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Agricultural Problems in Thailand Some Policy Alternatives

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By Delane E. Welsch*

INTRODUCTION

The problems facing Thailand at the start of the 1970's, which coincides with the initiation of the third development plan (1972-1976), are considerably different from the situation at the beginning of the 1960's and the first (1961-1967) plan. Dr. Renoo Suvarnsit (Secretary-General of The National Economic Development Board) has written, we "find Thailand entering another important phase of her development. ... a number of recent events, both economic and political, have combined to make the next few years a significant period for Thailand."^{1/} Another observer has written "The Thai economy is undergoing a process of adjustment to present requirements which will involve some painful but necessary changes."^{2/}

Thailand seems to be in the midst of crises.^{3/} There is an external security crisis in neighboring countries. There appears to be an internal security crisis in certain areas within the Kingdom. There are shifts in balance of payments and foreign exchange reserve holdings. The citizens have increased expectations with respect to income, education, and social services that aren't being met. At the risk of criticism for calling every problem a crisis, I think that Thailand is also approaching a crisis situation in agriculture.

The dimensions of the agricultural crisis are as follows. The forces of agricultural growth during the past 15 years have fundamentally changed. Thai agriculture has fed a rapidly expanding population, been a major source of foreign exchange earnings through exports, provided a market for the small but growing domestic manufacture of consumer goods, and probably provided a net capital flow to non-agricultural sectors (through the rice premium and the banking system).

But a major source of growth in agricultural output has been expansion of area farmed. I realize that there is considerable disagreement over the exact proportion of the growth due to increase in area and the proportion due to increased yield per rai.^{4/} Agriculture in the early 1960's had a strong element of "frontier" agriculture, in that new lands were being rapidly cleared and cultivated. For example, maize, kenaf, and cassava, which were major exports in 1970, are produced on land that was not farmed in 1950. Silcock has estimated that about 90 per cent of the increase in output of export crops other than rice and rubber from 1951 to 1964 was due to expansion of area and only 10 per cent was due to increase in yield per rai.^{5/} With respect to the traditional crop rice, Silcock claims one-half of the increase in output for the same period was due to expansion of area, while Ishikawa, for the period 1958-1967, estimates that only one-third of the increased output of rice was due to increased area.^{6/}

Even though I cannot prove it at this time, I feel that agricultural output has reached a "plateau", namely that very little new land is being cleared and farmed, and that increases in yield per rai are very

small, and therefore that the NEDB estimated rate of increase in real output in overall agriculture of 4 to 4.5 per cent per year during the early and mid 1960's has slowed to a rate of growth less than the annual increase in population and may in fact be zero. The evidence is scanty to support this view. I think that the "bad weather" year of 1967 (real output of crops, valued at 1962 prices, declined 10.1 per cent from 1966^{7/}) obscured a fundamental shift in the trend of growth in crops. (85 per cent of the 10.1 percent decline was due to a drop in output of rice).

The data in Table 1 partially illustrate what has happened in agriculture during the 15-year period, 1955 to 1969. Two-thirds of the 9 million rai expansion in area harvested and 7.4 million ton increase in output of 13 upland crops was by corn, cassava and kenaf. This directly represents opening of new lands. I realize that there is considerable debate over agricultural statistics in Thailand, and that each government agency tends to collect their own data because they do not trust others' data. Silcock has written at length on this problem.^{8/} Regardless of what the absolute levels of area and production really are (the facts), it is still clear that upland crops, particularly corn, cassava, and kenaf have been the main forces generating increased agricultural output. It is very clear that their expansion has been primarily on new land. I argue that the rate of clearing has slowed down, if not totally stopped. I grant that "squatters" are still "encroaching" on reserved forests, but I seriously doubt whether their rate of clearing new land much exceeds some abandonment of recently cleared but marginal land (particularly kenaf land.)

Table 1. Area harvested, production, and export of 13 upland crops, and GDP originating from all crops, Thailand, 1955-1969.^{a/}

Year	Area Harvested (1,000 rai)	Production (1,000 ton)	Exported (1,000 ton)	GDP Originating from all crops at 1962 Prices (Million Baht)	All crops as per cent of GDP at 1962 Prices (per cent)
	(1)	(2)	(3)	(4)	(5)
1955	2,872	3,429	172	n.a.	n.a.
1956	3,321	4,647	265	n.a.	n.a.
1957	3,634	5,061	243	n.a.	n.a.
1958	3,901	5,346	414	n.a.	n.a.
1959	4,854	6,789	577	n.a.	n.a.
1960	6,317	7,753	986	15,873	28.3
1961	6,774	6,964	1,331	16,317	27.6
1962	6,158	6,381	1,313	17,674	27.7
1963	7,557	8,347	1,486	19,302	27.9
1964	8,887	8,308	2,234	19,146	26.0
1965	10,282	8,047	2,220	19,581	24.6
1966	12,311	8,256	2,787	23,056	25.9
1967	11,663	8,554	2,299	20,718	22.0
1968	11,950	10,836	2,481	21,834	21.3
1969	n.a.	n.a.	3,018	23,901	21.3

^{a/} Maize, cotton, castor bean, mungbean, sorghum, sesame, ground nut, soybean, cassava, kenaf and jute, tobacco, sugar cane.

Col. (1) and (2) Thailand Agricultural Statistics. Div. of Agric. Economics, Ministry of Agriculture. Annual Issues. Unpublished data for 1968 obtained from Dept. of Extension, Ministry of Agriculture.

Col. (3) Annual issues of Annual Statement of Foreign Trade of Thailand. Dept. of Customs.

Col. (4) and (5) National Income of Thailand: Revised Estimates, 1960-1969. National Amounts Division, National Economic Development Board, August 6, 1970.

Col. (5) All crops includes, in addition to 13 listed above, rice, rubber, coconut, garlic, onion, shallot, chilli, vegetables, fruits, and other crops.

The data on exports are fairly reliable. Selected data, shown in Table 2, further substantiate the "plateauing of output" thesis. The role of corn, kenaf, and cassava is clearly shown by the export data. Of these three crops, nearly all of the corn and cassava is exported, while some kenaf is consumed domestically. Substantial quantities of all 9 of the other upland crops are consumed domestically, and in addition, cotton, tobacco, and sugar are also imported. It is not clear whether stagnation of exports of the 9 are a consequence of reduced expansion of land area, or population increasing faster than production.

This leads directly to the second, and unresolved, set of questions, namely, how much land is still available to be cleared and what is its potential productivity? Data from 1965 indicate 23.5 per cent of the total land area of the kingdom was in farm holdings, 56.2 per cent was in forest and grazing uses, and the balance, or 19.2 per cent was unclassified.^{9/} Not much is known about either the unclassified land or what proportion of the forest and grazing land could be converted to cropland. However, this is a matter of fact that is researchable.

If the facts show the above speculations to be true, then the important consequence is that the easy sources of increase in agricultural output have been exhausted. It is much easier to clear new land than it is to increase yield per rai on land already under cultivation. Therefore, Dr. Renoo's "New Horizon" will require that some very crucial policy decisions be made regarding agriculture.^{10/} These policy decisions are crucial in that they will profoundly affect the direction of Thai agriculture in the next decade. The timing of these decisions is crucial in

Table 2.

Export of Rice, Rubber, Corn, Kenaf, and Jute, Cassava, and
nine other upland crops, Total Value at actual prices.
Thailand 1955-1969.

Year	9 Upland Crops <u>a/</u>	Corn	Kenaf & Jute	Cassava	Rubber	Rice	Total Value of specified Exports	Total Value of all Exports
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	-----Million Baht-----							
1955	148	80	8	68	1,802	3,143	5,249	7,121
1956	334	90	19	112	1,527	2,861	4,943	6,923
1957	293	74	46	137	1,410	3,622	5,582	7,540
1958	243	183	69	179	1,327	2,963	4,964	6,447
1959	221	250	88	223	2,336	2,576	5,694	7,560
1960	235	551	230	287	2,580	2,570	6,453	8,614
1961	277	597	626	446	2,130	3,598	7,674	9,997
1962	343	502	579	422	2,111	3,240	7,197	9,529
1963	431	828	358	438	1,003	3,424	6,482	9,676
1964	584	1,346	495	652	2,060	4,388	9,525	12,339
1965	559	968	1,102	676	1,999	4,334	9,638	12,941
1966	654	1,520	1,614	644	1,861	4,001	10,294	14,310
1967	594	1,355	869	725	1,574	4,653	9,770	14,166
1968	513	1,556	646	754	1,816	3,775	9,060	13,679
1969	718	1,674	780	864	2,664	2,945	9,645	14,722

a/ Cotton, castor bean, mungbean, sorghum, sesame, ground nut, soybean, tobacco and sugar.

Source: Annual issues of Annual Statement of Foreign Trade of Thailand, Dept. of Customs, Bangkok.

Col. (7) Sum of columns (1) through (6).

that there is a substantial time lag between the initiation and the time of payoff.

Before discussing specific policy issues, I will next discuss briefly what I mean by "policy".

THE POLICY ENVIRONMENT

In order to avoid misunderstandings over the discussion of specific policy issues and alternatives, a brief review of terminology and concepts follows. In discussing policy, one must carefully distinguish between the following concepts (listed in descending order):

Goals

Objectives

Policies

Programs (or Projects)

Goals are the long run general conditions that a society wants. Goals represent peoples' concepts of "what ought to" prevail. The reflect values. Some Thai goals appear to be:^{11/}

1. National Security, both external and internal, defined basically as maintaining an independent nation.
2. Preservation of the National Heritage. This goal is difficult to elaborate on in English, but includes preservation of the Monarchy, the Religion, and the Law. It also includes concepts of culture and perhaps conservation of natural resources.
3. Well-being or welfare of the people, more broadly defined than just material or monetary well-being, and

4. Equality of opportunity, or social justice, such as equal opportunity to choose one's profession or occupation, to be educated, to choose one's religion, to help oneself, etc.

This value, however, is in conjunction with well-being, recognizes unequal abilities, and hence, if a person or group is unable to help themselves, then it is "right" for some unit to help them, such as the Church of the Government.

This value is responsible for the high degree of economic, social, and occupational mobility in the Thai society.

Objectives are defined as the more specific conditions that a society wants to achieve in a shorter run context, for the purpose of reaching or maintaining long run goals. Whereas goals tend to change very little from one generation to the next, or even from one century to the next, objectives tend to aim 5, 10, or 15 years ahead. Each development plan has listed the objectives which that plan hoped to achieve. For example, insuring that the benefits of development expenditures are shared equitably by all the regions is derived from the equality of opportunity goal, as is the objective of increased participation in the market economy by rural people.

Policies are the "conscious and purposive pursuit of a course of action by a decision unit". ^{12/} The "decision unit" for public or government policy is the government. Policies may be considered as a decision on the way the government will act or react to the environment

(current situation) in order to reach objectives. For example, the government decided that one of the best ways to achieve general development (defined as increase in national income) objectives was to follow a policy of heavy public investment in infrastructure, primarily roads, irrigation facilities, and power.

Programs are then specifically initiated to implement policies. The Greater Chao Phya Project, for example, was initiated within the context of the public investment in infrastructure policy. Regional development programs, such as NEDB, are programs designed within the context of a policy increasing incomes and social services of people in rural areas, which in turn is aimed at the objective of equitable distribution of the benefits of development expenditures. The rice premium is one of several programs designed to carry out a general policy dealing with rice price. The proposed silo project is another project within the same policy.

Formulating Policy. There is general agreement in Thailand about overall goals of the society, and also general agreement about broad objectives to meet these goals. There seems to be considerable disagreement, however, over policies and the programs to implement them. In a sense, Thailand is therefore very fortunate. The reason is that goals involve values, and value conflicts are very difficult to resolve. In some countries, value conflicts are the cause of armed strife.

Policies and the means to carry them out however mostly involve facts, and are therefore researchable. Thus, current policy disagreements could be solved by more policy oriented research. This requires data, and the current agricultural data situation is not in very good shape. Current efforts are widely dispersed and uncoordinated. How many farmers there are, how much land they farm, how they use that land, what their income is, what rural and urban people earn, save and consume, is not known. It therefore seems that before Thailand can improve its making of agricultural policy, it must first make a national data policy. To continue as in the past is to make vital policy decisions on the basis of conventional wisdom, opinion, and rhetoric, when policy should be made on facts.

There are also certain aspects of the political, social, and economic environment or prevailing conditions that must be considered when making policy. The current situation in Thailand appears to be:

1. National security will dominate and influence all policies in the next several years. Internal security will probably have an increasingly economic element, particularly in rural areas.
2. The balance of payments and foreign reserves situation will dominate economic policies.
3. There are growing feelings that massive infrastructure investments have been made and that the next period should concentrate on more efficient utilization of what has already been constructed.

4. The level of government support of family planning efforts is likely to be low so that planning for the next 20 years must take population increase as given. Even if family planning efforts were drastically increased, the impact will not be felt for a protracted period.
5. Problems of education, particularly in making quality schooling available throughout the kingdom, will become more serious.
6. Major governmental reorganization is not likely, so that policies and programs must be carefully designed to be functional within the present system.

An important step in formulating policies and the programs to carry them out is a careful scrutiny for:

1. Technical feasibility
2. Economic feasibility
3. Administrative feasibility
4. Political feasibility

All four types of feasibility must be present or a policy or program will fail. Political and economic feasibility are obvious necessities. The often mentioned problems of governmental organization make administrative feasibility a prime requirement for new policy. There is a tendency in Thailand to neglect the technical feasibility. Too often targets are set and policies implemented without adequate technical justification. A recent example is the Greater Chao Phya development program. Considerable investments have been made in water control, ditches and dykes and feeder roads in an eight-Changwat area

in the northern part of the Chao Phya delta. Initially, it was considered that there was 4.165 million rai within the project area. Plans were to irrigate the whole area in rice in the wet season and as much of the area as water was available for in the dry season in crops other than rice. However, a recently completed land use classification study, based upon soil surveys, concluded that there were 4.165 million rai within the project area, but that only 3.3 million rai were irrigable. Furthermore, 2.8 million out of 3.3 million of rai consisted of soils that were really suited only for rice production. ^{13/} A considerable part of the remaining 0.5 million rai are not available for upland crop production, because these soils are where the dwellings, villages, home gardens and fruit orchards have been located, and where some of the sugar cane is produced. This has implications for a revised multiple cropping program.

Before proceeding to specific policy problems, I want to make one final point about policy design. It is no accident that among the first scientific publications or bulletins issued by many of the land grant colleges or state experiment stations in the U.S. were publications dealing with the delineation of the types-of-farming regions and inventorying of the resource base available in each. Formulating technically sound agricultural policies and programs in Thailand would be greatly facilitated if there were a carefull delineation of the "type-of-farming areas" or "resource base areas" or "agroclimatic zones" or whatever you wish to call them, — the concept is the same for each term. The Land Development

Department has made a start in defining the six "physiographic regions". ^{14/} For agricultural programs a slightly finer delineation is needed into perhaps 15 or 20 areas in the Kingdom. For example, one cannot tailor a program for the "Central Plains", for the Central Plains varies from the cattle grazing areas near the Burma border, through the heart of the delta with its deep water floating rice, to the central highland corn-growing areas of Takli and Chaibadan. A similar situation exists in the Northeast.

Once the basic resource availability in each area is known, then the constraints in each region can be determined. In some, it will be a supply constraint, which calls for one type of program, in others it will be a demand constraint, which calls for a different type of program. In still other areas, the resource base may not be sufficiently productive to be amenable to agricultural improvement, and will call for basically social welfare policy decisions. The choice may be among stimulating industry to move in to provide employment, encouraging the people to move out to places where there is employment, or making income transfers.

The above comments are not intended to imply that there are major resource allocation inefficiencies in Thai agriculture because I don't think there are. All I want to stress is that policy and program formulation would be much enhanced if it were specifically oriented to type of farming areas rather than to whole regions or whole Kingdom.

THE POLICY ALTERNATIVES

Six major policy areas will be taken up in this section. They are:

1. The relative emphasis on agriculture and industry
2. Productivity versus poverty
3. Creation of new technology
4. Product and input prices
5. Domestic and export marketing
6. Consumer goods for farmers

The relative emphasis to be placed on agriculture and industry during the next decade is a major policy issue. Thailand has been operating under policies, which I feel to be correct, of not neglecting or downgrading agriculture to favor industry, but instead, promoting both. I may have misinterpreted the past 10 years, for NISID says "What has yet to be solved is the issue of which direction the economy should go, industrial or agricultural or a balance between the two." ^{15/} At any rate, it is now time to formulate more positive agricultural policies. I do not want to sound like an agricultural fundamentalist, and I am not saying that agriculture must grow as rapidly or more rapidly than the rest of the economy. Generally inelastic demand for farm products would indicate that agriculture in the development process will expand less rapidly, and lose population and employment, relative to the rest of the economy. If, however, my speculations in the first part of the paper are

correct, and agriculture is indeed stagnating, then a positive development approach is required to get agriculture moving again, so that it isn't a drag on the rest of the economy. I think the agricultural sector has the capacity to and should make a substantial contribution to growth. Formulating the best policies to do this requires clarification of the agricultural-industrial relationship.

The next major policy issue has to do with the relationship between productivity problems and ~~poverty~~ problems in rural areas. There are areas, and farmers within those areas, who have sufficient resources under their control, to increase their output, if their resources could be made more productive. In some areas of Asia, the so-called "green revolution" has occurred specifically because farmers' resources were made more productive by the introduction of a new variety of wheat or rice or corn and associated inputs. This is sometimes referred to as a "High Yielding Variety (HYV) strategy or a "New Agricultural Strategy". This strategy is frequently criticized as making "rich farmers richer" and "poor farmers poorer". Such remarks ignore that the objective of the HYV strategy is increased agricultural output. It would be fortunate if HYV's also improved income distribution, but they may not. There still exist farmers who do not own sufficient resources to earn an acceptable level of income, no matter how productive these resources are made by new technology. Some of these farmers can be helped to control more resources by carefully designed credit programs, others cannot for reasons of ability, education, health, age, etc.

The distinction between productivity problems and poverty problems in agriculture has been criticized as a tenuous distinction representing an attempt to find an intellectual cover-up for problems the author did not want to face. In a country such as the U.S., where the agricultural labor force is rapidly declining, the distinction between productivity and poverty is said to be more valid than in a country such as Thailand where the agricultural labor force will increase rapidly over the next several decades.

In the latter case, such as Thailand, one could argue that there is no alternative but to attempt to design agricultural policies which deal both with productivity and income distribution.

Such an argument is based on two points. First it is said that even a relatively rapid rate of industrialization could not possibly provide employment for the increasing rural labor force. This point clearly applies to India. The second argument is that a developing country, with moderately low per capita income and a large proportion of the population in agriculture, simply cannot afford an income redistribution program to deal with poverty. This leads to policy and programs designed to draw the middle and responsive lower income farmers into the development process, to increase income, and hence make some improvements in income distribution. Remaining are non-responsive low income farmers who can probably be helped only by extending urban welfare benefits to them, and making sure that their children receive enough education to escape.

In terms of the Thai goal of equal opportunity discussed in a previous section, it would seem that given access to new technology, there are three classes of farmers in Thailand: those who are fully capable of helping themselves without assistance; those capable of helping themselves if given some assistance to get them started; and those who can never help themselves and will have to be totally supported by the public. The main point that I want to make is that policies and programs that treat all Thai farmers the same do not solve either the productivity problem or the poverty problem. Policies and programs must be separately tailored to fit the needs of each of the 3 groups if they are to succeed. The first step would be delineation of Thailand into type of farming areas, because each area has a different mix of productivity and poverty problems. The second step would be to classify the farmers in each area into three groups.

Perhaps the best illustrations are past abuses of credit and cooperative programs. It is frequently said that Thailand is a capital short country. But scarcity of capital is a relative term, tied to the returns on capital, and one could equally argue that all countries, even the U.S., are capital short. I feel that the problem in Thailand includes mobilization of present capital. The first type of farmer doesn't need a subsidized credit scheme; he simply needs fuller access to credit from commercial sources. He is currently denied this access by institutional rules and fiscal and monetary policies that are rarely looked at from the point of their effect on farmers.

A credit program geared to the needs of the first group of farmers but extended also the second and third groups will fail because of the latter. The second group of farmers needs to increase the amount of resources under their control so that the return on these resources will provide the desired level of income. In the case of owned land, it may be improving the quality of this land, it may mean renting more land to increase size of farm, or it may involve increased intensity of farming by increased use of non-farm inputs. All require credit, but subsidizing the credit is not the most important thing, what is required is access to the credit and supervision in its use.

The third group of farmers cannot be helped by credit programs. Loaning them money will put them deeper in debt, and their non-repayment will cause a credit program including all 3 types of farmers to fail, thereby denying group 2 an opportunity to help themselves. Including group 3 in cooperatives will break the cooperatives. This group needs direct income transfers to bring their level of living to a standard the society deems minimum, and educating their children so that they do not follow the path of their fathers.

In summary, this argument does not imply that all Thai farmers do not respond to economic incentives. On the contrary, some respond dramatically, some could respond if helped, but some cannot respond.

An issue associated with the foregoing is land tenure. There is considerable debate on this issue; some say Thailand has a land tenure problem

and some say it doesn't. But again this is an issue that revolves around facts and is researchable. Kingdom-wide or region-wide comparisons are misleading. An example is the central plains, where tenancy is said to be increasing. However, the central region is very large and very diverse. One must be careful to distinguish between land speculation in the metropolitan area, historical large land grand block areas, newly cleared areas, and areas with soil problems so severe that owning land there is a liability rather than an asset. To indiscriminately convert tenants to land owners may worsen their poverty problem without helping their productivity problem. The condition in the Northeast is serious, where the slow progress of cadastral surveys means that few farmers who actually own their land have a clear title deed. Without a title deed, group 1 farmers are denied access to commercial institutional credit, except under very special programs. Increasing productivity usually requires improvement in land, which will not be done without clear title. The policy guidelines are not clear, and the programs to implement them are inadequate.

The productivity problem must be dealt with by a set of policies. One important policy has to do with the creation of new technology. This is best accomplished by a clear focus and concentrated effort on developing biological innovations in crops and livestock. Some countries have been successful by setting up coordinated, interdisciplinary teams which concentrate on a single commodity.^{16/} Rice research in Thailand represents a start in the right direction, but more coordination is needed, which is

not likely to be forthcoming without a strong policy direction. There are still three different Ministries independently working in rice research. A critical part of increasing productivity through new technology is extension to farmers. But extension is a part of the technology generating process, and can not be independently effective. Extension is futile if there is nothing to extend. It is also useless if the extension worker does not understand what he has to extend, and he will not understand unless he is part of the process. The top 10 percent of Thai farmers are not only more advanced than the extension workers, but also they are probably ahead of the researchers. This is not unusual, it occurs in most countries.

Even if the new technology has been created and adequate credit is available to get it adopted, there will not be any change unless product and input prices encourage its adoption.

There is currently a great deal of pressure to reformulate product price policies on the order of price supports or farm floor prices or "guaranteed" prices. The principle commodity being considered is rice. At this point, a rice support price policy is not economically, technically, or administratively feasible, and such a policy is inconsistent with export promotion policies, agricultural diversification policies, and the long standing policy of relying almost exclusively on the private sector for the conduct of domestic and export trade.

Price supports are not economically feasible for several reasons. The Thai economy is not large enough to try to isolate it from the rest of the world. The world rice trade is in a period of declining prices. An effective function of the rice premium program has been to keep domestic

prices below world prices.^{17/} If domestic prices fall below what policy makers want them to be, then reduction or elimination of the rice premium is a more effective response. Second, maintaining farm price above domestic equilibrium requires an element of subsidy, or income transfer. It may be economically feasible in the U.S. to tax 96 percent of the people (non-farmers) to subsidize 4 percent (farmers) by keeping farm prices above equilibrium levels. But can Thailand tax its 20 percent of non-farmers (probably only 5 or 10 percent are taxable) to assist 80 percent of its people who are farmers?

To be technically feasible a price support program must have access to adequate storage. Why has hotel, business, and residential construction been more rapid than storage construction? Because they are more profitable investments for the private sector. There are a number of policies and programs that would encourage construction and operation of agricultural product storage facilities. The recent Bank of Thailand program of discounting warehouse receipts for stored paddy, within the Bank's policy of increasing the availability of credit to agriculture, is an example.

A price support program is not administratively feasible because four separate Ministries are involved, and without reorganization, which is not likely, coordination would be impossible.

More important, however, is the inconsistency with other policies. Keeping domestic rice price above domestic equilibrium results in holding resources in rice production that would otherwise change to other uses.

Holding prices below world equilibrium has always been a principle argument for the rice premium, in that low rice prices encouraged diversification. Therefore, rice support prices are inconsistent with diversification. It may be the correct time for Thailand to let domestic rice prices go to world prices, rather than take money away from rice farmers via the rice premium and give it back through the price support scheme. Most important, however, is that a price support program puts the government directly in the business of buying and selling of rice in the domestic market, and this is totally inconsistent with the long standing policy of letting the private sector do the trade. Governments are also not very good at buying and selling. Trying to remove the effect of "bad middlemen" is not a valid argument for price supports, because the facts show marketing margins for rice to be low relative to other products and marketing technology.^{18/}

The danger of the protracted debate over product price supports is that it diverts attention from input price policies. The policy of requiring Thai farmers to pay more for fertilizer than any other farmers in Asia is not consistent with increased production policy.^{19/} I find it particularly alarming that total fertilizer imports actually declined in 1969 from 1968. Given the small output of the Mae Moh plant, this implies that total fertilizer use probably declined. This is a radical change from the last 10 years, when fertilizer imports doubled every 4 years or less. Even more serious is this situation in the context of declining world fertilizer prices. New technology in fertilizer, particularly nitrogen, manufacture has resulted

in excess world capacity and cheap fertilizer.^{20/21/} It is rumoured that the Mae Moh plant is technologically obsolete, with costs of production perhaps 50 percent higher than c.i.f. prices of similar fertilizer. If this is true, then a mistaken investment should be recognized as such and written off, rather than requiring Thai farmers to pay for it. Reasons for high distribution costs are more complicated, but some research has been done on fertilizer marketing and the results are available for use in designing new programs.^{22/}

I will touch only briefly on domestic marketing policies, as the price intervention aspect was discussed previously. The evidence is that product marketing channels are relatively economically and technically efficient in moving products from producer to consumer. But they are relatively inefficient in improving quality or enforcing grades and standards, particularly in kenaf, cassava, and corn.^{23/} If the reliance on the private sector policy is to be retained and reaffirmed, then the chief issues remaining are to formulate regulatory and facilitating function policies and design programs to implement them. Reducing price fluctuations can best be accomplished by making the marketing system work better, not by price supports. But above all, policy makers and program designers and implementers will have to have some changed attitudes on what constitutes agricultural marketing.^{24/}

The export marketing situation is more serious, and a careful re-evaluation of policies and programs is needed. There has been considerable discussion of the topic recently and an encouraging emphasis on market development. Taiwan's strategies in aggressively seeking new markets ought to be studied.

However, too much is still being said on the basis of attitudes and opinions and not enough on the data and basic principles. Whether or not domestic rice price policy is consistent with an aggressive export policy is not clear.^{25/} Other domestic policies, particularly the fertilizer policy, clearly are not consistent. Frequent and unpredictable changes in regulations and the lack of a long run export policy on other commodities are not consistent with expanded exports. Corn, kenaf and cassava are good examples, in which it almost seems as if exports have expanded in spite of government actions instead of because of government policy. For example, the government insists upon pressing for corn trade agreements with Japan, and this year, with Taiwan. Such agreements, which specify both price and quantity, with price based on U.S. corn futures prices, clearly does not permit Thailand to take advantage of either the rising world demand for corn or short term price shifts.^{26/}

Proponents of the agreement cite 5 advantages to be gained. (1) Major buyers (Japan and Taiwan) are organized as groups, and therefore Thai exporters must bargain as a group, (2) Free export causes domestic market instabilities, (3) Advance agreements assure a steady market for corn production and therefore stimulate production, (4) Thai exporters traditionally have defaulted on contracts if prices change, so the agreement prevents this, and (5) Free export would result in Japanese firms penetrating the export business.

Apparently policy makers refuse to consider the facts because the agreements have tended to have the opposite effect. First, although price and quantity is set monthly by a Board of Trade -- Japan Feed Traders Association committee, a quota system for Thai exporters is included such that the market

share of any one exporter is no more than 5 percent. Actual contracts are negotiated between individual exporters and importers. The agreement therefore results in a large number of small, inefficient, exporters, each of which has little market power. The two most severe consequences are prevention of competitive forces from eliminating inefficient firms, and lack of investment in export facilities (primarily drying and silo) by the private sector because no single firm can grow large enough to accumulate capital to make the investment. The agreement essentially protects 70 exporters at the expense of 70,000 corn farmers which is inconsistent with goals, objectives, and policies discussed previously.

Second, domestic price fluctuations are a result of domestic market imperfections, chiefly lack of price and quantity information, grades, standards, weights and measures, storage facilities, and market finance. Such problems require domestic marketing programs, not an export agreement. Third, although Japan by providing a market may have stimulated production in the 1950's, the Thai corn industry has matured considerably since then. The world feed grain market, and particularly the Asian market, has expanded rapidly and faces another period of growing demand. In 1969, only 33 percent of Thai exports went to Japan, so that Japan can hardly be said to be an important influence at the present time on expansion of production. This argument also ignores the substantial efforts of the Ministry of Agriculture, Kasetsart University, and the Thai farmers. Fourth, the agreement has never prevented default on contracts. Fifth, other means of preventing Japanese firms for engaging in domestic trade would be more effective, without the negative effects of the agreement.

In summary, most of the export problems are researchable, and some in fact have already been researched. What is needed is a careful re-evaluation of specific commodity policies and programs to bring them into consistency with over-all objectives of increasing export earnings. Piece-meal procedures must give way to longer run policies.

The last policy area to be addressed has to do with the concept of "effective demand."^{27/} This concept holds that general economic growth, and in particular, the growth of specific industries, depends upon the size of the market. With respect to farming, it means that increased output somewhat depends upon whether or not the products can be sold, and at what price. Thailand, long established as an agricultural products exporter, and facing growing demands for some products (other than rice and rubber) doesn't have too many problems here. The other side of the concept holds that the growth of domestic manufacture also depends upon the size of the market for its goods. In Thailand this means that a growing agriculture can have a positive effect on non-agricultural sectors when farmers buy a lot of things manufactured and sold by the non-agricultural sectors. One of the striking features of rural Thailand is the growing forests of TV antennas that mark the villages in some areas. These rural areas have passed the transistor radio--bicycle stage and are now in the TV, honda, small truck, and tractor stage. One might call such things luxuries, but one might also call them very necessary incentives to farmers to increase their output so that they can buy them. What effect did the July 1, 1970 tax increase have on farmers' incentives? The point is that when making policy in any area, its effect on agriculture must also carefully be considered.

SUMMARY AND CONCLUSIONS

Perhaps one way of summarizing the thoughts in this paper is to say what the paper does not intend to do. It is not intended as a recipe or blue print for Thai agricultural development. There aren't any such recipes. It does not propose specific development programs, because these must be prepared to deal with specific problems following specific policy guidelines, and based upon hard data.

Neither does this paper say specifically what the policies should be. The paper deals with Thai policy, which can only be made by Thais. Only six areas of policy that deal with agriculture are touched upon. Each could well be the topic of a separate paper.

What this paper is intended to do is to suggest that agricultural productivity is not increasing as fast as it is capable of doing, and to suggest some areas in which agricultural policies must be decided upon. Thailand can indeed look to "A New Horizon", but if Thailand is going to travel the road towards it, then some crucial policy decision must be forthcoming.

The environment and the way in which the new policies are to be formulated is important. Without technical and economic feasibility, nothing will be accomplished. Perhaps administrative feasibility, particularly coordination, is most crucial in Thailand. There are many departments dealing with agriculture, and each has good ideas and good programs, but they are proceeding in many different ways. In a sense, one cannot blame the technicians, for the policy makers have often given them conflicting

and inconsistent policies, and often change policies midway in the execution of programs. On the other hand, the technicians have not given the policy makers the facts and analyses needed for policy decisions.

Finally, this paper is intended to be optimistic about Thai agriculture and the Thai economy. The Thai people are far too resourceful and resilient for one to be pessimistic. Dr. Puey asks, "Can we do it?" Drawing upon the experiences of the past 20 years, he sets one important condition to fulfill (reform the economic machinery of the Government) and then goes on to say:

"Mr. Chairman, once this reform is accomplished, I see no reason for gloom about the economic prospects of Thailand. We have been in difficulties before with much less to fall back upon, and we got out of these difficulties with some friendly foreign help; but with most of the spade work done by our own Thai people. Yes, I am sure we can do it again. I submit to you that Thailand's economic prospects should be bright and that with real determination by the Government, Thailand's economic prospects are bright."^{28/}

FOOTNOTES

- 1/ Dr. Renoo Suvarnsit, "A New Horizon" Financial Post Economic and Industrial Review, Bangkok: December 31, 1970, p. 10.
- 2/ NISID "The Economy in 1971: The Year of the Pig" Bangkok World Annual Review 1970 (Bangkok, n.d.) p. 16.
- 3/ "Crisis Threatens Thai Economy" Bangkok Post, December 19, 1970, p. 6, Review of Asian Development Bank Report, "Southeast Asia's Economy in the 1970's."
- 4/ One part of the controversy deals with increase in rice output in the Central plains. See Hsieh, S.C. and Ruttan, V.W., "Environmental, Technological and Institutional Factors in the Growth of Rice Production: Philippines, Thailand, and Taiwan". Food Research Institute Studies, Vol. 7, No. 7, 1967, pp. 307-341. See also in World Crops:
Ruttan, V.W., Sothiphan, A., and Venegas, E.C., "Changes in Rice Growing in the Philippines and Thailand", March, 1966. Trescott, P.B. "Rice Production in Thailand: Comment" (in process) Ruttan and Sothiphan, "Rice Production in Thailand: Comment" (in process)
- 5/ Silcock, T.H., The Economic Development of Thai Agriculture (Canberra: Australian National University Press, 1970), Table 8.2, p. 180.
- 6/ Silcock, op. cit., and Ishikawa, Shigera, Agricultural Development Strategies in Asia: Case Studies of the Philippines and Thailand. (Manila: The Asian Development Bank, 1970), Table 9, pp. 73-74.
- 7/ "National Income of Thailand: Revised Estimates, 1960-1969, Preliminary". N.E.D.B. August, 1970.
- 8/ Silcock, op. cit., Chapters 5 and 6.
- 9/ Land Utilization of Thailand, 1965. Division of Agricultural Economics, Ministry of Agriculture.
- 10/ Dr. Renoo Suvarnsit, op. cit.
- 11/ See particularly "The Second National Economic and Social Development Plan (1967-1971)", Government of Thailand. English translation, Introductory Remarks (by Prime Minister), Chapter I (summary) and Chapter III (Objectives and Policies of Economic and Social Development). See also annual New Year's messages by His Majesty the King and the Prime Minister.
- 12/ Cochrane, Willard W., Farm Prices: Myth and Reality. (Minneapolis: University of Minnesota Press, 1958) p. 112.

- 13/ van der Kevie, W., "Soil Landscapes and Potential Land Use in the Central Plains", Thai Journal of Agricultural Science Vol. 3, No. 1, January 1970, pp. 1-12.
- Also "Chao Phya Project Land Classification Feasibility Report", Land Classification Section, Division of Irrigation and Drainage, Royal Irrigation Department. (LCR-7, October, 1970, Bangkok).
- 14/ Rojanasoonthon, Santhad, and F.R. Moormann, "Final Report on the Great Soil Group Survey of Seven Selected Areas in Thailand". Soil Survey Report SSR-48-1966 (Bangkok: Soil Survey Division, Department of Land Development, Ministry of National Development, 1966).
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- 15/ NISID, op. cit.
- 16/ Welsch, D.E. and E.W. Sprague, "Technical and Economic Constraints on Grain Production in Southeast Asia", Agricultural Revolution in Southeast Asia: Vol. I, Impact on Grain Production and Trade. (New York: The Asia Society, 1970).
- 17/ The published research on the rice premium is too voluminous to cite. The most recent review of all the arguments will be found in Ingram, J.C., The Economy of Thailand Since 1850 (Revised Edition, in press). Ingram says that the rice premium is the most widely discussed economic issue in Thailand. Ingram accurately assesses the current trends in the world rice market and points out that market conditions may force removal of the premium. If this happens, opponents will say, "I told you so," and proponents will point out its effectiveness in diversifying agriculture.
- 18/ Several marketing margin (the spread between what the producer receives and the final consumer pays) studies have been published by the Division of Agricultural Economics, Office of the Under-Secretary, Ministry of Agriculture, Government of Thailand.
- 19/ Donner, W. and Banlu Puthigorn, "The Marketing of Fertilizer in Thailand: 1. Preliminary Economic Report" Bangkok: FAO UNDP/SF Soil Fertility Research Project in Thailand, 1970).
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- 25/ Sethakorn, "Selling Rice at Different Prices Just Won't Pay," Financial Post, Vol. 2, No. 7, (Bangkok: February 18, 1971).
- 26/ See Tongpan, Sopin, "Thai Corn Export Problems," (Bangkok, Staff Paper No. 2, Department of Agricultural Economics, Kasetsart University, August, 1970). There was growing evidence that the corn agreement with Japan was causing severe price fluctuations in the domestic market, yet a second agreement has been negotiated with Taiwan. However, the domestic prices in 1970 were more stable, for as of yet unexplained reasons.
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- 28/ Ungphakorn, Dr. Puey, "Thailand's Economic Prospects." Paper presented at the Siam Society, February 5, 1970, p. 10.

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