

Bangkok's Population and the Ministry of the Capital in Early 20th Century Thai History

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Abstract

This paper explores two related themes in Bangkok's development. Population growth, though lower in absolute terms than sometimes suggested, grew rapidly from the 1880s. This put pressure for administrative change, and one result was the formation of the Ministry of the Capital in 1892.

I Introduction

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 Schuurman at 410,000, in 1828 by Tomlin at 77,300, in 1835 by Dean at 505,000, in 1839 by Malcom 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 [Skinner 1957 : 81 ; Terwiel 1989 : 226]. A further discussion of the problem of estimation is given in the next section.

If the size of Bangkok cannot be estimated with confidence, even more uncertain are estimates for other centres. Yet such data as we have suggested 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 (26,200 according to a 1849 estimate) [*ibid.* : 142], Chantaburi 36,900, Saraburi 14,320 and Phitsanulok 5,000 [Sternstein 1964 : 300–305].

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

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were "forced migrants" (war prisoners). Above all, though, we should stress the geographical features in Bangkok's primacy : the river and canals.

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 paper, which forms part of a wider study of Bangkok's economic history,¹⁾ focuses on two related themes which together enable us to put the emergence of Bangkok as a primate city in the 19th century in clearer perspective.

First, we review population estimates for Bangkok. Here, the major point is this : Bangkok's population was much smaller than often suggested in the 19th century. Indeed, at the time of the Bowring Treaty in 1855, Bangkok's population would be numbered in tens, rather than hundreds of thousands, much of this population river dwelling and transient. The major changes came only from about the 1880s and 1890s, with a marked acceleration of population growth (much of it caused by Chinese migration) and an expansion of permanent land dwelling. As long as the area of Bangkok was confined, and the population small, city regulation could be maintained within the traditional Siamese social structures, with Bangkok being, in effect, a royal domain. But increasingly the strains of a burgeoning capital led to new forms of administration which had, nonetheless, to keep control in royal hands. Thus the second part of our paper looks at the creation and the role of the Ministry of the Capital, formed in 1892. The key point here is that the Ministry was a branch of royal supervision, rather than the sort of urban government independent of royal control which evolved in London and other European cities in earlier times. Thailand was an absolute monarchy until 1932 and absolutism had implications for Bangkok as well as for Siam's progress in general. The linking Bangkok administrative structure with royal interests produced both a physical and economic stamp on Bangkok which has had an enduring effect on Bangkok's development.

II Population Change and Estimates of Bangkok's Population

The number of population and population movements are of significance when studying aspects of Bangkok's growth. Population change and economic change are interactive. This chapter attempts to estimate tentatively the population in Bangkok in the 1900s and 1910s, and then to estimate growth rates in the prior and subsequent periods.²⁾

1) The author is at present preparing a general economic history of Bangkok in the period 1820–1990.

2) To understand the relation between the growth of the economic activity and the city's population growth, Williams gave a clear example : he claimed "To illustrate the principle, we can use the adoption of manufacturing establishments in a city, a process that has been one of the major ways cities grew in the past. The decision to locate a factory in an urban area stimulates general economic development and also accounts for population growth are obvious. Opportunities for employment and increased income are provided ; business output increases due to a greater demand for products. Rising profits increase savings, which also causes investments to rise, in turn pushing up the demand for another level of profits. Increased productivity results in an increased demand for labour. The growing population then reaches a new level or threshold, again resulting in a new round of demands. As cities move to a new population level ,whether 250,000 or 1 million, they are able to offer a greater number and variety of services than they could with fewer inhabitants. In sum, the growth of cities is cumulative and is strongly influenced by changes in ↗

Bangkok's Population until 1909/10

There are no reliable population statistics for Bangkok (or Siam as a whole) prior to the 1920s. Though there are some relevant data in the National Archives, for example labour registrations and tax collection records, all these are scant and difficult to interpret and compare.

Estimates of Bangkok's population between the mid-19th century and 1909 also vary widely (Table 1).

Table 1 Estimates of Bangkok's Population, 1856–1909

Year	Approximate Population	Sources (quoted by Sternstein)
1856	350,000–400,000	<i>Das Konigreich Siam' Mittheilugen Von Peyerman</i> , Vol. 2, 1856, p. 159
1883	400,000–600,000	<i>The Stateman's Yearbook</i> , London, 1883, p. 276
1875	225,000	<i>Whitaker's Almanac</i> , 1875, p. 288
1889	500,000	Caddy, F., <i>To Siam and Malaya</i> , 1889, p. 214
1891	600,000	<i>Whitaker's Almanac</i> , 1891, p. 556
1895	200,000	<i>The Stateman's Yearbook</i> , 1895, p. 935
1896	500,000	Macgregor, J., <i>Through the Buffer State</i> , 1896, p. 60
1900	600,000	<i>Greater Bangkok plan</i> , p. 23
1902	600,000	<i>The Stateman's Yearbook</i> , 1902, p. 1060
1903	500,000	Carter, A. C. ed., <i>The Kingdom of Thailand</i> , 1904, p. 111
1906	400,000	<i>The Stateman's Yearbook</i> , 1906, p. 1395
1909	500,000	Graham, <i>Siam</i> , Vol. 1, p. 113

Source : Compiled by Sternstein [1964 : 298–324].

It should be emphasized that Larry Sternstein discussed these estimation some thirty years ago (in 1964),³⁾ and since then both he and other scholars have produced more refined estimates. Reasons for such varied estimates are not hard to find.

One major and continuing problem is the boundaries of what we may consider “urban Bangkok.” Even with settled administrative boundaries, the nature of development is such that urban settlements often spill over into other administrative areas, and only later does legislation catch up with reality. In Bangkok before 1892, no provincial administration was established. The boundary of Bangkok's administration remained unclear, hence the estimation of population was a difficult task, definitions of residents and of the city itself were varied, and this made any assessment exceedingly complicated. The physical nature of Bangkok by itself made it difficult to assess

↘ economic functions provided. To explain why some cities fail to grow or even why they decline, we can merely reverse the cycle or process. Cities stagnate or die because they lose industries and population, conditions which create a negative circular and cumulative causation” [Williams and Brunn 1992 : 28].

3) 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” [Sternstein 1966 : 69]. 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 starting changes have occurred in the past century, very like the pattern of today” [*ibid.* : 67].

the correct number of people. Many settlements in Bangkok prior were on water. Numerous floating houses or shops were located along the banks and waterways of the Chaophraya river and the various canals.⁴⁾ An excellent recent description of settlements in Bangkok prior to 1880 is given by Askew :

The first land-based settlements clustered along waterways near the wat [temple] which served religious, educational and recreational functions. These “*Bang*” [which may be translated as “water hamlet”] settlements formed a loose network around the terrestrial urban core of the palace and its moats. Given that rights to occupy land (and transmit land to offspring) stemmed from the king, settlement on land followed the progressive granting of land to the nobility and other royal servants, as well as the foundings of temples. While the great mass of the urban population continued to live on the water until at least the close of Rama IV's reign, the movement onto land was pioneered by the nobility building palaces and the establishment of temples. After 1855 European traders settled along the southern reaches of the river and were soon occupying houses and shops on land. More important to the ecology of the emerging land-based city than the *farang* [westerners], however, were various distinctive ethnic and occupational communities. The ethnic mosaic which comprised settlement groups such as the Chinese at Sempeng, the Indians of Pahurat, the Vietnamese of Wat Yuan, the Khmer of Samsen spread in a loose pattern of “Yarn” (districts) around the city wall. The clustering of *Bang* and *Ban* (villages) was the earliest pattern of settlement. [Askew 1994 : 162–163]

Secondly, the techniques employed to estimate Bangkok's population by foreign visitors were very doubtful. For example, Neal's 1840 estimate of 350,000 people rested upon two principles : (1) the number of floating houses or shops equaled the total number of residential houses or shops and amounted to some seventy thousand ; and (2) the number of people per housing unit equalled five [Sternstein 1964 : 118]. Bowring's figure of 300,000 was also questionable, and his estimation was confined to the eastern part of the Chaophraya river [*ibid.* : 119] .

Thirdly, the wide range of population estimates was affected by fluctuations in the number of Chinese migrants. The Chinese constituted a substantial component of the entire Bangkok's population prior to 1950, and Chinese migrants, mainly males, would typically live in Thailand for a few years and return home after they accumulated enough wealth. It was therefore difficult to assess their numbers accurately.

A recent and careful consideration of the problem of various widely differing estimates by Terwiel concludes that the city contained no more than 50,000 to 100,000 around the 1850s [Terwiel 1989 : 233]. That is far from the 300,000–500,000 often quoted. A postal census in 1882 suggests a population then of perhaps 120,000 people [*ibid.* : 232]. According to Terwiel, in the early 19th century Bangkok was still a very new city whose small size still reflected the Burmese attacks. There is nothing to warrant the idea of spectacular growth within half a century to 300,000 or even 500,000 people. In addition, life expectancy was not high. There were serious diseases, such as smallpox which took its yearly toll of children, and two very serious epidemics of cholera in 1820 and 1849 [*loc. cit.*].

4) There are a number of accounts dealing with Bangkok in the aspects of floating houses in the early 19th century. See Crawford [1967 : 78–79] ; Bradley [1837 (1870)] ; Neal [1852 : 130].

Bangkok's Population, 1909/10–1932

Again, there are many and varied estimates of Bangkok's population between 1909/10 and 1932 (Table 2). Estimates vary in part because the survey areas were not the same. Some covered the area of Bangkok city proper ; some excluded Thonburi ; some excluded eight outer *amphurs* [districts] ; and some focused on both Muang [city] Pranakorn and Muang Thonburi. Thus, it is impossible to use these figures to plot the real growth of Bangkok's population in various periods.

The first population census in 1909/10 does not include a figure for metropolitan Bangkok. The high figure (606,706) shown in Table 2 obviously included areas outside the true built-up area. More interesting is an estimate from 1913 of 402,905 which excluded Thonburi and covered 19 *tumbons* [wards or villages] in Pranakorn (Table 3). The population still clustered around the river and canal boundaries in the districts of Chakkrawat, Prarajawang, Samphuntawong, Pomprab, Bangrak and Pahurad.

The 1919 census counted 478,994 in Bangkok-Thonburi of which 337,236 lived in Changwat [province] Pranakorn and 141,758 in Changwat Thonburi [Wilson 1983 : 32] (Table 2). Surprisingly, Bangkok's population residing in Pranakorn declined compared to the previous estimate in 1913 shown in the Table 3. Possibly, the previous census in 1913 gave an overestimation.

The census of 1919/20 counted the population of Changwat Pranakorn as 356,572–359,846 [N. A. R. 6. M. of the Capital 30/10(1922/23)]. The distribution by ethnic groups was : Thais, 225,729 ; Chinese, 116,431 ; Indians, 14,193 ; Europeans and U. S. A., 1,447 ; Vietnamese, 716 ; Cambodian, 523 ; Burmese, 511 ; Japanese, 232 ; other, 64 [*loc. cit.*]. Graham quoted the revised population census in 1919/20 indicating some 345,000 as the population of the city proper [Graham 1924 : 113].

In 1927/28, *The Directory for Bangkok and Siam* gave the population of the registration area of Bangkok [Pranakorn] as 548,400. In 1932, Bangkok's population [Pranakorn] had increased to 550,000 [Anonymous 1938/39 : 225]. In 1929, a census indicated that number of population in Bangkok was 702,544 of which some 529,751 lived in Pranakorn, and some 172,573 were in Thonburi [Wilson 1983 : 32].

Table 2 Estimates of Bangkok's Population, 1909/10–1932

Year	Approximate Population and Areas		Sources
1909/10	606,706	(Monthon* Krungthep)	[N. A. R. 5. M. of the Capital 30/10(1910–12)]
1913	402,915	(Pranakorn including 8 inner <i>amphurs</i>)	[N. A. R. 6. M. of the Capital 27/8 (1920/21)]
1919	478,994	(Pranakorn & Thonburi)	[Wilson 1983 : 32]
1919/20	359,846	(Pranakorn)	[N. A. R. 6. M. of the Capital 30/10 (1922/23)]
1919/20	356,572	(Pranakorn)	[Ministry of Interior 1948 : 9]
1919/20	345,000	(Bangkok city proper)	[Graham 1924 : 113]
1927/28	548,400	(Pranakorn)	[Anonymous 1928/29]
1929	702,544	(Pranakorn and Thonburi)	[Wilson 1983 : 32]
1929	529,751	(Pranakorn)	[Ministry of Interior 1948 : 9]
1930	687,966	(Pranakorn and Thonburi)	[N. A. M. of Finance 0301.1.1/13 (1931)]
1932	550,000	(Pranakorn)	[Anonymous 1938/39 : 225]

* *Monthon* is unit of provincial administration or "circle." One *monthon* contains a set of provinces.

Table 3 The Distribution of Population in Bangkok in 1913

<i>tumbons</i>	Number
Phrarajawang	34,086
Sathorn	14,992
Sumphuntawong	29,982
Chanasongkhram	20,154
Bangrak	21,624
Phayathai	1,926
Samyaek	9,996
Samsen	9,556
Pomprab	29,638
Nanglerng	13,162
Dusit	4,296
Prachairchin	4,588
Sarapatum	19,696
Bantawai	32,716 [sic]
Sumranraj	15,618
Samyord	16,490
Pahurad	28,074
Bangkhunphrom	10,252
Chakkrawat	46,730
Total	363,576
Unidentified floating houses	32,212
Number of Monks	7,012
Vagrants	115
Grand Total	402,915

Source : [N. A. R. 6. M. of the Capital 27/8 (1920/21)]

Note : Spelling is from the original.

Not until 1960 was there a census for what might reasonably be considered “metropolitan Bangkok,” and even today the census figures may be inaccurate by a factor of one-fifth (because of unregistered and uncovered slum dwellers, for example).

Figures for earlier years need to be reconstructed. I will not attempt to re-estimate figures for the 19th century, but will start with the first moderately reliable figure in the early 20th century. The authorities took considerable pains to come up with an accurate figure for the population of Pranakorn and Thonburi in the 1910s. Following the 1909/10 Census, resurveys were carried out each subsequent year in an attempt to refine the figure. All wards [*tumbons*] in the inner *amphurs* in Pranakorn and Thonburi⁵⁾ were selected as units of survey. A comparison of the original figure and the third revision in 1913 showed considerable variation in all the 25 *tumbons* in the eight inner

5) The inner *amphurs* under the administration of Ministry of the Capital in the late 1900s were as follows ; Pranakorn, Sampeng, Dusit, Bangrak, Bangkok Noi, Sarapratum, Bangkok Yai and Banglumpoo lang, the outer *amphurs* comprised Bangkok, Bangsue, Bangkok, Bangkok thien, Rajaburana, Talingchan, Pasricharoen, and Nongkham [N.A.R.5. M. of the Capital 1.4/1 (1906–1910)].

districts (Table 4).

After this revision had reduced the original census figure by around a third, the authorities

Table 4 The Comparison of Bangkok's Population Basing on the Population Census in 1909/10 and 1913

<i>tumbons</i>	No. of Population 1909/10 Census (Second Revision) Year 1909/10 (1)	No. of Population 1909/10 Revised Census (Third Revision) Year 1913 (2)	(Increase+) (Decrease-) (3)=(2)-(1)
Rajakrea	4,024	3,881	-143
Samyaek	10,488	5,157	-5,331
Samsen	9,771	4,353	-5,418
Bangkhunprom	10,734	5,297	-5,437
Prachairchin	4,588	2,802	-1,786
Phayathai	1,926	624	-1,302
Samyod	16,765	8,367	-8,398
Prarajchawang	34,804	14,703	-20,101
Bukkkalo	5,434	5,981	+547
Samphuntawong	30,454	15,144	-15,310
Amarin	15,403	13,328	-2,075
Nanglerng	13,432	8,260	-5,172
Dusit	4,772	2,924	-1,848
Chanasongkhram	20,655	10,427	-10,228
Pomprab	30,050	16,323	-13,727
Sathorn	14,992	7,452	-7,540
Wat-hong	8,942	9,910	+968
Chakkrawat	47,275	23,852	-23,423
Sarapatumwan	20,110	10,773	-9,337
Bubpharam	22,853	23,520	+667
Ban Tawai	32,989	16,376	-16,613
Bangrak	21,999	12,962	-9,037
Samranraj	16,133	14,918	-1,215
Pahurad	28,651	15,050	-13,601
Bangplad	8,474	8,147	-327
Floating houses which were unidentified	104,961	104,961	-
Total	540,679	365,492	-175,187

Source : [N. A. R. 6. M. of the Capital 27/3 (1909-1914)]

Note : The interpretation in the table 4 should be done with caution. There are no reasons to support that people lived in floating houses formed around a third of the total population in the early 1910s. Bradley found that floating houses appear to have been diminishing in number for several years since [c 1860]. The postal census in 1883 shows that a fifth of household heads in the city worked the land [Sternstein 1982 : 79].

considered the population of the built-up area of metropolitan Bangkok in 1910 was 365,492.⁶⁾

Broadly, it presumes that Bangkok's population in the city proper areas and a wider area surrounding was approximately 360,000 in the early 1910s. The figures were quite far from the figure of 400,000–600,000 often quoted.

Discussion

As we know, there was no national census in Thailand until 1909/1910, and even then the figures, for Bangkok especially, were incomplete and unreliable. However, various official revisions leave us with a fairly reliable estimate for 1909/10, and this may be compared with the later censuses estimate for 1929/30 and 1937 (the municipality of Krungthep was created in 1937) which are generally considered reliable. Earlier, we have to rely on very impressionistic estimates which vary widely, with the exception of the year 1883 for which we have the first postal census. It is possible to use the Postal Census to get a reasonable figure for Bangkok's development in 1883.⁷⁾

Of course, as time went by, the area of Bangkok expanded. In so far as new populated areas were brought within "Bangkok," Bangkok's population growth increased from this source, as well as from immigration and natural increase. However, it is evident that outside Bangkok proper,

6) Graham was concerned about the revised census of 1909/10 for the population in Bangkok : "The Census [1909/10] began with a leisurely enumeration, which by dint of repeated checking and revision, was at length brought within measurable distance of a fairly accurate representation of the number of the people. This was followed by an annual revision of the registers, and it is claimed by the authorities that the figures now given are substantially correct. There is, however, evidence to show that here and there, especially in outlying districts where the intelligence of enumerating officer is not of the first order, errors of more or less importance exist. Moreover, it is known that the first enumeration of Bangkok city gave numbers about 14 percent in excess of truth" [Graham 1924 : 113].

7) In the absence of an actual count, the best estimate for Bangkok's population may be obtained from the Bangkok postal census in 1883. The Bangkok postal census [*Sarabanchi*] was published to facilitate the postal service by the Post and Telegraph Department in 1883. The population census recorded the name of the residents and their addresses. The register is into four volumes, with varying titles. The First volume under the title "*Sarabanchi Suan Ti 1 Kue Tamnang Ratchakarn Samrap Chao Phanakngan Krom Praisani Krungthep Mahanakorn Tangtae Chumnuan Pi Mamae Benchasok Chulasakarat 1245*" (Register, Classified Directory of the Royal Family and Government Officials since a Year of Sheep, The Department of Post and Telegraph, Bangkok, 1883). The remaining three volume was under the title "*Sarabanchi Suan Ti 2-3-4 kue Ratsadorn nai Changwat Thanon lae Trok Samrap Chao Phanakngan Krom Praisani Krung thep Mahanakorn Tangtae Chumnuan Pi Mamae Benchasok Chulasakarat 1245*" (Register, Parts 2-3-4 of the Population of Changwat [Krungthep] Following a Road and a Lane since a Year of Sheep, by The Department of Post and Telegraph, Bangkok, 1883). The first volume lists all governments, their personels, consulates, monks. The second volume was also the subtitled *Tanon lae Trok* (Streets and Lanes), the third lists *Ban Mu lae Lamnam* (Villages and Waterways) and the fourth contains *Khu lae Khlong Lam Patong* (Ditches and Irrigation Canals).

I have tried to collect all volumes (in form of a microfilm) from Bangkok National Library, unfortunately, some parts of the postal roll are missing. The quality of the microfilm is poor. It is difficult to work with [especially the copy of volumes 2-4] because there is considerable inconsistency in the ways in which the data are collected such as no surnames in uses. However, the postal rolls are invaluable sources for the historical studies of Bangkok at the latter half of the 19th century in various aspects ; population, ethnicity, occupation, economic activities, social relations and types of buildings and houses. (Interesting works are based on the 1883 postal census, see Wilson [1989 : 49-58 ; 1990 : 84-88]).

population was sparse ; it was Bangkok's growing population spilling into new areas rather than the absorption by Bangkok of populated areas which was the dynamic factor. Thus, figures for Bangkok's growth give a reasonable idea of urban growth and the additions from already settled populations in newly-absorbed areas were not great.

We have, then, a figure for 1909/10. We have also a reasonable estimate for 1883 (169,300) [Sternstein 1982 : 78-79]. Can we go back further? We know that in 1782, there was already some settlement on both banks of the river. Rama I chose for his new capital, and by the end of the first reign it would be unreasonable to suppose the capital had more than 50,000 or so. Terwiel's work suggests that at the Bowring Treaty (1855) Bangkok's population may have reached around 50,000-100,000. These are, of course, only very rough estimates, and it is well known that the river dwelling population makes it impossible to seek much more. That said, we may suppose the following (Table 5).

Are the growth rates reasonable and internally consistent? In 1929/30, the Department of Revenue collected population information as the basis for assessment of various taxes (on paddy land, orchards, gardens, houses and shops, and the capitation tax).⁸⁾ Assessments were made by Headmen, Village Elders, assessors and checked by District Collector [Smuh Banchi].⁹⁾ This survey

Table 5 The Population of Bangkok, 1855-1937

Year	Population	Average Annual Growth Rate (%) ¹⁾	Sources
1855	100,000	-	[Terwiel 1989 : 233]
1883	169,300 ²⁾	1.90	[Sternstein 1982 : 78]
1913	365,492	2.60	[N. A. R. 6. M. of the Capital 27/3 (1909-14)]
(1929/30)	(687,966)	(3.79)	
		[between 1913-1929/30]	[N. A. M. of Finance 0301.1.1/13 (1931)]
1929/30	702,544	3.92	[Wilson 1983 : 32]
1937	890,453	3.44	[<i>loc. cit.</i>]

1) Calculation is based on compound growth rate ($P_n = P_0 (1+r)^n$).

2) Sternstein did not show the process of the estimation of population that how the figure of 1883 (169,000) was obtained. After I carefully investigated by the existing original copy, no records of 169,000 exist or even 119,700 that he believed that lived in the city proper [Sternstein 1982 : 80] as a part of the census. Perhaps, he estimated the population by simple head count from the postal census and then multiplied by average family members. The interpretation of Bangkok's population 1883 by Sternstein should be done with caution because the postal census did not count the whole population in Bangkok but rather recorded the name of the residents, mostly, heads of households engaged in various types of employment in Bangkok such as Royal palace, Krom (government department), marketing, commerce, manufacturing, agriculture and animal husbandry and so on. However, under the circumstances that some parts of the postal rolls are missing and unreadable, we will accept Sternstein's estimate as a pioneer of work.

8) In addition to the above assesses taxes, the *amphur* revenue officers collected and accounted for all other taxes and fees payable at the *amphur* office [N.A.M. of Finance 0301.1.1/13 (1931)].

9) The total amount of taxes and fees collected and accounted for in 1930 was as follows. Pranakorn ; the total collection was 2,742,568 Baht reaching an average collection per *amphur* of 228,547 Baht. Thonburi ; the total collection was 526,417 Baht reaching average collection per *amphur* of 58,491 Baht [N.A. M. of Finance 0301.1.1/13 (1931)].

estimated the population of Bangkok as 687,966 of which 511,315 lived in Changwat Pranakorn and 176,651 in Thonburi (Table 6).

This survey also gave similar result to the 1929/30 Census (702,544) (Table 5). Comparing this to estimate of 1913 (365,492) for Bangkok city proper and surrounding areas would give an annual increase of 3.79–3.92 percent and 3.44 percent annually in the period of 1913–1929/30 and 1929/30–1937 respectively. This high growth rate compared to the earlier periods is possible given Chinese immigration and the expansion of urban administrative boundary.

What do these figures tell us about growth rates in Table 5? The high population growth rates indicate an enormous growth in the physical size and economic diversification of Bangkok and in the nature of Bangkok's primacy. The period is that of the 1880s to the 1920s. Briefly, in those years saw a change from a city based on water (river and canals) to one based on streets and roads [especially from the 1890s]. The investment by the Privy Purse Bureau played an important role in changing the physical shape of the capital [Tongsari 1983 ; Suebvattana 1985 ; Wattanasiri 1986]. This was the era of the railway, the tram and other innovations. It was also the era of a large influx of Chinese migrants. The numbers of Chinese in-migrants were around 16,000 a year in the 1880s, 25,000 in the 1890s, 60,000 between 1900 and 1920, and over 100,000 a year in the 1920s. In the 1930s, with the depression, arrivals decreased to 45,000 a year in the 1930s [Skinner 1957 : 173]. Throughout, arrivals exceeded departures. Between 1918 and 1931, the surplus of arrivals over departures averaged 35,700 a year [*ibid.* : 61, 173]. We may note that in emphasizing change from the 1880s and 1890s, we are somewhat altering the more familiar perspective of Thai historiography that usually looks at the various reigns as separate entities.

Table 6 The Distribution of Bangkok's Population in 1930

<i>amphur</i> (Changwat Pranakorn)	Population	<i>amphur</i> (Changwat Thonburi)	Population
Phra Nakorn	80, 834	Pasrichareon	31, 968
Sampuntawong	67, 669	Bang Khuntien	26, 494
Bangrak	59, 712	Glong Sarn	24, 221
Pom Prab	58, 454	Bangkok Noi	20, 647
Prathumwan	46, 206	Talingchan	18, 602
Ban Tawai	44, 698	Bang Yirua	15, 779
Bangsue	35, 838	Bangblad	15, 128
Dusit	33, 004	Bangkok Yai	13, 542
Nanglerng	28, 692	Buggalo	10, 270
Bhra Kanong	27, 846		
Bangkapi	17, 978		
Bangkhen	10, 384		
Total	511, 315	Total	176, 651

Source : [N. A. M. of Finance 0301.1.1/13 (1931)]

Note : Spelling is from the original.

III The Ministry of the Capital and the Administration of Bangkok (1892–1922)

With the growth of Bangkok came pressure for greater administrative regulation and new sources of revenue raising. The 1890s was a critical decade in the evolution of Bangkok as a true metropolitan centre and political capital, and among the many important changes of that era was the formation of a new Ministry overseeing Bangkok in 1892. The Ministry of the Capital controlled a great deal of the revenue and expenditure concerned with Bangkok's development between 1892 and 1922, and worked closely with the Crown Property Bureau which was an active in developing new areas of Bangkok, erecting houses [Tongsari 1983 ; Suebvattana 1985 ; Wattanasiri 1986] and in other ways promoting change in the capital. In this way, Bangkok's growth remained closely tied to its royal status.

Only gradually was an effective local administration established in Bangkok. Prior to 1892, there was no formal administrative body outside the area of the grand palace itself, and little is known about the Bangkok administration in this era. As far as we know administration was a dual structure — one for the traditional court areas, and another for the newly growing (predominantly Chinese) areas including the port. As a 1909 document makes clear, the latter fell to the Harbour Department :

For a long time before the early 1890s, the local government administration in Bangkok was ruled by the traditional Nakornbarn (Capital proclamation). There were hundreds of districts which depended on such Bangkok administration. The Chinese *amphurs* were under the administration on the left Harbour Department (Krom Ta Sai), while the Thai *amphurs* were under the administration of the Department of City. Bangkok was also administered by a court of justice. [N. A. R. 6/1. M. of the Capital 9.1/66 (1909)]

By 1892, the city had grown to sufficient size and complexity to warrant change. In that year the Ministry of the Capital (Krasuang Nakornbarn) was established as part of Prince Damrong's great reform. The first Minister of the Capital was Prince Naresworarit, an ineffective official of a family which later played a not insignificant role in Thai politics (Kridakorn).

The power, budget, and jurisdiction evolved only slowly. In the 1890s, with the flourishing of trade, the influx of the Chinese immigrants, and the increase of Bangkok's population, the built-up

Table 7 *Amphurs* under the Bangkok's Administration 1897–1915

8 Inner <i>amphurs</i>	8 Outer <i>amphurs</i>
Pranakorn	Bangkapi
Sampeng	Bangsue
Bangrak	Bangkhen
Sarapatum	Bangkhuntien
Dusit	Rajaburana
Bangkok Noi	Talingchan
Bangkok Yai	Pasrichareon
Banglumpoo Lang	Knongkham

Sources : [N. A. R 6/1. M. of the Capital 9.1/66 (1909);
N. A. R. 5. M. of the Capital 4.1 (1906–10)]

Note : Spelling is from the original.

area of Bangkok expanded and congestion increased. Between 1897/1898 and 1922, Bangkok and its surrounding areas were put under the administration of the Ministry of the Capital [*ibid.*]. The districts in Bangkok were divided into two parts : the inner *amphurs* and outer *amphurs* (Table 7).

In the early 1900s, five major departments under the aegis of the Ministry of the Capital looked after the public administration in Bangkok. They were the Port Health Department, Bangkok Revenue Department, Department of Bangkok Police, the Sanitary Department [Carter 1988 : 119–126]¹⁰⁾ and the Department of the Capital [N. A. R. 6/1. M. of the Capital 9.1/66 (1916)]¹¹⁾ (Table 8). The Ministry also administered the following *muangs* : Nontaburi, Samutprakarn, Prapradang (Nakornkhunkhun), Pratumtani (1892–1915), Thunyaburi, and Minburi (1915–1922). In 1922/23 the Ministry of the Capital was cancelled and the administration of Bangkok was transferred to the Ministry of Interior.

- 10) The Port Health Department had its main duties as follows. The department was directed by the Medical Officer of Health, assisted by two medical boarding officers, orderlies, boatmen, coolies, and a large staff of police told of specially for this duty. The sanitary stations were two in number ; one at the Island of Koh Phai, some thirty miles beyond the bar ; and the other at the customs station at Paknam, within the mouth of the Chaophaya river. At Koh Phai, where alone sick or inspected persons are landed, there are, besides medical officers' quarters, hospital quarters for Europeans and several large barracks capable of accommodating 1,500 Chinese coolies. Police barracks, coolie's quarters, store rooms, and water-condensing apparatus make up the complement of equipment. During the past year [1902/03], 262 ships were inspected, and 35,028 passengers were medically examined" [Carter 1988 : 112–113]. The Bangkok Revenue Department was responsible for the various tax collection in Bangkok. It had also charge of the Chinese poll-tax, which was collected every three years [*ibid.* : 119]. The Department of Bangkok police, and by the commissioner of police, the Bangkok Police in 1903 had a force of 3,580 officers and men of the following ranks :

Commissioner	1
Divisional Superintendents	4
Assistant Divisional Superintendents	8
Chief Inspectors	16
Inspectors	23
Head Constables	45
Sergeants	232
Constable	3,078
Office staffs	73

The commissionership extended over the province of Bangkok and also included the policing of all the state railways. It was divided into four districts ; Bangkok town ; northern suburbs ; southern suburbs ; and the railway district. The duties of the police were the same as elsewhere, being the investigation and detection and suppression of crime. The police also undertook the prosecution of all cases reported to them in the courts of first hearing. They also supervised the pawnshops and enforced the canal regulations, etc., issued by the police, and they were responsible for the maintenance of good order at such performances. The force also supplied watchmen to private employers. These men belonged to the force but were paid for by the employer. The number of men so supplied was 205.

The Sanitary Department was instituted in the year 1897 for the city of Bangkok. The department was under charge of the Vice-Minister, who was assisted by directors of the various departments, a municipal engineer, a medical officer of health, and numerous assistant inspectors, clerks, etc. The main duties of this department were : (1) the construction and maintenance of the roads and bridges, (2) the collection and disposal of all refuse and (3) the enacting and enforcing of regulations against infectious diseases both of men and cattle [*ibid.* : 119–121].

- 11) The main duties under the Department of the Capital were for example, government and administration of Bangkok, undertaking population census, undertaking vehicle registration, undertaking vital statistics, undertaking military service [N. A. R. 6/1. M. of the Capital 9.1/66 (1916)].

Table 8 Major Departments under the Administration of the Ministry of the Capital, 1892–1922

The Port Health	Shipping registration, inspecting persons landed, hospital quarters for immigrants, lighthouses, etc.
Bangkok Revenue	Collection of Chinese poll tax, capitation tax, house rent licence fees from rickshaws, trams, police fines.
Bangkok Police	Maintenance of good order, investigation and detection and the suppression of crime, supervising pawn shops, etc. Maintenance of hospitals and control of slaughter houses, the removal of rubbish and its destruction, lighting of streets and public places, etc.
Sanitation	Construction and repair of streets and canals, supply of water, maintenance and control public places.
The Capital	Government and administration in Bangkok population censuses, vital statistics, vehicle registration, etc.
Muang	Administration of the following provinces : Nontaburi, Pratumtani, Thonburi, Prapradaeng, Minburi, Thunyaburi.

Sources : [Thailand, *Rajkitjanubeksa* (Royal Gazette), 12 August 1907 ; N. A. R. 5. M. of the Capital 5.4(1907) ; Carter 1988 : 103–126].

The effects of the administration under the Ministry of the Capital on the growth of Bangkok between 1892 and 1922 were several. When the Ministry of the Capital was established, it was necessary to decide which districts should be included within the new jurisdiction especially the sanitary areas which covered the thickly populated parts of the city. In 1897/98, the first sanitary law was made to apply only to the area of the walled city. In 1922, the law was extended to Padungkrungkasem canal [N. A. R. 6 M. of the Capital 7.1/23 (1917–1922)]. Within this territory the Ministry of the Capital assumed responsibility for all arrangements affecting public health, urban construction, problems caused by the construction of roads, and other matters. The chief tasks were the removal of rubbish and its destruction at an appropriate place, proper drainage, construction and cleaning of klongs [canals], construction and repair of public streets, supply of water consumption, lighting of streets and public places, maintenance and control of public markets, maintenance of hospitals, maintenance and control of slaughterhouses, enforcement of rules for the sanitary condition of private residences, in general, the execution of all laws for the benefit of the public health,¹²⁾ and finally investigating and detection and suppression of crime. The Ministry controlled

- 12) There are many complaints against the administration of Bangkok affairs under the Ministry of the Capital in which the management failed to complete the chief duties and other duties. For example, the aspects of law enforcement. An article entitled “Insanitary Bangkok” in one newspaper, 25th January 1922 indicated the existence of ineffective sanitary law : “The point is one of practical importance. In 1898, when the existing law was promulgated, it was by the way of the beginning, made to apply only to the area of the walled city. Then in the present reign [Rama VI] the area to which the law applied was extended to the Klong Padung within that area the officials of the Local Sanitary Department as well as the police are responsible for the enforcement of law. Under the law ‘it is forbidden to throw the rubbish in streets in path ways, etc.’ and how the sanitary authority comes to tolerate the dumping of rubbish in a lane in Sampeng, we fail to understand but that is by the way, the point to grasp is that outside the area bounded by klong, which runs from the Hongkong Bank to the palace of Prince Rapi — that is to say throughout the great part of Bangkok — the law does not apply and the sanitary inspector had no authority . . . the law does not leave the rest of Bangkok entirely defenseless, though presumably there is no remedy at law ↗

Table 9 Activities of the Ministry of the Capital, 1908–1910

(a) Employment agreements		
Year	Number	Value (Baht)
1908	6,786	1,007,601
1909	5,312	689,701
1910	6,047	620,653
(b) Loan agreements		
Year		
1908	1,287	238,473
1909	1,028	253,702
1910	1,402	211,831
(c) Pawn agreements		
Year		
1908	136	704,142
1909	130	1,729,302
1910	157	4,482,114
(d) Other agreements		
Year		
1908	2,775	812,302
1909	2,190	1,902,557
1910	2,108	581,352

Source : [N. A. R. 5. M. of the Capital 1.4/1 (1906–1910)]

the police, which besides other duties supervised the pawnshops, enforced the canal regulations, issued permits for theatrical performances and similar matters, and prosecuted civil cases [Carter 1988 : 123]. It is interesting to note that the administration had wide and increasing responsibilities, and the table of activity clearly demonstrates a city in a phase of growth and increasing complexity. The writ of the Ministry of the Capital was wide as shown below (Table 9).

Next, the Ministry of the Capital had the authority to increase public revenues through taxation for expenditure on public works such as construction and maintenance of roads, canals, and water supply. *In 1909* Westengard, the General Advisor to the Ministry of the Capital noted the need for increased revenues :

I have been struck by the anomalous system of taxation of land in Bangkok. I find that there are (a) the paddy field and garden tax, and (b) the rented house tax (*rong ran*). The result of this is as follows. So long as land is used for paddy fields or garden, it has no particular need of roads, drains, and drinking water ; during that time it pays a tax which (certainly as far as the paddy lands is concerned) is quite heavy

↘ against a duck farm. There is, however another, dating back to 1900, with respect to vegetable gardens using manure, and it applies from Klong Samsen to Bangkolaem point within 160 Sen [about 6.4 Kilometers] from the river bank. In that area the owners or occupiers of vegetable gardens or plantations are prohibited from using the nightsoil, dung, decaying fish, decaying rice or the filth as manure ;and the police have the power to enter and inspect any garden where they suspect the use of prohibited manure. But it would seem the sanitary inspector has no authority outside his special area. Bangkok has to depend on the police alone to enforce this law ; and the police do not enforce it. There is a rough irony about the word 'suspect'"[N. A. R. 6. M. of the Capital 7.1/23 (1917–1922)].

enough and can not now be increased. So soon, however, as the use of land changes and by the growth of the city the fruit trees are cut down and the paddy fields leveled and so soon as rice mills and dwelling houses are erected upon the land, it ceases to pay any land taxes. And yet it is just at this time that the occupations of the land begin to cause a heavy drain on the revenue, for it is just at time that its occupations begin to demand roads, lights, drainage, and water. Now, this is wrong. The system of taxation of land in Bangkok should certainly be reformed, and the many inequalities and injustices of the present system should be done away with. At present, I will only say I think a reform should be made as soon as possible. Under a proper system of land taxation, I think that in due course of time a much larger revenue should be derived from this source, and every att [unit of currency . .] of this revenue should be devoted to the improvement of the city itself. . . . But even with a new system of land taxation in Bangkok, and a resulting increased revenue, there are certain large expenditures which must be met, and for which the sums raised by annual taxation will be insufficient. Such are, for instance, the great works for permanent value required for the supply of water. Special arrangements must be made to meet such expenses, either by way of a loan or otherwise. [N. A. R. 5. M. of the Capital 5.4/10 (1907)]

Bangkok's tax administration was gradually reformed. A new Sanitary Law of 1909 (revised again in 1915) laid down :

It is a recognised principle of municipal administration that local expenditure shall be covered by local revenue and the Sanitary Administration Law of R. S. 127 (1909) appears to embody that principle. Money grants are usually authorised on the ground of semi national services rendered by the local body. For example, if a local body were required to maintain a main road which transverses the locality and is largely used for general through traffic, a grant might be made from national funds to assist the local body in maintaining the road in a state suitable for such through traffic. Or again, if owing to certain requirements of the central government, the standard of the sanitary, lighting and other similar services has to be kept up on a scale higher than purely local circumstances necessitate, a contribution might be made towards the cost of such improved services It is considered desirable or necessary for the local body to maintain an expensive municipal service. [N. A. M. of Finance 0301.1.19/1(1918-1929)]

Unfortunately, statistics of tax collection under of the Ministry of the Capital are scant, and the tax system remains something of a mystery. Records suggest the Ministry had the power to collect the Chinese poll tax, house and rent shop rent tax [Phasri Rongran], capitation tax, slaughterhouse fees, and license fees derived from rickshaws, motor cars and trams. In 1903, the Sanitary Department collected 10,000 Baht in revenue from the tax on bullocks slaughtered in the government abattoirs [Carter 1988 : 120]. In 1904, the Bangkok Revenue Department collected 1,800,000 Baht in 1904. The number of Chinese who paid poll taxes were around 100,000 in 1903 [*ibid.* : 119] and rose to 101,336, 126,028 and 121,278 in 1904, 1907 and 1908 respectively [N. A. R. 5. M. of Interior 28.2/48(1910)]. In 1913, the returns of "Ngeon Kharajchakarn" from the capitation tax¹³⁾ were 1,676,523 Baht, and the tax-payers included 74,786 Chinese, 52,708 Thai, 4,985 Indians, 56 westerners and 506 others [N. A. R. 6. M. of the Capital 1/25 (1913)]. The Department of Bangkok Revenue also collected house and shop rent taxes.¹⁴⁾ From 1922, the Ministry of the Interior took

13) The capitation tax was a tax used as a substitute of Chinese poll tax in 1910. The tax levied as a capitation tax at the rate of 6 Baht per man per annum.

14) House and shop rent taxes were collected on "property" such as buildings and lands appurtenants thereto. Tax-payers were the following ; (1) tax to be paid by owner of building, (2) in case of change of ownership ↗

Table 10 The Collection of House and Shop Taxes in Bangkok and Thonburi, 1921–1929

Years	Amount of Taxes Collected (Baht)
1921	594,442
1922	630,357
1923	685,470
1924	707,729
1925	735,683
1926	756,002
1927	866,435
1928	796,645
1929	873,415

Source : [N. A. M. of Finance 0301.1.1/13 (1931)]

over responsibilities for Bangkok until the Bangkok Metropolitan Administration was formed in 1937. Tax revenues steadily increased in the 1920s¹⁵⁾ (Table 10).

As the collection of tax increased, the Ministry of the Capital could increase the expenditure to facilitate the urban growth. The Ministry of the Capital spent a large and rising proportion of the total government budget¹⁶⁾ (Table 11).

The records classifying this expenditure by various departments are incomplete. The expenditure on sanitation in 1902/3 was 1,111,064 Baht [Carter 1988 : 120]. By the early 1900s, a large component went to roads. In 1903, some 312,000 Baht were allocated to the maintenance of roads, while 159,336 Baht went to the administration of sanitary affairs [N. A. R. 5. M. of the Capital 5.4/5

↘ when tax was in arrears, new and original owners jointly and severally liable, and (3) in case of joint ownership, joint owners jointly and severally liable.

- 15) By the late 1920s, although the administration under the Ministry of the Capital was ceased, a main source of Bangkok revenue derived from (1) the house and shop taxes, (2) slaughter house fees, (3) license fees such as those derived from rickshaws, motor cars and trams, (3) license fees for pawn brokers, (4) Moines paid by the Siam Electric for its concession, (5) annual payment made by the tramways companies for the use of roads and (6) police fines for municipal offences, and animal poundage fees [N. A. M. of Finance 0301.1.19/4 (1927–28)].
- 16) In the Thai government budget between 1890 until 1930, the annual expenditure was focused on the army and the administrative bureaucracy — as well as maintain the old ruling institution of the Monarchy such as the Privy Purse Bureau and royal expense. The government budgets for military affairs, the expansion of centralized government, and his Majesty's civil list were the top three expenditure. For example, in 1892, the proportion of military expenditure to the whole annual budget was 22.52 percent, while that of the provincial administration was 5.26 percent, and his majesty's civil list 25.41 percent. In 1899, the military expenditure was about 14 percent of the annual budget, while the budget for the Ministry of Interior and the Ministry of the Capital increased to 17.4 percent. As for His Majesty's civil list, it was 23 percent. The military budget increased from about 12.6 percent of total expenditure in 1902/03 to 16.6 percent in 1903/04 and 29 percent in 1904—several years, the money allotment for his Majesty's civil list and other royal expenses constituted the largest proportion of the Siamese state's annual budget. It reached 35.05 percent of the total in 1893 and stayed well over 20 percent for another three years. Between 1900 and 1930, it generally ranked third on the budgetary scale, or next to war and interior [Prasertkul 1989 : 429–443].

Table 11 The Government Expenditure Budget under the Ministry of the Capital, 1900–1922/23

Years	Expenditure Budget (Baht)	% of Total Government Expenditure
1900/01	2,253,977	7.0
1901/02	2,601,350	7.0
1902/03	2,814,199	7.1
1903/04	2,872,837	6.5
1904/05	3,160,503	6.9
1905/06	3,445,386	7.0
1906/07	3,493,460	6.3
1907/08	3,957,344	7.2
1908/09	4,024,384	7.1
1909/10	4,320,950	7.6
1910/11	4,215,260	7.4
1911/12	4,877,580	7.8
1912/13	5,302,812	8.6
1913/14	4,986,394	8.1
1914/15	7,415,615	11.9
1915/16	8,020,021	11.9
1916/17	9,123,745	13.5
1917/18	9,418,573	13.4
1918/19	9,479,134	11.2
1919/20	11,257,303	14.5
1920/21	12,060,036	15.0
1921/22	10,959,606	13.7
1922/23	10,306,524	12.8

Source : Calculated from Thailand, Department of the Secretary-General of the Council of Ministers, Central Service of Statistics [1930/31 : 248–249]

(1902/03)]. In 1906, the expenditure budget allocated to the Sanitary Department had increased considerably to roughly one and a half million Baht a year which was nearly half of the Ministry of the Capital's expenditure in that year.

The Sanitary Department had several duties, especially the construction and maintenance of public utilities such as roads, drains, canals, hospitals, and street-lighting. The Department spent a very high proportion of its budget on road maintenance : "Of the sum of one and half million Baht was spent in 1906 nearly 657,000 on roads ;¹⁷⁾ about 40,000 Baht of this went for the construction of new roads ; that is to say, about 635,000 [sic]¹⁸⁾ were expended on the repairs of roads. This would mean an average of 15,000 Baht per mile for repair of roads alone" [N. A. R. 5. M. of the Capital 5.4/10 (1907)]. The high maintenance figure was due largely to the frequent flooding and destruction of the low quality gravel roads.

17) Three major items of expenditure on road construction were classified : 28,560 Baht for salaries and wages ; 110,256 Baht for capital goods and other expenditures ; 417,009 Baht for maintenance of roads [N. A. R. 5. M. of the Capital 5.4/10 (1907)].

18) The figure of 635,000 basing on the original text must be wrong, it should surely read 617,000.

In 1914/15 the coverage of the Ministry of the Capital was extended to reflect the changing demographics of the city :

Chaophraya Yommaraj, the Minister of the Capital received the king's order At present, Bangkok's population has become increasingly congested. The administrative areas should be redefined. This task will help to increase public peace and the happiness of the people in Bangkok. The king ordered the abolition of the 8 inner *amphurs* administrations and changed to 25 *amphurs* administrations. [N. A. R. 6. M. of the Capital 1/12(1920)]

The boundaries of the districts in Bangkok were redefined, and the distinction between inner and outer districts was abolished. The areas under the new administration included 25 *amphurs*.¹⁹⁾ In addition, in 1914/15, the area defined as sanitary district was enlarged :

Chaophraya Yommaraj, the Minister of the Capital, declared that according to clause 1 of the proclamation concerning the responsibility for sanitary affairs in Bangkok dated, 22nd May 1898, the sanitary programme included the following areas : The areas along the eastern part of the Chaophraya river running from the mouth of lower Banglumpoo canal downward to the mouth of a canal at Saphan Hun ; afterwards, the areas turn along the canal beside the city wall. The area also extended to the mouth of the upper Banglumpoo canal to the Bank of the Chaophraya river. At present, the responsibilities for sanitation are successfully carried out, but it is necessary to extend the administrative areas The new areas that the programme would cover are as follows : Along the eastern bank of the Chaophraya river, the areas stretching from the mouth of the northern part of Padungkrungkasem canal downwards to the mouth of its southern part ; and the corner of Krungkasem road to the mouth of the northern part of Padungkrungkasem canal to connect at the bank of the Chaophraya river. [N. A. R. 6. M. of the Capital 2/43 (1915)]

The sanitary areas were gradually enlarged, and in 1923 covered Sampeng and Pranakorn, the old districts inside the city wall, the new business districts of Bangrak, Siphaya and Sathorn to the south ; and the new residential areas of Suan Dusit, Samsen, Phayathai and Patumwan to the north and east [Anonymous 1924 : 100–101].

As the city became larger and more congested, the Ministry of the Capital came under pressure to increase its attention to sanitation. In 1915, for instance, it was claimed that Bangkok spent only 106,838 Baht on street sweeping and refuse collection, compared to 186,000 Baht in Singapore ; Bangkok had only 348 staff compared to Singapore's 1,040 [N. A. R. 6. M. of the Capital 7.1/23 (1917–1922)]. An article in the *Bangkok Times* of 21 January 1922 described the Bangkok sanitary conditions as follows :

Some years ago — it must have been sometime before the war — a klong, running across Sampeng, passed under New-Road just by Trok Dao on the one side and the drug shops that subsist on the fame of Moh Phlai [name of physician] on the other side. It had once been a klong ; it was then a festering mass of filth, lying naked and unashamed before the eyes of all who passed along Bangkok's main business

19) The 25 *amphurs* were : Prarajchawang, Chanasongkram, Samranraj, Pahurad, Chakkrawat, Sumphantawong, Samyaek, Pomprabsatroopai, Samyod, Nanglerng, Bangkhunprom, Samsen, Dusit, Phayathai, Prachairchin, Pathumwan, Bangrak, Sathorn, Bantawai, Bangplad, Amarin, Hongasaram, Rajakrea, Bupbpharam and Bookkalo [N. A. R. 6. M. of the Capital 20.2/32 (1915)].

thoroughfare. For a year or two this paper kept hammering away at the disgrace to the capital of the country constituted by this ugly cesspool by the side of a street like New-Road . . . Now we have Sampeng and the dirty old klong on which *the Bangkok Times* has expended so much effort in the past. That klong ran straight across Sampeng from New road to the river, but the klong was practically filled in some years ago. It may or may not require more filling. The position today is that between Yao-waraj Road and the river the heaps of rotting rubbish dumped in that lane rise several feet above the road way, and those heaps of filth are covered with flies. [*ibid.*]

IV Conclusion

This paper has shown that around the time of the first world war, Bangkok's population stood at around 360,000, heavily concentrated in districts around the royal Palace and commercial river areas. It is thought that perhaps half of this was comprised of Chinese migrants.

Some thirty years earlier, Bangkok's population ethnic composition and location was very different. It was smaller (some 170,000 in the "built-up area"), less Chinese [Wilson 1989 : 54], and much of the population lived on the river. Only after the 1890s was land settlement pushed significantly beyond the immediate river boundaries.

Land settlement and population growth, coupled with political change which saw Bangkok develop as a modern capital for Siam with centralized revenue collection and centralized power, encouraged administrative changes for the capital. More important was the establishment of the Ministry of the Capital (1892). This Ministry ensured that Bangkok would be administered as part of state (royal) interests, and may thus be seen as part of a process of centralization initiated by Prince Damrong in the 1890s [Bunnag 1977].

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Citations to the archives begin with "N. A." The citation "N. A. R. 5. M. of the Capital 14/4 (1899)" refers to the Fifth Reign and the Ministry of the Capital involved and the accompanying number classified to a specific series and file. The citation "N. A. M. of Finance 0301.1.1/139 (1931)" refers to the date and file number for the archive of the Ministry of Finance.

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P. OUYANONT : Bangkok's Population and the Ministry of the Capital

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