some paid in money. Lastly, they were slaves who were the property of their masters and they could be bought and sold in the market place.⁷⁴ Chatthip Nartsupha informed us about the corvee system prior to 1905:

In Siam the power of the king over serfs was direct and nationwide. Phrai Luang served the king directly for three months in a year. Phrai Som served the king directly for one month, and served his lords for the remaining two months. The number of Phrai Luang exceeded that of Phrai Som. Also when a lord died, his Phrai Som would be converted to Phrai Luang. Consequently, the power of the king over labour was enormous. This contrasted sharply with European feudalism, where the control over men was decentralized. As in the case of land, Sakdina control of labour in Siam was concentrated in the hands of the king.⁷⁵

⁷² Wales, "Ancient Siamese Government" p. 224.

⁷³ When Rama II (1809-1824) came to the throne in 1809, he reduced the corvee period from four to three months (The period of corvee service from King Narai (1657-88) until roughly the 1770s was six months annually). One of the main reasons why the period of service was shortened was for example. As foreign trade flourished, so did domestic trade. With the money revenue, the state began to use Chinese paid labour instead of the Phrai for public work; with a greater opportunity for cash income, a greater number of Phrai were in turn able to afford the money payment in lieu of corvee (Seksan Prasertkul, "The Transformation of the Thai State and Economic Change, 1855-1945", Ph.D thesis, Cornell University, 1989, p.122).

⁷⁴ Works concerning the corvee labour system and slavery in Thailand include Kachorn Sukpanich, **the Estate of Phrai**, Bangkok : The Social Science Association of Thailand 1982 ; Chatthip Nartsupha and Suthy Prasartset, **The Political Economy of Siam, 1850-1910**, Bangkok : The Social Science Association of Thailand, 1981 ; and Akin Rabibhadana, **The Organization of Thai Society in the Early Bangkok Period, 1782-1873**, Data Paper, no 74, Cornell University, 1969.

⁷⁵ Chatthip, The Political Economy of Siam, 1850-1910, p. 27.

No significant changes were made to the system until 1905. The works that were carried out by corvée labour included canal excavation, road construction, rice cultivation, orchard and garden work, repairs to the temple, and construction of forts.⁷⁶ The period of labour conscription covered 3 months a year between 1809 and 1905. Manumission for cash was possible, the rate apparently standardized at 6 Baht/per month or 18 Baht per 3 months for the whole annual period of labour conscription for Phrai Luang.⁷⁷ In the case of Phrai Som, the fee was 3 Baht per month in the Third Reign (1824-1851).⁷⁸

The relationship of the king and nobility to their peasants is commonly described as "patron-client". Under the prevailing circumstances of lack of manpower in relation to land and the opportunity for recalcitrant slaves and peasants to run off into the remote parts of the country, the master [Nai] would offer various kinds of "protection", perhaps financial when the client fell into debt, or various kinds of help when their clients were prosecuted. The client in turn offered gifts and services. The need for the peasant for land, the need of the king for a pool of army recruits and the need of the master for manpower and services, was harmonized in a system based on personal relationship and personal favours.⁷⁹

Owing to the difficulty of communication and transportation over long distances, most conscripted labour came from the provinces near Bangkok. The common people, or Phrai Luang, conscripted to build and repair royal monasteries, palaces, city walls, moats, etc in Bangkok came from AngThong, Lop Buri, Sing Buri, Ayutthaya, Inthaburi, Phromburi, Si phan Buri and Nakhonchaisri.⁸⁰

For the defence of the capital, conscripted labourers were employed in the construction of fortifications. We have the description of the Phrai Luang who worked for the Department of Palace in L.E. 1193(A.D.1831) :

⁷⁶Chai Ruengsilp, *The Thai History: Social Aspects*, B.E.2352-2453, Bangkok : Amarin Press, 1974, p. 176.

⁷⁷*Three Seals Law*, No 5, Bangkok : Krirasapa Publishing Office, 1963, p. 203.

⁷⁸Piyachat Pitawan, *Phrai System in the Thai Society (1868-1910)*, Bangkok : Thammasat University Press, 1983, p. 19.

⁷⁹Fuller discussion, see Akin, *The Organization*.

⁸⁰Nanthiya Sawangwutthitham, "The Control of Manpower in the Bangkok Period Prior to the Introduction of Modern Military Conscription", M.A.thesis, Chulalongkorn University, 1981, p. 66, based on N.L. The Record of the Third Reign L.E.1238 (1841), no. 160.

On Friday at 1 Kum(waxing moon), the second month, L.E.1193 in the ox year, we are PhrayaPheipichai, Phra Thipboriya an, Phra Rampichai, and PhraPidejsongkhram, wishing to report the number of Phrai Luan; who worked under the Department of Palace. The list (number) of the Phrai names was below...

The Intrarungsun Fort 136, The Khunkhetintapetch Fort 176, ... The Desdaskorn Fort 161, ... The Singkorakhun Fort 92 ... The Auntayakeeriya Fort 155... Phramaniprakarn Fort 164, ... Phisarnsema Fort152, ... Papisuthud Fort 110, ... Mahaloha Fort 166...⁸¹

Through corvee labour some of the nation's resources in terms of labour, income and resources were transferred from ordinary people from the provinces to the ruling classes in Bangkok capital city

Crawford wrote critically of the corvee system in 1821:

The forced services, although not in proportion productive to the state, are of all others the heaviest tax upon the people. The most mischievous ingenuity, indeed, could hardly devise a scheme more destructive of industrious habits and adverse to public prosperity than a system which devotes, as this virtually does, to the arbitrary, prodigal and capricious will of the servants of government. One third portion of the manhood of almost all its subjects.⁸²

Besides Phrai Luang, prisoners of war and refugees were also employed in the construction of public works in Bangkok. For example, ten thousand Cambodian and five thousand Lao captives from Vietiane were conscripted to help build the new city in 1783.⁸³ Lao, Mon, and Cambodian captives were used extensively in the construction of forts, palaces and monasteries in Bangkok and its adjacent areas. For example, Lao immigrants from Nakhon Ratchasima and northern frontier provinces were conscripted to build the fortified towns of Nakhon Khuenkhan (currently Prapradaeng), Samut Prakan and Kranchanauri.⁸⁴ Various records show that the war prisoners and foreign refugees (also other foreign groups such as European and Indians) had their settlements in various parts of Bangkok in those days. For example, in 1815, about 30,000 Mon refugees were settled in villages around temples at the fringe of Bangkok such as in present day Phrakanong and Hualumpong. Rama III settled Malay prisoners of war and southern Thai commoners in the areas of Sanam Kwai, Phrakanong and Wat Phisha. Vietnamese, Lao and Khmer were resettled in those areas where small communities already existed.⁸⁵

⁸¹ The Record of the Third Reign, pp. 110-113.

⁸² The Crawford Papers, p. 127.

⁸³ Thipakornwong, Bangkok Dynastic Chronicle Rama I, pp.66-67.

⁸⁴ DamrongRajanuparb, Bangkok Dynastic Chronicle Rama II, Bangkok: Kurusapa Press, 1962, pp. 505-506 ;and Chaophraya Thipakornwor g, Bangkok Dynastic Chronicle Rama III, Bangkok: 1961, pp. 91-92.

⁸⁵ Rudiger Korff, Socio-Economic Structure of Underdevelopment in Cities Urban Subsistence Production in Bangkok, Faculty of Sociology, University of Bielefeld, 1983,p. 21.

(2) Canal Construction as a Contributing Factor to Bangkok's Primacy

The river and canals determined the development and characteristics of Bangkok. The Chaophraya river and its canal network provide good connections between the interior and the sea. They helped to transport regular Suay from the provinces to Bangkok and to facilitate Bangkok's public administration over townships and to facilitate internal travel.

The economic significance of canal construction was considerable. The chief means of communication and transportation between Bangkok and the provinces was by water. Canals strengthened Bangkok's economic links with the hinterland. Canals were major arteries for the collection and distribution of commodities supplied from diffuse points in the hinterland and carried to Bangkok for consumption and export. Bangkok had no single trunk road linking the central hinterlands until the 1940s. The Chaophraya river formed the main artery by which Suay for export reached Bangkok. The river system included the smaller tributaries, the Prachin, Tachin, and Meklong rivers, which by 1851 were linked by canals and also a substantial part of lower Siam was intersected by canals opening into the Chaophraya river. Major canal construction in the central plain included:⁸⁶ Samrong canal (circa 1498) which runs from the east bank of the Chaophraya river towards the Bangpakong river; the Mahachai canal (1645) from the west bank to the Tachin river (1721); the Sunakhawn canal (1829) as an extension of the Mahachai canal westward to the Maeklong river;⁸⁷ and Saen Saeb/Bang Khanak canal (1840) linking Bangkok with the Bangpakong and Prachin Buri river system to the east⁸⁸ (Map 2.2).

Little is known about canal construction in the Ayutthaya period. Canals such as the Samrong and the Mahachai were built for three possible reasons: first to facilitate

⁸⁶An information on a history of canal construction in the central plain is available in primary and secondary sources. For the primary source, it contains date, cost of construction and length, see for example, N.A. Department of Agriculture (Department of canals), No 34/791 (1909). For the secondary sources, for example, Wongsanupapat, *the History of Ministry*. Also see, royal decrees and the proclamations after the Rama IV concerning construction and maintenance of canals and reclamation of land adjacent to canals, which were compiled in "Collected Law" arranged Chronologically". Also see, Robert V. Hubbard and James A. Hafner, **The History of Inland Waterway Development in Thailand, Part I and Part II**, the Department of Geography and the Center for South and Southeast Asian Studies, University of Michigan, 1977. Also see, Shigeharu Tanabe, "Historical Geography of the Canal System in the Chao Phraya River Delta, From the Ayutthaya Period to the Fourth Reign of the Rattanakosin Dynasty", JSS, Vol 65, Part II, July, 1977. Also see Kittit Tunthai, "Canals and the Economic System of Thailand, 1824-1910", M.A. thesis, Chulalongkorn University, 1977.

⁸⁷ Thipakornwong, *The Bangkok Dynastic Chronicle Rama III*, p. 95.

⁸⁸N.A. Department of Agriculture (Department of Canals), no. 34/791 (1909).

transportation from the hinterland to the old capital city for trade; second, to link the provincial towns and the capital city for reasons of military logistics;⁸⁹ and third, perhaps to secure transportation facilities for the movement of corvee labour.⁹⁰

When we come to the early Bangkok period (1782-1851), we find an over concentration in the literature on military considerations. It is not surprising, since the writers seem to employ the same sources for citation.⁹¹ We may take as examples the Saen Saeb and Bangkok canal. We are told that the canals provided mobility for troops and military supplies to threatened areas:

In L.E. 1199 (A.D. 1837) during the second month [March] the year of the chicken, Siam was at war against Vietnam and Cambodia. Military supplies were delayed. Rama III therefore ordered Phraya Sripipat Rajakos: thipbordee as the director to dig the Saen Saeb and Bangkok canal. .⁹²

Most studies conclude that canals dug during the late 18th and the early 19th century mainly served military affairs i.e. mobilization of troops and supports, as well as revenue collection. The Saen Saeb and Bangkok canal, for example, provided a direct route for the movement of troops and military supplies to Cambodian territory through Prachin Buri province via the Phrachin river at a time when there was conflict with the neighbouring countries of Vietnam, and Cambodia. At the same time, the canal provided access to the northeastern area which was very isolated at that time. The Bangkok canal provided a shortcut to the Phrachin river which led as far in the direction of Korat as one could proceed by water.⁹³ In addition, coastal towns such as Samut Prakarn, Samut Sakhon, Samut Songkhram at the junctions of existing canals were fortified.⁹⁴

We may argue, though, that the construction of canals in the central plain offered an opportunity for the development of Bangkok and its hinterlands in the 19th century. They encouraged the flow of revenue and Suay to the Bangkok capital. There were numerous waterways providing the movement of Suay from the provinces to Bangkok. In addition to the Chao Phraya, Tachin and Maeklong, the system included

⁸⁹Paitoon Saiswang, *An Economic History of the Chao Phya Delta, 1850-1890*, Faculty of Economics, Thammasat University, 1978, pp. 12-13.

⁹⁰Shigeharu, "Historical Geography", p. 40.

⁹¹ Such as Wongsanupapat, *The History of Ministry*; Thipakornwong; and *the Bangkok Dynastic Chronicles*, Various Issues.

⁹² Wongsanupapat, *The History of Ministry*, p. 16.

⁹³For example, Shigeharu, "Historical Geography", p 44; and Hubbard and Hafner, *The History of Inland Waterway*, pp. 36-37.

⁹⁴Paitoon, *An Economic History*, p. 14.

the Noi, Pasak, Lop Buri, Bangpakong, Nakhon Nayok, and Prachin rivers (see Map 2.3). Large boats and rafts could transport Suay from the provinces to Bangkok through the rivers and a network of canals.

Large amounts of Suay from Prachin Buri, Kabinburi, Wattananakorn, Arunyapradesh, Siam Reap and some provinces in Cambodia were transferred at Prachin Buri and prepared for shipment to Bangkok along the Saen Saeb and Bang Khanak canals. The Bangkok Calendar 1873 described major transport routes from Bangkok to Siam Reap in Cambodia and might give evidence of the movement of Suay to Bangkok prior to 1851:⁹⁵

From Bangkok to Prachin, N.E. estimated distance 70 mile by boat
 From Prachin to Chantakham, E by S.-distance by land, 12.5 miles
 From Chantakam to Kabin, E.S.E.- distance 20 miles
 From Kabin, Daan Patrong, E.S.E.-distance 20 miles
 From Daan Patrong to Sha-kaao, S.E.-estimated distance 15.5 miles
 From Sah-kaao to Wattana. E.S.E.-distance 14 miles
 From Arran Se-su-pon, two stages; course E.S.E. distance 35 miles
 From Sk-su-pon to Phra-neat Phra; course E by S-distance 14 miles
 From Phra-neat-phra to Tuck-cho, E. by S-distance 15 miles
 From Tuck-cho to Siam-rap, two stages; course S.E.-distance 36 miles
 The whole distance according to this estimate is 264 miles

Suay from some Cambodian provinces, a Siamese tributary state, was regularly remitted to Bangkok on the route Arunyapradesh-Wattananakorn-Kabinburi-Prachin Buri.⁹⁶

Canals also enabled Chinese traders to travel and settle in the remote areas. The Chinese generally were middlemen, shopkeepers, tax farmers, and small businessmen. They provided the links between Bangkok and villages where the market economy was widespread, such as the eastern coast of Thailand. In Skinner's words: "At the beginning of the nineteenth century, the Chinese population in Siam was almost entirely confined to the coastal regions and the lower reaches of the major rivers."⁹⁷

The Chinese carried goods into regions accessible by canal transportation and exchanged them for money. By 1850, the Chinese controlled the domestic trade linking Bangkok and the villages. Bowring noted that:

⁹⁵ Bangkok Calendar, 1873, p. 121.

⁹⁶ N.L. The Record of the Third Reign L.E. 1200 (1838), no. 37.

⁹⁷ Skinner, Chinese Society, p. 80.

[A]ll active business appears to be in the Chinese hands. Nine out of ten of the floating bazaars which cover for miles the two banks of the Maenam [Manam] are occupied by Chinamen... The Chinese not only occupy the busiest and the largest bazaars, but their trading habits descend to the very lowest articles of barter; and hundreds of Chinese boats are vibrating up and down the river, calling at every house, penetrating every creek, supplying all articles of food, raiment and whatever ministers to the daily wants of life.⁹⁸

Beyond the direct transportation effects, canal construction required a large investment expenditure. Canals involved the largest investment of any public project, including sizable outlays on wages for Chinese hired labourers. For example, in 1837, the Saen Saeb canal was dug. The project was large and took three years to complete, being 53.3 kilometres long and 12 metres wide. The total cost of construction was 96,500 Baht.⁹⁹ Canal projects were labour-intensive works which used thousands of labourers, and canals therefore accounted for the largest source of Chinese immigrants' employment. In 1821, Crawford recorded a wage of 1.25 Satang a day for Chinese labourers. Unfortunately, there is no way of estimating the investment in the whole projects of canal construction in the central plain between 1820 and 1851. We only have estimates of the cost of construction made by Bangkok Dynastic Chronicles for various years .

Canals	Years	Cost of Construction
The Sunak Hawn	1829	8,184 Baht ¹⁰⁰
Canal projects in Thonburi	1831	5,230 Baht ¹⁰¹
The Saen Saeb	1837-1840	96,500 Baht ¹⁰²

The Chaophraya river and network of canals determined the features of settlement in Bangkok. The location of Bangkok before 1851 was to a great degree dependent upon the Chaophraya river. Settlements were found to be concentrated along the bank of river and canals. During the first half of the 19th century Bangkok grew beyond the original walls and by the 1820s settlements of Mons, Chinese, Indians, Cambodians, and other groups, as well as Thais were concentrated in the city. Generally speaking, the northern part of the city was the location for the nobles. The southern part was the Chinese quarter which was the centre of trade and commerce. While the Thais dwelled along the waterways, some non-Thai ethnic group settlements were distributed beyond the city wall. For example, Khmer resided along the Ongang

⁹⁸Bowring, *The Kingdom of Siam*, p. 48.

⁹⁹Kitti, "Canals", p. 53.

¹⁰⁰Wongsanuprapat, "The History", p. 98.

¹⁰¹*Ibid.*, p. 98.

¹⁰²Thipakornwong, *Bangkok Dynastic Chronicle Rama III*, p. 180.

canal, Chinese at Sampeng, Muslim along Mahanak canal, Khmer and Vietnamese at Samsen, Portuguese descendants and Chinese from Ayutthaya at Kuthi Chin, Lao at Ban Chang Lo (Lo: an iron founder), Mon along the Mon and Bang Luang canals, Muslim Shiah at Chaosen, Muslim Suni along the Bangkok Yai canal.¹⁰³ Those non-Thai ethnic groups were mostly engaged in the non-agricultural sector. Generally speaking, the ethnic settlements derived from two sources. Firstly, trade brought an influx of immigrants, chiefly the Chinese. Secondly, war brought in prisoners from Cambodia, Vietnam, and Laos. By 1850 there were clear residential regions in Bangkok.¹⁰⁴

- (1) The bank of Rawb Krung canal
- (2) The bank of Bangkok Yai and Bangkok Noi canal
- (3) The area along Rawbkrung canal, on the Ong-Ang, and Banglumpoo Canal.
- (4) Along the area of Rawbkrung canal at a point where Mahanark canal me
- (e) Along the bank of Chaopraya river, the north of Bangkok Noi canal
- (f) The residential area within the city wall

Waterways also had a notable impact on Bangkok's development as a trading centre. The major trading centres were established along the waterways, either along the banks, or pre-eminently in this period, on the water itself - the "floating markets".

As a general pattern, vendors brought their products to market in boats and also sold to customers on their way. Floating markets were usually at the mouths of canals (Talard Pakklong) or where rivers branched. As a result, settlements of crowded communities were located around the water markets such as Pakklong and Klong Mahanak markets. Some major food markets in Bangkok between 1782 and 1851 were for example, Bangkok Noi, Klong Bangluang, Watthon, Daokanong, Tatien, Klong Maharark, and the old moat canal.¹⁰⁵

The earliest commercial centre on land was the Sampeng district. Sampeng was located around the Wat Sampluem area outside the southeast gate of the royal palace.

¹⁰³ Takashi Tomosugi, *Reminiscences of Old Bangkok, Memory and the Identification of a Changing Society*, the Institute of Oriental Culture, the University of Tokyo, 1993, pp.13-14.

¹⁰⁴ Chulalongkorn University, *The Composition of Physical Growth*, pp. 92-97.

¹⁰⁵ Kiat Jiwakul, *Market Places in Bangkok : The Growth and Development*, Bangkok: Chulalongkorn University Press, 1982, p 7.

The Chinese were concentrated in this district. Many junks came to anchor along the Chaophraya river around the Sampheng district in the early 19th century and Sampeng became the area where both imports and exports were handled. According to Skinner:

The retail trade in Siam was dominated by the Chinese both before and after the impact of Western economic influence. During the first half of the nineteenth century, the great markets for imported goods were Sampheng and the river itself. On arrival at Bangkok, most of the Chinese junks were converted into retail shops: temporary stalls were built on each side of the deck and the Chinese goods attractively displayed. From February to June (in the 1830s) about seventy junks were moored in the river, forming two lines heading downstream, each crowded with buyers who came shopping by boat.¹⁰⁶

Trade stimulated the expansion of wholesale and retail business with a large development of warehouses and other commercial buildings. Sampeng remained a major trading centre from the 1820s until the present day. Bradley, writing in 1837, also noted how waterways determined the major characteristics of Bangkok:

Bangkok, the capital of Siam, is situated on both sides of the river Meinam[Manam], "mother of waters", about thirty miles from its mouth measuring by the course of the river but only about fifteen by a canal which crosses the 'great bend' midway between Bangkok and the gulf. The greatest extent of the city, including all commonly denominated Bangkok, is more than six miles in the direction of the river. The breadth of either part, as separated by Meinam, varies from one and a half to two miles. Bangkok Proper is situated to the right as you ascend the river, on a circular plot of ground, formed by a bend of the river describing the western half its circumference and by a large canal which forms the boundary of the other half... The Meinam is about a hundred rods wide at Bangkok where its course is exceedingly serpentine, as it is also both above and below the city. On entering Bangkok, its course is first southwest, then south, then south-southeast, then east, then again southwest. It is truly a noble river. Ships of the heaviest burden are safely anchored near either shore... The Meinam is the Broadway of Bangkok, while the canals are the inferior streets. Of these are many intersecting each other at every angle. The water both of the river and the canals is at all times considerably turbid; but on standing a few hours it becomes in a good degree pure and is rendered clear as crystal in a few minutes by adding a minute proportion of alum or sulfuric acid. The water thus purified is used for culinary purposes, but a few of the higher classes of the natives; but many of them, and all the common people do not care to have it purer than their "mother of waters"... Go out from the river in almost any direction, you first find yourself in the midst of Chinese gardens, and then in extensive fields of paddy. The gardens produce lettuce, parsley, cabbage, sweet potatoes, yams, turnips, onions, peas, beans, maize, egg-fruits, oranges, lemons, durians, jack-fruit, mangosteens, mangoes, cocoa-nuts, betel-nuts, sugar-cane, and countless other kinds, which can not now be named... Excepting a few comfortable streets within the walls of the city and a very few outside of them, there is scarcely anything that deserves name of street. There are many which are so called, but they are little more than footpaths, so narrow that two can not walk abreast.... The ordinary style of building is to erect two small houses in close proximity to each other, on the same level... Some of these buildings are made of bamboo wicker work and some of bamboo slats and covered with a species of palm leaf. Many of the wealthy Chinese live in brick houses, but only of one storey... Such building line both sides of the street, denominated the great Chinese bazaar. This bazaar is about one mile in length, and affords a market of greater extent and variety than is usually seen in the east. The following are but a few of the many who occupy it, viz. tailors, blacksmiths, druggists, goldsmiths, butchers, dyers, shoemakers, fishmongers and vendors of fruit.

¹⁰⁶Skinner, *Chinese Society*, p. 106.

Floating houses constitute no small part of the city. They line both sides of the Meinam, for a distance of six miles or more, and also some of canals. They are chiefly inhabited by Chinese, and are principally occupied by merchants as shops. There is a remarkable similarity in their size and construction. Their base is about twenty by thirty feet, and from the floor to the eaves is eight feet. That their roofs may be sufficiently steep, and at the same time low, they are made double, as though there were two houses joined closely together side by side. These roofs are covered with a species of palm leaf. Every house has a small wing or enclosed verandah on each end and a verandah in front... Within the ramparts of the city is situated the palace of "his magnificent majesty" the king of Siam, towering quite above all other dwellings. It is a rich structure, and displays not a little taste. Around it are several wats (or temples) which, with their gilded spires and many whitened dormitories for the priests, give that part of the city a pleasant aspect... It remains to describe the wats. Within the city and its suburbs are about one hundred of them.¹⁰⁷

The description of Bangkok in 1837 by Dr. Bradley is very similar to that of John Crawfurd who arrived Bangkok in 1822.¹⁰⁸ From Bradley, as from Crawfurd earlier, and Bowring later, we see a picture of a developing Bangkok, but one still overwhelmingly concentrated along the east bank of the river with the commercial centres clustered along the river bank outside the city wall.

(3) The Role of Chinese Immigrants

We have seen the role of Suay, corvee labour and canals in Bangkok's development. Here we will examine a third element - the role of Chinese immigrants. As mentioned already, the presence of Chinese communities was of long standing in Siam and they were present in large numbers at the old capitals of Ayutthaya and Thonburi. King Taksin himself was a half Chinese. During the reign of King Taksin (1767-1781), the Chinese merchant's role in Siam's foreign trade, especially that of Ch'u-chou or Teochiu increased. Teochiu kinsmen of the king enjoyed high privileges. Sarasin Viraphol noted: "Known as Chin Luang (royal Chinese), many of them were Ch'ao-chou merchants encouraged to go to Siam to engage in foreign trade. They quickly established hegemony over the Sino-Siamese trade, a position previously enjoyed primarily by the South Fukienese group."¹⁰⁹

¹⁰⁷ Bangkok Calendar, 1871, pp. 132-135 based on the Chinese Repository for 1837.

¹⁰⁸ Crawfurd, *Journal of an Embassy*, pp. 78-79 and 140.

¹⁰⁹ Sarasin, *Tribute and Profit*, p. 163.

It seems that the rate of immigration gradually increased at the opening of the 19th century.¹¹⁰ Crawford gave the figure of Chinese migrants in 1822 as 100,000¹¹¹ of which 31,000 lived in Bangkok.¹¹² Burney estimated some 2,000-3,000 Chinese entered Siam annually in the mid 1820s. In the latter part of that decade, Skinner put the figures at 2,000 to 12,000 per year and by the end of the third reign, the annual influx reached 15,000 per year. Vella estimated that by 1850 the number of Chinese in Siam was 250,000.¹¹³ Although it is impossible to estimate accurately the number of Chinese in Thailand prior to 1851, it is clear that the numbers of Chinese steadily increased in the first half of the 19th century. The Chinese settled not only in Bangkok and along the coasts but also deeper into the countryside, undertaking small business and commercialized agriculture.¹¹⁴ Directly associated with the influx of Chinese to Siam between 1820 and 1840 was the increased production of pepper, sugar, and tin.

Estimates of the Chinese population in Bangkok and of Bangkok's population vary widely but Table 2.2 gives some ideas of the magnitude of the Chinese presence in Bangkok.

Table 2.2 Chinese Population in Bangkok 1822-1849

Year	(1) Chinese Population	(2) Total Population	(3) (1) as % of (2)	Sources
1822	31,000	50,000	62	Crawford (1822), II 121, 215)
1826	60, 700	134,090	45	Malloch (1852, 70)
1828	36,000	77, 300	46	Tomlin (1844, 184)
1839	60,000	100,000	60	Malcom (1939, 139)
1843	70,000	350,000	20	Neal (1852, 70)
1849	81,000	160, 154	50	Malloch (1885, 70)

Source: G.W. Skinner, *Chinese Society in Thailand: An Analytical History*, Ithaca: Cornell University Press, 1957, p. 81.

Skinner has drawn attention to the statistical and definition problems of identifying the Chinese community in Bangkok. Owing to inadequate registration, a high degree of cultural assimilation, and the imprecise areas of Bangkok's administration, the numbers can be estimated only imperfectly. Estimates therefore vary widely. However, we can conclude that one of the most important factors boosting

¹¹⁰ Around the 1820s until 1850, there were the political instabilities such as opium war, the internal disorder and famine, in China. Many young Chinese mainly from the provinces of Kwangtung and Fukien in south China emigrated out of China in order to seek a new place for earning a livelihood. Many of these southerners immigrated into Southeast Asian states including Siam.

¹¹¹ Cited in Victor Purcell, *The Chinese in Southeast Asia*, Kuala Lumpur: Oxford University Press, 1980, p. 95.

¹¹² Skinner, *Chinese Society*, p. 81.

¹¹³ Vella, *Siam under Rama III*, p. 27.

¹¹⁴ Skinner, *Chinese Society*, p. 46.

Bangkok's development during the period 1820-1850 was the influx of Chinese labour. Associated with the influx of the Chinese was the rapid increase of non-agricultural employment in Bangkok, for example for the construction of canals, temples, and palaces. The Chinese were found in various non-agricultural occupations: they were tax gatherers, skilled craftsmen and coolie labourers. The influx of Chinese immigrants signalled the expansion of economic activities which depended upon the Chinese labour supply. The Chinese provided the link between village and town, and in turn dominated the urban economies, especially Bangkok. Bangkok was often referred to as a "Chinese city". As well as swelling the labour supply, the Chinese labour population added to state revenues. The poll tax levied on Chinese was one of the largest sources of revenue, and a large part of the expenditure on public works came from the poll tax collected from all Chinese migrants every three years.¹¹⁵ Records show that prior to the early 1850s, many public works were constructed with revenue from the Chinese poll tax. For example, taxes collected in Nakorn Khuenkhan and Samut Prakarn in 1839, 1849, and 1852 were spent on the construction of fortifications for those provinces. In 1852, part of the Chinese poll tax was allocated to moats and fortifications in Bangkok. The rest of the Chinese poll taxes was remitted to the royal treasury for the king's personal spending.¹¹⁶

The dominance of the Chinese in the non-agricultural sector in Bangkok is not hard to explain. First, we may note the absence of Thai free labour for work in the non-agricultural sector. Corvée peasants were prohibited from working outside the traditional client-patron relationship whereas Chinese migrants were free to travel and settle anywhere in the kingdom without restriction. Furthermore, there was an increasing demand for unskilled labour in the royal and public works and in the international trading economy. These circumstances favoured the Chinese. High wage rates also attracted Chinese migrants. The shortage of free labour for the non-agricultural sector was a crucial factor here and Crawford noted in 1821:

The absence of free labour makes it a matter of some difficulty to ascertain its actual price in Siam. The effect of the conscription is of course equivalent to that of a heavy tax upon it. At the capital the price of common day labour is as high as a saluang [Salueng] and a half or seven and a half annas, and carpenters work is paid at the rate of half a tical or 10 annas a day, which rates are at least double those of Calcutta. The nominal wages of a common day labourer at the ordinary price of the highest quality of grain, were he to labour 28 days in the month, would purchase more grain equal to the consumption of 18 individuals.¹¹⁷

¹¹⁵The Chinese poll tax was levied triennially on male Chinese subjects resident in Siam. Until 1851, the Chinese were required to pay 1.5 Baht.

¹¹⁶Sorasak Chuswas, "Phuk Pi: Chinese Poll Taxes in Bangkok Period," M.A. thesis, Chulalongkorn University, 1980, pp. 147-151.

¹¹⁷The Crawford Papers, p. 139.

High wages for labour were also found in rural areas. Table 2.3 below shows wage rates for labourers in sugarcane cultivation in the 1839. The wage rates in Table 2.3 are hard to interpret since the unit of measurement of wages (Baht per rai) do not specify a given period of time. However, it would appear that wage rates were reasonably high in that period.

Table 2.3 Wage Rates for labourers in Sugarcane Cultivation in 1839

Type of Work	Wage Rates (Baht/rai)
to chop soil	3 Baht 2 Salueng
to prepare soil	2 Baht
to dig sugarcane	3 Baht
to dig hole	1 Baht 2 Salueng
to cultivate sugarcane	2 Salueng
to loosen the soil(to maintain the soil)	1 Tumlueng 2 Salueng

Source: N.L. The Record of the Third Reign , J.E. 1201 (1839) ,no. 9.

Secondly, it was the general experience that hired Chinese labourers worked effectively and were therefore popular among the employers. Hired Chinese labourers began to replace Thai Phrai labourers when greater numbers were required for large public projects. Wages for hired Chinese labourers were much cheaper than for Thai labourers. In 1821, wage rates for unskilled labourers were 1.25 Satang per day which represented a yearly cost of 4 Baht 50 Satang for a single hired labourer. Meanwhile, the cost of a Phrai to escape his annual labour stood at 18 Baht. Four Chinese labourers could be hired for a year at the same price.

Employment of Chinese and Bangkok's development

The Chinese formed a substantial component of Bangkok's population, and the Chinese acted as a new economic class in Bangkok, such as unskilled wage labourers, merchants, sailors and so on.

The Chinese were found in many occupations. Some of the most significant involved foreign trade activity. We find the Chinese dominating the junk trade. Indeed in the first half of the 19th century, the Chinese (and certain nobles) replaced the king as the main traders. Hong Lysa writes:

The formula for the stimulation of the economy was to open the country to the inflow of Chinese goods, skills and capital. So successful was this that by the end of the second reign the nobles and Chinese who participated in trade had outstripped the monarch's mercantile undertakings in volumes and profitability... while it was obvious that the kings had certain advantages in the procurement of local goods for trade, they were less intimately acquainted with the routine running business than the Chinese traders.¹¹⁸

Certainly Chinese traders were favoured over those of other nationalities. According to Burney in 1826, Chinese junks paid export duty on sugar at the rate of 1/2 Baht a picul while English merchants always had to pay eight percent for any merchandise they brought in.¹¹⁹

Chinese business acumen was widely recognized, and Cushman has noted:

[t]he Chinese were already famous for their business acumen in the nineteenth century, being looked upon no otherwise than the Jews in Europe. Chinese merchants were said to have grasped more clearly than the native inhabitants the economic possibilities inherent in the Southeast Asian countries where they had settled, and to be readier to turn this knowledge into profitable channels. This was certainly true of the Chinese settlers in Siam. They came increasingly to monopolize Siam's foreign trade from the mid-1700s and during the Third Reign (1824-1851) began to play a more prominent role in the internal economy as well.¹²⁰

The Siamese court continued the practice of employing Chinese. Sarasin Viraphol noted that "John Crawford, writing in the late 1810s and early 1820s, believed the Siamese were officially forbidden, like the Westerners, to trade anywhere in China except Canton. Hence it was necessary for the Siamese, in spite of the official sanction, to continue hiring Chinese to trade for them at other ports.¹²¹ As trade expanded, the Siamese rulers came to rely on the Chinese."¹²²

In addition to their role in the junk trade, the Chinese acted as traders, distributors, commodity collectors closely linked to exports under the patronage of the king. We read that :

¹¹⁸Hong, Thailand, p. 49.

¹¹⁹Cited in Seksan, "The Formation", p. 106.

¹²⁰Cushman, "Fields from the Sea", p. 116.

¹²¹Sarasin, Tribute and Profit, p. 169.

¹²²Ibid., p. 169.

Rama II ordered that *Chin Tien Ho* [Chin means Chinese] built a Vietnamese style ship and ordered *Chin Chan* (name of Chinese migrant) as the captain controlling exported commodities to trade at Muang Kaluntan.¹²³ ... *Chin Chang Seng* whom Phraya Songkhla appointed to be a head of sailors was responsible for trading with overseas countries. He was the one who knew the system of the price movement very well... the king ordered the Muang Trang governor to send *Chin Chan Seng* who lived at Muang Trang to Bangkok at the 11th month. This is to ask him about price to assess the break even price.¹²⁴

We may glean even from such fragmentary evidence that the Siamese court was heavily dependent on the Chinese in dealing with the trade affairs. Doubtless, in many ways, the Chinese provided the skills in all commercial life not only in Bangkok but also in the provinces.

We have already mentioned some estimates of the numbers of ships trading at the port of Bangkok in the early 19th century. The total numbers of crews involved in international and domestic trade, and the tonnage of vessels, must have been considerable. We have, in fact, some estimates, although they must be treated with caution. According to one source, we may estimate around the 1820s as follows. The tonnage of cargoes which was dispatched from Siam to various countries was 44,800 tons. Of those cargoes, those under the management of Chinese amounted to 39,000 tons, and those requiring Chinese workers 8,000 tons, Indian 1,000 tons, Malay 1,000 tons and U.S.A. 800 tons.¹²⁵

The Chinese formed a new class of hired labourers. Thai labour was in short supply because of sparse population, abundant land and exactions on the local population for frequent military service. The Chinese filled the gap by providing an inexpensive labour force. Chinese hired labourers were found to be more efficient than conscripted labourers and Chinese migrants therefore played an active role in the construction of state projects. From the beginning of the period of Rama II (1809-1824), large scale public projects were always carried out by the Chinese. The Bangkok Dynastic Chronicle reported that:

Under the reign of Rama I, when the construction of the Bangkok was undertaken, canals were excavated by the conscripted labour from the vassal countries; Lao and Cambodia. When Rama II came to the throne, he ordered the hiring of Chinese labourers to dig the klong-lad (short-cut) Nakorn khuenkhan. Under the reign of Rama III, Chinese labour was hired to dig the Bang Khanak Saen Saeb canal.¹²⁶

¹²³N.L.The Record of the Second Reign, L.E.1174 (1812), no. 14.

¹²⁴N.L.The Record of the Second Reign,L.E.1175 (1813) ,no. 12.

¹²⁵Kruthep, **Economic and Commerce**, Cremation Volume of Mr Kunching Chothikastien 15 March, Bangkok, 1973, p. 49.

¹²⁶Chaophraya Thipakornwong, **the Bangkok Dynastic Chronicle, Rama IV**, (Vol 1) Bangkok : Kurusapa Publishing Office, 1973, p. 95.

The King [Rama II] named Chaophraya Phra Khlang chief director of excavations for the Sunak Hawn canal. He hired Chinese wage labourers to excavate a lateral canal from the Sunak Hawn canal to the meadow at Pho Hak canal. The wages paid of the Chinese for excavation were 102 Chang, 4 Tum ueng, 1 Salueng, 1 Fuang.¹²⁷

In L.E. 1193 (A.D. 1831) King Rama III ordered Phraya Choduk Rajasethi (Tongchin) as a chief director of canal excavation which was shallow. It ran from wat Pak num to Bangkhuntien. This canal was 14 wa wide, 4 sok in depth, and 78 sen 18 wa in length. The cost of hired Chinese was 245 Chang 18 Tumlueng 1 Baht 2 Salueng, and another part of canal construction ran from Bangkhuntien to meet wat Kok Wat Lao, with the total length of 100 sen. This part of canal cost 381 Chang 19 Tumlueng 3 Baht 2 Salueng. The total cost of canal construction was 627 Chang 13 Tamlueng 1 Baht.¹²⁸

Chinese migrants also constructed the forts to defended Bangkok. In 1829, after the rebellion of Chao Anu of Lao was crushed, the Chronicle of King Rama III revealed:

The king ordered Phraya Choduck Hachasetthi (Thongchin) to erect a fort, in later named the Wichien Choduck fort, at the junction of the Mahachai canal at Sakhonburi. The wages of the Chinese for brickwork were 47 Chang, 15 Tumlueng, 3 Baht 2 saluang, 1 fuang. Then the king ordered the Mon clan under the command of Chao Phraya Mahayotha to live in the Town of Sakhonburi.¹²⁹

During the period 1824-1851, many temple compounds, and at least 30 temples, were constructed, expanded, and repaired exclusively by Chinese migrants.¹³⁰ Among the important temples constructed were Wat Thepthida, Wat Ratchanatda, Wat Chalermphrakiat Wat Borworniwet, Wat Yanawa, Wat Po, Wat Prayunarawong, Wat Rajoraj, Wat Rajanadda, and Wat Prachettupon Vimomangkalaram.¹³¹ In the latter case, medical and other knowledge was inscribed by royal command. The temple has been considered as perhaps the first national university. In the case of Wat Rajoraj, Wat Rajanadda, Wat Daowadueng and Wat Yannawa, the temples were specially designed to look like Chinese junks because the king was concerned that the next generation would not know junks as they were old-fashioned and rapidly being overtaken by western steam ships.¹³²

¹²⁷Thipakornwong, the Bangkok Dynastic Chronicle Rama III, Vol 1. p. 95.

¹²⁸Ibid., pp. 76-77.

¹²⁹Chaophraya Thipakornwong, The Bangkok Dynastic Chronicle King Rama III and King Rama IV, (National Library Volume), Bangkok : Klungwittaya Publishing Office, p. 92.

¹³⁰Kamonluck Tosakul, The Evolution of Labour During the Two Hundred Years of Rattanakosin, Ministry of Interior, Bangkok, 1985, p. 23.

¹³¹Chulalongkorn University, The Composition of Physical Growth.; and Vella, Siam Under Rama III, pp. 43-58.

¹³²Kamolluk, The Evolution, p. 24.

A growing number of Chinese settlers in Bangkok indicated a sizable market for foreign products which were by no means limited to the elite in Bangkok. Chinese settlers themselves were probably the largest group of consumers, and certain amounts of products were purchased by the ordinary Siamese. Sarasin Viraphol, wrote that "imports from China to Siam at this time were numerous, comprising mainly 'assorted cargoes' which included coarse earthenware and porcelain, tea, quicksilver, vermicelli, dried fruits, raw silk, crepes, nankeens, silk fabrics, fans, umbrellas, writing paper, josticks and other minor articles."¹³³ Between 1800 and 1850, one million rice bowls and basins, fifty thousand rice plates and five hundred thousand cups were imported from China.¹³⁴ The volume and types of imported merchandise indicated that considerable numbers of ordinary Siamese purchased these products, which were too numerous to be consumed only by the Chinese and Bangkok's ruling class.

Another significant role of the Chinese was as tax collectors. The extensive use of tax-farming was because the state needed more money in order to spend on public administration. Tax farming was significant for Bangkok's development in numerous ways. A large portion of the revenue from the provinces was remitted to the Bangkok. The largest tax farms were the sugar, gambling, opium, and spirit farms which represented Chinese interests almost exclusively. It is not possible, because of insufficient data, to estimate the revenue collected by tax farmers prior to 1851. The amount of revenue from the farms mainly derived from the Chinese communities and remitted to Bangkok was high. Seksar Prasertkul writes that:

Sugar production, for example, gave rise to at least four taxes, constituting the largest single source of cash revenue in the 1840s. Taxes on pepper, bird nests, gambling houses, spirits, lotteries, to name a few were extracted from Chinese settlers, in addition to the head tax collected from each male Chinese. In 1809, the largest amount of revenue from the gambling tax came from the Chinese town of Chantaburi, and by 1826 it was estimated that the gambling tax in Bangkok alone brought the handsome amount of 120,000 Baht to the state each year. The tax destined to become the largest single source of state revenue throughout the 19th and well into the 20th centuries, however, was the opium tax. It was in 1851, upon Rama IV's ascension to the throne, that seven Chinese tax-farmers jointly proposed a sum of 160,000 Baht to the new king in return for a legal monopoly of the trade.¹³⁵

Tax-farmers were chiefly Chinese and they played an important role in linking Bangkok with the interior, since numerous taxes were farmed out throughout the country, but most intensively developed in the central plain areas where revenues were collected covering a wide range of articles grown and manufactured. Tax collectors

¹³³ Sarasin, *Tribute and Profit*, p. 191.

¹³⁴ For a list of imports from China between 1800 and 1850, see Cushman, "Fields from the Sea", pp. 205-210.

¹³⁵ Seksan, "The Formation", pp. 113-115.

were a crucial part of the Siamese hierarchy. The tax-farmer was a Sakdina position. The position earned the title khun with land holding of 400 rai.¹³⁶

Records of the appointments of Chinese tax farmers prior to 1851 are useful in the study of the position held by the Chinese in Thai society, although Thai documents in Bangkok National Archives are incomplete and hard to interpret. Once a title such as Khun, Luang, Phra, Phraya had been conferred on a tax-farmer, one cannot normally distinguish in the records whether the tax-farmer was Thais or Chinese. Wira Wimoniti has listed certain tax farms and tax farmers in the 1840s:¹³⁷

Sapanwood tax was farmed out to Phra Swad Wari at the amount of 740 Chang, pepper tax, Luang Aphai Wanich, 420 Chang, sundry tax on commodities loaded on junk Chin Chin, 275 Chang; the tax prohibited goods, Chin Chin, [Chin means Chinese] 170 Chang; the tax on fish, Chin Lao Chae, Khun Wise phakdi, 110 Chang; taxes on cotton and gumlac, Chin phlab, Khun Sri Sombat, 174 Chang; taxes on miscellaneous at the rate of 10 per cent, Chin kengsua, Khun Phakdi Akon, 110 Chang; tax on prawn-paste, Chin Tuan, Khun kocha wanich, 52 Chang; tax on sugar, Luang Phithak Thosakon 660 Chang; tax on fire wood used in sugar refineries, Luang Phithak Thosakon, 70 Chang; tax on sugar candy, Chin Be, Muan Mathunos wanich, 100 Chang, tax on palm sugar for Phetburi, Chin kied, Khun Wiset Thosakon, 75 Chang; tax on palm sugar for Nonthaburi, Chin Nim, 4 Chang; tax on palm sugar for Suphan Buri, Nat Yoo, 5 Chang, 5 Tumlueng; tax on cane sugar, Luang Phitak Thosakon, 460 Chang; tax on birds nests for Chumphon and Chaiya, Luang Bantong Wanich, 95 Chang; duties on birds nests and dried prawn for Songkhla, Phraya Songkhla, 55 Chang; duty on birds nests for Saiburi, Phraya Nakhon 73 Chang 5 Tumlueng, 2 Baht, 2 Salueng; tax on bamboo for Suphan Buri, Nakhonchaisri, and Pathum Thani, Nai Khong, 8 Chang, 10 Tumlueng; tax on bamboo for Ratchaburi, Phetchaburi and Smut Songkhram, the governors and provincial officials 12 Chang, 1 Baht 2 Salueng, 1 Fuang; tax on cotton of Pranburi, the provincial officials 2 Chang, 19 Tumlueng, 2 Baht, 1 Fuang, 352 Bia; taxes on planks and logs for Bangkok, Smut Songkhram, the provincial officials, 3 Chang, 2 Tumlueng; tax on scombui fish, collectors for taxes on meat and fish 20 Chang 2 Tumlueng. They totaled 3,680 Chang, 9 Tumlueng, 2 Baht, 1 Salueng, 1 Fuang 352 Bia (294,483 Baht 46 Salueng).¹³⁸

The above list indicates that a large portion of revenues of 294,483 Baht remitted to Bangkok were derived not only from sugar but also from other categories, namely sapanwood, pepper, sundries, prohibited goods, fish, cotton, gumlac, tobacco,

¹³⁶ The role of tax farmers as a capitalist class has been studied by a number of scholars, both the Thais and foreigners. For interesting works, see Chauthip, The Political Economy of Siam, 1850-1910, pp 31-35; Sirilak Sakkriangkrai, the Origins of the Capitalist Class in Thailand, Bangkok: Sangsan Press, 1981 ; Constance M. Wilson, "State and Society in the Reign of Mongkut, 1851-1868: Thailand on the Eve of Modernization", Ph.D. History Thesis, Cornell University, 1970, pp. 607-643; Suehiro Akira, Capital Accumulation in Thailand 1855-1985, Tokyo: The Centre for East Asian Cultural Studies, 1980.

¹³⁷ Wira, "Historical Patterns", pp 61-62 based on N.L. The Record of King Rama III. L.E. 1207 (1845), no. 56.

¹³⁸ Ibid., p. 43 and the total amount 294,483 Baht was not the total receipt of the government. Receipts of the other department (Krom) were not included (ibid., p. 43).

prawn paste, firewood, sugar candy, palm sugar, cane sugar, birds nests, bamboo, plank, log and scomui fish. The rise of the Chinese tax farmers and their noble allies in the Bangkok period was one of the significant factors to contribute the economic change in 19th Century Siam.

Chinese tax farmers became one of the biggest groups of money lenders, sometimes advancing money to the peasants and being repaid either by peasant labour or produce as interest: "The tax farmer thus became a bureaucratic capitalist armed with both financial and political power. He squeezed the surplus product out of his fellow Chinese labourers and Siamese peasants."¹³⁹ Before and after the Bowring Treaty of 1855, tax-farming extracted a growing revenue from the provinces. Wilson noted:

Tax farming could prove profitable and prestigious for an ambitious farmer. Many Chinese who successfully operated farms were rewarded by the government by receiving Thai titles and Sakdina grades and were accepted on a social level with Thai nobility. Their rank of Chao Phasi admitted them into a small exclusive group which was effective in wielding influence in obtaining appointments as heads of tax farms for their sons, close relatives and special clients.¹⁴⁰

Conclusion

Despite the overwhelming significance of Bangkok in Thailand's economic development, to the point that Bangkok is often cited as an archetypal "primate city", scholarly work on the historical details of Bangkok's development and role has been limited. This chapter, focuses on three related themes, Suay and manpower; canal construction and Chinese migrants. Together they enable us to put the emergence of Bangkok in the pre Bowring Treaty period in clearer perspective.

By about 1820 Bangkok had surpassed other Thai-speaking centres in terms of size and commercial significance. We might even speak of "primacy", although this was as much a product of the small size of provincial centres as it was of Bangkok's eminence.

If the size of Bangkok cannot be estimated with confidence, even more uncertain are estimates for other centres. Yet such data as we have suggest beyond doubt that from an early period no other Thai-speaking centre approached Bangkok in

¹³⁹ Chatthip, *The Political Economy of Siam, 1850-1910*, p.32.

¹⁴⁰ Wilson, *State and Society*, p 637. There are several records of Chinese who prospered and advanced in the social strata (*ibid.*, pp. 637-643).

size or economic significance. Yet Bangkok's population contained no more than 50,000 to 100,000 around the 1850s.

It is not hard to account for Bangkok's early ascendancy. Bangkok was a royal city, main religious centre, and port of international trade. As such it drew goods and people from the countryside and also brought an influx of migrants (mostly Chinese). Also swelling the population were "forced migrants" (war prisoners). Above all, though, we should stress the geographical features in Bangkok's primacy: the river and canals.

The three key elements which contributed to Bangkok's dominance of Siam and early primacy among Thai-speaking centres between roughly the 1820s -1851, the control of Suay and manpower; canal construction; and the role of Chinese immigrants, were interrelated. Suay and other exactions on the population provided goods both for trade and for construction and other royal purposes. Among these projects was canal construction, which facilitated internal and external trade. Labour and enterprise were supplemented by immigrants, mainly Chinese, who played a major role in Bangkok from the start.