Commercial Agriculture and Equitable Development in Thailand:

Success or Failure?

Larry S. Dohrs

May 1985

Center for South and Southeast Asian Studies
University of Michigan

Commercial Agriculture and Equitable Development in Thailand: Success or Failure?

Larry S. Dohrs

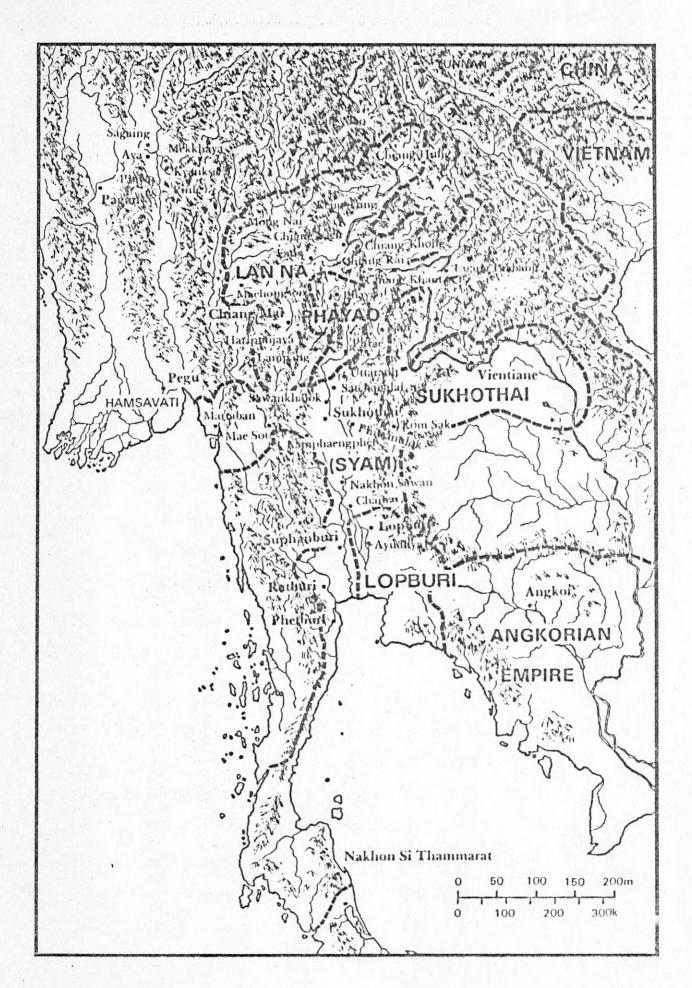
May 1985

Center for South and Southeast Asian Studies
University of Michigan

Agricultural development in Thailand during the past three decades must be seen as a qualified success. Despite having been stifled by the urban political and economic interests of Bangkok, the rural economy has achieved an impressive level of dynamic growth. The benefits of this growth have been widely shared, though significant levels of inequality have persisted, especially between regions. Yet several factors, most notably the lack of land available for further agricultural expansion, have brought the Thai agricultural economy to a crossroads. Depending upon the patterns of rural development encouraged in the next ten to twenty years, Thai agriculture could fulfill its potential to become the backbone of a relatively equitable, diversified, stable economy, or it could fall back to relative stagnation, merely reflecting the uneven growth and trend toward polarization of the economy as a whole. This study examines emerging Thai agricultural problems within the historical context, and seeks to define the future role of commercial agriculture in the wider economy, given the social, political and economic forces acting upon it.

Commercial Agriculture and Early Thai History

Since the days of the dispersed and warring principalities of 1000 years or more ago, the region now called Thailand has been home to a rich and varied agriculture. Agricultural surplus supported the conquering armies and glorious capital of the kingdom of Ayudhya, founded more than 600 years ago and considered to be the first Tail empire. It is no coincidence that the locus of Tai power moved steadily Southward, along the plain of the Chaophraya River toward the Gulf of Siam, as political control

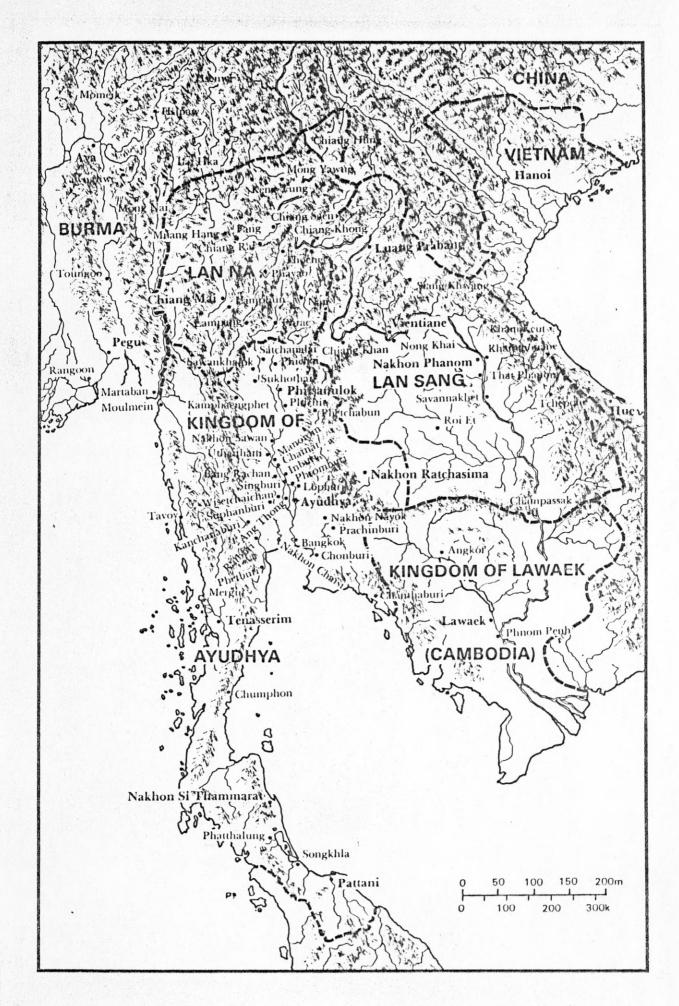


Major Tai states in the late thirteenth century.

became increasingly centralized and consolidated. Access to the Gulf meant exposure to international maritime trade, which was then reasserting itself along the route from China to India. The Ayudhyan kings were able to amass great wealth by exchanging local products for foreign military technology and luxury goods. Many of the exported products, such as lac, benzoin, exotic woods and animal skins, came from the vast forests of the kingdom, but rice became an important agricultural export as well.

Malacca, the wealthy and powerful trading center on the West coast of the Malay Peninsula, was said in 1510 to import one hundred junks loaded with rice annually, or about 6000 tons, much or most of which came from Ayudhya. Though constantly changing internal and international conditions caused wide variations in the supply of, and demand for, Siamese rice, exports of this basic agricultural commodity to regional trading ports, to Dutch Batavia, and to Southern China, continued to be of considerable significance to the Tai state through the 16th, 17th, and 18th centuries. Commerce was under the monopolistic control of the king himself as, in fact, were all the resources of the kingdom. The wealth and prestige derived thereby enabled the kings of Ayudhya further to consolidate power, following the age old, seldom interrupted trend toward political centralization.

The administrative system through this period was "galactic," meaning that political control was most powerful in proximity to the symbolic center of the kingdom, this being the person of the king. Thus the capital and the countryside surrounding it were rather firmly held, while control gradually diminished as physical distance from the palace increased. At the periphery of the kingdom were vassal mini-states, which were semi-independent "galactic polities" in their own right, ever ready to extend their influence when their nominal overlords showed signs of weakness. This political structure, and the extremely small population of the area, led to the strategic practice



of forced migration, in which common people, who were usually farmers, were made to relocate to the core area of the kingdom, where they could more easily be made to serve the king. This practice was not entirely contrary to the interests of the common people, as the regions beyond the perimeters of the city-states were indeed wild; a country of endless forests, mountains and swamps, infested with mosquitos, tigers and other dangerous creatures, as well as malevolent spirits.

The Ayudhyan Dynasty fell in 1767, when the capital was captured and utterly destroyed by the Burmese. Up to this point agriculture had not become commercialized, though an exchange economy occasionally prevailed during periods of intense international trade. Land ownership had not yet developed, though members of the nobility were often granted nominal control of vast tracts of land by the king. Farmers were able to hold land so long as they continued to cultivate it, and were able to pass it on to their heirs. During the first decades following the collapse of Ayudhya, an unprecedented level of social uncertainty prevailed. Peoples' obligations to the government (in the form of tribute or corvee labor³) became lighter, reflecting the temporary weakness at the center.

Under the Chakri Dynasty, established at Bangkok, on the Chaophraya Delta in 1782, the importance of corvee labor was diminished, and new forms of economic interaction began to develop. Chinese traders and merchants, who had long been a crucial link in the limited rural economy, were given areas of responsibility for "tax farming," by which they were able to extort money and goods from rural Thais, virtually all of whom were basically subsistence farmers, in the process of tax collection. For good or ill, this meant that "modern" economic forces were penetrating more deeply into rural society. Great numbers of Chinese wage laborers were employed with money derived from taxes to construct strategically and economically



important canals through the delta.⁵ It is important to note that penetration of market attitudes and economic infrastructure conformed to the galactic structure of the state. Most, though not all, of the change imposed by the government took place in areas surrounding the capital, with the level of disruption tending to vary inversely with the distance from the throne.

By the middle of the 19th century, all of Southeast Asia was under pressure from the imperialist expansion of the European colonial powers. In a series of treaties signed between 1855 and 1862 with the major states of the West, the royal government of Siam sought to head off threats of aggression by reorienting its domestic economy to the satisfaction of the foreigners. The treaties virtually abolished the king's trading monopolies, and set strict, low limits (3 percent maximum) upon government import and export taxes, in deference to European concepts of free trade. King Mongkut (r. 1851 - 1868) shrewdly recognized the probable effects of market decontrol: Farmers would benefit, as they could consume (mostly imported goods) at higher levels if they chose expand production. Domestic commercial interests and, most importantly, government tax collectors would increase their revenues from the burgeoning volume of Europeans would be placated by a new market for their manufactures, as well as rice supplies for their colonial holdings. This period marked a transformation in the relationship between the elite of Bangkok and the farmers of the countryside, as the traditional system gave way to a European influenced one. Urban prosperity has since been based upon indirect taxation of the dynamic rural economy, which has grown primarily in response to world market forces, often in spite of disincentives and obstacles generated by policies imposed from Bangkok.

Rising domestic prices for rice, combined with carefully designed legislation, encouraged the rapid expansion of rice production in the Central Basin between 1860

and 1900. By 1860 taxes were being waived for the first year that land come under cultivation. In 1875 this tax holiday was increased to three years. To further encourage agricultural expansion, tax laws were redesigned to be assessed at lower rates in more marginal or less fertile areas, and in the poorest areas no tax was collected. Taxes on uncultivated land, combined with the government's policy of turning state lands over to cultivators rather than landlords, and the long standing smallholder tradition, served to keep most new land in the hands of small farmers. Specific Land Acts in 1908 and 1936 helped to institutionalize this pattern.

Expansion first took place in the countryside surrounding the old capital of Ayudhya, where the canal system (the primary means of transport) was most developed. Skyrocketing farm gate prices for rice, which appear to have doubled by 1864, encouraged rapid rises in production, which in turn boosted government revenues. Much of this money funded the construction of an expanding canal system in the delta, which moved steadily into the floodplain surrounding Bangkok. In many areas the newly opened lands lay unused, due to an under-supply of labor. By the time expansion reached some areas near Bangkok, however, good land with access to transport took on value as a commodity. Urban capitalists were quick to buy up land in the new developments, renting it out on short term contracts to newly emancipated slaves from the city, migrants from the poorer Northeast, and some unlucky or unwise farmers from the Center who had lost their land during the first flurry of commercial activity. This explains the high levels of land tenancy still prevailing in these areas.

'The volume of rice exports increased at least fivefold between 1870 and 1905, with virtually all of the marketed product coming from the Central Plain. The completion of railroads to Korat in the Northeast in 1900 and to Chiang Mai in the North in 1921 offered the first real opportunities to farmers in these areas to benefit

from the boom in commercial agriculture, opportunities to which they readily responded. Output of ordinary rice, which was grown as a cash crop in areas of the North and Northeast depending upon glutinous, "sticky" rice for subsistence, increased rapidly in the years before World War II, though the Center remained the primary supplier of rice exports, which by this time had doubled again over the 1905 levels. Despite the economic boost brought by the new transport facilities, the peripheral areas were only of strategic concern to the Bangkok government, which seldom collected taxes there or sought to improve conditions in the interest of economic development. In the periphery, as in the Center, development of the rural economy was primarily due to interaction between local producers and world market demand, with government policies and investment facilitating, but not actively inducing, the ongoing change.

As the Thais were engaged in the expansion of production, the Chinese continued to assume the role of middleman, furthering a trend well underway at the beginning of the 19th century. Petty trading in consumer goods, the small scale purchase of surplus rice from individual producers, and the large scale transport industry along the inland waterways were under the almost exclusive control of the Chinese. International trade of Thai rice was, in turn, largely controlled by Europeans. This structure of Thai producers, Chinese domestic traders, and European international traders is today relatively little changed, having shown remarkable resilience in the face of significant growth and diversification in the Thai agricultural economy during the past 125 years.

The worldwide depression of the 1930's brought genuine hardship to Thailand, though not close to that suffered by farmers in the Irrawaddy Delta in neighboring Burma. Indebtedness of farmers in the Center increased, while it actually declined in the less commercialized Northeast. Loss of land by farmers in the Central Basin reached its peak in the early 1930's, and in certain areas, notably those closest to

Ayudhya and Bangkok, the problem became quite severe, yet at worst the condition never reached the average levels of Lower Burma. For most in the countryside the depression meant only a decline in money income and the consumption of purchased goods, while food supplies remained quite adequate. In an effort to ease rural woes the government lowered the land tax and later abolished the head tax.

Economic uncertainty contributed to the elitist-nationalist "revolution" of 1932, in which the absolute monarchy was transformed into a constitutional monarchy. This change was of little real concern in the countryside, since the king in fact remained on the throne, and the urban-rural economic relationship was relatively unaffected. Between 1855 and the onset of WW II the Bangkok government used tax monies derived from the dynamic agricultural sector to promote political centralization and "national" unity, to a great extent as a defense against imperialism. Government policy toward farmers was both paternalistic and wise, seeking to promote national stability through rural stability. The tax burden was not oppressive, and the tax collecting apparatus was flexible and innovative. Investment aimed at raising agricultural productivity was of low priority, as land surplus conditions allowed plenty of scope for increased production by extensive means. In other words, conditions in the countryside were such that there was no real demand for higher productivity, land intensive technologies, such as those being introduced into Japanese and Taiwanese agriculture at the time.

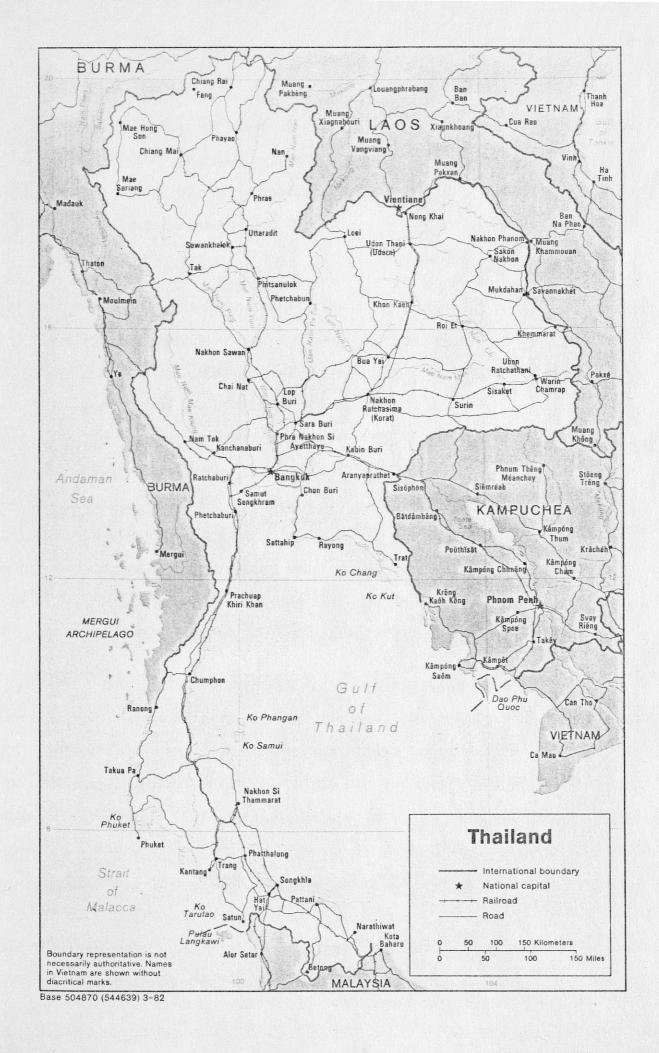
The World War II years and their immediate aftermath were not pleasant for urban or rural Thais, but neither disruption nor destruction took place of the scale suffered by other Southeast Asian nations, due to Thai acquiescence to Japanese power by 1941, and the sudden Japanese surrender in 1945 before Allied Forces had reached Siam. The crises brought on by the war were dealt with almost exclusively by the Bangkok elite, with little or no mass mobilization (military or political), relatively little

forced requisition by occupying Japanese troops, and virtually no popular participation in the political restructuring that followed the war. 14

Political and Social Developments Since World War II

In part as a response to Allied, especially British, demands for payment of war reparation, the post-war Bangkok government took control of rice exports. Regional and world demand for rice was very high, and increased with the outbreak of war in Korea in 1950. Bureaucrats in Bangkok took advantage of the situation by laying claim to a sizeable proportion of the revenues from export sales, first through the Government Rice Office monopoly and, since 1955, through the Rice Premium Export Tax, administered by the Ministry of Commerce, under which exporters of rice are required to pay a specific percentage of the value of each ton of rice exported. 15

The Rice Premium has served to depress domestic prices for Thai rice by thirty to sixty percent, which has in turn had several important effects: First, agricultural diversification has taken place at a remarkable rate. Second, productivity in rice agriculture has been low and relatively stagnant, due to an adverse relationship between rice and fertilizer prices, and a general lack of incentive to invest in technology upgrading in a low-return sub-sector. Third, urban (meaning Bangkok, which is 45 times larger than the next largest city in Thailand) wage levels have been maintained at a low level due to low food prices, thus benefitting Bangkok's industrial sector, and the primarily urban bureaucracy. Finally and perhaps most importantly, many rural incomes have been lowered, cutting demand for, and thus development of, industry geared to the needs and desires of rural consumers. These products differ significantly from those



meant for urban consumers, for whom the Bangkok-based industrial sector produces. This last effect of the Rice Premium has definitely contributed to the overwhelming concentration of industrial jobs in the Bangkok metropolitan area, drawing off non-farm wage opportunities from the countryside, further depressing rural incomes in a vicious circle.

Internal political maneuvering brought Field Marshal Sarit Thanarat to power in 1957. The product of a rural upbringing and military education, Sarit had some different priorities than the Western educated Bangkok elite of past regimes. Emphasis was placed upon infrastructural and educational development in rural areas, though this was accompanied by authoritarian political centralization in Bangkok. By the time of Sarit's death in 1963, concern over events in Indochina and nascent insurgent movements in the North and Northeast, had led to a consensus for action between the United States and the military bureaucracy of Thailand. Rural development schemes were increasingly oriented toward strategic goals rather than economic needs, though extensive road building in areas of insurgency undoubtedly had the secondary effect of giving rural producers access to urban, regional, national and international markets.

The late 1950's and 1960's also saw increasing convergence of interests of the military and the civilian bureaucracy, and the small but growing industrial elite in Bangkok. Private firms were encouraged to include government members and friends on their boards of directors as a method of securing protection or favored treatment. Government and private enterprises received excessive protection from international competition, or monopoly power in some sectors of the economy. The legacies of this "crony capitalism," in which market distortions are introduced by the ruling elite as a means by which substantial gains can be skimmed off from the economy without facing the challenges of market competition, can be found in present day quota and licensing

arrangements imposed upon agricultural producers and marketers, as well as inefficient and expensive fertilizer, transport and meat processing industries. ¹⁶ Benefits derived from these distortions are not widely shared, but are hoarded by a relatively small number of influential officials and businessmen, conflicting with goals of both equity and efficiency in economic growth.

Concurrent with trends toward a government increasingly directed for and by elite political and economic interests was the rapid expansion of the bureaucracy, as successive authoritarian leaders sought to expand their power bases. By 1979, the number of government departments had increased by 267 percent over prewar years, while the number of bureaucratic divisions (a subgroup of departments) rose by 398 percent. 17 The number of bureaucratic employees can be assumed to have risen at an more rapid rate. This growth took place in an extremely urban-biased atmosphere, as agriculture was taxed to support the bureaucracy and the industrial sector, and economic development plans were subordinated to the security concerns of the urban elite. The institutionalization of these attitudes, promoted by bureaucratic growth, when considered with the fact that less than a third of all civilian employees of the Thai government are regularly stationed outside Bangkok 18 leads to the conclusion that the long term trend toward centralization of power and decision-making, apparent despite fluctuations since the rise of the kingdom of Ayudhya, accelerated during the post-war years.

By the early 1970's, tensions between Bangkok's increasingly large, affluent and educated middle-class and the unresponsive and insensitive Thanom-Praphas regime (successor to Sarit), were exacerbated by a multitude of internal and external factors, including poor harvests, unstable rice supplies in Bangkok, and excessive corruption and nepotism. Few of these factors were perceived as related to the emerging problems of

rural Thais. Wyatt notes that "at best, rural discontent may have served to legitimize the student and middle-class commitment to political change." In the event, a student-led uprising took place in October 1973 and, with subtle backing from the king, forced Thanom and Praphas to resign. For the next three years, a series of relatively weak and unstable civilian governments held sway, seeking a goal of democratic political development. Students headed to the countryside to help farmers organize, to demand changes similar to those demanded by the students themselves. Farmers' demonstrations in Bangkok won promises of a sweeping land reform program in 1975 from a government profoundly incapable of delivering it. Student and rural radicalism and reformism was met increasingly by violence from the right, and even middle-class supporters of the revolution began to turn their backs. Economic problems, caused by the skyrocketing cost of imported energy (upon which Thailand was heavily dependent) and American withdrawal from Southeast Asia, combined with deteriorating political situations in Cambodia and Laos, and the fall of Saigon, put pressure on the democratic coalition governments, which in turn found decisive action difficult.

Tension in Bangkok again became severe, and in October 1976, a loose alliance of right wing groups, including elements of the army and police, staged an invasion of Thammasat University, brutally murdering 100 students or more. The constitution was suspended and the military soon regained power. Though problems of rural areas had played a part in the political upheavals of the 1970's, conflicts were essentially between citizens of Bangkok over the distribution of power among urban interest groups. Some lessons were learned, and many from Bangkok may have gained a heightened awareness of the hard lot of the rural poor, but it can still be questioned as to how significant this awareness will turn out to have been in the long run.

The unprecedented level of organization achieved by farmers and their demands

for land reform merit closer examination. Traditional political culture in rural Thailand is widely seen as not being conducive to the development of horizontal organizations (i.e., those based upon networks of individuals of similar socio-economic status). This seems to be due to historical and religious patterns of hierarchical organization, combined with the individualism implied by a frontier society of family farmers. The rise of the Farmers Federation of Thailand (FFT) between 1973 and 1975 is thus a highly notable event, as cooperatives and local organizations have been proposed and implemented in the recent past with relatively little success. Aided by student organizers, the FFT grew rapidly in some areas of the Center and Lower North, and especially in the Upper North, where problems of tenancy and landlessness were most severe, with rising rents and limited off-farm opportunities for income. It should be noted that ecological and demographic conditions in the latter region had for a long time encouraged intensive farming using irrigation, which traditionally made necessary the establishment of relatively sophisticated organizations to distribute scarce water resources. ²¹

The elation felt by the FFT and its supporters after mass rallies forced the promulgation of the Land Rent Control Act in December 1974 and the Agricultural Land Reform Act in January 1975 was short lived. Implementation of the Acts was, as mentioned above, both beyond the administrative capacity and outside the primary focus of the Bangkok government. As popular support for the students began to weaken, repression against rural activists increased. Between April and August 1975, 22 farmers (and probably more), most of whom were from the North and leaders of the FFT, were murdered. None of the killers were caught. These actions and the coup of 1976 successfully muted proponents of rural reform and organization without addressing their grievances. Farmers appear to have relapsed into political passivity, though perhaps not

completely. ²³ As discussion of the current attitudes of farmers is decidedly absent from recent literature, a clear understanding of the long term effects of the rise and fall of the FFT cannot yet be developed.

On the other hand, the rent control and land reform Acts have been widely, perhaps excessively discussed, providing some insights into evolving urban attitudes toward the farm sector. While urban concern for the problems of farmers was undoubtedly sincere, the policies put forth to aid them were poorly designed to meet the needs of those they were supposed to help. First, the laws were riddled with loopholes, making avoidance by landlords very easy. Second, the laws paid little heed to the utter heterogeneity of farm problems in the country. Most obviously, land reform was useless for the large numbers of rural poor in the Northeast, nearly all of whom own their own farms. Farmers from the areas near Bangkok where tenancy rates are highest were not active participants in the protests, indicating relative satisfaction with their high incomes despite their tenant status. ²⁴

Third, the laws may have hurt, rather than helped, the rural poor. The Land Rent Act of 1974, which was never seriously enforced, limited the landlord's share of the crop to one third, providing landowners in the North "an added incentive to evict tenants," reducing them to wage laborers for the owners who, in the eyes of the law, had resumed farming their own land. This does not suggest that no legislation was or is necessary to meet the needs of the rural poor. To be effective, however, laws must recognize the immense variation of conditions between regions and sub-regions, as well as administrative goals and capacities, and must be designed accordingly. The simplistic nature of the legislation promoted in 1974–5 reflected the naive, paternalistic attitudes held by well-intentioned city dwellers toward rural problems. That the efforts toward rural reform were superficial would seem to confirm that this issue, despite the

rhetoric, was of rather marginal concern, even during the political upheavals of 1973-6. 26

In the repressive period following the return to authoritarian rule, several thousand leftists and moderates "took to the jungle" to join the Communist Party of Thailand (CPT). By 1978 tensions had eased somewhat and the government began to promote programs of amnesty. Since then, most of the less radical of those who fled have accepted amnesty, and are becoming re-integrated into Thai (and Bangkok) society. ²⁷ In general, those who fled were relatively active, relatively well educated, and relatively liberal. Their lives in the "jungle" were spent in the poorest areas of the North, Northeast, and South, where the appeal of the CPT was (and remains) greatest. At this time it is unclear whether the experiences of this talented group have led them to a greater commitment to, or understanding of, rural development. It is also unclear whether they will be allowed to assume positions of influence inside or outside the government.

In 1980 the current Prime Minister, General (ret.) Prem Tinsulanonda assumed A man of generally recognized personal integrity, Prem appointed some respected technocrats to important posts in the cabinet, and embarked upon a slow but quite steady course of economic austerity and reform. Moves to provide land title to farmers, and to rationalize the fertilizer market, currency exchange rates, and most recently the entire system of state enterprises, have been consistent with the recommendations of the World Bank and others, though Bangkok has taken care to assert that it is following its own quidelines. These encouraging though modest moves have been accompanied by resistance from vested interests among the military/bureaucratic/business elite, steady declines in world prices for Thailand's agricultural exports, and considerable tensions brought on by Vietnamese

expansion in Indochina.

Government policy since WW II has undeniably shifted the terms of trade against the agricultural sector, which constituted 82 percent of the labor force in 1960, and today about 70 percent. Marketing boards, quota arrangements and export taxes have provided apparati by which producers have been forced to subsidize the city of Bangkok, wherein reside the national elite. A dualistic economic structure has resulted, with a modern, bustling, industrial "primate city," and a rustic rural sector, where technological upgrading has been modest at best, and levels of productivity have remained among the lowest in Asia. Prices of consumer goods have been very high, owing to protection of domestic industry, and many have been beyond the reach of most farm families. The future of rural development (and the Thai economy as a whole) lies in reversing these post-war trends.

Agricultural Production, Population Growth, and Equitable Distribution of Benefits

Despite urban biased policies of depressed food prices, overprotected and expensive domestic industry, inefficiency in state-run monopolies (especially in fertilizer, communications, and transport), a lack of concern over, or understanding of, problems facing rural people, and a cumbersome, overly centralized bureaucratic administrative system which has difficulty implementing its own development policies, the agricultural sector of Thailand has performed remarkably well. Diversification and increased production took hold in the 1950's, as low rice prices (forced down 33 - 40 percent at the farm gate by the Rice Premium Tax²⁸) helped to encourage farmers who had long specialized in rice to try other crops. Rice land was often unsuitable for replacement

crops, so farmers tended to clear upland forests (often illegally) for new fields. Thus a negative side effect of agricultural growth has been an alarmingly rapid decimation of once vast and luxuriant forests, which now may cover less than 20 percent of the total land area of Thailand (down from more than 50 percent in 1950).

Overall agricultural production grew by about 5 percent per year between 1950 and 1975, at which point it began a slow decline, as available farm land was increasingly used up. Current projections are for annual growth rates of between 3 and 3.5 percent per year through the early 1990's. Most of the increase in production since 1950, or for that matter, since 1855, has come from expansion of land under cultivation, however, rather than from increase in productivity per unit of land or labor. 29 Having expanded rapidly for a couple of decades after 1855, the area under cultivation continued to grow steadily by 1 to 2 percent annually until WW IL Expansion at this rate continued through the 1950's, but between 1960 and 1975, in large part due to extension of the road network, the rate was close to 4 percent per year. experts believe that almost all cultivable land, approximately double the amount in use in 1960, was in use in 1980, though some marginal increases may still be possible. Stagnant or declining productivity, combined with the effective closing of the land frontier, has brought Thai agriculture to the crossroads mentioned in the introduction. Before discussing the future of the rural economy, trends in population growth must be put in perspective, the economic and social impact of the past decades of rapid growth must be assessed, and some of the location-specific problems faced by certain regions should be briefly outlined.

The magnitude and rate of change that has taken place in Thai society during the past 130 years can hardly be overemphasized. Population growth, while admittedly related to economic changes, has been perhaps the most significant factor in the

estimated at 5 to 6 million in 1850, the population grew to 8.3 million by 1911, 11.5 million in 1929, and 17 million at the end of WW IL. Eradication of malaria in most areas, and other health related improvements resulted in a very high growth rate (3.0 to 3.1 percent per year) between 1950 and 1970, as the population grew from 19.8 million to 26.4 million (1960) to 36.4 million.

Since that time the government has carried out a vigorous and highly successful population planning program, which has resulted in a steadily declining rate of growth, most recently calculated to be 1.6 percent per year. ³¹ Labor force growth, because it lags 15 to 20 years behind, will continue to grow rapidly until the end of this decade, when it too will begin to decline, easing pressure on the economy. Falling fertility has already begun to lower the "dependency ratio" of non-productive individuals (especially children) per productive individual, leading to widespread increases in disposable income. Nevertheless, the population of Thailand passed the 50 million mark in 1983 or 1984, meaning that there are three times as many mouths to feed today as there were 40 years ago, and virtually twice as many as a mere 25 years ago. How well has the socio-economic system of Thailand coped with population explosion and the rapid expansion of its farm culture? Who has benefitted from the economic boom of the last 25 years, built on the foundation of agricultural expansion, diversification and export, and who has been left behind?

Urban industrial capitalists and high level government officials, military and civilian, have most definitely gained the greatest gross benefit from recent economic growth. Highly protected import-substituting industries and state-run monopolies, combined with the low wages caused by depressed domestic food prices and persistent rural poverty, have offered unscrupulous members of the elite ample opportunity to

enrich themselves at the cost of the nation as a whole. The bureaucracy and the middle-class of Bangkok (and to a lesser degree of urban areas in general) owe their rise in numbers, power, and relative prosperity to the same features of the boom which have enabled their government and private sector superiors to become so wealthy.

In the rural areas, greatest benefit has tended to go to farmers with access to social and economic infrastructure, markets and market information, productivity raising inputs, and credit offered at fair rates, with which inputs can be purchased or rented. Access to a reasonable amount of good land has been important as well, but has been, of itself, insufficient to the realization of increased well-being. National figures on the incidence of poverty are highly impressive, showing a decline from 57 percent of the population in 1962-3, to 31 percent of the much larger population in 1975-6, with the most improvement found in areas either closest to, or best served by, the government in Bangkok. 32

Even in the peripheral areas of the country, incomes of those living closest to rail and major highway services are higher than those in less accessible areas. Of course, access to fertile land further enhances opportunities to enter the market. Thus, per capita incomes in the Central region are much higher than the national average, with landless farm workers earning incomes higher than even owner-operators anywhere else in the country. Commercial agriculture, and the off-farm wage opportunities that tend to come with it, has not automatically brought benefits to all individuals in areas where it has penetrated, but the evidence clearly suggests that in general, both between regions and within regions, those farmers, tenants and landless laborers who produce cash crops and participate in the wider commercial economy are better off than those who do not.

This having been said, attention can be turned to the significant number of Thais who have derived little or no gain from their country's economic boom during the past two and one half decades. The preceding discussion implies that those without access to capital or marketable skills (in urban areas), and those without access to markets, inputs, and information (in the rural areas), would be left behind. That these two groups are closely related should come as no surprise. The poorest of the rural population, usually subsistence farmers from marginal areas, have long provided much or most of the unskilled wage labor in Bangkok. Since the supply of rural poor has, while declining in relative terms, remained quite substantial, the urban base wage has been held close to subsistence. Upward pressure on the wage rate simply attracts more of this (for practical purposes) limitless supply of poor from the countryside, forcing wages back down to subsistence levels (i.e., equal to the opportunity cost of the labor in subsistence farming).

The implications of stagnant urban unskilled wage rates, related to stagnant (or declining) productivity in large areas of subsistence agriculture, are highly significant for the future of Thai economic development. Obviously, as long as the pool of very poor, mobile, rural-based labor remains as large as it is at present, industrial base wages can not rise. Only when a large proportion of the rural poor are able to increase their incomes above that of meager subsistence, either through higher farm productivity or off-farm employment opportunities, can urban workers hope to receive greater rewards for their labor. Failure to raise these incomes would or will signal a new and unfortunate era for the Thai economy, as those with access to skills, capital, or land, and the markets which use them, realize economic and social gains, while those with only their labor to sell realize none. This process has in fact been underway for some time, but previously has been mitigated by the availability of new

land. The closing of the land frontier has made an ongoing problem critical, calling for action where for too long there has been only neglect.

The challenge to the political administrative system is therefore quite clear; each area of the country must be encouraged and helped to fulfill a substantial share of its economic potential. Those areas which are at present farthest from this goal must be accorded highest priority. Failure to meet the present challenge is likely to continue to lead to a quite justified sense of resentment of the government and the elite class by an ever larger group who have been abandoned, left to fend for themselves on the economic and/or geographic periphery. Given the conditions of political and economic competition prevailing in Southeast Asia and the wider world, the manifestation of this type of mass resentment would pose a serious challenge to the survival of the Thai nation.

Regional Variations and Challenges

In proposals for agricultural reform and development, the need for "location specific" approaches is often stressed. "Location" can mean, in the case of Thailand, any of the four major regions (Center, North, Northeast, South) as they are normally described, or it can mean the highly specific social, cultural, economic, political, agronomic and geographic conditions of a particular locale, which may or may not have significance outside its delineated territory. Development strategies thus must find some middle ground between the hopelessly general (the 1975 Land Reform Act belongs in this category) and the compulsively specific (which consume excessive amounts of scarce research and administrative capacity). While an examination in significant detail

of different local or regional problems is beyond the scope of this study, some attempt should be made to outline the most obvious constraints facing different regions of the country.

Northeast Thailand contains 35 percent of the country's population and a slightly higher proportion of the land area, and has for more than twenty years been recognized as a problem area. Much of the attention of international development organizations has been focused on the Northeast, and progress has been made in some areas, but recent studies show that fully 50 percent of those considered to be living in absolute poverty in Thailand are rural Northeasterners. The people of this area tend to speak the Lao dialect of the Thai language, reflecting their habitation of the Mekong River Basin, rather than the Chaophraya River Basin of the dominant Central Thais. The latter group have a tendency to regard the former as provincials, both backward and lazy. This perception is generally contradicted in areas where Northeasterners (called Isan people) have gained access to opportunities for raising their incomes, either through increasing or diversifying agricultural production, or by engaging in off-farm pursuits. The fact is that the quality of the basic human resource pool in the Northeast has not been a significant constraint on its agricultural and economic development.

Most of Northeast Thailand is an undulating plateau, where sandy, porous soils and shallow river valleys provide conditions conducive to flooding. Rains tend to be confined to a six month wet season, but sufficient rainfall is available for annual cropping, and "the (annual) variability of rainfall in the Northeast has been over-stressed." A major contributing factor to rural poverty in the Northeast is the persistence of cultivation of glutinous rice as a subsistence crop. Not only does surplus glutinous rice have an extremely limited market (non-glutinous rice is greatly

preferred), but because of its need for water over a long growing season, it is inappropriate for local environmental conditions. In addition, the bias of agricultural research (in Thailand and worldwide) has been in favor of irrigated, wet-rice, and against rain-fed (especially glutinous) rice, so High Yielding Varieties (HYVs) of the preferred crop are not widely available in the Northeast. Development and dissemination of HYVs or of varieties better suited to local conditions would be of great benefit. This would allow farmers to focus more time, energy and land on the production of dry condition cash crops such as millet and sorghum, which support more densely populated areas in India and Africa with similar environments. Soil enhancing legumes could be introduced into a fairly stable crop rotation system as well.

The relatively equitable economic structure of the Northeast, with over 90 percent of the farmers cultivating their own land, on plots significantly larger than those required for subsistence (the average landholding is 12 acres), approximates a development planner's ideal. In areas such as this, adoption of new crops or techniques is not hindered by the need to adapt to great variations among farm units. The great majority of farm operators can take advantage of, and benefit from, innovations at about the same time, without excessive risk of the wealthy distancing themselves from the poor by monopolizing the new ideas. This assertion appears to have been borne out by the findings of an extensive National Statistics Office study, which found that intravillage income distribution has been quite equitable throughout the Northeast, in both poor areas and areas experiencing rapid economic growth. The average Gini Coefficient for income distribution, from which there was little deviation, was 9.301.

The environmental conditions of the Northeast constitute a significant but hardly insurmountable challenge to agricultural planners and technicians. Environmental conditions are far from optimal, but there is still plenty of room for improvement.

Political-bureaucratic obstacles to development may be more serious. The Thai political system has traditionally focussed its attention on the core area of its territory, while neglecting the periphery. This practice was justifiable in the days of low population and surplus land, but has increasingly been made anachronistic by rapid population growth and expansion into areas where settlement was, in the past, sparse. The closing of the land frontier has meant that many millions of Thai citizens now reside in areas that could be, until recently, safely neglected. The result of this rapid change has been the grossly unequal distribution of government expenditure per capita, with the poorest areas, virtually all of which are on the periphery, receiving but a fraction of the government investment received by wealthier areas, almost all of which are closest to Bangkok.

In the Northeast, the problem of government under-investment is compounded by the fact that areas beyond its borders (Laos and Cambodia) are among the weakest economies in Asia or the world, and are at present hostile to the Bangkok government. No investment funds are likely to come from these countries, and they offer very limited market potential as well. In addition, urbanization is least advanced in the Northeast, which suggests weak market demand and relatively few opportunities for capital accumulation. This in turn is discouraging to civil servants, who consider the Northeast to be an undesirable posting. Only a concerted effort by powerful or motivated elements within the government bureaucracy seems capable of effecting the substantial changes in priorities that must be made before rural incomes and levels of well-being in the Northeast can be raised. Some movement in this direction seems to be underway, but one can question whether sufficient momentum and commitment exist to ensure a reasonable measure of success.

Prospects for economic improvement in Upper North Thailand appear unfortunately

to be less positive than for the Northeast. In this sub-region live a substantial proportion of those living in poverty in the North(which accounts for 25 percent of the nation's poor). In contrast to the open plains of the Northeast, the Upper North is an area of small, fertile, densely populated river valleys amid rugged mountains. Many of these valleys have been settled for little more than one hundred years, while others, such as that of Chiang Mai, have long and illustrious histories. Irrigation technology is relatively advanced, and crops (especially rice) are grown using labor intensive methods similar to those used in Java or the Philippines. Additional cultivation takes place in the upland areas, of which some are much more productive than others. For a number of successful farmers, cash crops grown on good land have enabled them to raise their real incomes, while many others, forced to farm steep or infertile hillsides, have produced meager and declining yields. The increasing number of lowland formers who, forced by population-induced pressures on the land, have cleared the uplands, combined with population pressures among the non-Thai hill peoples, who traditionally practice swidden (slash and burn) agriculture on the upper slopes, have brought on an increasingly severe problem of deforestation, with attendant consequences of erosion.

Problems in the valleys may be equally severe. With limited access to off-farm income opportunities, farmers have found that a minimum size of farm (about 2.5 acres) is necessary for survival. Many farms have been divided up by succeeding generations, resulting in less than viable operational units. These units have been consolidated by wealthier or more successful farmers, who either rent the land out to tenants, or farm it themselves using wage labor. As increasing numbers of farmers have been reduced to landless wage laborers (up to 60% of the population in some areas 38) class awareness and conflict have developed. These tensions can be alleviated by rapidly expanding off-farm opportunities (as appears to have happened in the Central

region), but due to inadequate infrastructure and market access, such growth has not taken place in the Upper North. While there seems to be little doubt that class consciousness has become a reality in certain areas, especially in the larger valleys of the Upper North, it should not necessarily be assumed that the level of social differentiation has reached levels similar to the highly polarized agrarian economies of Latin America, where systems of unequal distribution of land were imposed by Europeans long ago. Change in Thailand is still underway, with stratification (all levels of economic accumulation present in the society) continuing to predominate over polarization. Claims of entrenched class conflict seen to be, as yet, quite unjustified.

The Upper North (also a Lao speaking area) suffers from the same neglect by the Bangkok government as do the peripheral areas of the Northeast, but the difficult topography, which tends to isolate valley communities, poses an additional obstacle to those wishing to raise levels of well-being. Road building and development of communications in the mountains of the Upper North is very expensive, and costs of transport are relatively high there as well. This makes products moving out of the area more expensive, thus less competitive, and goods brought in less affordable. Many sources of off-farm income depend upon forest resources (especially charcoal-making) which are fast being depleted. There are few reasons for optimism.

The best opportunities for alleviating pressure on marginal farmers appear to be in high value, labor intensive "luxury foods" such as baby corn, asparagus, mushrooms, tobacco, and strawberries, as well as onions, garlic, ginger and peppers, which could make use of the fertile soils, irrigation, and abundant cheap labor. In fact, processing plants for these products have sprung up in the Chiang Mai and Lampang Valleys, and this industry seems destined to grow. Whether it will grow rapidly enough to absorb a significant proportion of the underemployed of the Upper North remains to be seen.

For the poorest of the poor, and those too isolated to be influenced by the market, outmigration to urban or rural areas of greater economic opportunity seems the only viable, albeit unsatisfactory, solution. Land redistribution has been discussed as a possible solution to the problems of the Upper North, but even to attempt this seems an inefficient use of administrative and financial resources, given the fact that, in the absence of political will in Bangkok and the North, little beyond some cursory paper shuffling is likely to take place. Few knowledgeable observers have found much evidence of the aforementioned political will.

The Lower North and Central regions (containing approximately 33 percent of the nation's population) are, despite some problems, the success stories of Thai agriculture since 1960. These areas benefit from a relatively well developed transportation infrastructure, fairly fertile land, an experienced, innovative and competitive marketing structure (dominated by Chinese), and well informed farmers who have repeatedly shown themselves willing to take risks with new crops and technologies. In the upland areas surrounding the Central Basin, high yield varieties of maize, sugar cane, cotton, soybeans, kapok, and many other crops have been introduced in areas which were under forest thirty years and less ago. While much of the increased production by which average rural incomes have been raised has come from horizontal expansion using traditional technologies, productivity per unit of land is beginning to rise in some areas, due to increased use of fertilizer, improved seeds, water pumps, and hand tractors during peak periods of labor demand.

In the Central Basin, "floating rice" continues to be grown in "fields" which are covered by ten feet or more of water during the annual flood of the Chaophraya River, but yields have been improved by the introduction of cross-bred varieties, and by irrigation schemes which allow some limited control of the flood waters. This same

irrigation makes double-cropping possible on 35 - 40% of the land. ⁴⁰ As the government continues to expand these irrigation works, a rising proportion of farmers will be able to derive significantly higher output from their land. ⁴¹ It will be recalled that certain areas near Ayudhya and especially Bangkok came under the dominance of urban capitalists, with tenancy soon following. Tenancy in these areas remains at the highest levels in the country, but generally high incomes have served to diminish substantially the tenant-landlord tensions that might have been expected to develop.

Off-farm income opportunities are important for rural well-being throughout the country, but are most readily available in the Chaophraya valley (including the Lower North). Proximity to and investment from the huge, wealthy, powerful metropolis of Bangkok has, despite incentive reducing and exploitive government policies, enabled farmers in the valley to secure a significant proportion of Thailand's steadily expanding GDP. The relatively equitable distribution of operational units (whether rented or owned) has meant that innovations have spread rapidly, allowing the incomes of many individuals to be raised at the same time, without having to rely on the "trickle-down" effect. The rising incomes of millions of rural producers have in turn spawned rising demand for improved basic necessities, such as housing, clothing, food, transportation and education. Industries supplying these products, often utilizing local raw materials and surplus labor, have developed rapidly, suggesting that, within this valley, an important economic bridge has been successfully crossed. 42

Most of the impetus for economic development in the Chaophraya valley has come from the private sector, which suggested new crops and techniques, provided inputs and market information, as well as labor and a willingness to accept the risks which innovation entails. Public sector investment in infrastructure, irrigation, education and, to some extent, agricultural research have facilitated the dynamic growth which is now

underway. There appears to be little need or desire for government intervention in the production or marketing stages. Rather, focus should be on those issues that a rapidly growing economy is likely to ignore which, aside from the public investments mentioned above, include reforestation, pollution control, and other long-term ecological concerns. Only in the wealthier, more stable areas of Thailand is it genuinely feasible for the government to turn its attention to such (admittedly crucial) problems. In areas of economic stagnation and increasing desperation it must subordinate (without ignoring) concern over long-term environmental risks to the basic needs of the population. Only relative economic stability as is found in the Center and Lower North will allow Thailand the "luxury" to attend to its damaged environment.

Southern Thailand is often neglected in studies of Thai agriculture, though a glance at the map reveals a major reason why this is the case. Approximately 13 percent of the nation's people live along the narrow, mountainous strip of land which extends from West of Bangkok more than 500 miles south to the border with Malaysia. Proximity to Malaysia's strong and growing economy, and relatively low pressure on land resources have been balanced out by political uncertainty (a Muslim/Communist insurgent movement) and the Bangkok government's neglect of peripheral areas to provide a fairly stagnant yet reasonably productive agricultural economy. Most farmers grow a subsistence crop of rice and a cash crop of rubber, coconuts or, more recently, coffee. Off-farm income opportunities are fairly widely available. A government sponsored program which has introduced high yield rubber trees (with approximately four times the output of traditional varieties) has been making progress since its inception in 1960, and increasing numbers of the HYV trees area coming into production. 43 Expected firmer world market prices for rubber, combined with rising production levels and security of subsistence food production suggest that the South should be a region of steady economic growth for the next decade or more.

The Thai Situation and Contemporary "Development Theory"

Development economists the ideal seem to agree that situation agriculture-based economic development is the existence of a very large number of relatively small, relatively equitably distributed farm units. 44 Preferably, the farms should be owned by those who work the land, but tenancy arrangements based upon family farming of the rented land do not disrupt the model. This "unimodal" structure of farm units is in contrast to "bimodal" systems, where large plantations using wage labor coexist with small family farms often producing at the subsistence level. In the latter, "bimodal" case, development planners (and the market itself) must choose between policies and technologies which promote efficiency in the (often capital intensive) plantation sector, or in the (labor intensive) smallholder sector. useful for one is often quite inappropriate for the other, and competition for scarce investment funds often ensues, usually to the advantage of the wealthy and politically powerful plantation owners.

In a "unimodal" system, this conflict does not arise; innovations which are useful to one smallholder are essentially equally useful to all others. Increases in income derived thereby are widely shared, creating widespread demand for new products. Ancillary industries spring up to service this demand, providing new sources of income to those who have surplus labor. Specialization in non-farm enterprises begins to develop, promoting urbanization and further demand for farm products. In the period of European colonial imperialism, commercialization of agriculture meant specialization

in a limited number of commodities for export, with local handicrafts (sources of non-farm income) invariably declining. Under conditions such as those prevailing in Thailand, however, increased commercialization of agriculture has been shown to increase non-farm income opportunities.⁴⁵

From the brief outlines of conditions in various regions it should become clear that the "unimodal" structure predominates in Thailand. In some areas of the North, land distribution is fairly unequal, and certain technologies, especially farm machinery, can only be used by wealthier farmers working larger tracts. In the Lower Center, the incidence of landlessness is in some areas significant, but the vast majority of farm units are operated by family farmers using additional hired labor during peak periods of planting and harvesting. Labor using innovations (new crops, HYVs, irrigation, some mechanization, and fertilizer and pesticide use) are quickly and widely adopted, directly benefitting the farm operators by increasing the productivity of their land, and indirectly benefitting the landless or land poor, whose labor becomes the object of increased demand. The Northeast and the South come even closer to the "unimodal" ideal. This desirable agrarian structure, while certainly not perfect, to a great extent explains 1) the strength of the rural economy in the face of exploitive policies and neglect practiced by Bangkok, and 2) why (with the possible exception of the Upper North) commercialization of agriculture has benefitted the majority of the people in the areas it has penetrated. The unequal distribution of commercialization, rather than commercialization itself, and variations in the quality of land and water resources, are the primary causes for the unequal distribution of income found in rural Thailand.

Multinationals, the World Market, and the Prospects for Thailand

Multinational agribusiness firms are increasingly important in the global food regime, much of which depends upon commercialized export agriculture. Frequent bad experiences with multinationals in food production in Latin America, Africa, and some parts of Southeast Asia have made many development planners and potential host governments wary, though the multinational corporations (MNCs) frequently are able to buy influence among powerful (often rural) elite groups. The Thai government seldom sought close involvement with multinationals during the colonial period, rightfully fearing them as agents of imperialism, although European teak companies operated in the forests throughout the late 19th and early 20th centuries. Since WW II there has been a somewhat more receptive attitude among the Bangkok elite toward MNCs, but the Thai government remains one of the most conservative among capitalist countries regarding penetration by multinational corporations.

In many countries, multinationals are vertically integrated in agricultural production for export. Products come from company owned land, which is worked by local wage labor. Processing takes place in company owned plants, and marketing uses company owned transport and distribution networks. With a few exceptions, only the last stage of the process, international marketing, is controlled by multinationals in the case of Thai agricultural exports. The vast majority of produce that comes under MNC control comes from Thai smallholders, rather than from plantations or corporate farms. In 1979, only eight plantation companies were operating in the Central region, producing sugar cane, pineapples, chickens and hogs, with a total land area of 98,900

rai. With more than 22,000,000 rai under cultivation in the region, these plantations, only some of which can be considered in the control of MNCs, were using less than one half of one percent of the land.

Thailand's most important recent experience with multinational agribusiness companies has been in the production of canned pineapples for export. Starting from a very low level, with production geared to domestic demand for fresh pineapples, output grew more than ten-fold between 1971 and 1981, mostly from farms in areas Southeast of Bangkok. This made Thailand one of the top two producers of pineapple in the world, passing Hawaii and challenging the world leader, the Philippines. The boom brought big profits to many farmers for several years, but it was accompanied by some significant problems. Production and processing capacity expanded beyond the needs of the market, and some unscrupulous price fixing during peak harvesting periods pushed prices well below production costs in 1978 and 1981. Many farmers sustained heavy losses, and some were undoubtedly forced into bankruptcy.

The case of pineapple highlights some of the problems inherent in the relationships between small producers, food processing companies, and the world market, as variations in supply, demand and quality can cause local prices to fluctuate widely. Over time, the situation is likely to stabilize, with some farmers driven from the competition, and others making a reasonable profit. Improvement of the quality and dissemination of market information will be a key element of any strategy aiming to move the rural economy beyond the dangerous boom and bust cycle as new crops are introduced. By investing in this improvement, Bangkok can be of great help to farmers. The government should have faith in the economically rational and undeniably savvy independent farmer however, and resist the temptation (to which, since WW II, it has too often succumbed) to introduce excessive, cumbersome bureaucratic regulation

into developing market relationships. Such regulation often limits competition among marketing interests, instituting licensing arrangements (ostensibly to weed out unscrupulous participants), by which bureaucrats routinely extort payments. Farmers' interests are best served by keen, open competition among middlemen and suppliers of inputs.

Multinationals are powerful forces in the supply of agricultural inputs, such as seeds, fertilizer, pesticides and often credit, and there is the risk that they can exert unfair monopsonistic control of prices on the supply side, to the detriment of farm producers. There is little doubt but that in some less developed areas of Thailand, this has taken place, especially in the sugar, poultry and tobacco industries. Further development of the market would suggest however, that barring introduction by the government of undue quota and licensing regulations, competition for control of input and output shares should undermine multinational or domestic capital's capacity to achieve even local market control.

Thailand benefits from the flexibility of its agricultural producers, who are able to respond rapidly to subtle market incentives since they make their own decisions regarding the operation of their independent "farm businesses". The Chinese-dominated domestic marketing apparatus is sophisticated, highly competitive, relatively efficient and well established. The only real advantage retained by MNCs is in the global marketing phase, suggesting that some of Thailand's public and private resources might be profitably used in an effort to erode this advantage. Aggressive efforts to identify trends in overseas demand, and to communicate this information to potential producers in the farm sector are likely to pay handsome dividends to farmers and the government. 52

Since flexibility will continue to be one of the nation's most important assets in the highly competitive world of agricultural export, Thailand should not and likely will not overcommit itself to the production of one commodity or another, which would increase its dependence on stable world prices. In the short run, plantation style production may be more efficient, as supply and quality control problems normally encountered in dealings with smallholders are avoided. The long run social destabilization and rigidity brought on by such a system, and its relative inefficiency per unit of increasingly scarce land, however, suggest that Thailand should avoid it. Carefully designed legislation that would discourage whatever tendencies may exist to consolidate land for the purpose of plantation production can thus be recommended.

It has been argued that Thailand's agrarian structure, while not perfect, can be considered conducive to agriculture based economic development, and that environmental conditions, with relatively limited local exceptions, do not constitute a serious constraint on further increases in productivity and thus output. Government policy has been seen to have been, especially since WW II, severely urban biased and insensitive to the interests of most rural Thais, though there are some signs of improvement. Attention thus will be turned to the constraints that might be imposed by the world market. Increasing affluence among consumers in the U.S., Japan, Australia, Europe, Korea, Taiwan, Hong Kong, Singapore and Malaysia suggests that demand for efficiently produced "luxury foods," such as livestock, poultry, seafood, fruits and vegetables should continue to grow. Demand for meat protein implies demand for feed products such as maize, tapioca, sorghum, millet and soybeans. Thailand's longstanding reputation for high quality (especially among Asians) should serve it well in the "luxury foods" sector. At the same time, population growth and stagnant agricultural production in many poor countries should provide continued demand for basic foodstuffs, especially rice and other

grains.

Competition to meet both levels of demand is likely to be intense, with the U.S., Australia, and Argentina, as well as China, the Philippines, and to a lesser extent Indonesia, Taiwan and some Latin American countries seeking a share of the market. China and the Philippines may be Thailand's most direct competitors, and in fact China has already undercut some of Thailand's traditional markets. Protectionism in more wealthy countries will continue to be a threat to hopes of raising levels of well-being in rural Thailand. Low prices for many Thai products presently prevail, yet the potential for large rises in productivity is so great that Thai farmers are in a relatively good position to weather adverse market conditions. A full analysis of price trends in the world market is beyond the purview of this study, however. An assumption that efficient and flexible producers of agricultural commodities will continue to find ready markets for their goods does not seem unreasonable, though price levels will fluctuate. Agriculture is, without doubt, the economic sector of greatest comparative advantage to Thailand, given its human and natural resource bases, and its historical pattern of development. Commercial agriculture offers the best hope for raising rural incomes, thus sparking growth in the domestic economy.

Concluding Thoughts

Widespread increases in agricultural productivity and balanced economic growth cannot be achieved without some help from the government in Bangkok, as irrigation, fertilizer, HYVs, and agricultural research and extension (the only productivity-raising inputs currently considered feasible) all cost money. As was explained previously,

failure to raise productivity, especially in peripheral areas, threatens the economic, social and political stability of the nation, as the disparity between returns to capital and returns to labor widens, and class-based and regional resentments grow. Given the recent record of the elite, urban government, there is ample room for doubt that the necessary changes can or will be made. Several recently emerging factors suggest that there may be some reason for hope, however.

The rapid growth of Bangkok, which has more than tripled in population since 1960, and now contains at least 5 million people, has put increasing strain on the existing infrastructure. Congestion has reached such levels that the marginal productivity of new business investment may be affected. World renowned traffic jams mean that unreasonable amounts of fuel are wasted, and deadlines, deliveries and appointments are delayed or missed. Communication and utility services are overtaxed, and air and water pollution problems are growing. The quality of life in Bangkok has suffered because of the urban biased policies that make it so prosperous in a land of relative poverty. Many among the leadership recognize the connection between rural underdevelopment and urban overcrowding ⁵⁴, and some fairly serious efforts have been initiated to promote the decentralization of the economy, though any moves to decentralize political power are instinctively resisted.

The intensification of the Cambodian conflict has brought tens of thousands of Vietnamese army troops to the Thai border (and occasionally across it), approximately 150 miles East of Bangkok. This has served to increase Thai fears for the security of its borders, and ought to provide an incentive to the government, especially to military elements within the government, to increase its presence, and to endeavor to raise incomes, in the peripheral areas of the country. The declining power of the Communist Party of Thailand notwithstanding, it seems reasonable that the Vietnamese threat has

served to heighten awareness among certain influential forces in the government of the need to incorporate fully the people on the periphery into the national economic and political system.

The government bureaucracy is increasingly staffed by highly educated products of the education boom of the 1960s and 1970s. While most are Bangkok born and bred, they retain a much broader and more worldly outlook, and "possess a stronger sense of political and social values than their elders." A significant proportion of this generation are likely to understand the importance of rural development and, hopefully, environmental maintenance to their country and themselves. Technocrats are replacing soldiers in many key posts in the bureaucracy, especially those related to economic development, though the army retains its primacy as a political institution. Change has come slowly, and many intellectuals, veterans of the democratic interlude of 1973-6, remain frustrated by the system, but the present government seems firmly established in the middle of the road, probably satisfying the expectations of the majority of politically aware Thais.

Fiscal austerity and economic rationalization have been proceeding slowly but steadily for the past five to six years, yet much work remains to be done. Recent discovery and development of significant liquid petroleum gas (LPG) deposits in the Gulf of Siam have eased concern somewhat over two of the most important bottlenecks faced by the rural economy: energy and fertilizer supplies. The third major bottleneck is the political administrative system. The Thai leadership, including the highest levels of the military, the royal family, technocrats and business elites, recognize most of the problems that must be tackled, though all are naturally reluctant to give up the policies that benefit themselves most. Whether sufficient commitment to solve the country's problems prevails among the elite, the bureaucracy, or Bangkok society as a

whole is the crucial question.

If agricultural development and economic progress are to continue, many critical challenges must be confronted. Excessive market intervention by the government greatly inhibits the rural economy's growth and ability to respond rapidly to changing national and international conditions. The real net beneficiaries of such policies are a mere handful of the bureaucratic elite. The administrative and financial resources which are used, rather unsuccessfully, to control agricultural marketing and export could be better used for other government programs, such as those outlined below, with gains in economic efficiency and equity resulting. The tax and budgeting system is clearly regressive, literally taxing the poor to support the rich. Indirect taxation of agriculture through export premiums and tariffs on imported fertilizer should be phased out. Land taxes, which can be more efficiently administered as more farmers receive clear title to their land (perhaps 40 to 50 percent have at present no documentation), appear to be a relatively equitable way of taxing the rural sector without stifling its performance. In the wider economy, the value-added tax, as recommended by the World Bank, seems worthy of consideration. 57

Under-investment in agricultural research is an obvious target, as strong research programs have shown themselves repeatedly, in countries all over the world, to be public sector investments with a remarkably high rate of return. Given the current socio-economic structure of rural Thailand, such research, and the extension capacity needed to make innovations available to farmers, seems certain to benefit the national economy by substantially raising productivity and thus production. Thailand, like many other countries, is burdened by an over-centralized, inefficient bureaucracy. Change within the system has not kept pace with the structural and demographic developments of the past forty years. Duplication of tasks, inter-departmental rivalries, and frequent

neglect of duties and responsibilities are, in rural areas, compounded by problems of communication between farmers and condescending urban bureaucrats. Many changes can be and are being made fairly quickly to benefit the rural economy and especially the rural poor. In the long run however, reform of the bureaucratic administrative system must be undertaken, if goals of efficiency and equity are to be met.

Such a tall order would be considered too much for many of the poorer countries of the world to handle. But few countries have the human and natural resources, sense of continuity, and successful track record in an ever changing world as does Thailand. That reform has not come sooner is not surprising, given prevailing conditions in the country. It was hardly necessary between 1945 and 1973, as the richness of the land provided a satisfactory living for ever increasing numbers of farmers, and American military aid helped smooth over inefficiencies, in the administrative system. student-led revolution, growing insurgent movements and the American withdrawal were signs that change had to come. Yet during the democratic period change came too fast, and provoked a response from conservative elements who sought to slow it down, not to stop it. Evolutionary rather than revolutionary change is what most Thais desire. 1976 to 1980 was a period of regrouping and, eventually, reconciliation. Since that time the government has begun to address the problems that had first emerged some ten years earlier. Change comes slowly, perhaps too slowly, in the conservative political system of Thailand, but it comes nonetheless, usually well adapted to the conditions it must face.

Between 1855 and 1862 the political economy of Siam underwent great change in response to powerful external pressures. Monopoly control of the economy was dismantled in favor of Western style, regulatory control of trade, which greatly encouraged production, to the generally recognized benefit of the people and the

nation. One hundred and thirty years later, external pressures from a traditional rival (the Vietnamese), and fierce competition in the international economy, as well as internal pressures from socio-economic imbalance are again demanding change. Again the pressures can be alleviated by moves to raise agricultural productivity and production. Failure to meet the present challenge would risk the unthinkable: class conflict, regional revolt, strategic vulnerability, and the decline of the Thai nation. Success would bring the restoration or Thailand's leadership, influence and prestige in mainland Southeast Asia. The Thai economy, if properly integrated, has the potential to be strong, stable, and reasonably equitable, to satisfy the expectations of all its members. Only this kind of economic strength and stability can provide a counterbalance to the influence of the military might of contemporary Vietnam.

Many bureaucratic and political obstacles remain to be overcome. Rational, balanced policies need to be designed to meet the seemingly contradictory interests of many elements of society. Fortunately, the larger political and economic objectives are clear and relatively easily understood. If the issue were merely the well-being of some provincial Thais, or some downtrodden urban workers, there would be little reason to expect the elite to respond. On the other hand, when widespread economic development, dependent upon the nurturing and encouragement of commercial agriculture as the base of a growing rural economy, holds the key to a secure, even influential, Thailand into the 21st century, it would seem unwise to assume that the country's elites, and the political administrative system that serves them, will be unwilling or unable to grasp what is theirs for the taking.

FOOTNOTES

- 1. David K. Wyatt, Thailand: A Short History (New Haven 1984), pp. 60-5. 'Tai' is an ethnolinguistic label for the race which dominates present day Thailand, and is widely dispersed throughout mainland Southeast Asia. "Thai" implies "of the nation of the Thais." Thailand was known as Siam until the name was changed briefly in the 1930's, and permanently after World War IL.
- 2. Anthony Reid, "The Structure of Cities in Southeast Asia, Fifteenth to Seventeenth Centuries," Journal of Southeast Asian Studies 11,2 (1980), pp. 237.
- 3. Corvee labor was forced labor, usually on a seasonal basis (so as not to disrupt agricultural production), on canals, royal buildings, etc.
- 4. Takashi Tomosugi, A Structural Analysis of Thai Economic History (Tokyo 1980), pp. 106-17.
- 5. Ibid., pp. 118.
- 6. James C. Ingram, Economic Change in Thailand, 1850 1970 (Stanford 1971), PP-76-7.
- 7. Ibid., pp. 79.
- 8. Tomosugi, Structural Analysis, pp. 119.
- 9. Ibid., pp. 126-8.

- 10. Ingram, Economic Change, pp. 38, 46-7.
- 11. Ibid., pp. 78-81, and David Feeny, The Political Economy of Productivity: Thai Agricultural Development 1880 1975 (Vancouver 1982), Chapter 5, provide compelling arguments in support of the assertion that the government paid relatively little heed to schemes of primarily economic importance, especially in the peripheral areas. Feeny offers a detailed cost-benefit analysis of railroad construction compared to investment in irrigation. Since the latter is shown to have been by far the better economic investment, he quite reasonably concludes that the strategic concerns of the elite outweighed their interest in the economic welfare of farmers in the allocation of scarce capital.
- 12. Tomosugi, Structural Analysis, pp. 129-31. This clearly shows that commercial farming was far more prevalent in the Center than in the Northeast.
- 13. Lawrence D. Stifel, "Patterns of Land Ownership in Central Thailand During the Twentieth Century," <u>Journal of the Siam Society</u> 64, 1 (Jan. 1976) contrasts conditions in Central Thailand with those prevailing in geographically similar, rice producing areas in Burma.
- 14. Wyatt, Thailand, pp. 252-66
- 15. While the Rice Premium Tax has had a great deal of influence upon the direction of recent changes in Thai agriculture, and upon the relationship between urban and rural sectors, a full discussion of its pros, cons, effects, and importance is beyond the purview of this study. Assumptions of the Premium's impact are derived from a cross-section of the significant volume of literature on the topic, including, but not limited to Ingram, Economic Change, pp. 243-61, Dan

Usher, "The Thai Rice Trade," in T. H. Silcock, ed., Thailand: Social and Economic Studies in Development (Canberra 1967), pp. 206-30, Hiroshi Tsujii, "An Economic and Institutional Analysis of the Rice Export Policy of Thailand: With Special Reference to the Rice Premium Policy," The Developing Economies 15, 2 (Jun. 1977), pp. 202-20, N. V. Lam, "Incidence of the Rice Export Premium in Thailand," The Journal of Development Studies 14, 1 (Oct. 1977), Christer Holtsberg "Rice Pricing Policy," in Peter Richards, ed., Basic Needs and Government Policies in Thailand (Singapore 1982).

- 16. David Feeny, "Post World War II Thai Agricultural Development Policy: Continuity or Change?" in Ozay Mehmet, ed., Poverty and Social Change in Southeast Asia (Ottawa 1979), pp. 68-70.
- 17. Thinapan Nakata, "The Thai Political System in the 1980's: Issues, Problems and Prospects," in Somsakdi Xuto, ed., Thailand in the 1980's: Issues, Problems and Prospects (Bangkok 1981), Table 1.
- 18. World Bank, Thailand: Toward a Development Strategy of Full Participation (New York 1980), pp. 86.
- 19. Wyatt, Thailand, pp. 297.
- 20. Tomosugi, Structural Analysis, Chap. 5, Phairat Dejarintr, "Obstacles to the Development of Group Force in Rural Thailand," Journal of Social Science Review 1, 2 (1976), pp. 78-94, Paul T. Cohen, "Problems of Tenancy and Landlessness in Northern Thailand," The Developing Economies 21, 3 (Sep. 1983), pp. 244-66, Steven Piker, "The Closing of the Frontier: Land Pressures and their Implications for Rural Social Organization in the Thai Central Plain,"

- in James Brow, ed., Contributions to Asian Studies, Vol. 9: Population, Land, and Structural Change in Sri Lanka and Thailand (Leiden 1976).
- 21. For a more complete discussion of regional conditions, see below.
- 22. Ansil Ramsay, "The Limits of Land Reform in Thailand," The Journal of Developing
 Areas 16, 2 (Jan. 1982), pp. 178.
- 23. In January, 1985, a small farmer's demonstration took place in Bangkok to protest government handling of price support policies. The protest was sponsored by the opposition Chart Thai Party. Paisal Sricharatchanya, "The Last Straw ...,"

 Far Eastern Economic Review, (Jan. 31, 1985), pp. 48-9.
- 24. Ansil Ramsay, "Tenancy and Landlessness in Thailand: How Severe a Problem:" Asian Survey 22, 11 (Nov. 1982).
- 25. Cohen, "Problems of Tenancy," pp. 250.
- 26. A possible exception to this general conclusion might be the Tambon Project, introduced by the Kukrit Pramoj government in early 1976, which allocated funds directly to the sub-district level in poor areas, bypassing much of the usual bureaucratic machinery. This scheme was widely criticized as merely throwing money at problems, but it was an interesting and innovative attempt nonetheless, deserving re-examination. However, the fact that the project seems to have been abandoned immediately following the coup of October, 1976, and that it was not accorded high priority by vocal interest groups between 1973-6, suggests that the conclusions previously drawn are substantially valid. See Ho Kwon Ping, "The Daunting Prospect," Far Eastern Economic Review, (Dec. 1, 1978), pp. 44-6.

- 27. The situation in Indochina and subsequent, closer ties with China, as well as ideological inflexibility among the leaders of the CPT also contributed to the return of many who had fled repression in 1976. For a brief, readable account of the decline of the CPT, see Charles Murray, "Thailand: The Domino that Didn't Fall," Atlantic Monthly, (Nov. 1984), pp. 34-48.
- 28. Theodore Schultz, quoted in Feeny, Political Economy, pp. 124.
- 29. World Bank, Participation, pp. 38-51, shows this quite clearly.
- 30. Ingram, Economic Change, pp. 7, 46.
- 31. Paisal Sricharatchanya, "Learned Unemployed," Far Eastern Economic Review (Apr. 4, 1985), pp. 73.
- 32. The World Bank, Thailand: Income Growth and Poverty Alleviation (New York 1980), pp. 34-8 shows quite clearly the inverse relationship between distance from Bangkok and access to public services. World Bank, Participation, pp. 26, provides further evidence: Government expenditures per capita in the poorest regions (mostly in the far North, Northeast, and South) in 1976 was less than 50% of that in the wealthiest rural areas, and approximately 7% of that spent per capita in Bangkok.
- 33. World Bank, Participation, pp. 36.
- 34. World Bank, Income Growth, pp. 17.
- 35. M. J. T. Norman, "The Potential and Limitations of Thailand's Environment for Agricultural Production," in Robert Ho and E. C. Chapman, eds., Studies of Contemporary Thailand (Canberra 1973), pp. 113.

- 36. Ibid., pp. 121.
- 37. World Bank, Income Growth, pp. 25-7. The Gini Coefficient provides a measurement of equitable distribution, with a lower figure representing better distribution.

 A figure of 0.301 is remarkably low.
- 38. Cohen, "Problems of Tenancy," pp. 256, and Ramsay, "Tenancy and Landlessness" point out that many tenants and laborers work the land of their parents or other kinsmen, and that absentee landlords are not common.
- 39. For a very interesting case study of one of these food processing plants, a Thai Israel joint venture in Lampang, in its nascent stages, see Peter A. Laramee, "Problems of Small Farmers Under Contract Marketing, With Special Reference to a Case in Chiang Mai Province, Thailand," Economic Bulletin for Asia and the Pacific 26, 2/3 (Sep./Dec. 1975), pp. 43-58.
- 40. World Bank, Participation, pp. 48.
- 41. Feeny, Political Economy, pp. 119-20.
- 42. U.S. Department of Agriculture, Thailand: Annual Agricultural Situation and Policy

 Report (Washington 1984), pp. 1. See also Vanpen Surareks, "Trends in the

 Development of Rural Non-Farm Production and Employment in Lower North

 Thailand," Contemporary Southeast Asia 5, 2 (Sep. 1983).
- 43. World Bank, Participation, pp. 96-7.
- 44. See Bruce F. Johnston and William C. Clark, Redesigning Rural Development: A

 Strategic Perspective (Baltimore 1982), Bruce F. Johnston and Peter Kilby,

 Agriculture and Structural Transformation: Strategies in Late Developing

Countries (New York 1975), Yujiro Hayami and Masao Kikuchi, Asian Village Economy at the Crossroads: An Economic Approach to Institutional Change (Baltimore 1982), Robert D. Stevens, "Policies and Programs for Small Farm Development," in Robert D. Stevens, ed., Tradition and Dynamics in Small Farm Agriculture (Ames 1977), Rizwanul Islam, "Non-Farm Employment in Rural Asia: Dynamic Growth or Proletarianism?" Journal of Contemporary Asia 14, 3 (1984), pp. 306-24, R. Albert Berry and William R. Cline, Agrarian Structure and Productivity in Developing Countries (Baltimore 1979), Michael Lipton, "Case for Small Farms in Developing Countries," The World Economy 3, 3 (Nov. 1980), pp. 377-80.

- 45. Johnston and Clark, Redesigning Rural Development, pp. 70-115.
- 46. For most of the agricultural products exported by Thailand, 60-90% of the global trade is controlled by the 15 largest multinationals, with 3 to 6 corporations usually accounting for the bulk of the market. Frederick F. Clairmonte and John Cavanagh, "Food as a Corporate Commodity," Southeast Asia Chronicle 86, (Oct. 1982), pp. 11.
- 47. Even in the most vertically integrated production schemes (for pineapple and livestock), most (70-90%) comes from independent smallholders. Paisal Sricharatchanya, "The Pineapple Crusher," Far Eastern Economic Review (Mar. 17, 1983), pp. 92-5, and Ho Kwon Ping, "The Garden of Eden: Luxury Foods Export Agri-Business in ASEAN," (Unpublished Mimeo 1981), pp. 22-4.
- 48. Witayakorn Chienkal, "The Transformation of the Agrarian Structure of Central Thailand, 1960 1980," Journal of Contemporary Asia 13, 3 (1983), pp. 345.

 One rai equals 0.4 acres.

- 49. Paisal, "Pineapple Crusher," pp. 93.
- 50. See Laramee, "Problems of Small Farmers" for a more detailed examination of similar problems in North Thailand.
- 51. Khonthai, "Japan's Shibato Company: Defrauding Sugarcane Growers in Thailand,"

 Japan Asia Quarterly Review 12, 3 (1980), Ho "Garden of Eden," pp. 21-6.
- 52. Perhaps a useful investment would be a computer system linked with Thai representatives worldwide, which could provide a necessary contact between overseas demand and domestic Thai sources of supply. A similar system, used by the U.S. "has generated \$ 200 in sales for every one dollar spent on the system." U.S. Dept. of Agriculture, Thailand: Annual, pp. 44.
- 53. Many recent studies have shown small farms to be more efficient than large ones in situations of capital and land scarcity. Berry and Cline, Agrarian Structure.
- 54. Office of the Prime Minister, Thailand into the 80's (Bangkok 1979), pp. 272-5.
- 55. Wyatt, Thailand, pp. 307.
- 56. Paisal Sricharatchanya, "A Plant for the Farms," Far Eastern Economic Review, (Oct. 6, 1983), pp. 97-9, describes plans for a large fertilizer complex which will use natural gas as a feed stock. The government hopes (perhaps to optimistically) to be meeting 75-95% of the nation's demand for fertilizer by 1992, using 90% local raw materials.
- 57. World Bank, Participation, pp. 120-1.

58. Jeffery Race, "The Future of Thailand," Pacific Community 8, 2 (Jan. 1977), pp. 303-26, considers the topic in the context of long-term historic trends in mainland Southeast Asia.

Maps from Wyatt, Thailand, and the World Bank.

APPENDIX:

Asian Success Stories and The Thai Case

Japan, Taiwan and Korea are usually cited as examples of the "unimodal" agricultural pattern providing the basis for rapid economic development. Of these. Taiwan is most often promoted as the model for developing countries. The Taiwanese agricultural sector provided much of the foreign exchange needed to finance economic development in its early (post WW II) stages. The government avoided policies which might have dampened rising productivity, such as urban biased, cheap food programs. Agricultural research was heavily funded, and the results were made available to farmers via a highly efficient extension program. Public sector investment was initially (1949-61) focused upon infrastructural development, and improvements in rice, seed and fertilizer storage. Next (1961-72) came profit sharing and contract farming schemes to stabilize internal conditions in the face of fluctuating prices for export crops. recently, (1972 - present) cooperatives have been encouraged, as has improved dissemination of market information. The food processing industry, which increases value added and helps stabilize domestic prices, has been officially encouraged since 1958.

Few would argue that Taiwan's handling of agricultural development has not been successful. Its current problems with an insufficient supply of high priced agricultural labor illustrate the extent to which higher productivity manufacturing and service sectors have absorbed labor from the lower productivity farm sector. This type of problem is the envy of many labor-surplus, less developed countries (LDCs), including

Thailand. The latter can take advantage of only a few important lessons from Taiwan's experience, however. The high priority accorded agricultural development, the emphasis on new technologies to raise farm productivity (including fertilizer, HYVs, and appropriate machinery), awareness of the importance of marketing and market development, and the mobilization of rural savings were all clearly crucial to Taiwan's success, and would surely serve the needs of the Thai population well.

Certain important factors in Taiwan's rural development seem impossible to recreate in Thailand, however. The most important is the administrative system's ability to reach virtually all of the countryside's residents, and to promote the plans and programs of its choosing successfully. Part of the difference in administrative capability can be explained by geography, as Taiwan's total land area is only 7 percent as large as Thailand's, and Thailand has more climatic and ecological variations among regions, making significantly different policies essential to meet varying local needs. In addition, Taiwan had undergone significant rural reorganization under a ruthless but efficient Japanese colonial government between 1911 and 1945, which sought to produce surplus rice and sugar for the Japanese market. In 1949, mainland Chinese Nationalists, fleeing the victorious Communists, took control of Taiwan. To avoid the rural discontent which had hastened their downfall on the mainland, the Nationalists quickly moved toward raising rural incomes. Land reform was rapidly and effectively carried out by the alien government against Formosan (native) landlords, with American assistance. Thus began development along "unimodal" lines; however, the colonial and post war governments both were extremely powerful compared to the local population, and both came from strong traditions of public administration. Thailand must approach rural development with a considerably weaker administrative tradition, rife with legacies of the galactic polity, and a strongly urban biased political system. Development

policies must demand and expect far less commitment and extension of power from the government than was provided by the system in Taiwan.

BIBLIOG RAPHY

- Abel, M. E. "Hard Policy Choices in Improving Incentives for Farmers", in

 <u>Distortions of Agricultural Incentives</u>, T. W. Schultz, ed. (Bloomington:

 Indiana University Press, 1978).
- Agarwala, Ramgopal. "Price Distortions and Growth", Finance and Development Vol. 21, No. 1, Mar. 1984, pp. 33-37.
- Agribusiness Council. Agricultural Initiative in the Third World (Lexington, Mass.: D. C. Heath and Co., 1975).
- Ammar Siamwalla. "More Aspects of the Manioc Agreement Between Brussels and Bangkok", The World Economy Vol. 6, No. 1, Mar. 1983.
- Ammar Siamwalla. "Stability, Growth and Distribution in the Thai Economy", in Finance, Trade and Economic Development in Thailand, Prateep Sondysuvan, ed. (Bangkok: Sompong Press, 1975).
- Anderson, D. & Leiserson, M. W. "Rural Non-Farm Employment in Developing Countries," Economic Development and Cultural Change Vol. 28, No. 2, Jan. 1980, pp. 227-44.
- ASEAN Briefing No. 73, Aug. 1984; No. 65, Aug. 1983.

Bangkok Bank Monthly Review

"Cereal and Root Export Policy and Its Impact," Vol. 24, No. 4, 1983.
"Thai Fruit," Vol. 23, No. 12, 1982.

- "Leaf Tobacco," Vol. 23, No. 11, 1982.
- "Rural Development," Vol. 22, No. 1, 1981.
- "Agro-Financing: Tapioca Industry," Vol. 21, No. 7, 1980.
- "Pineapple Canning: The Not-So-Golden Fruit," Vol. 21, No. 2, 1980.
- "What To Do About Farmers Debts?" Vol. 19, No. 2, 1978.
- Berry, R. A. & Cline, W. R. Agrarian Structure and Productivity in Developing

 Countries (Baltimore: Johns Hopkins University Press, 1979).
- Bhumiratiana, A. "Status of Food Storage and Processing Technology in Thailand," in Appropriate Industrial Technology for Food Storage and Processing, by United Nations Industrial Development Organization (New York: United Nations, 1979).
- Board of Investment Bangkok. "Investment Opportunities: Processed Food,"

 Thailand: New Investment Horizons (Bangkok: Bo I, 1982).
- Bobst, B. W., Burris, A. E. & Hall, H. H. "Enterprise Selection and Farm Employment in Northeast Thailand," <u>Journal of Developing Areas</u> Vol. 14, No. 3, Apr. 1980.
- Brannon, R. H., Alton, C. T. & Davis, J. T. "Irrigated Dry Season Crop Production in Northeast Thailand: A Case Study," <u>Journal of Developing Areas</u> Vol. 14, No. 2, Jan. 1980.
- Brown, G. T. "Agricultural Pricing Policies in Developing Countries," in <u>Distortions</u>
 of Agricultural Incentives, T. W. Schultz, ed. (Bloomington: Indiana
 University Press, 1978).

- Bruneau, M. "Class Formation in the Northern Thai Peasantry, 1966 76," <u>Journal</u> of Contemporary Asia Vol. 14, No. 3, 1984.
- Business Asia. "Thailand to Pursue Overdue Economic Reforms, But Not Overnight." Feb. 15, 1985, pp. 56.
- Center on Transnational Corporations. "Transnational Corporations in Food and Beverage Processing," CTC Reporter Vol. 1, No. 8, Spring 1980.
- Chapman, E. C. "Villagers as Clients: A Study of Land Development in Northern Thailand," in Studies of Contemporary Thailand, R. Ho & E. C. Chapman, eds. (Canberra: Australian National University Press, 1973).
- Chayan Vaddhanaphuti & Winnacher, M. "New Crops Reinforce Old, Unequal Relations," Southeast Asia Chronicle No. 86, Oct. 1982.
- Clairmonte, F. F. "Reflections on Power: TNCs in the Global Economy," CTC

 Reporter No. 15, Spring 1984, pp. 37-9.
- Clairmonte, F. F. & Cavanagh, J. "Food as a Corporate Commodity," Southeast

 Asia Chronicle No. 86, Oct. 1982.
- Cohen, P. T. "Problems of Tenancy and Landlessness in Northern Thailand,"

 Developing Economies Vol. 21, No. 3, Sep. 1983, pp. 244-66.
- Collado, G. M., Drilon, J. D., Jr., & Saguiguit, G. F. Agribusiness Corn Systems:

 Phillippines and Thailand (College Laguna, Philippines: SEARCA, 1981).
- Doner, R. "The Development of Agribusiness in Thailand," <u>Bulletin of Concerned</u>
 Asian Scholars Vol. 6, No. 1, Jan.-Mar. 1974, pp. 8-15.

- Feder, E. "The New World Bank Programme for the Self-Liquidation of the Third World Peasantry," Journal of Peasant Studies Vol. 3, No. 3, Apr. 1976, pp. 343-54.
- Feder, G., Just, R. & Zilberman, D. "Adoption of Agricultural Innovations in Developing Countries: A Survey," Economic Development and Cultural Change Vol. 33, No. 2, Jan. 1985.
- Feder, G. & O'Mara, G. T. "Farm Size and Diffusion of Green Revolution Technology," Economic Development and Cultural Change Vol. 30, No. 1, Oct. 1981.
- Feeny, D. The Political Economy of Productivity: Thai Agricultural Development

 1880 1975 (Vancouver: University of British Columbia Press, 1982).
- Feeny, D. "Post World War II Thai Agricultural Development Policy: Continuity or Change?" in Poverty and Social Change in Southeast Asia, O. Mehmet, ed. (Ottawa: University of Ottawa Press, 1979).
- Fenn, M. G. "The Entrepreneur in Agricultural Marketing Development," in <u>FAO</u>
 Studies in Agricultural Economics and Statistics (Rome: FAO, 1978).
- Finance and Development Vol. 20, No. 2, Jun. 1983, "Is There Cause for Export Optimism?," pp. 9-12.
- Fish, P. "Thailand Tries to Help the Poor," Far Eastern Economic Review Sep. 15, 1978.
- Fish, P. "Tapioca Mountain Worries Thailand," Far Eastern Economic Review Sep. 1, 1978, pp. 91-2.

- Fryer, D. W. Emerging Southeast Asia: a Study in Growth and Stagnation (London: George Philip & Son, Ltd., 1979).
- Fu-Shan, Liu. "Agricultural Marketing Improvements in Taiwan," <u>Industry of Free</u>
 China July, 1983, pp. 21-34.
- Geissler, C. & Miller, D. "Nutrition and GNP: A Comparison of Problems in Thailand and the Philippines," Food Policy Vol. 7, No. 3, Aug. 1982, pp. 191-206.
- Gosling, L. A. P. "Chinese Crop Dealers in Malaysia and Thailand: The Myth of the Merciless Monopsonistic Middleman," in The Chinese in Southeast Asia, Vol. L: Ethnicity and Economic Activity, L. Y. C. Lim & L. A. P. Gosling, eds. (Singapore: Maruzen Asia, 1983), pp. 131-71.
- Hafner, J. A. "Market Gardening in Thailand: The Origins of an Ethnic Chinese Monopoly," in The Chinese in Southeast Asia, Vol. 1: Ethnicity and Economic Activity, L. Y. C. Lim & L. A. P. Gosling, eds. (Singapore: Maruzen Asia, 1983), pp. 30-45.
- Hara, Y. "Institutional Changes in a Central Thai Village," <u>Developing Economies</u>

 Vol. 19, No. 4, Dec. 1981.
- Haswell, M. R. Norhteast Thailand: 'Farm Gate' Surveys of Organizational and

 Financial Constraints on Development of the Marketable Surplus (London:

 Ministry of Overseas Development, 1975).
- Hawes, G. A. "Southeast Asian Agribusiness: The New International Division of Labor," Bulletin of Concerned Asian Scholars Dec. 1980.

- Hayami, Y. & Kikuchi, M. Asian Village Economy at the Crossroads: An Economic Approach to Institutional Change (Baltimore: Johns Hopkins University Press, 1982).
- Hayami, Y. & Ruttan, V. W. Agricultural Development: An International Perspective (Baltimore: Johns Hopkins University Press, 1971).
- Hla Myint, U. Southeast Asia's Economy: Development Policies in the 1970's (New York: Praeger, 1972).
- ·Hla Myint, U. "Exports and Economic Development of Less Developed Countries," in

 Agricultural Development in the Third World, C. K. Eicher & J. M. Staatz,

 eds. (Baltimore: Johns Hopkins University Press, 1984).
- Hla Myint, U. The Economics of the Developing Countries (New York: Praeger Publishers, 1964).
- Holtsberg, C. "Rice Pricing Policy," in <u>Basic Needs and Government Policies in</u>

 <u>Thailand</u>, P. Richards, ed. (Singapore: International Labour Organization, 1982).
- Ho Kwon Ping. "The Garden of Eden: Luxury Foods Export Agribusiness in ASEAN." (Unpublished mimeo, 1981).
- Ho Kwon Ping. "Thailand's Obstacle Race," <u>Far Eastern Economic Review</u> Mar. 9, 1979.
- Ho Kwon Ping. "Thailand's Broken Rice Bowl," Far Eastern Economic Review Dec.
 1, 1978.

- Ho Kwon Ping. "The Daunting Prospect," Far Eastern Economic Review Dec. 1, 1978, pp. 44-6
- Ho Kwon Ping. "Asian Agriculture's Decade in the Wrong Direction," <u>Far Eastern</u>
 Economic Review Sep. 15, 1978.
- Hopkins, R. F. Puchala, D. J. & Talbot, R. B., eds. Food, Politics, and

 Agricultural Development: Case Studies in the Public Policy of Rural

 Modernization (Boulder: Westview Press, 1979).
- Ingram, J. C. Economic Change in Thailand, 1850 1970 (Stanford: Stanford University Press, 1971).
- International Monetary Fund. <u>International Financial Statistics: Supplement on</u>
 Trade Statistics, No. 2 (Washington, D. C.: 1984).
- Islam, R. "Non-Farm Employment in Rural Asia: Dynamic Growth or Proletarianistation?" <u>Journal of Contemporary Asia</u> Vol. 14, No. 3, 1984, pp. 306-24.
- Johnston, B. F. & Clark, W. C. Redesigning Rural Development: A Strategic Perspective (Baltimore: Johns Hopkins University Press, 1982).
- Johnston, B. F. & Kilby, P. Agriculture and Structural Transformation: Economic Strategies in Late Developing Countries (New York: Oxford University Press, 1975).
- Judd, P. "Irrigated Agriculture in the Central Plain of Thailand," in <u>Studies of Contemporary Thailand</u>, R. Ho & E. C. Chapman, eds. (Canberra: Australian National University Press, 1973).

- Kemp, J. H. "Legal and Informal Land Tenures in Thailand," Modern Asian Studies

 Vol. 15, No. 1, 1981.
- Khonthai. "Japan's Shibato Company: Defrauding Sugarcane Growers in Thailand,"

 Japan Asia Quarterly Review Vol. 12, No. 3, 1980.
- Knodel, J., Nibhon Debavalya & Peerasit Kamnuansilpa. "Thailand's Continuing Reproductive Revolution," <u>International Family Planning Perspectives</u> Vol. 6, No. 3, Sep. 1980, pp. 84-96.
- Krirkkiat Pipatseritham. "Land Reform Program, 1977 1981: An Analysis," Social Science Review (Bangkok: Thammasat University, 1978), pp. 160-92.
- Lam, N. V. "Incidence of the Rice Export Premium in Thailand," <u>Journal of</u>

 Development Studies Vol. 14, No. 1, Oct. 1977.
- Laramee, Peter A. "Problems of Small Farmers Under Contract Marketing with Special Reference to a Case in Chiengmai Province, Thailand," <u>Economic Bulletin for Asia and the Pacific Vol. 26</u>, No. 2/3, Sep./Dec. 1975, pp. 43-58.
- Lee, Teng-hui & Chen, Yueh-eh. "Agricultural Growth in Taiwan, 1911 1972," in

 Agricultural Growth in Japan, Taiwan, Korea, and the Philippines, Y.

 Hayami, V. W. Ruttan & H. M. Southworth, eds. (Honolulu: East-West Center, 1979).
- Lin, L. & Esposito, B. "Agrarian Reform in Thailand: Problems and Prospects,"

 Pacific Affairs Vol. 49, No. 3, Fall 1976.

- Lind, L. "Blemishes on the Top Banana: A Critical Look at Castle & Cooke,"

 Multinational Monitor Vol. 12, No. 7, Jul. 1981, pp. 10-18.
- Linn, J. F. "The Costs of Urbanization in Developing Countries," <u>Economic</u>

 Development and Cultural Change Vol. 30, No. 3, Apr. 1982.
- Lipton, M. "Case for Small Farms in Developing Countries," The World Economy Vol. 3, No. 3, Nov. 1980, pp. 377-80.
- Lipton, M. Why Poor People Stay Poor: Urban Bias in World Development (Cambridge: Harvard University Press, 1977).
- London, B. "Is the Primate City Parasitic? The Regional Implications of National Decision Making in Thailand," <u>Journal of Developing Areas</u> Vol. 12, No. 1, Oct. 1977.
- Meyer, R. L. & Alicbusan, A. P. "Farm-Household Heterogeneity and Rural Financial Markets: Insight from Thailand," in <u>Undermining Rural Development With Cheap Credit</u>, D. W. Adams, D. H. Graham & J. D. von Pischke, eds. (Boulder: Westview Press, 1984).
- Murphy, J. "Strengthening Agricultural Research in Developing Countries," Horizons
 Vol. 2, No. 6, Jun. 1983, pp. 12-15.
- Murray, C. "Thailand: The Domino that Didn't Fall," Atlantic Monthly Nov. 1984, pp. 34-48.
- Nairn, R. C. "Thailand and Economic Development," Thai American Business Vol.

 13, No. 2, Mar./Apr. 1981, pp. 20-2.

- Norman, M. J. T. "The Potential and Limitations of Thailand's Environment for Agricultural Production," in Studies of Contemporary Thailand, R. Ho and E. C. Chapman, eds. (Canberra: Australian National University Press, 1973).
- Office of the Prime Minister. Thailand into the 80's (Bangkok: Business Information and Research Co., 1979).
- Ohkawa, K. "Implications for Agricultural Development," in Agricultural Growth in Japan, Taiwan, Korea, and the Philippines Y. Hayami, V. W. Ruttan & H. M. Southworth, eds. (Honolulu: East-West Center, 1979).
- Paisal Sricharatchanya. "The Last Straw," Far Eastern Economic Review Jan. 31, 1985, pp. 48-9.
- Paisal Sricharatchanya. "An Export-led Initiative," Far Eastern Economic Review Nov. 29, 1984, pp. 56-8.
- Paisal Sricharatchanya. "A Plant for the Farms," Far Eastern Economic Review Oct. 6, 1983, pp. 97-9.
- Paisal Sricharatchanya. "A Seedy Form of Aid," <u>Far Eastern Economic Review</u> Jan. 13, 1983.
- Paisal Sricharatchanya. "The Rice Race is On," Far Eastern Economic Review Mar. 5, 1982.
- Phairat Dejarintr. "Obstacles to the Development of Group Force in Rural Thailand," Journal of Social Science Review Vol. 1, No. 2, 1976, pp. 78-94.

- Piker, S. "The Closing of the Frontier: Land Pressures and Their Implications for Rural Social Organization in the Thai Central Plain," in Contributions to Asian Studies, Vol. 9: Population, Land, and Structural Change in Sri Lanka and Thailand, J. Brown, ed. (Leiden: E. J. Brill, 1976).
- Praipol Koomsup. "Foreign Trade and Economic Development in Five Southeast Asian Countries, 1850 -1940," <u>Journal of Social Science Review</u> 1978, pp. 131-160.
- Puchala, D. J. & Hopkins, R. F. "The Politics of Agricultural Modernization," in Food, Politics, and Agricultural Development: Case Studies in the Public Policy of Rural Modernization, R. Hopkins, D. J. Puchala & R. B. Talbot, eds. (Boulder: Westview Press, 1979).
- Puchala, D. J. & J. Staveley. "The Political Economy of Taiwanese Agricultural Development," in Food, Politics, and Agricultural Development: Case Studies in the Public Policy of Rural Modernization, R. Hopkins, D. J. Puchala & R. B. Talbot, eds. (Boulder: Westview Press, 1979).
- Race, J. "The Future of Thailand," Pacific Community Vol. 8, No. 2, Jan. 1977, pp. 303-26.
- Ramsay, J. A. "Tenancy and Landlessness in Thailand: How Severe a Problem?"

 Asian Survey Vol. 22, No. 11, Nov. 1982.
- Ramsay, J. A. "The Limits of Land Reform in Thailand," <u>Journal of Developing</u>
 Areas Vol. 16, No. 2, Jan. 1982, pp. 173-96.

- Reid, A. "The Structure of Cities in Southeast Asia, Fifteenth to Seventeenth Centuries," Journal of Southeast Asian Studies Vol. 11, No. 2, 1989.
- Richards, P., ed. <u>Basic Needs and Government Policies in Thailand</u> (Singapore: International Labour Organization, 1982).
- Roth, D. F. "Dimensions of Policy Change: Towards and Explanation of Rural Change Policies in Thailand," Asian Survey Vol. 16, No. 11, Nov. 1976.
- Rubin, Herbert J. The Dynamics of Development in Rural Thailand Special Report

 No. 8. Center for Southeast Asian Studies, Northern Illinois University,

 1974.
- Sawatditat, A., Sundhagul, M. & Varangoon, P. "Food Storage and Processing in Thailand," in Appropriate Industrial Technology for Food Storage and Processing, United Nations Industrial Development Organization. (New York: United Nations, 1979).
- Scoville, O. J. & Dalton J. "Rural Development in Thailand: The ARD Program,"

 Journal of Developing Areas Vol. 9, No. 1, Oct. 1974.
- Sentell, G. D. "Constraints on the Export Marketing of Thai Agricultural Products,"

 Thai American Business Vol. 14, No. 1, Jan/Feb. 1982, pp. 28-31.
- Silcock, T. H. Thailand: Social and Economic Studies in Development (Canberra: Australian National University Press, 1967).
- Somsak Chinvanthananond. "CMP Industry Sector Analysis: Food Processing and Packaging Equipment," (Washington D. C.: U.S. Dept. of Commerce, 1984).

- Somsaksi Xuto. Strategies and Measures for the Development of Thailand in the 1980's (Bangkok: Tura Institute, 1983).
- Sopin Tongpan. "Agricultural Exports and Economic Development: A Case Study of Thailand," in Readings in Thailand's Political Economy, Vichitong Na Pombhejara, ed. (Bangkok: Bangkok Printing Enterprise Co., 1973).
- Steinberg, D. L. "Development Lessons from the Korean Experience," Horizons Vol. 2, No. 3, Mar. 1983, pp. 12-15.
- Stevens, R. D. "Policies and Programs for Small Farm Development," in <u>Tradition</u>

 and <u>Dynamics in Small Farm Agriculture</u> R. D. Stevens, ed. (Ames: The Iowa State University Press, 1977).
- Stifel, L. D. "Patterns of Land Ownership in Central Thailand during the Twentieth Century," <u>Journal of the Siam Society</u> Vol. 64, No. 1, Jan. 1976, pp. 237-74.
- Suehiro, A. "Land Reform in Thailand: The Concept and Background of the Agricultural Land Reform Act of 1975," <u>Developing Economies</u> Vol. 19, No. 4, Dec. 1981.
- Thinapan Nakata. "The Thai Political System in the 1980's: Issues, Problems and Prospects," in Thailand in the 1980's: Issues, Problems and Prospects (Bangkok: Tura Institute, 1981).
- Tomasugi, T. A Structural Analysis of Thai Economic History (Tokyo: Institute of Developing Economies, 1980).

- Tsujii, H. "An Economic and Institutional Analysis of the Rice Export of Thailand:

 With Special Reference to the Rice Premium Policy," <u>Developing</u>

 Economies Vol. 15, No. 2, Jun. 1977, pp. 202-20.
- Turton, A. "The Current Situation in the Thai Countryside," <u>Journal of Contemporary Asia Vol. 8</u>, No. 1, 1978, pp. 104-42.
- UNCTAD Secretariat. "Exporting Commodities in Processed Form," <u>UNCTAD</u>
 Bulletin No. 208, Dec. 1984 / Jan. 1985, pp. 11-16.
- United Nations. Economic and Social Survey of Asia and the Pacific, 1982

 (Bangkok: United Nations, 1983).
- U.S. Agricultural Attache Bangkok. Thailand: Annual Agricultural Situation and

 Policy Report (Washington, D. C.: Foreign Agricultural Service, U.S.

 Department of Agriculture, 1984).
- U.S. Agricultural Attache Taipei. <u>Taiwan's Agricultural Situation Annual Attache</u>

 Report (Washington D. C.: Foreign Agricultural Service, U.S. Department of Agriculture, 1984).
- Vanpen Surarerks. "Trends in the Development of Rural Non-Farm Production and Employment in Lower North Thailand," Contemporary Southeast Asia Vol. 5, No. 2, Sept. 1983.
- Van Roy, E. Economic Systems of Northern Thailand (Ithaca: Cornell University Press, 1971).

- Vyas, V. S. "Asian Agriculture: Achievements and Challenges," Asian Development Review Vol. 1, No. 2, 1983, pp. 27-44.
- Williams, M. C. "Thailand: The Demise of a Traditional Society," <u>Journal of</u>
 Contemporary Asia Vol. 3, No. 4, 1973.
- Witayakorn Chienkal. "The Transformation of the Agrarian Structure of Central Thailand, 1960 1980," Journal of Contemporary Asia Vol. 13, No. 3, 1983, pp. 340-360.
- World Bank. World Bank Annual Report, 1984 (Washington, D. C.: World Bank, 1984).
- World Bank. Thailand: Income Growth and Poverty Alleviation (New York: World Bank, 1980).
- World Bank. Thailand: Toward a Development Strategy of Full Participation (New York: World Bank, 1980).
- Wyatt, D. K. Thailand: A Short History (New Haven: Yale University Press, 1984).

