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Population Growth in Thailand

Part I: Population and Social Structure

by Brewster Grace

THAILAND

Thailand could still avoid some of the economic and social problems associated with its current high birthrate. Plans to reduce population growth will achieve maximum impact only when coupled with policies to redistribute income and opportunity and to intensify utilization and mobilization of existing resources.

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Fieldstaff Reports

American Universities Field Staff

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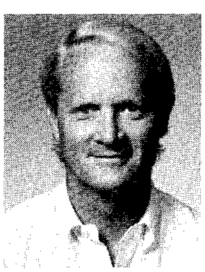

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POPULATION GROWTH IN THAILAND

Part I: Population and Social Structure

by Brewster Grace

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The population of Thailand will in all likelihood double within the next 25 years. While this is not unusual in the context of developing countries, Thailand may be blessed by an exceptional opportunity to avoid some of the economic and social problems such growth rates normally create. Resource utilization and productivity in agriculture is relatively low at present and industrial development, predominately capital- rather than labor-intensive, is limited. The purposeful expansion of industrial and agricultural production to increase both employment opportunities and average incomes for the burgeoning labor supply will require considerable concern and dedicated attention to the nation's economic needs. Part I of this Report will review some of the basic characteristics of Thai population while Part II will focus on some of the implications population growth has for employment and income, and Part III will examine the politics of family planning in Thailand.

Population Growth

Concern for population growth in Thailand is of recent origin. Historically there has been a singular concern for the lack of growth. With the advent of the British commercial and trade interests in the midnineteenth century, the sudden and dramatic export demand for Thai rice created the acute awareness that an equally dramatic increase in rice supply was limited only by the lack of manpower to open and cultivate new land. In the absence until this decade of economic, political, or physical disincentives to rapid population growth, only high mortality rates sustained the relatively low estimated annual growth rate of 0.7 per cent between 1850 and the first census in 1911.

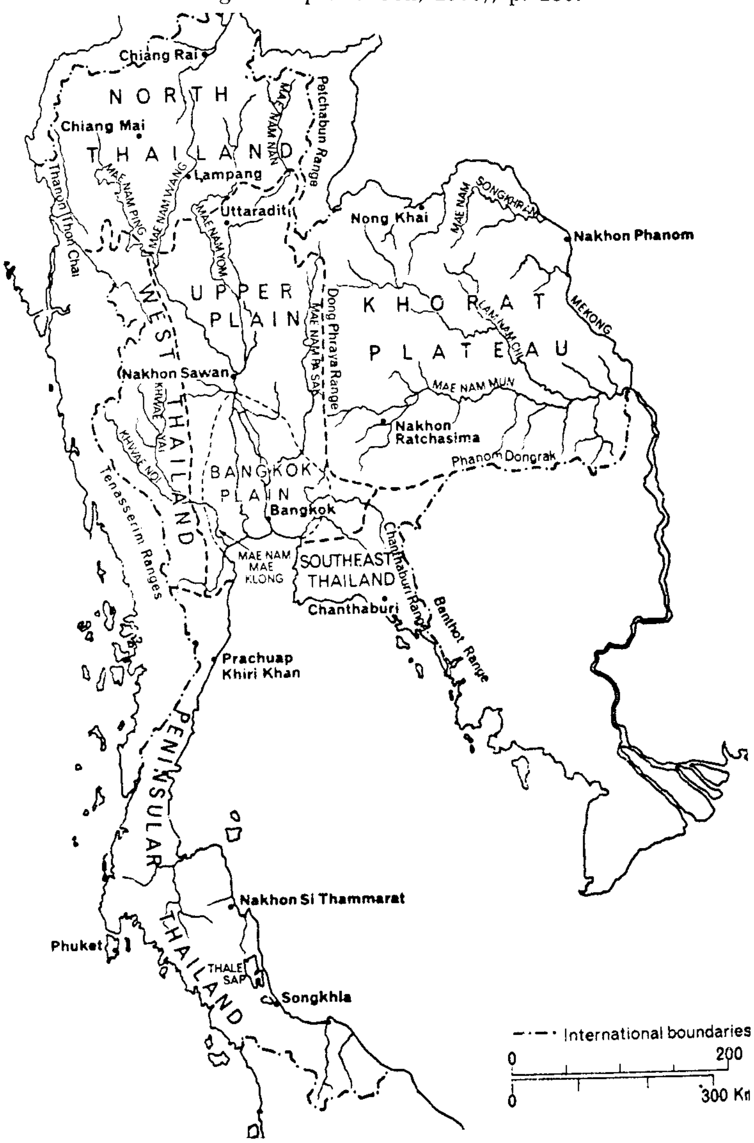
Since the turn of the century, however, two variables, a relative decrease in mortality and a substantial increase of Chinese immigrants, have critically altered demographic trends. Whether the increase of births over deaths is due to an absolute increase in births as a result of increased economic opportunity, incentive, or welfare or to a reduction in the death rate as a result of improved health conditions, it is clear that this natural increase has become ever more significant. Estimates suggest that prior to 1946 the population grew at about 2 per cent a year. Since 1947, government census data and careful unofficial estimates show an average annual increase of 3-3.2 per cent. Since there has been virtually no immigration after the highly restrictive immigration law of 1949, this growth has been due exclusively to natural increase. The successful postwar efforts to control diseases, the apparent general rise in nutritional levels, and the expansion of health services throughout the country have unquestionably reduced mortality rates. Estimates of life expectancy at birth, in fact, have increased from about 35 years in 1937 to 54 years in 1960. The 1970 census counted 34,152,000 people in Thailand as opposed to an estimated 5,500,000 in 1850 and 8,266,000 in 1911.[1]

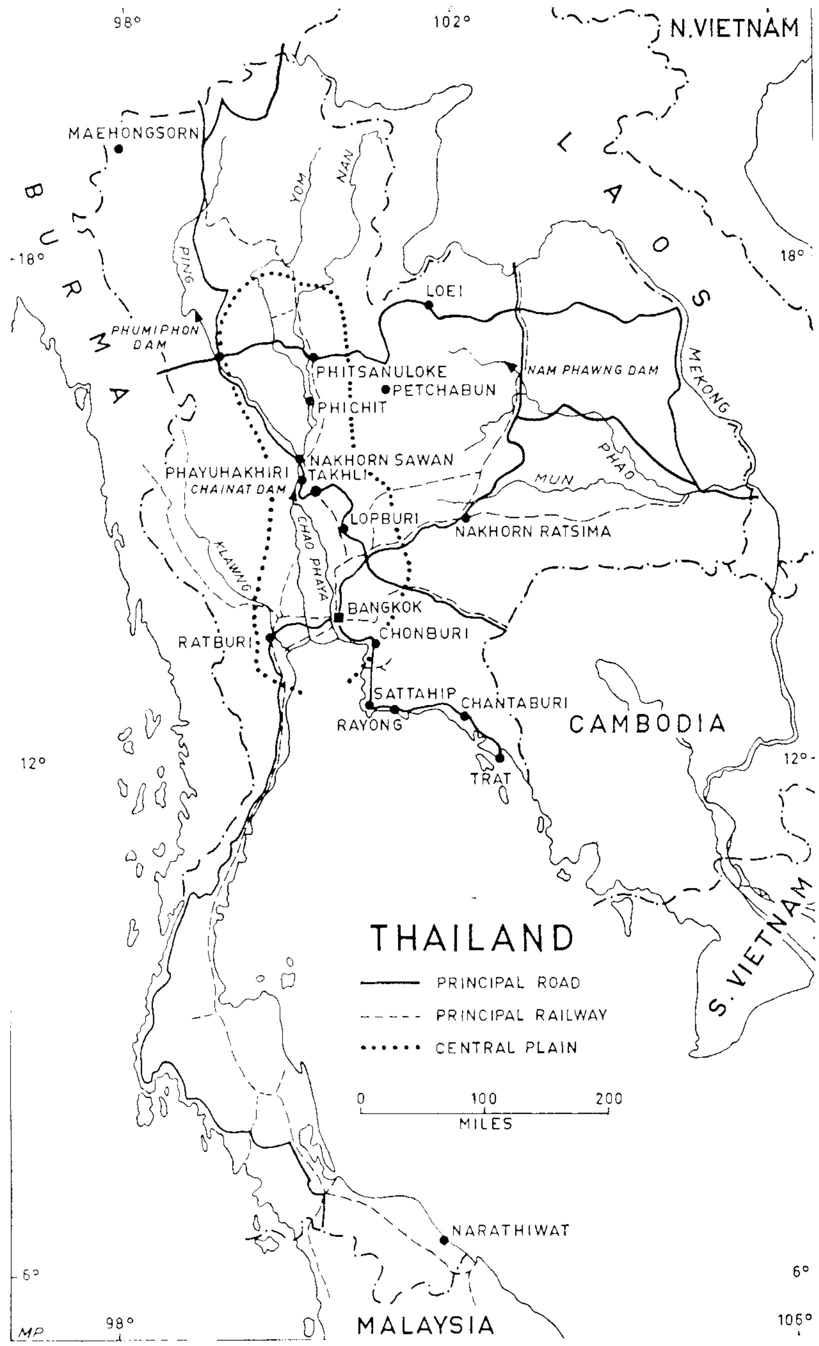
The contribution of Chinese immigration to historical growth of the Thai population began first as a mere trickle as early as the thirteenth century with their arrival in Siam as traders. The mass southward movement did not begin until the latter part of the nineteenth century when European colonialism opened Southeast Asia to international trade and commerce. The resultant economic

1. The 1970 census has been faulted by many demographers familiar with Thailand. Both the total number of 34,152,000 persons and the growth rate of 2.66 per cent are considered too low. Professional estimates suggest that there is little reason to believe that the growth rate has declined below 3.1 per cent.

The physical regions of Thailand. The Central Plain comprises Bangkok and Upper Plains.

Source: Donald Fryer, *Emerging Southeast Asia* (London: George Philip and Son, 1970), p. 130.





Thailand

Source: Shand, R.T., *Agricultural Development in Asia* (Canberra: Australia National University Press, 1969), p. 104.

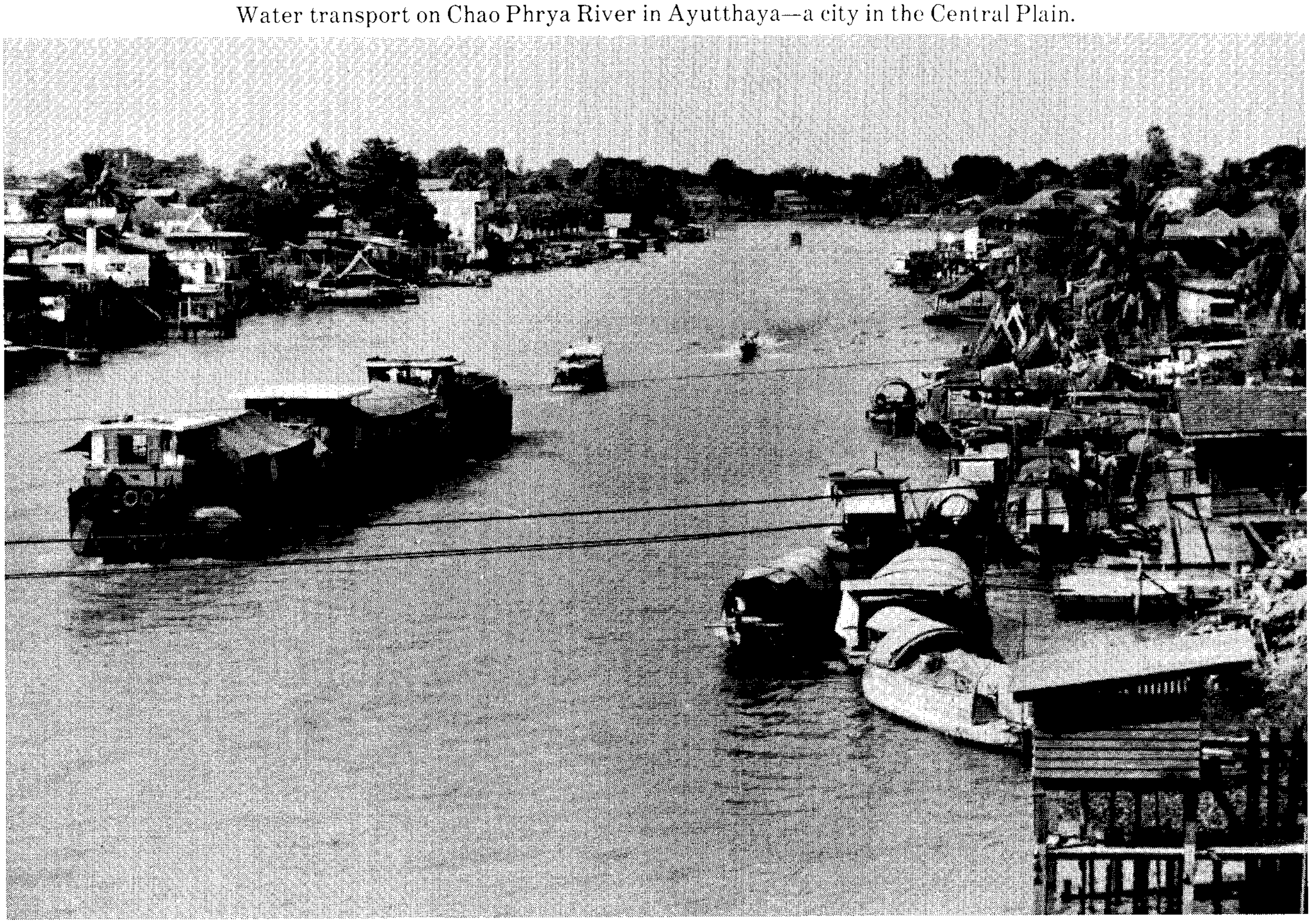
opportunities were rapidly seized by immigrant businessmen, laborers, and craftsmen. The exact numbers of immigrants will never be known, but estimates suggest that in 1850 the total inflow was around 15,000 a year and reached 40,000 a year by 1900. Between 1900 and 1930 this immigration may have totaled 1,200,000 while the total increase in population was roughly 3,500,000. The actual number of Chinese in Thailand today is extremely difficult to ascertain as many have married Thais or simply consider themselves Thai nationals. The 1960 census enumerates only 409,508 persons with Chinese citizenship while other estimates suggest that ethnic Chinese make up approximately 10 per cent of the population.

Population Distribution

In spite of the fact that rural population densities average only 60-70 persons per square kilometer and rarely more than 200 in the most concentrated areas, today there is a distinct concern that additional population growth can no longer be absorbed at current levels of production and resource use. Demographers and many of the economic planners in Thailand realize that to avoid major employment and resource allocation crises in the future, concerted efforts must be made both to reduce population growth and increase overall production and resource utilization. To appreciate in more detail the mounting pressures, it is useful to describe briefly the basic resources and population features of the five distinct geographic regions of Thailand—the South, Central, North, and Northeast Regions and the urban region formally known as the Bangkok-Thonburi Metropolitan Area.

The Central Region is the historical and contemporary core of the indigenous Thai population and economy and consists of the fertile Central Plain as well as the immediately adjacent upland areas to the west and north. The low-lying plain formed by the Chao Phrya River is subject to annual flooding in much of the area which produces Thailand's renowned rice. On the higher ground to the west of the Central Plain are found many of Thailand's

Water transport on Chao Phrya River in Ayutthaya—a city in the Central Plain.

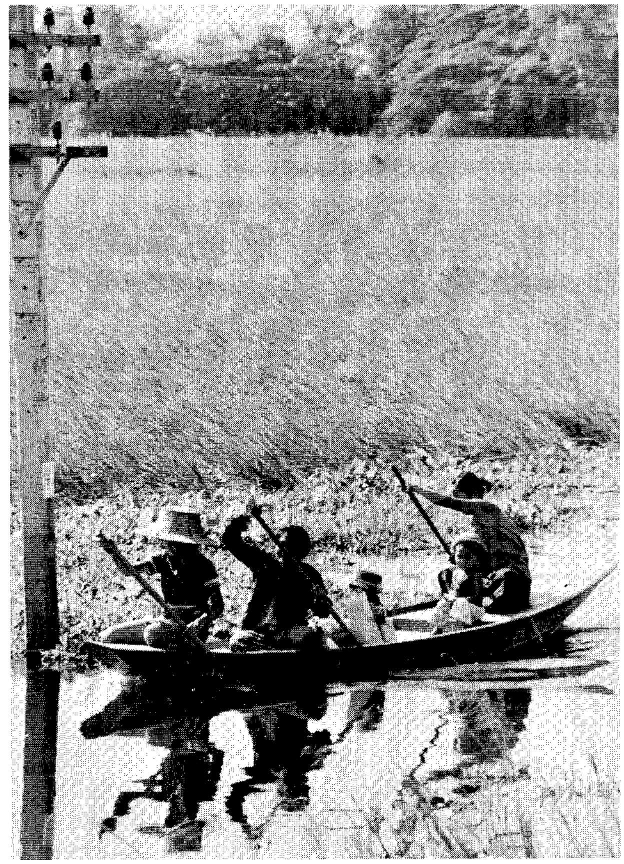


successful vegetable gardens and to the north are its high-yield maize fields. Further to the west are the mountains separating Thailand from Burma with their forests, minerals, and water resources There is still considerable empty land in these western highland regions that may be unfit for crops but suitable for livestock pasture.

The Central Plain was the original center of Thai rice production and the source of Thailand's once-enormous rice surpluses, serving since the midnineteenth century as the "rice bowl of Asia." It was also the first region of major expansion of cultivation and the chief recipient subsequently of irrigation. Today it has most of the developed irrigation systems of Thailand and, partly in consequence, the most successful crop diversification. It remains the center of rice production, although its yields are not as high as those of the Northern Region. To a large extent this may result from the practice of broadcasting seeds, rather than transplanting seedlings, on about 30 per cent of the Central Plain. The region's economy is and has been relatively stable, supporting a total population in 1970 (exclusive of the Bangkok-Thonburi Metropolitan Area) of 7,341,000 and a rural population density of about 70 persons per square kilometer.

The terrain of the Northern Region varies considerably. Its high mountains rich in forest cover are the home of Thailand's ethnic minority hill tribes, famous for their poppy cultivation, "slash and burn" or swinden agriculture, and rebellion against attempts by the lowland Thai to impose national administration upon them. The lowlands are occupied by the latest generation of Thai farmers, most of whom migrated from the Central Plain within the last 100 years to grow rice. They have done so with considerable success: the narrow valleys have provided excellent water resources which, with a minimum of coordination, have been used for numerous, small-scale irrigation schemes. Their small farms and methods of intensive cultivation, including the transplanting of rice seedlings, give the Northern Region by far the highest rice yields in Thailand.

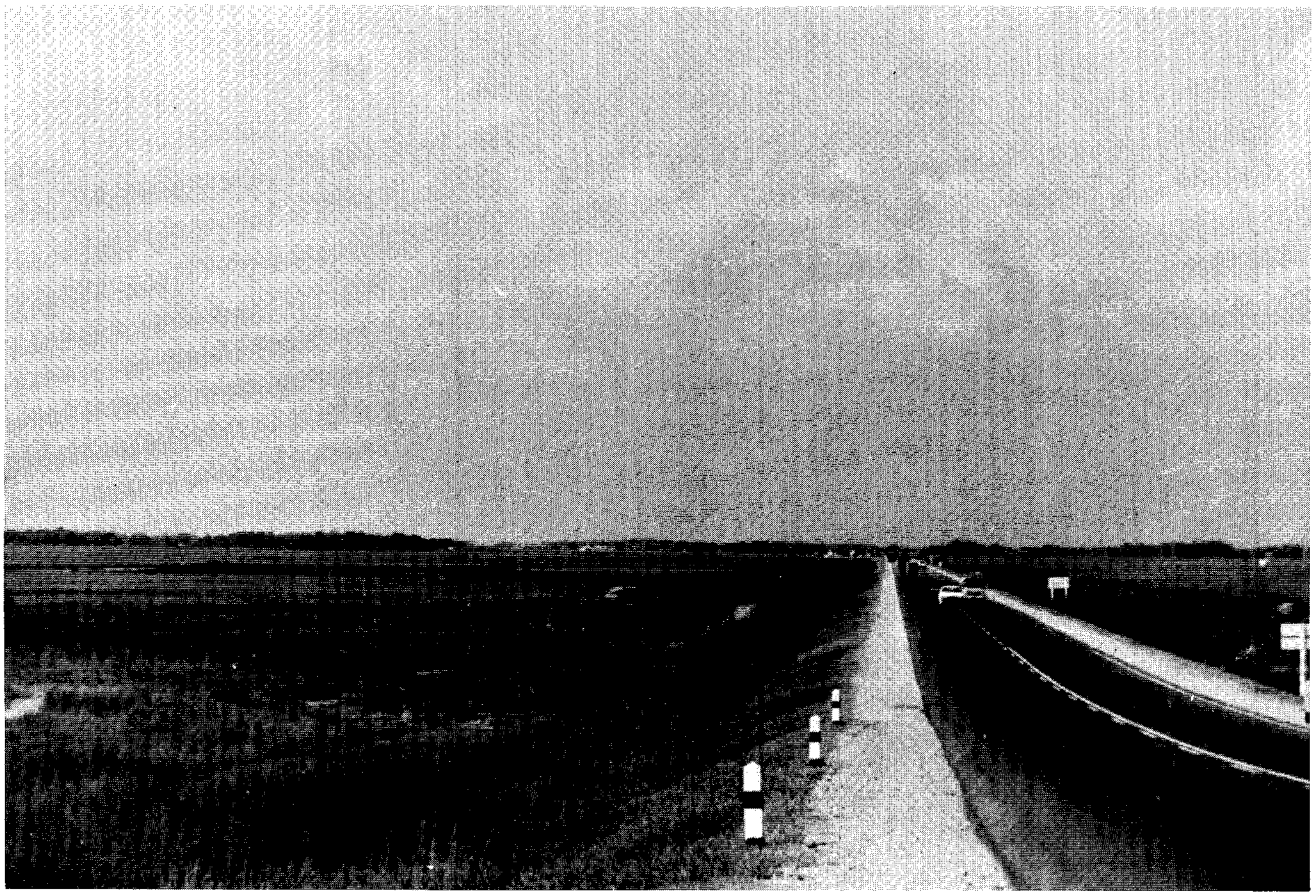
While the Northern Region is roughly 70 per cent larger than the Central Region, its population of 7,468,000 (according to the 1970 census) is virtually the same. Narrowness of the valleys rigidly limits their potential absorption of additional population. Given that its agriculture is already the most intensive in Thailand, population pressures are forcing people into a vertical ascent as much as, if not more than, into horizontal expansion. In other words, farmers and cultivation are moving up the mountain sides where swinden agriculture is both harmful to the watersheds and forest reserves—timber being an important Thai export—and competitive with hill tribes' agricultural livelihoods.



Traditional water transport still used for most local transportation during flood season in Central Plain.

Perhaps a less important demographic but more important political factor has been the decline in the mortality rate of hill tribes in the North. This has also led to increased swinden agriculture. Moreover, it is reported but not yet verified that the increased world market demand for opium has resulted in increased poppy cultivation. If this is true, one might expect an even more intensive use of land in the highland forests.

The Northeast Region of Thailand has been the other major target of population expansion and agrarian settlement over the past 100 years. Consisting of the Korat Plateau, which forms the



Modern highway to Chiang Mai cutting across flooded Central Plain.

eastern flank of the country, the region is undoubtedly the poorest and perhaps closest to being destitute. Its fundamental agricultural problem is, at worst, very low soil fertility, or, at best, the inappropriateness of the crops currently being cultivated. Over 60 per cent of total cultivated acreage is in rice. And despite the fact that both soil fertility and rice yields are the lowest in Thailand (virtually one-half of those of the North), the farmers persist in growing rice for subsistence for lack of other opportunities or incentives to diversify. But the problem may not be entirely with the farmers. Neglect by the central government—undoubtedly a cause of the Northeast insurgency—and the consequent failure to develop regional markets for cash crops have provided little stimulus for a majority of the farmers to aspire beyond the most rudimentary subsistence agriculture. The single exception has been the production of jute and kenaf used for making rice sacks. These crops, however, rapidly exhaust the soil and unless world markets are good, which they have been on past but not numerous occasions of failures of the East Pakistan (Bangladesh) jute crop, the profit margins are thin.

That the population of the Northeast is the largest of all regions in Thailand is not so ironical when one realizes that it is a large, vast plateau of 170,226 square kilometers. Its 12 million people have apparently saturated its current productive capacity, given the fact that the region as a whole shows substantial out-migration and internal migration while maintaining an overall density of 70 persons per square kilometer. The latter migration is probably due to farmers moving in search of more productive land within the region.

The Southern Region of Thailand is distinctive in several ways. Within a relatively small population of 5.8 million, at least 20 per cent are ethnic Malay. Furthermore, its most significant agricultural product is rubber grown by smallholders, with rice grown primarily for subsistence. So long as the price of rubber remains stable or increases, as it has within the last year, the economic situation appears bright. The South also has the unique advantage of two monsoon seasons a year and therefore far greater opportunity for double cropping and expansion of rice crops. It, too, has been a rice surplus area inasmuch as southern rice has been smuggled across the border into Malaysia to take advantage of higher prices and to avoid rice export taxes which have been in effect since the end of World War II.

The final region of Thailand requiring description is Bangkok and its sister city Thonburi, on the other side of the Chao Phrya River. This so-called Bangkok-Thonburi Metropolitan Area (hereafter referred to as Bangkok) is unique in that it is the only major urban area of the entire country. Roughly 30 times larger than the next largest city, Chiang Mai in the North, Bangkok contains approximately 60 per cent of Thailand's urban population. Furthermore, this percentage continues to increase. In 1947 the Bangkok area represented only 45 per cent of the country's total urban population.

Historically, Bangkok has played a key role as Thailand's central trading post for rice exports. This export trade has been financed and managed by an immigrant, entrepreneurial class of Chinese who make up perhaps 25-30 per cent of the metropolitan population. Bangkok has become the industrial center of Thailand as well, to the extent that there have been relatively few industrial enterprises undertaken outside of the capital. Thus the provincial capitals and other urban areas remain largely administrative and regional marketing centers with populations ranging from 20-40,000 persons.

Given the primacy of Bangkok, it is not surprising that 25 per cent of its population in 1960 were born outside the city and have migrated into the urban area almost certainly in search of employment in industry. Although little data exist on unemployment and underemployment in Thailand, the government's 1967 Labor Force Survey found one-third of the country's unemployed individuals in Bangkok. A great majority of these were under 25 years of age. In addition, the 1960 census showed considerable out-migration from Bangkok during the 1955-1960 period. Total in-migration was 70.6/1,000 and total out-migration was 36.2/1,000. All of this suggests that Bangkok and its industries, although of increasing significance, are not offering an immediate solution to the population pressures being felt throughout the country.

Population Projections

With the population growing at a rate of more than 3 per cent per year, the medium estimated projection indicates a doubling within the next 25 years to a total population of over 76,000,000 by the year 2000. During the same period medium estimates suggest that the population of Bangkok will triple its 1970 size of 2.9 million. Given the problems facing Bangkok to be described below, the prospect of a threefold increase in 30 years is alarming. Similar increases can be expected for other urban areas but so far there are no reasons to believe there will be sufficient decentralization of urban growth to divert pressure from Bangkok. Certainly migration out of rural areas—a phenomenon already well established in Thailand and especially in Bangkok—will intensify, but without diminishing population pressure in the countryside. The absolute number of rural inhabitants will continue to increase, even though their percentage of the total population is decreasing.

Eighty-three per cent of the total labor force was employed in the agricultural sector in 1960. By 1970 this had decreased to 78 per cent and the National Economic Development Board of Thailand estimates that this will drop to 71 per cent by 1985. Nevertheless, the total agricultural labor force is expected to increase from 12,643,000 in 1970 to 18,920,000 in 1985. Clearly, one of the most significant economic consequences of population growth is its impact on the labor force. There are now on the average 320,000 new workers in the agricultural sector each year compared with 200,000 during the 1960s. In the nonagricultural sector the work force expanded at a rate of 125,100 workers per year between 1960 and 1970 and is currently estimated to be growing at a rate of more than 150,000 a year.[2]

Population and the Social Structure

As the foregoing description suggests, the distribution and vocation of Thailand's population has

2. The most comprehensive and detailed analysis of employment problems in Thailand is by Friedrich W. Fuhs and Jan Vingerhoets, *Rural Manpower, Rural Institutions and Rural Employment in Thailand*, (Bangkok: Manpower Planning Division, National Economic Development Board), 1972.

TABLE I

	1960		1965		1970	
	Agric.	Nonagric.	Agric.	Nonagric.	Agric.	Nonagric.
GDP (billion US$)	1.07	1.73	1.35	2.62	1.76	4.15
Total Workers ('000)	10,390	2.340	11,570	2,820	12,650	3,590
GDP per Worker (US$)	103	739	116	929	139	1,156

Source: Asian Development Bank, *Economic Report on Thailand*, Manila, 1972, p. 14.

been structured on basic historical economic functions. With the opening in the mid-1800s of Thailand's rice economy to the international market, government policies attempted to create a nation of small, independent rice farmers sufficiently productive to sustain a substantial exportable surplus above domestic consumption. The majority of the Thai population is still engaged in rice farming and, even with the trend noted above, is likely to remain so for many years. It is estimated that 65 per cent of all land cultivated is in rice.

Farm sizes, however, suggest that attempts to create a nation of small, independent rice farmers have not succeeded. With the exception of the North where farmers are, indeed, small, productive and usually independent, other areas show serious shortcomings in distribution of wealth. The Central Plain has a high degree of tenancy on large farms owned by absentee landlords, and the Northeast has serious problems of farmer indebtedness. And while the average farm size throughout Thailand is large by Southeast Asian standards, the majority of farmers own or lease farms which are considerably smaller than the national average. Finally, judging from rural incomes, the Thai farmer has not substantially benefited from the export of surplus rice. Prices paid to local producers have been held at low levels through a combination of market and supply control by middlemen and a stiff export premium which has had the effect of a tax, keeping the domestic price far below the international market price. Thus the typical farmer is often in debt, his income quite low in relation to those earned from other activities associated with the rice trade.

The other low income group is formed by urban workers, most of them from rural areas living in squatter communities in and around Bangkok. Cash incomes are higher than those of their country cousins, but then they are far more dependent on a commercial economy and work for cash rather than crops. Their total number, relative to rural low-income groups is small, but increasing population pressure on the land seems certain to augment their numbers at an expanding rate. The proliferation of squatter communities in Bangkok already gives the impression of a burgeoning *lumpenproletariat.*

The middle class of merchants, middle-level government bureaucrats, and professional persons is an even smaller group. Traditionally this middle class has been primarily associated with the rice trade. But today it is found largely in the booming Bangkok commercial world, dominated by a handful of Chinese entrepreneurs and Thai farmers who have managed to diversify their production into more successful and profitable cash crops.

These wealthy urban businessmen, along with the military and government elite, stand in sharp contrast to the rural mass of farmers. The businessmen are more often than not Chinese who created their place in Thai society by financing, buying, milling, trading, and marketing the rice surplus. Today these financial interests have moved into industry and commerce. The military elite which has governed Thailand for most of the past four decades has close business associations with these Chinese economic enterprises. It has also developed its own considerable stake in state enterprises and its senior officers can be found spread throughout the civil service. Finally, the government elite has brought many Chinese into its ranks, thereby completing the elitist triangle of Chinese, soldiers,

TABLE II

	Whole Country	Central Region	North	Northeast	South
A. Increase (million US$)					
1960	2,800	1,460	450	510	400
1969	5,620	3,120	850	950	700
Increase	2,820	1,660	410	440	310
Increase %	100.4	113.5	91.7	87.7	78.2
B. Share (%)					
1960	100.0	52.0	15.9	18.0	14.1
1969	100.0	55.4	15.2	16.8	12.5
Change	–	+3.4	– 0.7	–1.2	–1.6

Source: *Financial Post*, Bangkok, October 11, 1973, p. 9.

TABLE III

Income Share of Percentile Groups:
Family Income, Urban and Rural Areas, 1970

Percentile Group in Ascending Order:	Percentage Share of Income Urban:	Rural:
0-10%	2.5	2.5
11-20%	4.0	3.0
21-30%	5.0	3.5
31-40%	5.5	5.0
41-50%	6.5	6.5
51-60%	8.5	7.5
61-70%	10.0	9.5
71-80%	12.5	11.5
81-90%	16.0	16.5
91-100%	29.5	34.5

Source: Udom Kerdpibule, as quoted in G.A. Marzouk, *Economic Development and Policies: Case Study of Thailand*, Rotterdam, Rotterdam University Press, 1972, pp. 95-96.

and senior bureaucrats. Although as a class they represent less than one per cent of the population, this arrangement is the key to financial, political and administrative power in Thailand. Moreover, entrance into the elite is highly restrictive, selection being based heavily on financial background and educational attainment or achievement in military rank. It is not surprising, therefore, that in 1963 78 per cent of senior civil servants had parents who were either in business or government service. Only 10 per cent had farm-family backgrounds.[3]

The population is thus distinctly divided between the agrarian sector, with the majority of the population on small farms with low incomes, and an affluent urban economy dominated by an elite with rapidly expanding economic opportunities. That

3. Elites have been the subject of innumerable studies on Thailand. Perhaps the most concise is H.D. Evers and T.H. Silcock, "Elites and Selection" in T.H. Silcock, ed., *Thailand: Social and Economic Studies in Development*, (Canberra: Australian National University Press, 1967), pp. 84-104.

the gap between them has widened over the past ten years can be seen in terms of the respective sectoral share of the Gross Domestic Product, as shown on Table I.

The GDP per worker in agricultural production has increased 35 per cent in ten years while the GDP per worker in nonagricultural production has increased 56 per cent. This does not indicate income distribution within each sector nor between regions of the country. Table II, however, shows that on a regional basis growth in the GDP is being increasingly concentrated in the Central Region (undoubtedly due to the dominance of Bangkok, which is included in the statistics).

Combining data from Tables I and II with figures on population in the four regions (using the 1960 census and calculations based on the 1970 census), we find that on a per capita basis the regional disparities in growth rates are also increasing between 1960 and 1969:

Region	GDP/Capita Increase	Percentage
Central	\$177 ⟶ \$307	73%
North	\$ 79 ⟶ \$117	48%
South	\$122 ⟶ \$169	39%
Northeast	\$ 57 ⟶ \$ 81	42%

Finally, it is possible to gain an impression from analyses of a household survey taken in 1968/69 that cash income per household is heavily concentrated within the upper 10 per cent of the population. Table III shows the percentage shares of household cash income earned by household percentile groups.

While these data do not show whether incomes are becoming more or less equally distributed over time, there does not seem to be any reason to think that there are substantial changes in current distribution patterns. It is interesting to note in this regard, moreover, that fertility rates in Thailand are lower among educated, urban Thais and highest in the poorest region, the Northeast. This suggests that the greatest economic burdens in terms of mouths to feed will generally fall upon lower income groups. So long as the social structure and income distribution patterns remain the same there is the distinct danger that population increases will retain large portions of the population at low income levels.

The two basic efforts which can conceivably affect this discouraging relationship between population growth and economic welfare are programs aimed at reducing population growth rates and effecting a redistribution of income so that more persons may benefit from Thailand's economic development. The former, of course, is often considered part of the latter. This is based on the assumption that, with reduced population, increases in output per capita will allow for increases in income. But this assumption does not necessarily guarantee a more even distribution. It is quite possible in Thailand, given the relationships between elite political and economic groups that the benefits of increased output per capita will fall disproportionately to those with already high incomes.

Family planning programs to reduce population growth, therefore, will achieve maximum impact only when accompanied by economic policies which more equally distribute all productive capacities and opportunities throughout the population. This means mobilizing and utilizing Thailand's resources so that those currently producing little are favored by being given the opportunity to produce more. Such a revision should lead to both absolute and relative increases in income for the poorer farmers and urban underemployed. Moreover, improved incomes and economic welfare can conceivably become significant incentives for smaller families, although currently available data allow for little more than optimistic speculations.

The current obstacles to and prospects for increased productivity so as to maximize employment and the redistribution of income benefits are the subject of Part II of this Report. Analysis of the potential role of agricultural resources and industrial enterprises will be accompanied by an assessment of the government's capacity to provide educational and welfare facilities to develop human resources.