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Land, Labor and Capital in Three Rice Growing Deltas of Southeast Asia, 1800-1940

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CENTER DISCUSSION PAPER NO. 150

LAND, LABOUR AND CAPITAL IN THREE RICE-GROWING DELTAS OF
SOUTHEAST ASIA 1800-1940

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LAND, LABOUR AND CAPITAL IN THREE RICE-GROWING DELTAS OF
SOUTHEAST ASIA 1800-1940

I

- 1.1 This paper grew out of an attempt to understand certain features of the development of rice cultivation in the Central Plains of Thailand. It became obvious that any theory or generalization propounded to explain the facts in this case ought, before too much credence is given to it, to be compared against experience in other countries. Fortunately, at about the same time that Thailand experienced this development, two other countries, Burma and Vietnam were going through similar change. Thus, the study naturally grew into a comparative inquiry.
- 1.2 The presentation below makes no attempt to present a balanced or symmetric account of the developments in the three countries. The "Thai-centric" view of events, a consequence of the way the paper originated, should be obvious even if I had not mentioned it. The other two countries are slighted in the following account for two opposite reasons: Burma, because the facts are very well known: Dr. Adas's recent dissertation, used liberally in this paper, can hardly be expanded on; and Vietnam, because very little published work, on which I had to rely, exists on the developments in the Mekong Delta.
- 1.3 In terms of subject matter, I have concentrated on land tenure and emergence of a landless labouring class in the rural areas, because sufficient variations are observed that call for generalization. Topics

such as agricultural technology (except, to some extent, water control) have been slighted because conditions in the three countries did not seem to vary sufficiently to permit generalization. Perhaps Burmese operations were more efficiently organized than in Thailand and approached the condition of "industrial agriculture" as claimed by Furnivall, but I feel that this is more the consequence of the ready availability of a class of agricultural landless labourers--a subject which I do examine below.

- 1.4 In terms of time periods covered, the period 1880-1910 received the most favoured treatment because developments during these three decades were crucial to the later evolution of the areas covered.
- 1.5 The words "deltas" and "delta areas" should be taken to cover the following areas: (i) the Irrawaddy Delta: districts south of Prome, Tharrawaddy and Henzada and extending as far east as Pegu (This follows Adas's definition): (ii) the Chao Phraya Delta: areas south of Nakhon Sawan and extending to include the lower reaches of the Meklong and Bangpakong Rivers. (iii) The Mekong Delta: the areas to the west of the Vaico Rivers. These definitions may not always be followed when statistics are cited because of the necessity to follow administrative boundaries.
- 1.6 The next section will cover, very briefly, conditions in the pre-Western period. Only certain aspects (such as population density, land laws, etc.) which are relevant to the discussion in the following sections are touched upon. Section III presents, in somewhat uneasy tandem, developments in

the three countries between 1850 and 1940. There is nothing novel in my brief description of the developments in Burma and Vietnam, but my discussion of Thailand presents, I believe, some novel features. Finally Section IV presents an analysis of the developments as seen by an economist which, I hope, will be of some interest to future researchers in the field.

II

2.1 It is a well-known fact as well as an unresolved puzzle that Southeast Asia, particularly its mainland component, was and is something of a demographic anomaly,¹ viz. it has always been significantly less densely populated than its neighbours, India and China. There are exceptional areas within the region, of course, such as the Red River Delta in North Vietnam and, in the present century, Java. If we are to look further into specific areas within the region, we find another puzzling feature: areas which we now regard as the most productive and the most fertile, were, in the mid-nineteenth century, sparsely populated relative to other areas of concentration within Southeast Asia. This included two of the three areas that we shall study, i.e. the Irrawaddy Delta and the Mekong Delta.

2.2 Of these two distinct issues, the first (i.e. why the mainland Southeast Asian region as a whole was and is underpopulated relative to India and China) is beyond the scope of this essay. Readers who are interested in the question are referred to the papers cited in

Footnote 1. We shall concentrate our efforts on the second issue, i.e. why the Irrawaddy and the Mekong Deltas were underpopulated relative to the Dry Zone area in Upper Burma and to the Red River Delta in Vietnam. First, we examine the hypotheses that has been suggested to explain the situation in each of the two countries concerned.

2.3 For Burma, the usual view has always been that Lower Burma was devastated by the Mon-Burmese wars of the late eighteenth century. The period following that was one of rebellions and emigration on the part of the partially subjugated Mons and resulting punitive actions by the other side which in turn led to further rebellions and exodus. Only with the arrival of the British in 1852 did the natives begin to behave themselves, so it is said. Only then were large-scale settlement and economic exploitation of the Delta possible.²

2.4 This view, a very common one amongst historians as well as pro-colonial writers, has now been seriously questioned by Adas, in his recent dissertation;³ he argues that the major factor responsible for the low level of cultivation of the Delta was in fact the prohibition of the export of rice, making its production in the Delta area unattractive as an economic proposition. This disincentive factor was enhanced by the fact that the Delta area was highly malarial.⁴ We shall discuss both the conventional hypothesis and Adas's critique below, after examining the similar sparseness of the Mekong Delta population.

2.5 The explanation usually given for the case of the Mekong Delta, in contrast to the very heavy concentrations in the Red River Delta in the North as well as the coastal plains in Central Vietnam, has generally been in terms of the migratory tendencies of the Vietnamese people. Thus Gourou writes:

"The differences [in the population densities] between Cochinchina and Tongking are explained by dissimilar historical evolution..... The Tongking Delta is the cradle of the Annamese people, and the ancestral hearth from which it has expanded. Cochinchina, on the contrary, has been settled only very recently by the Annamese."⁵

The areas settled later were thus liable to be less densely populated than the areas of older settlement. Thus, if one were to take all the alluvial plains of Vietnam suitable for rice cultivation, one would find a more or less steady decline in population density, as one goes from North to South, reflecting the general southward movement of the Vietnamese people.⁶

2.6 Finally, there is the hypothesis that these delta areas were basically uninhabitable without the construction of modern large-scale water control systems under the auspices or advice of the Europeans.⁷ For lower Burma and Thailand as a whole, this is manifestly untrue. Although large-scale control systems were constructed, e.g. the Henzada embankment and the Rangsit System, these form only part of the entire Delta areas. For Cochinchina the argument is prima facie more plausible as the French were engaged in massive canal digging projects in the 1890's, which were to be the chief factors responsible for the

creation of vast estates in the area. But to conclude from this fact that settlement of the area had to wait for the coming of the French is an unjustified step, and ignored the capacity of the local institutions to cope with the hydrological problem. We need not commit ourselves to the Wittfogel view that the Southeast Asian monarchies were ultimately based on control over large-scale irrigation works, but we may merely observe that where the need arose, Southeast Asian societies had been able to build dams, construct elaborate dykes and canal systems to tame the waters well before the arrival of the Europeans. In terms of the degree of complexity, even the French conceded that the hydrological problem in the Red River Delta, successfully tackled by the Vietnamese, was more serious than that of the Mekong Delta where the problem was to dig a series of canals which would transfer the water to outlying areas when the level of Mekong is raised by a rising tide.⁸

- 2.7 All of the above theories are essentially ad hoc arguments offered as explanations of conditions in one or two of the three countries concerned. If one looks at the problem in a comparative perspective, one must remain unsatisfied with these arguments. Take, for example, Adas's comments on the low density of population in Lower Burma. The Chao Phraya Delta experienced almost exactly similar conditions in the nineteenth century⁹ and yet it has always been much the most populous area in Thailand, at least from the fourteenth century onwards, possibly even earlier. Similarly, the Thais also were involved in a southward movement from either Yunnan or from the extreme north of Vietnam.¹⁰

They first entered the Chao Phraya valley quite a bit later, but the bulk of the Thais moved south at a more rapid rate than the Vietnamese.

- 2.8 The main objection to these hypotheses, it seems to me, lies in their neglect of the basic factors connected with the political organization of these states, on the one hand, and certain obstacles imparted by irrigated wet-rice cultivation on population movements on the other. It is generally forgotten that in Southeast Asian states generally, and in Burma and Thailand particularly, the question of population distribution was as much a matter of state policy as of the free choice of the populace concerned.¹¹ These states, engaging frequently as they did in brief but large-scale military campaigns concentrated during the five-month period between the harvesting and the planting of the rice, had to be able to mobilize its troops quickly, i.e. all the able-bodied males that the government could lay hands on in a short period. Communication facilities being what they were, this meant that the areas around the capital city would have to be sufficiently populous so as to generate a respectable army. Outlying areas would be settled only to the extent (a) that they helped the central power in its campaigns into the areas under control of other powers (Nakhon Si Thammarat in the south of Thailand was such a settlement) and (b) that they did not at the same time pose any serious threat to the central power. The moment they became too powerful, there would be an attack from the central government, its population would be transferred to the central part of the kingdom, and the area depopulated. A classic example of

this kind of treatment occurred in the case of the Thai annihilation of Vientiane following the latter's revolt in 1826 and the transfer of part of its population to the Central Plains area.¹² The social system under which these transferred people would live was organized so as to limit their freedom of movement--in some cases they would simply be enslaved.¹³

2.9 We have thus far assumed the choice of the capital site as a datum, but this is not a good assumption. All three countries shifted their capitals at the end of the eighteenth and early nineteenth centuries. What guided their decisions? The Burmese, for example, made a conscious decision to move their capital from Pegu in the south (with access to the Delta area proper) to the interior at the end of the eighteenth century, whilst the Thais continued on in the central plains even though the area had been devastated by the invading Burmese armies. The explanation for this difference seems to lie in the fact that Upper Burma had at the time a large, well developed irrigation system constructed and maintained largely by the peasants themselves who would thus be inclined to stay put and thus more easily mobilisable in times of war, rather than the more fluid population in the South.¹⁴ Although similar irrigation systems were developed in the north of present-day Thailand, the plains of the North were rather small and unable to support a state large enough to challenge the paramountcy of Burma and Lower Thailand.¹⁵ The Chao Phraya delta thus became the center of the Thai state even before the developments of the past 120 years were to emphasise the situation even more. The fact that the peasantry around the Burmese capital was probably more stable than

that around Bangkok can be linked up with the impression (as far as my present knowledge goes, it is no more than an impression) that the Burmese king appeared to have less trouble raising his army than his Thai counterpart.

2.10 The discussion in paragraphs 2.8 and 2.9 has tended to overlook Vietnam. The case of Vietnam, I shall now argue, can be treated using the same principle. While the institutional working-out of the population policy differed considerably from the case of Burma and Thailand, because of the considerable differences in tradition and background, there was as in those two countries, the same close connection between military requirements and settlement policy. The Vietnamese people had, until the early twentieth century, been pressing southwards, at an extremely low but steady pace. The movement was slow because it was deliberate. It did not take place because of a helter-skelter movement of people freely migrating in search of new lands and new opportunities. This movement had been, from the very beginning until the collapse of traditional Vietnam, an organized one with the central authorities settling prisoners, war refugees and the poorer villagers in military colonies on the frontier.¹⁶ It is through such slow but persistent organized settlements that enabled the Vietnamese to triumph over the Chams and to beat the Khmers in the drive to the Mekong Delta even though the centre of the Khmer Empire was much closer. The moving of the capital to Hue from Hanoi is rather more difficult to explain in terms of the Burmese and Siamese models. It is possible to

argue that the Nguyen emperors' political base and therefore the more reliable portion of the populace had always been in the south; and hence their choice of the capital was determined rather by the degree of loyalty than by the stability of the population (which was the same in North and Central Vietnam). This view overlooked the traditionally rebellious character of Central Vietnam. The Tay-Sons, which came close to annihilating the Nguyens, started their rebellion near Qui Nhon in the south-central area. For the present, we had to leave the explanation of the shift of capital to factors other than those examined above.¹⁷

- 2.11 Thus, on the eve of the era of massive changes initiated by the British and the French, the distribution of the population in the lowlands of Southeast Asia may be summarised as follows. There were heavy concentrations in the Tonkin Delta and along the coastal plains of Central Vietnam. The Mekong Delta area was well-settled but capable of absorbing a much larger population without any change in techniques as far south as the Bassac River, as were the Dry Zone around the capital of Burma and the Chao Phraya Delta. Cochinchina southwest of the Bassac River and the Irrawaddy Delta were, to all intents and purposes, "empty," as were the more northerly part of the Chao Phraya Delta. These differences, both among and within the three countries, were to play significant roles during the colonial period to be discussed in Section III below. All the hill areas of Southeast Asia, ravaged as they were by malaria remained sparsely populated up until the later 1940's. Other areas, e.g. the Korat Plateau, Peninsular Thailand, the Arakan and Tenasserim coasts have a

demographic history somewhat independent of the core areas under consideration and will therefore not be further considered.

2.12 Population settlements within the three delta areas were concentrated in patches, usually along the rivers and canals--much as American settlements in the West were strung out along the railway lines, and for the same reasons. In Burma, the settlements were largely concentrated near the towns; also, there was more cultivation in the northern parts of the delta than in the south.¹⁸ For the Chao Phraya Delta the cultivated areas were strung out along the banks of the rivers and canals with the concentration being mostly in the south. The northernmost extension of large continuously cultivated areas was probably located somewhere in the present-day province of Ang Thong,¹⁹ on the main stream of the Chao Phraya. There was probably less cultivation along the Nakhon Chai Sri and along the Bangpakong rivers except along their lower reaches where extensive areas were given over to sugar-cane. The Mekong Delta had been settled by Cambodians prior to the coming of the Vietnamese. By the time of the French Conquest, the Delta appeared to have been well penetrated by the latter, at least as far southwest as the Bassac River, and there was little doubt that eventually the Transbassac area would also be theirs. Politically, it was already part of the Vietnamese Empire.

2.13 The primary crop grown was rice, although the extent of the diversification appeared to be much larger then than now.²⁰ The methods used for growing rice were equally diverse. The use of the plow and the practice of transplantation of rice were already well-established through-

out the area. Yet there existed many areas where a great deal of shifting cultivation took place,²¹ owing to the population scarcity.²² Because of the prevalence of the latter practice land laws in Burma and Thailand did not recognise permanent property rights in land that held regardless of whether the land was cultivated or allowed to return to jungle. Where the land was cultivated, however, the cultivator's rights were recognized subject to payment of the land tax. These rights were moreover transferrable by sale. The Vietnamese land system is somewhat more complex, although the same principle applied, i.e. no one had any right to land which was left fallow.²³ Since Vietnam, particularly the northern and central portions, had been settled and intensively cultivated for a long period of time, property rights in land were much more developed than in the other two countries, with resulting tendencies toward concentration of land ownership occurring from time to time. Equally important, such developments were considered dangerous by the Imperial Court and periodic land redistribution would then take place.²⁴

- 2.14 Side by side with this murky area of property in land was the equally murky concept of property right in labour. Here again, in Southeast Asia, the rights of a slaveowner were hedged about by a greater number of restrictions than those which attended, say, a slaveholder in the American South. First of all, there were many types of slaves. Those which corresponded most to the Western idea of slaves were the prisoners of wars and their descendants, who had no rights at all theoretically.²⁵ But this group probably was small, particularly in the 1850's after many

decades when no important wars were fought involving heavily populated areas. More important probably were the debt slaves who had mortgaged themselves for a loan, and had been "foreclosed." In this case the restrictions on the "owner" were many. Thus, in Thailand, the "owner" was required to relinquish his property if the slave could repay the debt or to turn over the slave to a new "owner" whom the slave could persuade to pay his debt for him. There were also many other types of forced labour imposed by the central government, or the nobility or the village authorities on the peasants. Thus, most "free men" in Thailand were theoretically required to perform corvee labour for the King. But the census and registration of these individuals were conducted by officials who thus came to have powerful roles in societies and were able to divert such labour for their own use.²⁶ This, of course, made the status difference between slaves and "free men" very slight.

2.15 With the coming of the Western powers in Burma and Vietnam, the concept of property rights was regularized. Property rights over individuals were, of course, entirely abolished. Corvee labour was either converted into a capitation tax or else was utilized by the colonial state for public projects, but its administration was tightened so that less leakage occurred. Property rights over land, on the other hand, were made into permanent rights--albeit after an initial period when settlement and cultivation had to be established by the would-be owner.²⁷ In neither Burma nor Vietnam was there any effective ceiling on land acquisition.

2.16 In Thailand, in certain respects, the move towards a Western concept of property took place with a lag of a few decades. Slavery was gradually abolished over a lengthy period starting from 1875 and ending in 1902; the category, furthermore, of "free men" owing their services not to the King but to members of the nobility was gradually abolished and everybody was made into commoners owing only corvée services to the King (the peak of this process occurring in the mid-1880's).²⁸ Later on, the labour services required were all converted to a standard capitation tax; and to all practical purposes, forced labour of all kinds, except military conscription, disappeared from Thailand. Changes in the property rights in land were minor. Title deeds based on cadastral surveys were issued which ensure permanent rights to the land, but to this day the proportion of non-urban land for which title deeds have been issued remains small. The growing permanence of settlements is the main cause rather than the consequence of the view that land is a piece of property. Thus in areas where no title deeds were issued, papers issued by district offices recognizing settlement over the land in question served as substitutes. In the last analysis, the main determining factor in the social evolution of Thailand in the latter nineteenth century was the changes in the degree of freedom enjoyed by the peasants much more than the changes in the concept of property in land.

III

- 3.1 With the rapid growth of rice production and exports from the three delta areas starting from the mid 1850's and 1860's¹ initiated by the lifting of the ban on the exports of rice by the governments (colonial and indigenous) of the three countries, its impact is clearly evidenced in changes in import patterns and the concomitant decline in domestic industries,² or the intrusion of foreign Asian elements, particularly into commerce and finance,³ or on public finance and administrative system.⁴ The activities of the peasants in making all this possible, on the other hand, remain very much in the shadow. The only work that details these activities is Adas's for Lower Burma. It is based on the various Settlement Officers' reports. The other two countries are less happily endowed with documents from officials as well-informed on peasant activities as these reports and therefore have generated less detailed secondary literature. Prof. Ingram's work on Thailand and Dr. Sansom's on Vietnam⁵ do touch on these topics to some extent but the main foci of the books lie elsewhere.
- 3.2 I shall present here a description of the settlement process in the delta areas. No attempt will be made to give a complete treatment of the subject--that could not be done in an article. Nor will any attempt be made to give a balanced treatment of the subject. Apart from the Thai-centric view mentioned already in the Introduction, I shall emphasise the so widely varying land relationships that emerged in the three areas.

Since the period 1880-1910 was so crucial to this emergence, I shall concentrate on this period, giving the 1850-1880 and the 1910-1930 periods only brief treatments. In sum, this section is but a prelude (albeit a lengthy one) to the analysis of Section IV and serves merely to prepare the ground for the latter.

3.3 In the years 1850-1880, the foci of development were in the areas that were already well-settled in the pre-1850 era: the more northerly parts of the Irrawaddy Delta and the districts near Rangoon;⁶ the areas close to the main rivers and canals in the Chao Phraya Delta;⁷ and, finally, the more easterly of the Cochinchinese provinces such as Bien Hoa, Cholon, Gia Dinh and Go Cong. Of the central provinces, Ben Tre and Vinh Long appears to have been well cultivated from a very early period.⁸ It is an obvious but nonetheless an unexplained fact that settlement in Southeast Asian lowlands take place on an "oil-slick" pattern rather than on a "bed-sheet" pattern; that is to say, as opportunities for rice-farming arose in the 1850's, we would expect the small population of that time to spread itself uniformly thinly over the entire Delta areas, and as population grew to intensify its cultivation gradually (this is what I have called the "bed-sheet" pattern). What happened instead in all three countries, most distinctly in Vietnam, was the pattern of new settlements being planted contiguous to the existing ones, so that if we look at the map of population densities, we would see, during the period of expansion a rapid increase in one set of districts while the others remain unchanged. Once these districts were settled upto a level, there

would then be a dramatic expansion in another set of districts usually but not always contiguous to the first set. This is the "oil-slick pattern".

3.4 In Burma and Vietnam the developments were in fairly well-settled areas already and there was probably somewhat less migration during this period (1850-1880) than in the following ones: whatever migration there was, the level was probably higher in Burma⁹ with developments proceeding at a faster rate there than in Vietnam where the French appeared considerably slower at establishing themselves as masters of Cochinchina.

3.5 With the lower level of migration the need for outside capital must have been less with the result that the expansion during this period was accompanied by comparatively low levels of borrowing. The result was that, in the case of Burma, most of the capital needs during this period were handled by the Burmese moneylenders themselves--the Chettyars at this time confining their operations to the urban areas.¹⁰

3.6 What happened in Thailand during this period is rather difficult to pinpoint. it must be remembered that the liberalization of the rice trade was not immediately followed by the elimination of the corvée system or of the slavery. The "bound" status of most of the Thai population had not thus been loosened in the same degree as that of the Burmese, for example. It is possible, then, that the first group of people who responded to the signal of rising prices were the people who had control over labour and who thus were in a position to exploit the labour under their control

for commercial gains for the first time. Although the evidence on this is rather slim.¹¹ What is more likely is that the bulk of the farmers moved out on their own to expand the cultivation of rice, rearranging their obligations to their patrons, either through increased services at the latter's farms or through increased "gifts" in cash or in kind.¹²

3.7 The next period, from the 1880's to about 1910, there was further expansion, but now more and more into the vast empty areas that were not at all well settled prior to this movement. Whilst the physical hardship involved in the clearance work had always been and remained great,¹³ the social complexity of this new movement increased enormously. It was a period when the migratory wave from Upper Burma to the Delta crested, but also when further expansion in the well-settled North became more difficult. This latter fact thus directed the migrants to the Central and East-Central Delta areas¹⁴ which were almost entirely uninhabited. Given the lack of outside employment opportunities as well as the remoteness of his "home base", the migrant had to depend either on his own resources, or, if he had none which was usually the case, on the moneylenders. This was the period when money lenders came into their own. The Burmese rural credit market began to evolve into one of the most clearly differentiated in Southeast Asia. At the retail level, Burmese moneylenders remained predominant as in the previous period, lending money now at 36% per annum compared to higher rates which prevailed until then. This scaling down was made possible as a result of the intrusion into Burmese rural economy of the Chettyar, who now performed the function of credit

wholesalers lending to Burmese moneylenders at 24% per annum. In most of these credit transactions, particularly the ones involving the Chettyar land was used as security,¹⁵ a fact of great importance later. To the casual observer of the Burmese scene, then, the situation in the Burmese countryside, while far from idyllic--frontier areas are seldom that--but at least was not one of gloom and doom. The degree of tenancy was not very high and the tenants' situation was good. Since, with so much land available, his standard of living had to be comparable at least to the other pioneer farmers to whose status they could reasonably aspire. Beneath the surface, if one looks at the extent of indebtedness and thus the amount of land subject to mortgage, the picture is quite different. The following table is quite illustrative

Table I
Percentage of Cultivators in Debt (Irrawaddy Delta)

	1880's	1890's	1900's
North	38	20	35
West Delta	26	34	36
Central	26	42	40
East-Central	68	61	61
East	n.a.	30	46

Source: Adas, op. cit., Table IV-G.

As can be seen, the newly settled areas (the last three on the list) experienced the highest degree of indebtedness.

3.8 In the Mekong Delta, most of Central Cochinchina¹⁶ was cleared and settled. The really big developments in the extreme west (i.e. Transbassac Area) were to occur in the 1910's and the 1920's.¹⁷ Although a great deal, probably the major portion, of the land settled during this period, was cleared and settled by pioneer farmers moving from nearby areas just as in Thailand (see below), there was already certain developments which were to become characteristic of the Mekong Delta, and that is the policy of extremely large land grants adopted by the colonial government, and the consequent stratification of South Vietnamese rural society into groups of large landlords, small farmers tilling their own land, tenant farmers and landless agricultural labourers.

3.9 We do not have a very clear picture of who benefitted from the various land grants. Generally the provincial officers were empowered to approve grants and issue title for land upto 20 hectares. The Colonial Council, a legislative body subservient to French colons' interests (until about 1900), was empowered to approve grants beyond 20 hectares, and most of these were made to Frenchmen. (Only after 1900 were large grants made also to Vietnamese).¹⁸ By 1900, French concessionaires were able to acquire 78,000 hectares.¹⁹ We may set against this about 1 1/2 mn. hectares cultivated in 1905-6.²⁰ It is clear then that the French concessions played but a minor role in the Cochinchinese rice industry.

3.10 Whilst it is true that very little land (in plots above 20 hectares) were granted by the Colonial Council to Vietnamese individuals, we must also, from other evidence, date the origin of the class of Vietnamese landlords from this period; although their backgrounds and identities remain extremely shadowy. We can establish the following scattered facts about them. First of all, it is clear from the preceding paragraph that the French-dominated Colonial Council played but a minor role in the birth of this particular class. Although particular individuals may be cited who acquired large tracts of land as a consequence of their collaboration with the colonial regime in Saigon,²¹ the bulk of them probably owed their acquisition to their influence at lower levels of government, particularly with the village councils²² --traditionally dominated by the more well-to-do members of the village. There is also the likelihood that the complaints made by contemporaries concerning the decline in the status of the village councils and their difficulties of recruitment may be associated with the departure of the rural elite from their status-enhancing roles as councillors, once their wealth-enhancing activities as landlords were established.

3.11 Whilst we placed the origin of the landlord class in the period 1880-1910, it would be a mistake to infer that they were at that time the predominant group.²³ It is important to note that the provinces that were being settled at this time were the provinces of Central Cochinchina where the proportion of land owned by large landholders were smaller relative to the western provinces, which became rapidly settled only between 1910 and 1930.

3.12 The situation in Thailand was again different. Whereas in Vietnam large estates were ~~being~~ established, in Thailand large estates were being broken up, except in one area.^{23a} The main reason for this was the very rapid political developments occurring during this period, when the Thai monarchy successfully undermined the political influence of the powerful families both in the capital and in the provinces and made rapid strides towards a highly centralized political system.²⁴ These political changes had naturally a vast impact on members of the political elite--whom ~~for~~ want of a briefer term I shall call the 'nobility'. To understand this impact we had to examine, first, the economic role played by this nobility.

3.13 We have alluded already (paragraph 3.8) to the role played by the Thai nobility in large-scale commercial rice farming. This line of activity was not the only one following by the nobility. Receiving only minimal stipends from their royal master, officials necessarily had to resort to trade and other activities which would be deemed irregular by modern standards. This tendency was further facilitated by the fact that officials would have allocated to them a certain number of phrai luang (rough translation: royal serfs) over whom they exerted a great degree of control. Recourse to this group of serfs for their private benefits was not considered wrong if (a) the Royal Treasury shared in the benefit and (b) the exploitation of the serfs was not unduly harsh. Through these means the Thai nobility was able to participate in various economic activities from the establishment of sugar mills to gold mining. In the South, officials bid for tin-mining rights and the right to import Chinese coolies.

In this latter case, many of the officials involved were themselves Chinese. Indeed the bifurcation of the top levels of Thai society into Thai bureaucrats and Chinese businessmen did not really come into being until the early years of this century--and this occurred as a direct consequence of the reforms of the late 19th. century rather than the opening up of the country to free trade in the mid-19 th. century.

3.14 Within the Central Plains, then, we have the establishment of some large rice-farming and sugar-cane growing estates, particularly along the canals radiating east and west of the city. Thus in 1884, we have a French account²⁵ of an estate on the banks of Khlong Mahasawat owned by a 'Phya Mountrie',²⁶ over 1000 rais in extent (170 hectares--large by Thai standards) and employing debt slaves. The same writer indicated that such large estate farming was quite common in the Chao Phraya Delta area, and probably operated by powerful members of the nobility.²⁷ But, here again, it would be erroneous to extrapolate these observations to the rest of the Delta area. The area observed by this particular traveller was the only rural area frequented by Europeans. It was almost a fief of the premier family, the Bunnags, who would be expected to have established large estates here. What the conditions in the provinces north of Bangkok, say, would be like is more difficult to establish. My hunch is that we probably would find more instances of peasant farming than in the western provinces.

3.15 Thus, in the very same account but a little later, we have a description of a village of former Laotian prisoners of war.²⁸ A number

of points may be noted concerning these villages. First, although these were prisoners of war or their descendants, they were not slaves, but were phrai luang (royal serfs) subject to corvée on royal works, and were under the control of Chao Phraya Si Suriyawong, "head" of the Bunnag family.²⁹ Second, they appeared to farm the lands and grow rice or palm-sugar or betel³⁰ on their own account.

3.16 We have also, in urban areas--not only in Bangkok but in various provincial centres, large groups of people attached to various patrons, as retainers or domestics; or people who while pursuing their activities largely independently, were obliged to stay near their patrons. All these people thus helped to swell the urban population--particularly in the provincial areas--to a greater degree than what it would become.

3.17 The reforms of the 1890's and the early 1900's--the completion of the abolition of slavery, the final replacement of the corvée obligations by the poll-tax collected directly by the central government, the consequential loosening of the legal ties between patrons and clients and, finally, the reforms of the administration--helped to free large numbers of individuals to follow their economic interests. This is putting matters in a positive light. Alongside the positive effects of these reforms, we also have large groups of people who were suddenly thrown on their own resources for survival. At the kernel of these changes was the great weakening of the ties that bound the masses of the people to members of the elite. We shall now examine the effects this had, first on the behaviour of the nobility, then on the non-elite group.

3.18 As was already mentioned, traditionally Thai officials, receiving only nominal stipends (bia wat) from the King had to engage in various extra-curricular activities, such as trading, on a fairly regular scale. The kings, on their part had always accepted this and even themselves participated in these activities, until well into the reign of King Chulalongkorn. From the mid-1880's on, the king was determined to curtail the independent powers of the nobility, by replacing it with a salaried bureaucracy. The story of how these reforms were carried out enough known and is well not be repeated here.³¹ The important effect that should be noted is that it successfully undermined the control exerted by the officials over their clients, as well as forcing them to leave their other independent economic activities, to become simply salaried bureaucrats.

3.19 This did not lead necessarily to the economic ruin of the nobility. The personnel of the administration did not change much, except in the Northeast³² and the ranking of the elite families probably remained the same as before. Whereas they formerly exploited the people below them directly for sustenance, they now could depend on their own salaries, which were in turn financed by the taxation which was, after the reforms, collected by the central government. What changed was the element of control. The elite now looked to the central authority for position, status, advancement, etc., and had no need--nor indeed any legal requirement³³--to concern themselves with their clients. Similarly he was precluded from taking any part in trade. Since the needs of the

bureaucracy at the time were immense all the Thai members of the elite opted for it, leaving trade to the Chinese. Herein lay the origins of the sharp division of Thai society into Thai bureaucrats and Chinese businessmen---a division exacerbated by the later elimination of the tax farms and the resulting complete exclusion of the Chinese from the world of bureaucracy.

3.20 The former slaves and clients of these officials, having been released from their masters and patrons were thus the main group providing the thrust to the expansion in the 1890's and the 1900's. To the extent that many of these had lived in towns, there was probably a decline in the urban population, with the important exception of Bangkok, although, even there, some out-migration occurred also.³⁴ Where these people obtained the capital to survive the difficulties of the first years of establishing the farmsteads is something of a mystery. There was no doubt that some of them maintained, in their earlier years, some sort of contact with the urban areas from which they came and thus obtained the resources to survive those years. Also, and probably the most common pattern, part of the land was first hurriedly cleared and cultivated on a slash-and-burn basis, with the farmer gradually extending his domains as his position became more secure. What is clear however that whatever the methods used, recourse to moneylenders on the basis of land mortgages was an uncommon phenomenon during this period.³⁵

- 3.21 It would be appropriate to close the discussion of the developments of this period 1880-1910 in Thailand by describing the Rangsit scheme, because (i) it covers quite a large chunk of territory in the Central Plains, (ii) the problems faced by it in the beginnings throw light on conditions in the Central Plains generally even though the Rangsit area was not a typical case and, finally, (iii) because it is the one area in the Central Plains where the proportion of land under tenancy was and is as high as 90%.
- 3.22 The Rangsit area covering approximately 240,000 hectares,³⁶ lies northeast of Bangkok. Before its development, its main problem was the poor water system which made it unproductive. The solution to the problem was to build a grid of canals and, at the points connecting the grid to the Chao Phraya a number of locks were installed which enabled the water to be stored well after it receded in the rest of the Plains, thus prolonging the period during which the rice plant may grow. Once the canals were constructed, they could be useful as transport conduits as well. All this, of course, made a large area of land which would otherwise remain uncultivated into an extremely productive region, but it also demanded a great deal of investment.
- 3.23 It is not certain how the traditional state would have handled the decision to invest. The monarchy in Thailand had usually concerned itself much more with construction of canals as transport routes than with canals as water control devices. Strategic considerations also played a large role.³⁷ But, supposing that a decision having been made to go forward, it would have been considered a state project. The

corvée labour would then be pressed into the construction of the canals and plots of land, particularly the choice sites, would be granted to members of the nobility in charge of supervising the construction³⁸ or to the royal princes and princesses.³⁹ The method used in this case was, however, completely new and, as we shall see, unique in Thai history, never to be repeated again.

3.24 A private company was set up, calling itself the Siam Canals, Lands and Irrigation Company which undertook to finance the excavation of canals, using hired labour. The company would be granted plots of land benefiting from the project, which it could sell and, which it did--largely to members of the elite, including the King himself. After 25 years, the canals, the locks, etc. would be turned over to the Government to maintain, and the company, having no further function, would then dissolve.⁴⁰

3.25 The company duly obtained its concession in 1889 and proceeded on its programme. Peasants began to settle on the land from 1895 on. Although it had some troubles quite early on with respect to competing land claims,⁴¹ it appeared to have overcome that problem and by 1903--when the project was only half-way through it was considered a "financial success".⁴² The canals, locks, etc. were duly turned over to the government in 1915, but the land remained in the hands of the speculators who bought them with the result that the area showed the highest degree of tenancy to this day.

3.26 How the Rangsit area was settled is completely unknown--no work has yet been done on this important topic. There is no doubt, however, that the first settlers were tenants also, some of them coming from the coastal

areas further south which were affected by the increasing salination of the soil and water.⁴³ The share of rent paid by the tenants is completely unknown. If one is to make an estimate (whose basis is extremely weak), it would come to about 20% of the crop.⁴⁴ This, if true, implies that most of rent then was differential rent owing to the superiority of the irrigated land rather than the scarcity rent arising from shortage of land in general.

3.27 Despite the financial success of this operation, no privately financed project was further undertaken in the field of irrigation.⁴⁵ Indeed, public work in this area was also extremely slow: an ambitious project conceived by a Dutch engineer was postponed and, later, considerably pared down.⁴⁶ Large-scale irrigation of the Chao Phraya did not go forward until the 1950's and the 1960's. One happy, if unforeseen, result of this dilatoriness was a postponement of the existence of high levels of tenancy that has, in Thailand always been associated with large-scale capital projects--whether privately or publicly financed.⁴⁷

3.28 We may thus summarise developments in all three areas in the period 1880-1910 as one in which rapid growth occurred; but also one in which the groundwork for future problems was already firmly established: the heavy dependence on rural credit provided by the Chettyars in Burma, the origins of large estates in south Vietnam and the connection of tenancy to public projects, in both Thailand and Vietnam. The period 1910-1930 was to witness the working out of these developments--developments which were to be seen in all clarity in the crisis years of the 1930's.

3.29 This period is marked by the growing difficulties in all three countries arising from the fact that "the frontier is closing", perhaps nowhere more clearly seen as in Burma.⁴⁸ As land became scarce, the levels of tenancy began to rise. The standard of living both of the tenants, as well as those of agricultural labourers, began to decline, so that tenants' standard of living began to be compared against labourers rather than against owner-occupiers. With the decline in available land, and the reduced attractiveness of settling in as tenants, migration from Upper Burma fell off⁴⁹, compensated by increased migration from India. The Indians whilst continuing to dominate the towns, also began to move in on the land in large numbers--helping to push the prevailing wage-rates of Burmese agricultural labourers down and land rents up. All this was, of course, accompanied by increasing social tensions, mainly finding outlets as communal conflicts between Burmese and Indians.

3.30 To the extent that new settlements were being established, they represented the final phase of the "filling up" of the area. It also came at a time of full maturity of the credit institutions in Burma. The result was that development in this period was the most capitalistic in form. Not only was there a greater incidence of indebtedness, but tenancy rates were also higher, the area per farm higher than elsewhere and the presence of agricultural labourers more widespread.

3.31 Developments in the Mekong Delta followed a similar pattern, with the notable difference that moneylenders played a smaller role, whilst large-scale land developers featured more prominently than in the Irrawaddy Delta. The period 1910-1930 saw the occupation of the western

provinces of Cochinchina, simultaneously with full flowering of the development-by-landlord system. Large-scale canal digging projects the French regime penetrating into the Caman Peninsula were followed by the land-clearing and development on the part of landlords successful in bidding for the land.⁵⁰

The result was that the newer areas showed higher levels of tenancy than the older settled areas. (See below, Table IV)

3.32 Thailand, here again, showed the exceptional pattern. The core area settled in the period 1880-1910, including the Rangsit region, generally had and still has somewhat higher levels of tenancy than the area that was settled in the 1910's and 1920's--generally on the fringes of the core area.⁵¹

3.33 Whilst our knowledge of the period 1910-1930 and of the human aspects of the process of settlements of that period remains skimpy (again with the notable exception of Lower Burma), the onset of the Great Depression--that great clarifier of matters economic--led to an immense production of statistics, particularly on land tenancy. These figures are interesting in that, coming as they did during a crisis they seem to bring out clearly the problems that were sometimes latent in the previous sixty years of development. Reproduced below are various statistics on the incidence of tenancies in the three delta areas broken down by regions or provinces. These data are comparable across countries only if one handles them with extreme care and use them more as indicators of orders of magnitude, than as the basis for fine distinctions. Thus whilst the Burmese figures are based on annual crop reports whose coverage was theoretically complete, the figures for Thailand are obtained from a sample survey covering one

village within each of the provinces.

Table II
Patterns of Land Holding in Lower Burma

<u>Region</u>	<u>Percentage of Occupied Areas Let to Tenants, 1930-1^(a)</u>	<u>Average Size of Paddy Holdings^(b) (in hectares) 1920-30</u>
North	41	4.7
West Delta	54	10.1
Central Delta	55	10.1
East Central Delta	62	19.0
East	31	7.3

Sources: (a) Adas, op. cit., Table X-B, p. 481.

(b) Ibid., Table VIII-H, p. 399.

Table III
Patterns of Land Holding in Central Thailand (1930-1)

<u>Province</u>	<u>Percentage of Land Rental In.</u>	<u>Average Cultivated Area Per Farm (in hectares)</u>
Bangkok	46	2.5
Thonburi	11	1.0
Thanyaburi	93	9.3
Ayutthaya	32	5.0
Lopburi	13	4.1

Table III continued:

<u>Province</u>	<u>Percentage of Land Rented In (c)</u>	<u>Average Cultivated Area per Farm (in hectares)</u>
Saraburi	7	3.1
Suphanburi	5	6.9
Phetburi	32	2.8
Chachoengsao	30	4.7

Source: Carle C. Zimmerman: Siam: Rural Economic Survey 1930-31,
(Bangkok, Bangkok Times Press, 1931), Table IIE (p. 25).

Note (c): The survey gives the areas owned, rented in and rented out.
To make the figures comparable with those from Burma, I have
taken the ratio of areas rented in to the total of areas owned
and rented in.

3.34 No figures exist for Vietnam which are roughly comparable to the above.

As a highly imperfect proxy for area under tenancy, I shall present below
figures for proportion of land owned by proprietors of 50 hectares or more.
Since the average amount of land farmed by a tenant farmer was between
20-40 hectares, those figures, if used to measure the degree of tenancy
would thus be a considerable under-estimate. Nevertheless, the "tenancy
ratios" exhibited in Table IV were quite high compared, not only against
Thailand (outside the Rangsit Area) but also against Burma.

Table IV
Patterns of Land Holding in Cochinchina 1927

<u>Province</u>	<u>Percentage of Land Owned by Proprietors of 50 hectares or more</u>
Ben Tre	28.5
Cholon	17.1
Go Cong	37.2
Tan An	38.1
Vinh Long	40.8
Can Tho	51.7
My Tho	31.3
Sa Dec	35.1
Soc Trang	43.5
Tra Vinh	46.1
Bac Lieu	65.5
Chan Doc	43.4
Long Xuyen	53.1
Rach Gia	61.6

Source: Yves Henry, Economic Agricole de l'Indochine, (Hanoi, 1932)
pp. 182-183, 189.

Note: For My Tho, Cholon, Tan An, Can Tho and Bac Lieu, the relevant figures was calculated by Henry and given on p. 189. For the others, the shares of land held by proprietors with 50 hectares or more are calculated from the frequency distribution presented by Henry on pp. 182-3. For the upper tail of the distribution (more than 500 hectares), the distributions for all the other provinces were assumed to be centred on 1070 hectares, which was the average amount of land owned by proprietors with more than 500 hectares in the five above mentioned provinces for which we do have the information.

IV

- 4.1 This section presents some tentative hypotheses that appear justified on the basis of what little evidence there is. It is hoped that these hypotheses will aid future work in the economic history of the area, on which a great deal still needs to be done.
- 4.2 The basic question behind the analysis of this section is the following: Why is it that Thailand appeared (in the 1930's) to have encountered less social tensions in the countryside as a result of its post-1850 developments compared to the Burmese and the Vietnamese in their delta areas? The answer to this question depends in turn on our answer to another question: What is it that prevented the almost empty delta areas from being occupied at a faster rate? In particular, why is it that farmers in certain areas within the Delta were practicing "advanced" sedentary agriculture whilst at the same times others were practising shifting agriculture.¹
- 4.3 Ester Boserup has given us an analysis of the reasons for the coexistence of several agricultural systems side by side with one another.² Her explanation is in terms of differing population densities forcing agriculturalists in the denser areas to adopt the more labour-intensive techniques.³ Indeed it is true that while the more easterly provinces of the Mekong Delta were undergoing rapid expansion in acreage devoted to wet-rice cultivation, the agriculturalists in the districts surrounding Camau, in the far south were largely engaged in

shifting cultivation of rice. Similar conditions existed earlier in the Irrawaddy and the Chao Phraya Deltas.⁴ But this type of cultivation very soon disappeared from the Delta areas. Its replacement by a sedentary system of farming required a great deal of investment.⁵ It is my contention that it is as much the rate of investment as the supply of labour that was the primary constraint on the rate of expansion of the rice production; and, more importantly, it is whether the pioneers were able by themselves to finance these investments that determine the land tenancy pattern that became evident by the 1930's.

4.4 A comparison between the experiences of Burma and Thailand (excluding the Rangsit area) in the period 1880-1910 will, I think, help clarify the point. The Lower Burmese expansion depended for its labour force on the Upper Burmese migrants, whilst the Thai peasants generally moved fairly short distances, if at all, to find their new settlements and clear new lands. Now a pioneer who could fall back on his original resources would be better able to go ahead without much recourse to outside sources than would a migrant from a distant area. Hence it is that the Burmese pioneer had to rely far more heavily on the moneylender than his Thai counterpart. The primary investment having largely been financed from this source, it is not surprising that when the collapse came in the 1930's most of the land fell into their hands.

4.5 But that was not the only result, because of this more pressing need on the part of the Burmese pioneer, the Burmese rural credit market was considerably more sophisticated and more extensive, and once large supplies of credit are "on tap", it became possible for the

Burmese landholder to adopt methods that are not feasible for the Thai pioneer. The most important ones hinge on his independence of the constraint imposed by having to use only family labour. Using outside credit, he could use hired labour to clear a larger area of land and once they were cleared he could use it to farm this enlarged area. When hired labour was not available from indigenous sources, there was nevertheless sufficient capital to use imported labourer from India. The end result was that, in comparison with Thailand, the size of the average holding was larger. (See Tables II and III above); but on the reverse side of the coin, we also have a much larger proportion of completely landless agricultural labourer in the Irrawaddy Delta⁶--a notable proportion of whom are Indians. (Chinese coolie labourers who arrived in Thai almost never worked as farm labourers).

- 4.6 Not only can the effect of the availability of credit be recognised in the contrast between developments in Thailand and Burma, but also in the contrast between the areas within Lower Burma settled in the pre-1880 period (of which the Northern Delta area is a good example) and those settled in the 1880-1910 period (e.g. the Central Delta). Thus not only is the observed tenancy rate (in the 1930's) lower for the former, but also the acreage per holding in the North is distinctly lower than in the Central Delta. (See Table II above) The contrast arose because of the differences in the supply of credit the former before the problem of supply was "solved" and the latter after.

4.7 We have thus far discussed investments (almost entirely from private sources) used to finance land clearing and settlement. But this might be and were supplemented by considerable investments in land improvements--particularly in canal-digging designed for irrigation purposes, but eventually extensively used for transportation as well. A good part of the Delta lands were in no condition to be brought rapidly into cultivation: these included the Rangsit area which until the canals were dug, was short of water and much of Transbassac area which suffered from excessive salinity of the soil. These areas, when finally brought into cultivation as a result of necessary large scale irrigation works, were characterised by a landlord-dominated system of tenure--regardless of whether the relevant irrigation works were carried out under public or private auspices. The Rangsit case was clear-cut--the investment costs were borne by private investors, and the benefits were captured by them.

4.8 I wish to make, however, a stronger point: i.e. even if the Rangsit project were financed from public funds, a landlord system of tenure would still dominate the area. This is because unlike the irrigation systems that are practised in Upper Burma and Northern Thailand, the type of water control that emerged in the Deltas were from the farmers' point of view, "exotic" systems. They were planned from the center. Which parts of the land would benefit from the project and which not, was known first in the capital. Given the great differentiation in Southeast Asian societies and the concomitant slowness in the transmission of information, it is clear that the situation was ripe for speculation.

4.9 This was indeed what happened in the Transbassac area of the Mekong Delta. The French canal building there was followed by the development of extremely large estates. It must be quickly added that these large estates were not only the results of the hopes of capital-gain realizations discussed in the previous paragraph, but also arose from the need for rather heavy supplementary investments by the would-be landlords. As mentioned earlier, one major problem of the Transbassac area was the excessive salinity of the soil. This means that the soil had to be washed clean, usually by flooding and then draining--which tended to increase the gestation period of the investment and thus put it out of reach of small scale pioneers. Another area in the Mekong Delta which early attracted landlord-led development was the Plain of Reeds.⁷ There the problem was the presence of alum, which had accumulated in the poorly drained area.⁸

4.10 Another factor of some importance in Thailand and Vietnam--the two countries where long-distance migration played a slight role was the administrative overhaul that the two countries underwent in the late nineteenth century. In Vietnam, the successive French measures undercutting the power of the village councils--traditionally dominated by the wealthier villagers led to this group turning away from using direct political domination as a means of enhancing their power and prestige into attempts at acquiring economic domination. In Thailand, the local powers of the provincial nobility were also much reduced by the action of the monarchy, but in its place the Bangkok government offered high-salaries and positions in the central bureaucracy to the

provincial elite. The result was the creation of the system of political--and economic--domination by Bangkok which has been characteristic of the Thai polity down to the present day. Also, as noted in Section 3.19, it succeeded in diverting the Thai elite away from commercial activities at least temporarily (i.e. until after the Second World War), leaving the field to the Chinese who, as a result of the financial reforms of the 1890's and 1900's, were frozen out of any political influence which they had enjoyed to some extent in the more traditional regime of Rama III and Rama IV.⁹

Appendix: The Sequence of Settlement in the
Mekong Delta

- A.1 This is, to my present knowledge, no published account of the process of settlement in the Mekong Delta following the arrival of the French. Consequently our knowledge of the sequence of settlement in that area is weak. The following is an attempt, using highly imperfect data, to give a very rough sequence of settlements for the period 1870-1930.
- A.2 The data used are the areas under rice cultivation in the different provinces for the years 1881, 1888, 1908 and 1927. The first two are used in tandem to indicate cultivation in the 1880's. Basically the 1881 figures are used, but where the figures given there appeared unreasonable or are unavailable the 1888 figures are employed. The three provinces involved are Bien Hoa (unreasonable), Bac Lieu and Gia Dinh (unavailable). The 1888 figures for Sa Dec appeared unreasonable. Of all the other provinces Tra Vinh showed an incredible jump in area cultivated between 1881 and 1888 but it is difficult to assess which of the two is the more reliable. The 1881 for Tra Vinh is provisionally accepted.
- A.3 The provinces are then divided into three categories, on the basis of the areas cultivated in 1881 (or 1888) and 1908 as percentages of those of 1927. Category I include those provinces for which the percentage of area cultivated in 1881 (or 1888) is greater than 50: these are the provinces of settlement was substantially completed by 1880. As can be seen they are mostly provinces outside the Mekong Delta proper plus

some of the more eastern delta provinces. Category II are those provinces for which the percentages of area cultivated in 1881 are less than 50 but those in 1908 are greater than 80. These are the provinces for which the process of settlement was completed between 1880 and 1910. Finally the remaining provinces are the remaining ones whose percentages of the area cultivated in 1910 are generally less than 60. Table A.1 provides the figures used in the categorization.

Table A1

Areas Cultivated in Rice in 1881, 1888, 1908 and 1927
in the Mekong Delta
(Hectares)

	1881	1888	1908	1930	1881/1930	1888/1930	1908/1930
					(1) (4) x100	(2) (4) x100	(3) (4) x100
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Category I (before 1880)</u>							
Ben Tre	61,955	13,595 ^a	100,488	104,060	59.5	13.1 ^a	96.6
Bien Hoa	4,682 ^a	26,996	26,968	44,200	10.6 ^a	61.1	61.0
Cholon	52,858	57,032	84,165	92,620	57.1	61.6	90.9
Gia Dinh	n.a.	39,762	54,045	59,000	n.a.	67.4	91.6
Go Cong	34,761	36,714	45,283	46,200	75.2	79.5	98.0
Tan An	38,670	39,031	56,003	74,900	51.6	52.1	74.8
Vinh Long	64,302	69,713	89,940	92,080	69.8	75.7	97.7
<u>Category II (1880-1910)</u>							
Ba Ria	5,349	7,035	10,928	13,600	39.3	51.7	80.3
Can Tho	56,619	80,838	171,921	181,100	31.3	44.6	94.9
My Tho	73,155	84,602	130,034	160,150	45.7	52.8	81.2
Sa Dec	36,119	46,014	81,092	90,200	40.0	51.0	89.9
Soc Trang	54,109	75,381	179,508	195,200	27.7	38.6	92.0
Tra Vinh	30,773	108,798	136,724	160,530	19.2	67.8	85.2
<u>Category III (1910-1930)</u>							
Bac Lieu	n.a.	18,985	77,188	270,420	n.a.	7.0	28.5
Chau Doc	1,408	10,335	34,597	131,300	1.1	7.9	26.3
Ha Tien	485	730	1,414	6,140	7.9	11.9	23.0
Long Xuyen	22,572	39,776	69,717	147,500	15.3	27.0	47.3
Rach Gia	10,664	29,403	142,223	319,960	3.3	9.2	44.5
Tay Ninh	6,495	10,334	25,439	44,000	14.8	23.5	57.8
Thu Dan Mot	1,470	8,865	11,931	26,600	5.5	33.3	44.9

Notes: ^aAppears unreasonable.

n.a. Not available.

Sources: Columns (1)-(3): Albert Coquerel, Paddys et Riz de Cochinchine (Lyon, 1911)
Tables III and IV.

Columns (4): Yves Henry: Economic Agricole de l'Indochine (Hanoi, 1932),
pp. 267-272.

Footnotes

Section II

1. This expression was first used by Wilbur Zelinsky in "The Indochinese Peninsula: A Demographic Anomaly", Far Eastern Quarterly, Vol. IX, No. 2 (February 1950), pp. 115-145. A more modern and complete discussion may be found in C.A. Fisher: "Some Comments on Population Growth in South-East Asia, with Special Reference to the Period since 1830," in C. D. Cowan (ed.), The Economic Development of Southeast Asia: Studies in Economic History and Political Economy, London, Allen & Unwin, 1964, pp. 48-71.
2. See, e.g. J. F. Cady, A History of Modern Burma (Ithaca, N.Y., Cornell University Press, 1958), pp. 39-44; J. S. Furnirall, An Introduction to the Political Economy of Burma, Third Edition, (Rangoon, People's Literature Committee & Eourse, 1957), p. 41.
3. Michael P. Adas, "Agrarian Development and the Plural Society in Lower Burma, 1852-1941," Ph.D. Dissertation, University of Wisconsin, 1971 (University Microfilms No. 71-20653).
4. Ibid., pp. 41-45.
5. See Pierre Gourou, Land Utilization in French Indochina (Washington, D.C.: Institute of Pacific Relations, 1945), p. 174. This book will be referred to henceforth as Land Utilization.
6. This is only roughly true. Within well-defined areas (e.g. the Tonkin Delta), the population density does not reflect the settlement history. See Pierre Gourou, Les Paysans du Delta Tonkinois (Paris, 1965), p. 137.
7. This was mentioned in passing, in David J. Steinberg (ed.), In Search of Southeast Asia: A Modern History (New York, Praeger, 1971), p. 222. A stronger view may be found in R. Sansom: The Economics of Insurgency in the Mekong Delta (Cambridge, Mass. M.I.T. Press, 1970), p. 48. Sansom included not only the engineering achievement of the French in Cochinchina but also their medical achievement in making settlement of the Delta possible.
8. Thus Yves Henry in his Economie Agricole de l'Indochine (Hanoi, 1932), p. 628 stated: "The undiked river of Cochinchina does not subject the countryside to the formidable flooding as is the case

Footnote 8 continued

with the Red River." See P. Gourou, Les Paysans du Delta Tonkinois (Paris: Mouton & Co., 1965), p. 76 (to be referred to from now on as "Gourou, Les Paysans"). Although he later claimed that the results of the heavy work on the dikes over the centuries "fell wide of perfection" (p. 85), we must acknowledge that it was sufficient to support a population whose density was and is, far and away, the densest in Southeast Asia.

9. The volume of rice exports from Thailand prior to 1852 was low and erratic. (See J. C. Ingram, Economic Change in Thailand, 1850-1970 (Stanford: Stanford University Press, 1971), pp. 21-24. The outbreak of malaria soon after the clearing of rice lands also occurred in Thailand. See Howard K. Kaufman, Bangkhuad: A Community Study in Thailand (Locust Valley, N.Y.: J. J. Augustin, 1960), p. 15.

10. This latter novel hypothesis about the origins of the Thais comes from Robbins Burling: Hill Farms and Padi Fields: Life in Mainland Southeast Asia (Englewood Cliffs, N.J.: Prentice-Hall, 1965), pp. 93-94.

11. An alternative tactic employed by the central monarchy was the divide-and-rule system as practiced by the Thais on the Korat Plateau and by the Burmese in the Shan area. This however could lead to trouble should an outside enemy threaten, since the arrangements for defense would be fragmented and uncoordinated.

12. The rest (probably the majority) were settled on the Korat Plateau which was divided into a number of petty principalities, subject to Bangkok, which employed the divide-and-rule tactic mentioned in footnote 11 above.

13. See Akin Rabibhadana: The Organization of Thai Society in the Early Bangkok Period, 1782-1873, (Ithaca, N.Y.: Cornell Data Paper No. 74, 1969). I have been unable to find any good account of social organization in pre-colonial Burma except J. S. Furnivall, op. cit., Chapter 3, which suggests that there were considerable freedom of movement.

14. The fact that the peasants working in areas in which they have invested a great deal of labour tended to be more stable than otherwise is mentioned by Clifford Geertz on Indonesia in his Agricultural Involution: The Process of Ecological Change in Indonesia (Berkeley: University of California Press, 1968), p. 34.

15. The state of Chiangmai tried to make a go out of it from time to time, but its place in the political history of the area (particularly from the end of the 18th. century on) is securely in the footnotes.

16. For the method of settlement within the Tonkin Delta, see Pierre Gourou (Les Paysans du Delta Tonkinois (Paris, Mouton & Co., 1965), p. 135, pp. 207-208. Trinh Hoai Duc: Histoire et Description de la Basse Cochinchine. Translated from Chinese by G. Aubaret. (Paris: 1863), p. 10 discussed the settlement in the South in the early 18th. century. Alexander B. Woodside: Vietnam and the Chinese Model (Cambridge, Mass. Harvard University Press, 1971) p. 250, discusses the attempt by the Vietnamese to settle their own people and the Chinese in Cambodia. For a general survey of the subject, see M. G. Cotter, "Towards a Social History of the Vietnamese Southward Movement," Journal of Southeast Asian History, Vol. 9 (March 1968), pp. 12-25.

17. See Woodside, ibid., p. 127.

18. See M. P. Adas, op. cit., pp. 37-39. Later on, (p. 46) he points out that transplanted rice was known to be practiced in the Henzada-Prome area and seemed to imply that shifting cultivation was practiced elsewhere. Now transplanted rice is usually grown in intensively cultivated areas while shifting agriculture is common in sparse areas. This seems to indicate generally that the northern part of the delta is more densely populated.

19. See Lucien M. Hanks, "Bang Chan and Bangkok: Five Perspectives on the Relation of Local to National History," Journal of Southeast Asian History, Vol. 8, No. 2 (September 1967), p. 251. For a contemporary account (but referring to 1834 rather than 1855), see Mgr. Jean-Baptiste de Pallegoix, Description du Royaume Thai ou Siam, 2 vols., Paris, 1854, Part III. See also the building dates of the various temples in Ang Thong in Nai Huan Phinthuphan, Ang Thong nai adeet (in Thai), (Bangkok, Krung Siam Kan Phim, 1971). There seems to be two peaks in the temple building activities, the first towards the end of the Ayutthaya Era (18th Century A.D.) and the second in the third and fourth reigns of the Bangkok Era. The probable history of the settlement in the province is thus something like the following: extensive cultivation during the Ayutthaya Era when the capital was nearby, followed by a period of decline with the fall of Ayutthaya and the movement of the capital further south, and then resettlement in the third and fourth reigns.

20. See, e.g. Pallegoix, op. cit. For a theoretical argument why this should be so, see S. A. Resnick, "The Decline of Rural Industry under Export Expansion: A Comparison among Burma, the Philippines and Thailand, 1870-1938," Journal of Economic History, Vol. XXX No. 1 (March 1970), pp. 51-73.

21. See M. P. Adas, *op. cit.*, p. 46, also J. S. Furnivall, "Land as a Free Gift of Nature," Economic Journal, Vol. XIX (December 1909), pp. 552-562.

22. Cf. Ester Boserup, The Conditions of Agricultural Growth (London, Allen & Unwin, 1965); the coexistence of areas intensive cultivation and of shifting cultivation would thus support her view that population density determines the method of agriculture and not the other way around.

23. John Adams and Nancy Hancock, "Land and Economy in Traditional Vietnam," Journal of Southeast Asian Studies, Vol. I, No. 2, p. 91.

24. See Alexander L. Woodside: Vietnam and the Chinese Model, (Cambridge, Mass. Harvard University Press, 1971), p. 221.

25. But even here, it is not clear what was the extent of their rights. The following account of slavery in Bangkok of 1826 shows the complexity of the problem: "Almost all public works and laborious services are executed at Bangkok by the Burmese prisoners and they receive so small a subsistence that they are permitted to levy Contributions upon the inhabitants of the Country, who attend the bazaars in boats and ply the river with vegetables, fruit and other articles of food. We repeatedly saw two or three Burmese prisoners in a boat chasing and plundering the boat of some old Siamese woman," Captain Henry Burney to George Swinton (Report dated 2 December 1826), The Burney Papers, Vol. II, Part IV, Printed by order of the Committee of Vajiranana Library, p. 72.

26. For a full account of the status of "Freemen" (i.e. phrai) in traditional Siam, see M. R. Akin, *Op. cit.*, particularly pp. 79-91.

27. See Adas, *op. cit.*, pp. 84-85.

28. Khachon Sukkhaphanit: Thanaudon Phrai (Bangkok, Railways Press, 1967), pp. 33-34.

Section III

1. For a good collation of the terribly scattered sources on this topic see Norman G. Owen, "The Rice Industry of Mainland Southeast Asia 1850-1914" Journal of the Siam Society, Vol. 59, Part 2, (July 1971), pp. 75-143. There are two drawbacks to his study, (a) most of its statistical sources are secondary. (This can create a great deal of problems, e.g. vagueness the treatment of paddy versus rice exports) and (b) The emphasis is largely on the export activities with only a cursory account of land tenancy problems (pp. 131-2), and equally brief treatments of many production problems. It is this latter deficiency that I shall try to correct.
2. See J. C. Ingram, op. cit., Chapter C; S. A. Resnick, loc. cit., U. Aye Hlaing: "Trends of Economic Growth and Income Distribution in Burma, 1870-1940" Journal of the Burma Research Society, Vol. XLVII, No. 1 (June 1964), particularly pp. 103-106. For Vietnam, there has been less literature centered on this question but see comments by Pierre Gourou in his Land Utilization on the differences in the absence of artisan industry in Cochinchina as against its presence in Tonkin and Annam.
3. The literature on this is vast, particularly for the Chinese, the reader is referred to the bibliography in V. Purcell: The Chinese in Southeast Asia (Revised edition, London, 1965). The coverage on the Indians in Burma is much poorer. Dr. Adas's dissertation, already referred to, is the most helpful work known to me. The Chettyar community, in particular, is examined in Philip Siegelman: "Colonial Development and the Chettyar: A Study in the Ecology of Modern Burma, 1850-1941". Ph.D. dissertation, University of Minnesota, 1964 (University Microfilm No. 64-7301).
4. J. S. Furnivall's extensive writings may be taken as representative.
5. Ingram, op. cit.; R. L. Sansom: The Economics of Insurgency in the Mekong Delta, (Cambridge, Mass., 1970), Chapter 2.
6. Adas, op. cit., p. 145.
7. "A Tour to Wat, Pra Patom in 1865" Bangkok Calendar, 1871, pp. 91-99 (particularly pp. 93-4).
8. See Appendix.

9. On Burmese migration before 1886, see the inconclusive discussion in Adas, op. cit., p. 124.
10. Ibid., pp. 166-7.
11. See King Mongkut: Prachoom Prakat Ratchakan Thi Si, Eho So 2408-2411, (Collected Decrees of the Fourth Reign, B.E. 2408-2411), (Bangkok, Kurusapha, 1961), p. 54 (Decree No. 284). For a later period (1884), see M. Hurdouin "Voyage a Ratboursy et a Kanboursy" Cochinchine Francaise: Excursions et Reconnaissances Vol. VIII No. 19, p. 192.
12. Prince Damrong Ratchanuphab: Thesaphiban, (Bangkok, 1966), p. 20 hints at such a possibility.
13. Adas, op. cit. pp. 149ff., Howard K. Kaufman, Bangkhuad: A Community Study in Thailand (Locust Valley, N.Y.: J.J. Augustin, 1960) p. 15.
14. Adas, op. cit., pp. 147, 149.
15. Ibid., pp. 166-8. For an account of the Chettyar and their mode of operation, see Siegelman, op. cit., Chapter V.
16. I use the term in the sense defined by Gourou in Gourou, Land Utilization, pp. 150ff. For the pace of settlement, see Appendix.
17. Sansom, op. cit., pp. 23-25; Pierre Melin: L'endettement Agricole et la Liquidation des Dettes Agricoles en Cochinchine, (Paris 1939) pp. 27-28.
18. Milton E. Osborne: The French Presence in Cochinchina and Cambodia, (Ithaca, N.Y.: Cornell University Press, 1969), pp. 144-5, also p. 322 (n.2).
19. Henry, op. cit., p. 223.
20. Ibid., chart facing p. 273. We use the figure for 1905-6 rather than 1900 in order to allow time for the land conceded to be developed.
21. Osborne, op. cit., p. 24; David G. Marr: Vietnamese Anticolonialism 1885-1925, (Berkeley, Calif., University of California Press, 1971), pp. 93-4 cites the case of an anti-French South Vietnamese, Nguyen Than Hien, who was a large landlord in the South; however, at the time of his acquisition of the land, he was still closely identified with the French.

22. This cannot be documented however. Le Thanh Uoi: Le Viet-Nam (Paris, 1955), p. 432 make roughly the same statement, also without documentation. See also Osborne, op. cit., p. 147.

23. Thus, Sansom, op. cit., p. 24, traced the career of a landlord who built up his extremely large holdings in the 1900's from other settlers who failed.

23a. See below, paras. 3.21-3.27.

24. For a brief history of these reforms, and reactions to them see David K. Wyatt: The Politics of Reform in Thailand: Education in the Reign of King Chulalongkorn, (New Haven; Yale University Press, 1969) Chapters 2 and 4; for their effects in the provinces, see Tej Bunnag, "The Provincial Administration of Siam from 1892 to 1915: A Study of the Creation, the Growth, the Achievements and the Implications for Modern Siam, of the Ministry of the Interior under Prince Damrong Rachanuphap" (Ph.D. Thesis, St. Antony's College, Oxford University, 1968); for their effects on the allocation of manpower, see Khachon Sukkaphanit, op. cit., pp. 30ff.

25. Hardouin, loc. cit., pp. 192-3.

26. Very likely Phraya Montri Suriwong (Chuen Bunnag) (1846-1915).

27. The complaint that runaway slaves constantly placed themselves under the protection of powerful princes or officials was a recurrent theme in royal proclamations having to do with slavery. See King Mongkut, PPR4 No. 65 (in 1855), No. 109 (in 1857) Nos. 139 and 140 (in 1858).

28. M. Hardouin: "Voyage à Ratboursy et à Nanboursy--Suite et fin" Cochinchine Francaise. Excursions et Reconnaissances, Vol. VIII No. 20 (November/December 1884), pp. 431-3. These probably were the very same ones mentioned in King Mongkut, PPR4, No. 198.

29. See Wyatt, op. cit., passim concerning this very important figure in nineteenth century Thailand.

30. The proclamation cited in footnote 28 indeed excused these villagers from the land tax on account of their being subject to heavy corvée work.

31. See Tej Bunnag, op. cit.

32. Michael Vickrey: "Thai Regional Elites and the Reforms of King Chulalongkorn", Journal of Asian Studies. Vol. XXIX No. 4, (August 1970), pp. 363-381.
33. Under the old system the patron (the nai) was required to produce his client in court in case the latter was accused of any wrong doing.
34. In fact our only evidence regarding the settlement on the land of former urban dwellers, referred to the population of Bangkok and Thonburi. See Kaufman, op. cit., p. 15, Banks, loc cit.
35. It is an interesting fact that whilst the Chettyars were notoriously ubiquitous in Burma and were quite active (after 1900) in the Mekong Delta, they seemed to have bypassed Thailand altogether.
36. J. Homan van der Weide: General Report on Irrigation and Drainage in the Lower Menam Valley, (Bangkok, 1903), p. 26 footnote. Estimates differ from source to source.
37. Cf. the reasons given for the construction of the canal mentioned in Banks, loc. cit.
38. Ibid.
39. King Mongkut: PFR 4 number 206 (see this item in the list of references).
40. The company did try to extend its operations towards the west bank of the Chao Phraya, but its request was apparently turned down. See Kingdom of Siam, Ministry of Lands & Agriculture, Royal Irrigation Department: Project Estimate for Works of Irrigation, Drainage and Navigation to Develop the Plain of Central Siam, Volume III, (Bangkok 1915) pp. 12, 18.
41. H. Warington Smyth. Five Years in Siam, Volume I (London 1898), pp. 53-4.
42. Van der Weide, op. cit., p. 26 footnote, also see p. 66.
43. Ibid., p. 32, Hardouin, op. cit., p. 196 claimed that the decline of the Nakhon Chaisi sugar cultivation was due to an increasing brackishness of the water resulting from changes in the amount of rainfall. (This last point is doubtful). Van der Weide said that the inhabitants of the coastal areas had enlarged creeks in order to ship firewood and attap, their principal produce, out and had thus unwittingly led to increasing salination of the soil.

44. The price of land near a canal or river was given in the Ward Report for 1913. (Vol. III, p. 43) as about 40 baht per rai. At a rent/land price ratio of 10% (at present it fluctuates between 5-7%), this gives the annual rent as 4 baht/rai. The Rangsit land yields about 6 piculs of paddy per rai (Van der Meide, *op. cit.*, p. 63 or 4 piculs of rice, which at the price of about 5.50 baht per picul (James C. Ingram, "Thailand's Rice Trade and the Allocation of Resources" in C.D. Cowan (ed.), The Economic Development of Southeast Asia (London, Allen & Unwin, 1964), p. 121) gives us a gross return of 22 baht per rai. The amount of rent as a percentage of gross returns is thus somewhat less than 20%. This compares with the 50% rate prevailing in the post-World-War-II period.
45. For problems arising out of this project, which began to be felt only in the late 1910's (silting of the canals was responsible), see J.C. Ingram, Economic Change..., p. 81.
46. *Ibid.*, pp. 81-84. Ingram quotes an interesting observation, made in an official report, that the reason for going slow on other projects was because improvements elsewhere would draw tenants away from the Rangsit area, then largely owned by the Thai elite.
47. For the impact of irrigation works in the post-World War II period, see I. Inukai, "Regional Income Differentials in Thailand". (mimeo from ILO, Bangkok), p. 24.
48. See Adas, op. cit., Part III. The following account is merely a summary of Adas's.
49. There was also the increased attractiveness as a result of public works projects in Upper Burma itself.
50. Sansom, op. cit., p. 23.
51. It is rather difficult to be absolutely certain of this fact, as data on tenancy did not exist until 1930/1931: whilst figures by provinces of the cultivated area did not appear until 1922/1923. Furthermore many provinces covers an area of diverse topography, so that different parts within the same province were settled at different times.

Section IV

1. Brieère, "Rapport sur la Circonscription de Camau" Cochinchine Française: Excursions et Reconnaissances, Vol. I, No. 1 (December 1872), p. 19
2. E. Boserup, The Conditions of Agricultural Growth, (London: George Allen and Unwin, 1965), Chapter 6.
3. Rigorously, one has to assume immobility of labour; for if labour were mobile, and if, as she suggests, it prefers more "primitive" (i.e. less labour intensive) techniques, (*ibid.*, pp. 53-4), there would be a movement away from the more crowded area--which demands heavy work. The co-existence of several systems will not then be observed.
4. See above, paragraphs 2.12-2.13.
5. For an account of the investment needed in a similar operation in modern times, see E. H. Fisk: Studies in the Rural Economy of Southeast Asia (), Chapter.
6. No figures for this category exist for Thailand before 1960. But for 1960, of the labour force listed in the agriculture, there is the category "other" after the categories "self-employed" and "unpaid family labour". Using this category ("other") to indicate hired labour, it is interesting to note that, in 1960, in no province in the Central Plain is the proportion of this to total agricultural labour force higher than 7%. Conditions in 1960 in this respect can be assumed worse than even the 1930's. In Burma in 1931 40% of the agriculturalists was classified as labourer as distinct from tenants and owner-cultivators (Cheng Siok-Iwa: The Rice Industry of Burma, 1852-1940, (Kuala Lumpur, University of Malaya Press, 1968) p. 128, fn. 38.
7. Osborne, op. cit., p. 322, n.3.
8. Gourou, Land Utilization, pp. 157-8.
9. Another hypothesis which cannot be confirmed or refuted in the present state of knowledge is the differing distribution of income at the time of the opening to trade. The general impression is that if we take the distribution of income among peasants (i.e. excluding mandarins, nobility, etc.) the inequality was probably greater among Vietnamese peasants than among Burmese and Thai peasants, with the presence in Vietnam of extremely poor and almost landless peasants. These used to form the bulk of the settlers in the Southern frontier in the pre-French period. With commercialized agriculture, they became merely agricultural labourers. (It seems that rural proletarians of the indigous variety emerged first in Vietnam, before Burma and Thailand).

References

- "A Tour to Pra Pratom in 1865", Bangkok Calendar, 1871, pp. 91-99.
- Adams, John and Hancock, Nancy, "Land and Economy in Traditional Vietnam"
Journal of Southeast Asian Studies, Vol. I, No. 2, pp. 90-98.
- Adas, Michael Peter, "Agrarian Development and the Plural Society in
Lower Burma, 1852-1941", Ph.D. Dissertation, University of
Wisconsin, 1971 (University Microfilm No. 71-20653).
- Akin Rabibhadana: The Organization of Thai Society in the Early
Bangkok Period, 1782-1873, (Ithaca, N.Y.: Cornell Data Papers,
No. 74, 1969).
- Aye Hlaing, U, "Trends of Economic Growth and Income Distribution in
Burma, 1870-1940", Journal of Burma Research Society, Vol. XLVII,
No. 1 (June 1964), pp. 89-142.
- Boserup, Ester, The Conditions of Agricultural Growth, (London, Allen
and Unwin, 1965).
- Brière: "Rapport sur la Circonscription de Camau". Cochinchine
Francaise: Excursions et Reconnaissances Vol. I, No. 1
(December 1879) pp. 5-25.
- Burling, Robbins, Hill Farms and Padi Fields: Life in Mainland
Southeast Asia, (Englewood Cliffs, N.J.: Prentice-Hall, 1965).
- The Burney Papers. Printed by order of the Committee of Vajirāna
Library. 5 vols. Bangkok 1910.
- Cady, John F., A History of Modern Burma (Ithaca, N.Y.: Cornell
University Press, 1958).

- Cheng, Siok-Kwa, The Rice Industry of Burma, 1852-1940, (Kuala Lumpur, University of Malaya Press, 1968).
- Coquerel, Albert, Paddys et Riz de Cochinchine, (Lyons, 1911).
- Cotter, H.G., "Towards a Social History of the Vietnamese Southward Movement", Journal of Southeast Asian History, Vol. 9 (March 1968), pp. 12-25.
- Damrong Rachanuphab, Prince, Thesaphiban, (Bangkok, 1966).
- Fisher, Charles A., "Some Comments on Population Growth in South-East Asia, with Special Reference to the Period since 1830" in C.D. Cowan (ed.), The Economic Development of Southeast Asia: Studies in Economic History and Political Economy, (London, Allen and Unwin, 1964).
- Fisk, E. K., Studies in the Rural Economy of South-East Asia
- Furnivall, J.S., "Land as a Free Gift of Nature", Economic Journal, Vol. XIX (December 1909), pp. 552-562.
- Furnivall, J. S., An Introduction to the Political Economy of Burma, Third Edition, (Rangoon: People's Literature Committee and House, 1957).
- Geertz, Clifford, Agricultural Involution: The Process of Ecological Change in Indonesia (Berkeley: University of California Press, 1968).
- Gourou, Pierre, Les Paysans du Delta Tonkinois (Paris, 1965).
- Gourou, Pierre, Land Utilization in French Indochina, (Washington, D.C.: Institute of Pacific Relations, 1945).

- Hanks, Lucien M., "Bang Chan and Bangkok: Five Perspectives on the Relation of Local to National History", Journal of Southeast Asian History, Vol. 8, No. 2 (September 1967), pp. 250-256.
- Hardouin, M., "Voyage à Ratboursy et à Kanboursy" Cachinchine Francais. Excursions et Reconnaissances, Vol. VIII No. 19 (September/October 1884), pp. 189-203; suite et fin: Vol. VIII No. 20 (November/December 1884) pp. 429-459.
- van der Weide, J. Homan: General Report on Irrigation and Drainage in the Lower Menam Valley, (Bangkok, 1903).
- Henry, Yves, Economie Agricole de l'Indochine, (Hanoi, 1932).
- Kuan Phinthuphan: Ang Thong nai Adeet (in Thai), (Bangkok: Krung Siam Kan Phim, 1971).
- Ingram, James C., Economic Change in Thailand 1850-1970, (Stanford: Stanford University Press, 1971).
- Ingram, James C., "Thailand's Rice Trade and the Allocation of Resources" in C. D. Cowan (ed.), The Economic Development of Southeast Asia: Studies in Economic History and Political Economy, (London, Allen & Unwin, 1964).
- Inukai, I., "Regional Income Differentials in Thailand" (mimeo, from ILO, Bangkok).
- Kaufman, Howard Keva, Bangkhuad: A Community Study in Thailand, (Locust Valley, N.Y.: J.J. Augustin, 1960).
- Khachon Sukkaphanit, Thanandon Phrai, (Bangkok, Railways Press, 1967)
- Le Thanh Khoi, Le Vietnam: Histoire et Civilisation, (Paris, Editions Minuit, 1955).

Marr, David G., Vietnamese Anticolonialism, 1885-1925 (Berkeley, 1971)
University of California Press, 1971).

Melin, Pierre, L'Endettement Agraire et la Liquidation des Dettes
Agricoles en Cochinchine, (Paris, 1939).

Mongkut, King, Prachoom Prakat Ratchakan Thi Si (As there are many
editions of this collection of decrees, I have used the common
numbering system used by them rather than the pagination on
any one edition) Abbreviated to PIR4.

Osborne, Milton E., The French Presence in Cochinchina and Cambodia,
(Ithaca, N.Y.: Cornell University Press, 1969).

Owen, Norman G., "The Rice Industry of Mainland Southeast Asia, 1850-
1914" Journal of the Siam Society, Vol. 59, Part 2 (July 1971),
pp. 75-143.

Pallegoix, Jean-Baptiste de, Description du Royaume Thai or Siam,
2 volumes, (Paris, 1854).

Purcell, Victor, The Chinese in Southeast Asia, Revised edition,
(London, 1965).

Resnick, Stephen A., "The Decline of Rural Industry under Export
Expansion: A Comparison among Burma, the Philippines and
Thailand, 1870-1938" Journal of Economic History, Vol. XXX,
No. 1, (March 1970), pp. 51-73.

Sansom, Robert L., The Economics of Insurgency in the Mekong Delta,
(Cambridge, Mass.: The MIT Press, 1970).

Siam, Kingdom of, Ministry of Lands and Agriculture, Royal Irrigation
Department: Project Estimate for Works of Irrigation, Drainage
and Navigation to Develop the Plain of Central Siam (4 volumes),
(Bangkok, 1915).

- Siegelman, Philip, "Colonial Development and the Chettyar: A Study in the Ecology of Modern Burma, 1850-1941" Ph.D. Dissertation, University of Minnesota, 1964 (University Microfilm No. 64-7301)
- Smyth, H. Warrington: Five Years in Siam (2 volumes), (London, 1893)
- Steinberg, David J. (ed.) In Search of Southeast Asia: A Modern History (New York: Praeger, 1971).
- Tej Bunnag, "The Provincial Administration of Siam from 1892 to 1915: A Study of the Creation, the Growth, the Achievements and the Implications for Modern Siam, of the Ministry of the Interior under Prince Damrong Rachanuphap", Ph.D. Dissertation, St. Antony's College, Oxford University, 1962.
- Trinh Hoai Duc: Histoire et Description de la Basse Cochinchine, translated from Chinese by G. Aubaret (Paris, 1963).
- Vickrey, Michael, "Thai Regional Elites and the Reforms of King Chulalongkorn" Journal of Asian Studies, Vol. XXIX No. 4 (August 1970) p. 363-881.
- Woodside, Alexander B., Vietnam and the Chinese Model, (Cambridge, Mass., Harvard University Press, 1971).
- Wyatt, David K., The Politics of Reform in Thailand: Education in the Reign of King Chulalongkorn, (New Haven, Yale University Press, 1969).
- Zelinsky, Wilbur, "The Indochinese Peninsula: A Demographic Anomaly", Far Eastern Quarterly, Vol. IX No. 2, (February 1950), pp. 115-145.
- Zimmerman, Carle C., Siam: Rural Economic Survey, 1930-31 (Bangkok 1931).

Cheng, Siok-Mwa, The Rice Industry of Burma, 1852-1940, (Kuala Lumpur, University of Malaya Press, 1968).

Coquerel, Albert, Paddys et Riz de Cochinchine, (Lyons, 1911).

Cotter, H.G., "Towards a Social History of the Vietnamese Southward Movement", Journal of Southeast Asian History, Vol. 9 (March 1968), pp. 12-25.

Damrong Rachanuphab, Prince, Thesaphiban, (Bangkok, 1966).

Fisher, Charles A., "Some Comments on Population Growth in South-East Asia, with Special Reference to the Period since 1830" in C.D. Cowan (ed.), The Economic Development of Southeast Asia: Studies in Economic History and Political Economy, (London, Allen and Unwin, 1964).

Fisk, D. K., Studies in the Rural Economy of South-East Asia

Furnivall, J.F., "Land as a Free Gift of Nature", Economic Journal, Vol. XIX (December 1909), pp. 552-562.

Furnivall, J. S., An Introduction to the Political Economy of Burma, Third Edition, (Rangoon: People's Literature Committee and House, 1957).

Geertz, Clifford, Agricultural Involution: The Process of Ecological Change in Indonesia (Berkeley: University of California Press, 1968).

Gourou, Pierre, Les Paysans du Delta Tonkinois (Paris, 1965).

Gourou, Pierre, Land Utilization in French Indochina, (Washington, D.C.: Institute of Pacific Relations, 1945).

Hanks, Lucien M., "Bang Chan and Bangkok: Five Perspectives on the Relation of Local to National History", Journal of Southeast Asian History, Vol. 8, No. 2 (September 1967), pp. 250-256.

Hardouin, M., "Voyage à Ratboursy et à Kanboursy" Cachinchine Francais. Excursions et Reconnaissances, Vol. VIII No. 19 (September/October 1884), pp. 139-203; suite et fin: Vol. VIII No. 20 (November/December 1884) pp. 429-450.

van der Meide, J. Foman: General Report on Irrigation and Drainage in the Lower Menam Valley, (Bangkok, 1903).

Henry, Yves, Economie Agricole de l'Indochine, (Hanoi, 1932).

Juan Thinhuphan: Ang Thong nai Adeet (in Thai), (Bangkok: Krung Siam Van Phin, 1971).

Ingram, James C., Economic Change in Thailand 1850-1970, (Stanford: Stanford University Press, 1971).

Ingram, James C., "Thailand's Rice Trade and the Allocation of Resources" in C. D. Cowan (ed.), The Economic Development of Southeast Asia: Studies in Economic History and Political Economy, (London, Allen & Unwin, 1964).

Inukai, I., "Regional Income Differentials in Thailand" (mimeo, from ILO, Bangkok).

Kaufman, Howard Neva, Bangkhuaad: A Community Study in Thailand, (Locust Valley, N.Y.: J.J. Augustin, 1960).

Khachon Sukkhaphanit, Thanandon Phrai, (Bangkok, Railways Press, 1967)

Le Thanh Nhoi, Le Vietnam: Histoire et Civilisation, (Paris, Editions Minuit, 1955).

Marr, David G., Vietnamese Anticolonialism, 1885-1925 (Berkeley, University of California Press, 1971).

Melin, Pierre, L'Endettement Agraire et la Liquidation des Dettes Agricoles en Cochinchine, (Paris, 1939).

Mongkut, King, Trachoom Prakat Ratchakan Thi Si (As there are many editions of this collection of decrees, I have used the common numbering system used by them rather than the pagination on any one edition) Abbreviated to PIR4.

Osborne, Milton M., The French Presence in Cochinchina and Cambodia, (Ithaca, N.Y.: Cornell University Press, 1969).

Owen, Norman G., "The Rice Industry of Mainland Southeast Asia, 1850-1914" Journal of the Siam Society, Vol. 59, Part 2 (July 1971), pp. 75-143.

Pallegoix, Jean-Baptiste de, Description du Royaume Thai or Siam, 2 volumes, (Paris, 1854).

Furcell, Victor, The Chinese in Southeast Asia, Revised edition, (London, 1965).

Resnick, Stephen A., "The Decline of Rural Industry under Export Expansion: A Comparison among Burma, the Philippines and Thailand, 1870-1938" Journal of Economic History, Vol. XXX, No. 1, (March 1970), pp. 51-73.

Sansom, Robert L., The Economics of Insurgency in the Mekong Delta, (Cambridge, Mass.: The MIT Press, 1970).

Siam, Kingdom of, Ministry of Lands and Agriculture, Royal Irrigation Department: Project Estimate for Works of Irrigation, Drainage and Navigation to Develop the Plain of Central Siam (4 volumes), (Bangkok, 1915).

Siegelman, Philip, "Colonial Development and the Chettyar: A Study in the Ecology of Modern Burma, 1850-1941" Ph.D. Dissertation, University of Minnesota, 1964 (University Microfilm No. 64-7301)

Smyth, H. Warrington: Five Years in Siam (2 volumes), (London, 1893)

Steinberg, David J. (ed.) In Search of Southeast Asia: A Modern History (New York: Praeger, 1971).

Tej Bunnag, "The Provincial Administration of Siam from 1892 to 1915: A Study of the Creation, the Growth, the Achievements and the Implications for Modern Siam, of the Ministry of the Interior under Prince Damrong Rachanuphap", Ph.D. Dissertation, St. Antony's College, Oxford University, 1968.

Trinh Hoai Duc: Histoire et Description de la Basse Cochinchine, translated from Chinese by G. Aubaret (Paris, 1963).

Vickrey, Michael, "Thai Regional Elites and the Reforms of King Chulalongkorn" Journal of Asian Studies, Vol. XXIX No. 4 (August 1970) p. 363-881.

Woodside, Alexander S., Vietnam and the Chinese Model, (Cambridge, Mass., Harvard University Press, 1971).

Wyatt, David K., The Politics of Reform in Thailand: Education in the Reign of King Chulalongkorn, (New Haven, Yale University Press, 1969).

Zelinsky, Wilbur, "The Indochinese Peninsula: A Demographic Anomaly", Far Eastern Quarterly, Vol. IX No. 2, (February 1950), pp. 115-145.

Zimmerman, Carle C., Siam: Rural Economic Survey, 1930-31 (Bangkok 1931).