

Some Aspects of

Rice Farming in Siam




SITHIPORN KRIDAKARA

SOME ASPECTS OF RICE FARMING IN SIAM

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PRINCE SITHIPORN KRIDAKARA
at the Siam Society 23 April 1969



Members of the audience listening to
Prince Sithiporn's talk at the Siam Society

SOME ASPECTS OF RICE FARMING IN SIAM

BY

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HONORARY MEMBER OF THE SIAM SOCIETY



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AND THEIR CHILDREN.

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PREFACE

Mom Chao Sithiporn Kridikara is one of the most remarkable men living in Siam today. Born in 1883 the fourth son of H.R.H. Prince Naret — the eldest of King Chulalongkorn's half brothers—he is the oldest living grandson of King Mongkut. Some who realise the value of his work, call him “the father of modern Thai agriculture”.

Prince Sithiporn's early career was outstanding even for a young aristocrat at his time, but it was not entirely out of the ordinary. He was educated at Harrow and the City and Guilds Institute in London, entered the civil service in 1906, and advanced rapidly through the ranks, from Secretary of the General Advisor to the Ministry of Foreign Affairs, to Assistant to the Director General of the Opium Department, Director General of the Royal Mint, and finally Director General of the Opium Department. Entirely out of the ordinary was that the young Director General began to turn his interests away from the sale of opium (which at that time procured a fifth of Government revenues) to the study of modern agriculture. He started to read the current agronomic literature from the United States with a view to the possibilities of upland farming in Siam and eventually he decided to become a farmer.

It so happened that the adoptive parents of his wife, Chao Sribramma, a daughter of the hereditary Chief of Nan, owned a beautiful place on the sea, some 400 kilometers south of Bangkok, which provided excellent conditions for upland farming. The Sithiporns decided to make it their home and farm, obtained permission from H.M. King Vajiravudh to resign from the civil service, and moved down south in 1920, much to the astonishment of their friends and disapproval of their relatives. As the Prince once admitted merrily: “no man in his senses would have left

such a high position in the service as I did and no Siamese woman in my wife's station of life would have dreamt of leaving Bangkok with all the amenities of town life to bury herself in the wilderness as she did", adding more seriously: "but we took up farming not with the idea of becoming rich or famous but as a mode of living just like the majority of farmers the world over".

The Bangbert Farm soon became known for the high quality of many crops grown for the first time in Siam from seeds imported for trial and experimentation, including the water melon (hence called the "Bangbert Melon"), Virginia Tobacco, cantaloup and field corn. Pure-bred hogs and high-yielding layers were raised and a variety of modern farm implements and production techniques were introduced, including terracing, contouring, green manuring and rotation cropping. Just as the Prince was the first Siamese to pioneer diversified farming, so the Princess was the first woman in Siam to preserve for home use food produced at the farm such as ham, bacon and vegetables. Both of them described these and other innovations in the journal—*Kasikorn* (*The Agriculturists*) which the Prince together with some of the first foreign-trained agricultural scientists had founded for disseminating information on modern scientific agriculture in theory and practice. Prince Sithiporn, as editor, wrote in addition a series of articles criticising the Government's policy of rice monoculture and urging greater attention to diversification to crops other than rice.

Governments are slow to take up new ideas and change established policies unless the pressure of circumstances becomes over-whelming. For many years, Prince Sithiporn's ideas about modern scientific agriculture and diversified farming went unrecognized in official circles; perhaps they were too advanced for the times. The situation changed suddenly during the Great Depression when rice prices fell with disastrous effects on the rice sector of the economy. In 1932, he was recalled into the civil service as Director General to reorganize the Agricultural

Department with special attention to non-rice crops. Three experimentation stations for upland crops were set up at once, one for each region of the country and each headed by one of the three associate founders of *Kasikorn*. The experience proved to be short-lived, however. In 1933, the Revolution broke out and Prince Sithiporn became a political prisoner for eleven years. The Princess managed initially to carry on farming at Bangbert on her own, but during the Japanese occupation she was forced to cease operations, and the farm became overgrown with weeds.

After the Second World War there was an amnesty for political prisoners and, following the coup d'état which overthrew the Government, Prince Sithiporn was asked by the new Government to serve as Minister of Agriculture. He accepted and initiated immediately a vigorous campaign against rinderpest which for lack of veterinary services during the War was ravaging the country's buffaloes. To silence some critics and show that his appointment was approved by the people, he became a candidate in the general election of January 1947 and was duly elected as Member of Parliament for his home constituency of Prachuabkirikan. But the Prince fell again victim to the vicissitudes of Siamese politics. The coup of April 1947 deposed him as Minister and four years later, when the Constitution was suddenly annulled and Parliament dissolved, he also lost his seat and retired from public service for the third time in two decades. Between these two events, the Prince served as elected Chairman of the newly-created International Rice Commission for three consecutive terms. The Sithiporns worked hard for the rehabilitation of their farm during the following years, but owing to advancing age, illness and other difficulties, they found eventually the task to be beyond their energies and means. They sold Bangbert and moved to Hua Hin where they are now growing grapes and other fruits on a small holding of two hectares. The Prince has meanwhile spent a great deal of his time helping rice farmers to better their lot. He has written innumerable articles advocating the interests of rice farmers.

In 1967, he was awarded an Honorary Degree by Katsetsart University and later in the same year he received the Magsaysay Award for Public Service, which enabled him to initiate a fertilizer demonstration project under the auspices of the National Freedom From Hunger Campaign Committee, in which 500 farmers have participated actively under the supervision of members of the National Committee of the Farmers' Groups. With the help of funds provided by the Australian Freedom from Hunger Campaign Committee, Prince Sithiporn hopes that this Project will continue for two years more, one in which he will continue to take an active part.

This collection of papers includes some of Prince Sithiporn's most recent writings on the state of rice farming in Siam. It contains the text of a talk entitled "The Past and Present Status of Siamese Rice Farmers" given at the Siam Society on April 23, 1969 (Part I), followed by a series of short technical papers developing in greater detail and precision major threads of the argument (Part II). Next comes a collection of statements of some of the foremost authorities on the Siamese rice economy along with Prince Sithiporn's comments (Part III). The book concludes with an essay on the future of Siam's exports of rice (Part IV).

The major theme of all of these papers is an analysis of the effects of the rice premium on rice farming. The argument is, briefly, that the premium (an export tax on rice) depresses domestic rice prices and therefore farm incomes. The result is seen to be both socially unjust and economically undesirable since the premium entails a redistribution of income from the poorest segment of population—the rural producers—to the richest segment—the urban consumers—and also a disincentive to farmers to raise output through the application of modern inputs such as fertilizers and pesticides. Considering these and other factors, Prince Sithiporn pleads for reducing the premium. Most of the economists who have studied the current Government's rice policy

have pleaded the same before, but none has argued the case so eloquently, with such a wealth of information and deep social commitment, as the Prince has done in this little book.

Looking back over his long life, Prince Sithiporn is fond of saying, "People are giving me awards and honours but they don't listen to me". At this critical point in Siam's history, when a continuation of Government rice policies are bound to spell disaster for rice farmers and the economy as a whole, one hopes against caution that the Prince is listened to and his advice is taken.

Hermann Hatzfeldt

PART I

THE PAST AND PRESENT STATUS OF SIAMESE RICE FARMERS

Introduction

I feel honoured that this Society has invited me to give what the invitation designated as a "lecture". The term "lecture" I do not like. I belong to a generation which is an ignorant and an uneducated one compared with the generation present here tonight. It would, therefore, be the height of immodesty for me to presume that I can lecture anyone, least of all the present audience of intellectuals. I cannot pretend to have had the same benefits of a university education or theoretical knowledge. Whatever knowledge I do have, has been acquired not from universities but from the school of experience. This has its uses because knowledge gained from experience is practical while knowledge gained from the institutions of higher learning is theoretical and the twain do not always meet, especially in the field of agriculture.

This will not be a lecture, therefore, but a talk about some parts of our agriculture, prepared from knowledge gained by experience with the help of various documents and publications which have been sent to me by various people, some of whom I have never met. To these people I would like to extend my warmest thanks, not only from myself but also on behalf of our farmers, because in sending me these documents I like to think that they did so because their sympathies were with the farmers. This is not to say that I shall overstate the case for the farmers, for although I am not a scientists, I have tried to cultivate a scientific mind to consider every problem objectively without bias, and to understate rather than overstate.

When it was suggested that I give a talk on "The Declining State of the Siamese Farmers," I demurred because it was not strictly true to say that the status of all Siamese farmers has declined. On the contrary, if the word farmer applies to all those depending on agriculture for a living, it will be found that farmers growing perennial crops such as coconuts, fruit, rubber and upland crops, have all enjoyed unprecedented prosperity. For instance, at one time in the past, coconuts normally were sold by the producer at 5 satangs each, but they are now selling at 1 baht each and sometimes more. One owner of a coconut plantation that I know enjoys an income from coconuts to the amount of 100,000 baht on which he pays income tax of only 500 baht. Pineapple growers with sales of 30,000 baht pay 150 baht income tax. Upland crop farmers who in former days grew hill rice and a few other crops purely for subsistence, are now growing peanuts, corn, cotton and other crops on a scale they never did before with a tax burden of 50 baht per 10,000. They can also sell their produce at the highest price they can get both for internal consumption and export. With high prices and low income tax (which, incidentally, some do not pay at all because they do not declare their income) these farmers are not in a declining state; on the contrary have made great progress.

By contrast, the great majority of our farmers, the rice farmers, cannot sell their produce at the best prices they can get, that is, world market prices. Domestic rice prices are depressed below world market prices by the rice premium system, an export tax. The implicit tax burden on rice farmers is 44 times higher than the tax burden on their fellow farmers growing other crops. It is equivalent to an income tax rate of more than 21% without any deductions. This tax rate is the same as the effective tax rate applying to an average household with an annual income between 100,000 and 150,000 baht after allowed deductions. In other words, a typical rice farmer is taxed, in absolute terms, 44 times more than an equivalent non-rice farmer,

and, in relative terms, just as much as other income recipients earning ten times more than he.

To dispel any suspicion that I may be guilty of an overstatement I have submitted Appendix Paper No. 1, to show how I have arrived at these conclusions. Figures are of course always open to correction, and I shall be glad if anyone will point out any errors. If I am right, however, it is no wonder that an American economist has described our rice farmers' tax burden as "staggering". More than that, it is a piece of gross social injustice which is against the spirit, if not the letter, of the "Universal Declaration of Human Rights" adopted by the United Nations which says that "everyone, without discrimination, has the right to equal pay for equal work" and "everyone who works has the right to just and favorable remuneration." Is it not "discrimination" when rice farmers are made to pay comparatively higher taxes for the same lines of endeavor? And can it be called just and favorable remuneration when all other farmers can sell their products at the most favorable prices, while rice farmers cannot do so? It should be noted that in the discussions about the pros and cons of the rice premium, this social aspect has not been considered at all. Our rice farmers are treated as the buffaloes they employ rather than as human beings with human rights.

For the above reasons it is reasonable to expect that the state of the rice farmers has declined, but in order to have a clear understanding of the subject, we must have some yardstick with which to measure the amount, if any, of the decline which has taken place. I have asked, therefore, that the topic of my talk should be "the Past and Present Status of the Siamese Rice Farmers". In other words the question is: are Siamese rice farmers better off at present than they were before? To be sure our country has made tremendous strides in economic progress, visible to the naked eye in the form of roads, dams, hotels and buildings going up, and cars filling the roads of Bangkok and

nearby towns. But does all this represent true progress for the people as a whole or may it be compared to a beautiful front lawn and garden with a dirty backyard? How do these visible signs of progress affect the status of 75% of 80% of the people, the rice farmers? I hope that what I am going to say in the course of this talk will throw some light on these questions.

Background

First of all, I think it may be of interest to say something about the past as background to show the base on which our economy has been built by the work of our farmers. We have seldom paid them due credit, as did one of our former foreign financial advisers, Mr. Doll, who said in one of his reports that "the debt owed by the country to its peasants is incalculable." And the debt we owe stems from the fact that by great good fortune or the wisdom of our forefathers. In this country we have never had a feudal system in land but only in men. This may not sound much but the implications will be seen if we compare conditions in Siam with the feudal system in the Western countries such as England, where there was a feudal system both in land and in men. This began when William the Conqueror bestowed great tracts of land to his adherents, which became huge estates and the personal property of the Barons of England, whose vassals tilled the soil. For protection by their overlords they had to hand over in return part of what they produced in the form of rents. Not allowed to leave the land, they became serfs or practically slaves to their lords and masters, who became rich and lived a life of ease.

In this country our forefathers were more liberal minded; they made no claims on the land and made no personal gains from it, because in theory all the land belonged to the King. There was thus no feudal system in land, as in England, where huge estates remained in the hands of certain families for generations. Our feudal system in men meant that groups of families were assigned as retainers to princes and noblemen, according to their rank, and these retainers had to give their services in rotation, for instance, as household servants. I confess that, not being a historian, I

don't know on what principles these retainers were assigned. In the case of my own father, as his mother was a Mon, his retainers were all Mons, mostly from Pakret and Paklat and as a boy nearly 80 years ago, I saw the last vestiges of this system in practice before it finally disappeared. As it had only a slight social impact, I will not dwell on this aspect of the system. Rather, I will consider the economic aspects which were far reaching.

In theory all the land belonged to the King, but in practice everyone enjoyed squatters' rights, that is every man could clear as much as his family needed to grow rice. The land became his property to do with as he liked without having to pay rents to any one, except to the King in the form of a light land tax. Every rice farmer was a freeholder and a Thai in the true sense of the word. Even up to the end of the World War II, 84% of rice farms still were held by the farmers themselves. The consequence has been a steady expansion in our rice farms in accord with the increase in population, at first perhaps mainly for subsistence, but when rice became a commodity for export, the rate of expansion increased in accord with population's growth and world prices. For instance, after World War I when prices were high, there were 1.5 rai* per head of population; with the depression of the 1930's the ratio sank to 1.3 rai per head, and after World War II when there was a rise in prices relative to those prevailing after World War I, the ratio went up to 1.6 rai per head of population. At present the ratio is officially 1.4 rai per head.

Actually I believe the present ratio is higher than 1.4. Although paddy prices have been kept depressed by the premium, the new lands being opened up for cultivation are exceedingly fertile, yielding 50 tang* per rai and more, double the national average. Some of these lands were formerly inaccessible, such as at Petchabun where yields of 60-80 tangs per rai are being obtained. With better water control lands formerly flooded to excess,

* 1 rai = 1600 square metres

1 tang = 20 litres

as in Pitsanuloke, are being brought into cultivation. Also, fertile land approaching the foothills and reserved forests is being opened up, illegally no doubt, by the growing population searching for places to live and make a living on. What is taking place is, therefore, just a continuation of what our rice farmers have been doing all along. That is to say, our rice farmers have followed unconsciously their own development plan, and not the Five Year Plan of the National Economic Development Board, which was to increase rice production to 12.15 million tons by 1971. Well, the people produced 13.5 million tons already in 1966, regardless of what the NEDB required of them.

It seems to me, we have been living in a sort of Fools' Paradise, thinking that increased production has come from modern methods, the so called *modernisation*, when in fact increased production has come mainly from our farmers' efforts just as in the past. For how otherwise can one account for the fact that we have been exporting more rice than the Rice Department's figures of rice production? In the years 1965 and 1966 rice exports were higher than the estimated production to the amount of over 1 million tons of milled rice a year, which is equivalent to 1.5 million tons of paddy a year. Where did it come from, but from the expansion of holdings? In the following year, figures for the production in 1966 were even more doubtful and confusing. The Rice Department's estimate was 11.84 million tons, a figure adopted by other institutions, such as the NEDB, while the National Statistical Office estimated production at 13.5 million tons, and this figure was used to determine the amount available for export. Both estimates turned out to be wrong. For if the Rice Department's figures were taken as a guide, we would have had no rice left by the end of 1968. On the other hand, the National Statistical Office's forecast for a carry-over of 575,000 tons was also wrong. It turned out to be 1 million tons or even more according

* 1 kwien = 1 metric ton

to the NSO's own data. As a result, with restrictions on exports, there was a glut of paddy in domestic markets bringing farm prices down to 800 baht per kwien, the poverty level.

What I have said lights up the fact that we are still depending on the traditional methods of producing rice. The modern methods so often trumpeted about have had very little influence in increasing production. Millions have been spent, and are being spent, on research, but the results cannot be applied as long as paddy prices are kept down below where the use of fertilizers becomes economically justified. In the discussions regarding the premium, this aspect of increasing crop production has never been considered. And it is a very important aspect indeed for it affects not only our farmers but everybody. Without increasing crop production, the prediction of some that we shall soon have no exportable surplus, may come true soon. The reason is that our traditional method of increasing production by expanding the area under rice cultivation cannot go on forever as arable land is limited. It will be imperative in the future that we increase crop production per land unit by the use of modern inputs such as fertilizers, pesticides, or improved seeds. But changes in agricultural methods take a very long time before they are accepted as general practice by all the farmers. So we must begin now to teach farmers the proper use of fertilizers etc and also increase their incomes so that they can afford to buy these inputs. In other words, the present status of our rice farmers must be improved, as there is a definite decline from their status in the past, as I will now try to show.

Post World War I and II Conditions Contrasted

In the post World War I period our farmers got off to a bad start. A year of excessive floods, followed by one of extreme drought, lowered internal stocks so much that all rice exports had to be forbidden. In the meantime, world rice prices had risen sharply. Since, in the absence of a premium, internal and external prices were on the same level, farm prices for paddy rose from about 50 baht per kwien to 90-100 baht per kwien. At that time, since import duties were restricted by treaty to 3%, our farmers were in the happy position of buying consumer goods at low prices and selling their product at high ones. The result was prosperity. Most important, our farmers had cash to spare. Some even bought Model T Fords. About that time an energetic young man, Thien Lai of the Kernasut family, began pushing the sale of small Fairbanks Morse engines to drive the dragon wheel pumps (*rahad*) then in general use, and they caught on! Groups of farmers used to come into town totting bags of baht coins and paying down cash for these engines. For in those days there were no 1 baht notes and those of higher denominations were disliked by the farmers. They kept their savings either by burying baht coins in the ground, which of course would be risky to do with paper money, or by buying gold. During this period there was thus a steady import of gold with a total of over 12 million baht added to previously accumulated savings.

All these things were surely an indication that our farmers were well off. They were in a position to invest their savings for increasing production by using fertilizers. At that time this was, however, an impractical proposition, because the cost of fertilizers was so high in relation to paddy world prices, that there was no profit from their use. This, incidentally, was the case throughout

the pre-World War II period. Nevertheless, farmers continued to thrive and buy gold until disaster struck. With the Great Depression of the 1930's, they lost all their savings as shown by 76 million baht worth of gold exported in the thirties. It was a sad time for our farmers, but it would have been much worse, if they had no savings to fall back on.

The years that followed were hard ones, and that they managed to survive was, I think, due to the fact that most of them owned their own land. Hard times became even worse during World War II years, when large areas went out of production altogether. The end of World War II found the whole world short of food and rice prices rose to fantastic heights. Rice importing countries like Malaya had to ration rice for their consumers, which meant control of imports, and Government-to-Government sales of rice. Our Government took advantage of this situation. By keeping internal prices low it was able to obtain large profits in the form of revenues. In spite of this, farm prices were still high enough to cause a large expansion in our rice production as previously mentioned, and our rice farmers enjoyed a brief period of prosperity. If this situation had continued, they would surely have recovered from their losses incurred during Depression years and could have made savings as they did in the past. But it was not to be.

In the fifties, the profits from Government-to-Government sales were replaced by an export tax, the premium. If the latter had been adjusted so that farm prices were high enough to cover production and living costs, and then gradually phased out in conformity with falling prices in world markets, the rice farmers would now be prosperous. But the Government took a rigid stand, maintaining the same premium rate in spite of falling prices. Simultaneously, with the advent of industrialization, import duties were increased to protect industry. At the present time, our rice farmers are, therefore, in the unhappy position of having to buy consumer goods at high prices and sell their product at lower than

world prices, the very opposite of their happy position after World War I.

What have been the consequences in the sixties? Towards the end of the First Six-Year Plan, the NEDB proudly announced that achieving the objectives of the Plan would raise the average per capita income level to a height of 2,500 Baht. But on January 1, 1966 the Committee set up to help the farmers under the Chairmanship of the Prime Minister, published a booklet in which it was stated that rice farmers or 80% of the population taken as a whole were very poor! How could these seemingly contradictory statements be reconciled? Simply by analysing the GNP figures and finding the average per capita income of the farming population was 1,030 baht while that in other occupations was 8,333,—7 times that of the farmers. Since the figure includes farmers producing high-value crops at full market prices, it follows that the per capita income of rice farmers was even lower. Is it any wonder that they are poor?

Whatever may be said for or against the premium, no one will deny that it has kept down farm prices below world prices and thus made the farmers that much poorer. What the proponents of the premium do deny is that the farmers will increase their incomes by eliminating the premium, because the consequent increase in the internal prices will be absorbed by the middlemen. An account will be made of recent past events to see if this last assertion is true or not.

Poverty Conditions

To begin with, what made the Government realise that the rice farmers were very poor? When in 1965 paddy prices fell to 800 baht per kwien, the Farmers' Groups appealed to the Prime Minister for the remission of the premium to raise prices. The matter was referred to the NEDB for consideration. In the meantime I began writing a series of articles in the English and Thai press in one of which I said that the premium was a bar to progress, in that it prevented the use of fertilizers to increase production at the present price of 800 baht in the Central Plain and 600 baht in the Northeast provinces, because there was too little profit with the fertilizer prices of 3 baht per kilo.

At the FAO Conference held in Rome in November 1965, the Head of the Thai Delegation, the Minister of Agriculture, made the statement that "rice farmers do not generally apply fertilizer in their fields because of high fertilizer paddy price ratio." This meant that the price of paddy was too low to yield a good profit. The indication seemed to be that the Government was not interested in increasing yields by the use of fertilizers if this also meant raising paddy prices. In other words, keeping paddy prices down seemed to be more important than increasing yields. This was confirmed when the NEDB reported without giving its reasons that the premium could not be eliminated as requested by the Farmers' Groups but that 10%-15% of the premium be allotted as a special fund to help the farmers, chiefly by increasing their incomes by increasing yields through the use of fertilizers. However, as no alteration was made in the premium, paddy prices would have to remain at 800 baht as before.

To make the use of fertilizer profitable, the quality of the fertilizer had to be lowered instead and sold on credit at the cost price of 2 baht per kilo, that is lower than the market price of 3 baht per kilo for fertilizers which were found by experiment to give the most profitable yields. In short, the results of scientific research were discarded to suit the policy of keeping down paddy prices, a mistake which will take a long time to correct. However, it suited the expediency of the moment. Under the new arrangement, with an investment of 30 baht per rai, and an expected increase of 10 tangs per rai, the profit per rai would be 50 baht for the Central Provinces and 30 baht for the Northeast. This amounted to a tacit agreement of the fact accepted by agricultural economists that farmers must get a return of at least a 100% increase in profit before risking investments in fertilizer use. Some even say that without irrigation facilities the expected increase in profit should be 200%.

However, all this help was and is a sort of camouflage, high sounding and all that, but confined to farmers' institutions who form less than 10% of the farming population, so that over 90% do not get any help at all. However, one measure of help did apply to all, and that was the assurance that they would get no poorer by a guaranteed support price of 1,000 baht for rice delivered to Bangkok, a mark up of 200 baht from the farm price of 800 baht. NEDB documents show that this was arrived at as follows:— Labour and transport 85 baht; Taxes 27 baht and middlemen's profits 85 baht; making a total of 197 baht. This indicated that at that time the Government was ready to buy paddy brought by anyone at the support price. However, the support price was to be enjoyed by farmers' institutions first before it would be extended to the rest of the farming population. This rather ambiguous condition was to lead to trouble and confusion later on.

The support price of 800 baht was arrived at by the Farmers Help Committee as follows. "The support price must be

appropriate to the circumstances giving a reasonable price to the farmer but it must not be too high as to increase the cost of living. The price was, therefore, fixed at the highest price obtained during 1963 because it was a reasonable price and higher than the early season prices for many years and was satisfactory to the farmers all over the country."

This last statement is opened to doubt and contradictory to the facts. It was because paddy prices had fallen to 800 baht that the Farmers' Groups had appealed to the Prime Minister, showing that they were not satisfied! The Farmers' Help Committee also found that the rice farmers were very poor. In other words, at the 800 baht level the farmers were very poor and all the support price did was to prevent them from getting still poorer. That is why I call the 800 baht the poverty level. When the policy makers consider it "reasonable" they must mean that it is a reasonable level of poverty, below which would be an unreasonable one, leading to many undesirable effects, such as growing less rice or stealing more buffaloes. For, as every sociologist knows, poverty leads to crime.

It would be incredible to suppose that NEDB or whoever sets the policy was unaware of the fact that 90% of the farmers would not receive any help at all from the Help the Farmers' schemes. One is forced to the conclusion that the real policy was to keep the poverty level at 800 baht. Since at this level 90% of the farmers cannot make enough profit from the use of fertilizers, one must suppose that increased production from their use was not a part of the agricultural policy. What then was the object of this policy?

The reason for keeping paddy prices down given in the *Help the Farmers'* booklet was to prevent the cost of living from going up. So what it all amounts to is that 80% of the population who are poor have to provide a cost of living subsidy for the 20%

who have incomes seven times greater. In other word 80% are to be kept poor in order to keep the 20% rich. This is a continuation of the policy of the First Six-Year Plan. I suppose rice buyers will approve of this policy and, by proxy, the Bangkok newspapers who always raise a clamour whenever the price of rice goes up. But is it also good policy to restrain increased rice production by inhibiting the use of fertilizers? I leave this point for the consideration of this audience, whose members are rice buyers.

Rise in World Prices

This policy of keeping the farmers poor would have succeeded up to this day, if it had not been upset by an unexpected rise in world prices. It is perhaps sad to think of it, but what was a great misfortune for the people of India became a piece of good fortune for our rice farmers. Two years of drought in India lowered the world production of rice and coupled with the increase of population made the demand for rice greater than the supply and sent prices up and up for three years. The export price of Thai rice in 1965 was £47 to £48 per ton and rose to £60 April 1966. This increase was reflected in farm paddy prices which rose from 800 baht per ton in 1965 to 1200 baht in April 1966, the turning point as it were from poverty towards better times. It was subsequently shown by an increase in the cultivated rice area of 5 million rai more than in 1965, when the cultivated area had gradually fallen to 40.6 million rai. There was also a substantial increase in the use of fertilizers.

Prices continued to rise throughout the year and farm prices rose to 1,400 and in some instances to as much as 1,600 baht per kwien at the end of 1966. Foreign demand continued to rise until it was feared that not enough rice would be left for internal consumption and the export of rice was prohibited till the new crop. These events definitely invalidated the claim that the premium was a benefit in that it stabilized the internal price of rice, which it did not do, or the claim that it acted as a break to control the amount of rice exported, which it did not do either, for export had to be entirely prohibited in spite of and without regard to the premium, as was done in 1919 when the rice premium did not exist.

In the meantime, Government propagandists got to work, broadcasting that the price support policy of the Government was

helping farmers get a price of 1,400 for their paddy. This, of course, was nonsense, because the real cause of high prices was the increase in world prices, which the premium failed to control and this increase was really against Government policy of keeping down rice prices for the consumers. The other side of the picture was shown in Bangkok, where consumers' prices for rice had gone up from around 30 baht per tang to over 40 per tang, and the newspapers were making their usual noises and clamour, asking why prices were so high and all the rest of it. The first excuses were that shortage of rice in the country had sent prices up, but as consumer prices had been climbing for some time before the end of the year this did not sound very convincing. It was finally admitted, therefore, that a mistake had been made in keeping the premium at a fixed rate, and promised that next year rice prices would return to normal by fixing the premium rate according to the export price. So when rice exports were resumed the premium rate was fixed at 30% of the export price. But this did not work either for when world prices went up, internal prices also went up because the 30% rate was not high enough. This is shown in Appendix Paper No 3. So the next step taken was to fix the premium rate at the beginning of each month but this didn't work either, because before the end of each month the world price had gone up again and so it became a race between world price running ahead and the premium trying to catch up and never quite succeeding. The fact was that the Government failed to find a formula to set the premium at a rate which would keep the domestic price stable, one of the benefits which the premium was supposed to attain. And it was the most fortunate thing in the world for our rice farmers, for even as early as the end of February of the year 1967 the farm price had risen to 1,400 baht per kwien. Our farmers enjoyed another year of high prices; demand for fertilizer for application on rice cultivation soared to 80,000 tons. Though this is very little compared with the total area, it did show that our farmers are responsive to price increases.

Since the premium had failed to keep the farmers poor and prevent them from becoming richer, it was perhaps fitting that it should also be used to reward the rice merchants who served the farmers and the rest of the community, by buying and holding for future use the paddy sold by farmers in the first half of the year. These are the stock-holders, in Siamese "rice hoarders", who are generally regarded in a bad light as greedy gougers of the farmers. But they do render the service alluded to and should, therefore, be rewarded in the form of profits, otherwise they could not carry on the business. The question is whether their profits are excessive or not. This depends on circumstances.

Last December one of the local English newspapers reported the ideas of "one of the largest rice exporters" who said among other things that "elimination of the premium will not help farmers to earn more from their paddy, but will provide a means for traders to make more money." He also said that the rice trade in Siam is a "free trade." The first part of this statement is partly true but the second one is not. I have shown above that a rise in internal prices is reflected in farm prices, but this benefit will be enjoyed by the farmers only as long as the paddy is still in their hands. From October onwards most of the paddy is held by rice traders, the stock holders, and any rise in the domestic price will accrue to them and not the farmers. Now if the rice trade is really free, then from October onwards the stockholders will begin to get rid of their stocks at the best prices they can get before the new crop comes in and prices begin to fall. However, stockholders have to compete against each other in selling their stocks. Their profits will be determined by the supply and demand situation and will not be excessive. But in our situation, the trade is restricted by the premium, and the stock holders' profits are not determined by supply and demand but by the amount of the premium. If the premium rate is high, the stockholders' profits will be low and vice versa. At the end of 1967, the authorities were for instance very generous to the stockholders as shown in Appendix Paper No 3.

The figures in this paper show that if stockholders had bought paddy at the median price of 1,400 in 1967 (with price and premium rates as of July) they would have made a profit of about 59 baht per kwien. But when in October prices rose by 350 per kwien and the premium was not raised in the same proportion, the stockholders had the opportunity of making about 300 baht profit per kwien, which may be considered excessive. From October 1967 to January 1968, Customs figures show that rice exports totalled over 260,000 tons equivalent to nearly 400,000 tons of paddy at a profit of 300 baht per kwien which made a total of 120 million baht. This is a nice profit for the stockholders, who are criticised for making excessive profits. But if such generous opportunities are opened for them, can one blame them? They are businessmen who would seize any openings for profit like all businessmen the world over.

However, according to newspaper reports, towards the end of January 1968 the Prime Minister apparently sensed that there was something wrong and ordered that the premium rate should be raised as the rice merchants were making excessive profits. But by March 1st, when the premium rate was increased from 1570 to 1970 baht per ton, it was too late for they had already got away with 120 million, and it was like locking the door after the horses had been stolen. The farmers were not helped at all. The new crop had come in and the increased premium only served to lower paddy farm prices, which was just what the Economics Ministry wanted, as they seemed determined to get the price down to the 30 baht per tang level to lower the cost of living for Bangkok citizens. In addition to raising the premium, they clamped down on rice exports, that is, instead of exporting 600,000 tons in the first four months as in the year before, the amount was reduced to 300,000 tons. This caused a glut of paddy in the country and brought paddy prices down to 1,100-1,200 baht per kwien and of course rice prices for the consumer went down too.

In this way the aim of the Economics Ministry was achieved, but its objective, namely to bring down the cost of living, was a dismal failure. When domestic rice prices reached its peak of 50 baht per tang in August-October of 1967 the consumer price index had risen from 103.8 in 1965 (the poverty level) to 113.9. But when the domestic price was lowered by the Ministry's efforts, the consumer price index actually went up to 116.4 in June of 1968 and leveled off to 114—115 for the rest of the year. This shows that the outcry that high rice prices will increase living costs is only partly true. Many other factors are involved, such as the price for pork. High rice prices should not be made the scapegoat receiving all the blame.

In the meantime, the policy of depressing domestic prices by restricting exports had a disastrous effect on the export trade. Importers in our usual markets, Hongkong, Singapore, etc., could not get sufficient supplies from us, they had to look elsewhere and imported rice from America and Mexico. The result was hard going for our exporters, especially because of the high premium. Exports during July—September were much less than the year before. Meanwhile stockholders were no doubt stocking up at the low prices of 1,200 per kwien waiting for the moment when the premium would have to be lowered to get the export trade going. And, of course, they were right.

An editorial in one of the newspapers expressed surprise that a spokesman of the Economics Ministry had stated on the 30th September that there would be no lowering of the premium. On the very next day, 1st October, a lower rate of premium was announced by the Ministry. The results are shown in Appendix Paper No 4. It can be seen that while the export price of milled rice products obtained from 1 kwien of paddy had risen by 200 baht per kwien, the premium rate had been reduced by 200 baht per kwien. So the stockholders were given a chance to make another "killing" and rice exports which as a rule are low in October and November, rose to over 248,000 tons, — slightly less

than the amount exported in July—September. This would be equivalent to over 300,000 kwien of paddy, exported during the fourth quarter of 1968 with profit about 90 million baht, which is not so bad.

The Prime Minister did not have to intervene this time. World prices slumped from 90 to 80 per ton wiping out stockholders former profit margins. One must imagine that they were now unwilling to sell. On top of this, some importing countries have become exporters and others are achieving self sufficiency. Instead of there being a seller's market as during the last three years, it is now a buyer's market, we shall have to compete in world markets as never before. Our paddy carry-over, estimated at more than 400,000 kwien, which is sufficient for providing for 300,000 tons of rice exports, was deliberately restricted. It has served no purpose whatever except for bringing the status of the rice farmer back to the poverty level of 800 baht. If that was the objective, it has been achieved at too great a cost, in lost foreign exchange to the tune of 800 million baht or so, and in the infinity of trouble that is going to ensue in finding foreign markets for our rice, the life blood of our economy. Indeed the trouble has already begun.

Fall in World Prices

To begin with, one of the benefits claimed by economists of the Ministry for the premium is that it will help us compete in world markets: if world market prices should fall, the premium rate could be lowered to meet the fall in price, thus helping us to sell more rice. Well, this has happened: the world price has fallen. Why is the premium rate not lowered? Apparently because the rice exporters are against it. For it was reported that two prominent members of the Rice Exporters Association said that "lowering the premium would not enable us to sell more rice," and urged the Government not to lower the premium. But lowering the premium would surely increase profits on exports, and yet we find the extraordinary spectacle of businessmen refusing to make more profit! There must be a catch somewhere.

I would guess that the answer can be found in the complaints that exporters are undercutting prices. But this is surely what we want, for it is only by competition that the proper level of prices can be attained in relation to supply and demand. What the Exporters Association want is, therefore, a cartel or monopoly, to prevent competition from traders who are not members of the Association. And it must be surmised that the reason they can still stay in business, is because the rebate of £ 2 a ton to foreign buyers has been put into practice again. Long standing exporters and foreign importers have had business relationships for a long time, and they may well agree to share this rebate as a temporary measure before things get more settled. That, I suggest, is why they don't want to have the premium lowered, for to do so would allow other traders who do not share the rebate to compete against them.

If what I suggest is correct, then I think it represents a danger to the country's economy. Monopolies always act in restraint of trade, and to put the power of controlling prices in the hands of a few men cannot be in the public interest. In the U.S.A., this could not, of course, happen, for the Anti-Trust Division of the Justice Department would at once go into action. With us we can only hope that the Government will think again before allowing such a dangerous monopoly to become firmly established. There used to be complaints that our trade and commerce were monopolised by foreigners at the expense of the Siamese people. Well, does it improve matters, if the most important branch of our trade and commerce is to be monopolised by a few Siamese at the expense of their fellow Siamese? I think it makes it even more deplorable.

As it is, exports are being held up because the Government would not lower the premium and the Exporters Association would not lower prices. The reason given seems to be that we must preserve the high reputation of Siamese rice. According to the words of a shining light in the Economics Ministry, "to lower prices might make world buyers mistakenly think that the quality of Thai rice is not as high as those from other countries." I would like to think that the quality of our rice is already well established enough to make buyers eager to buy more if the price comes down. If, for instance, Rolls Royce in face of competition lowered prices, would that mean people would think quality had been lowered? On the contrary, I think that more people would buy, for they would know that a good thing was going cheaper. But of course the Rolls people are clever business men and will produce only enough cars for their market of the very few rich people who can afford to buy them, and leave the cheaper cars to be made by others. So with our rice trade. If the Exporters Association thinks our highest quality rice is a Rolls Royce amongst other rice varieties, then keep the premium and the price high for the highest quality. But like cheaper cars we have plenty of lower qualities or can make them lower, on which

premiums and prices can be lowered, indeed must be lowered in order to compete in a buyer's market. Otherwise we shall not be able to get rid of our rice, of which we shall have a surplus of 3.34 million tons. If 600,000 tons are to be kept as a reserve this year as during last year, this would leave for export 2.74 million tons of paddy or 1.8 million tons of milled rice. It should be noted, however, that exports for February-March this year are only 93 and 79 thousand tons, respectively; when they should be about 200,000 tons a month as in former years. The prospects, therefore, look pretty gloomy.

What has all this had to do with the status of the rice farmers? Very much indeed. Because of the mistakes and muddles we have got into, there is a glut which has brought farm prices to the poverty line of 800 baht. Now, as a result of the high prices beginning in 1966 and a survey made by the NEDB to find out the production cost of rice, the NEDB recommended that the support farm price should be at least 1,150 baht per kwien, but the support price in Bangkok was set by the Economics Ministry at 1,200 baht and as a special inducement 1,300 baht per kwien for the highest quality rice. As previously mentioned, the mark-up from farm to Bangkok was estimated by the Help the Farmers Committee at 200 baht per kwien. The support price set by the Economics Ministry was hence equivalent to a farm price of 950 baht, which is lower than the production cost of 995 per kwien according to the NEDB. But with the fall in world prices and glut of rice bringing the internal price down, traders offered only 800 baht, while the Government was unprepared to fulfill its original commitment under the Help the Rice Farmers' campaign to buy rice offered by middlemen in the usual way. They relied on what might be called the escape clause that rice must be brought for sale to Government by those who produced it.

This provision caused infinite troubles to the wretched farmers, most of whom had only 2-4 kwiens of paddy to sell and

lacked the means to transport such small quantities economically to the Government buying centres. Some manage to pool their paddy and hire boats to transport it, after receiving documents from the local authorities endorsing that the paddy had been produced from their own farms. Needless to say, procuring these documents entailed considerable trouble and delay. The next steps can be imagined by learning from a Government broadcast what happened in the case of a farmer from Pichit. He first had to come down to Bangkok with a sample of his paddy to be priced by officials of the Economics Ministry. The price was set and he was told to deliver his paddy to the Government buying center at Saraburi, and that 40 baht per ton would be deducted to allow for the cost of transport from Saraburi to Bangkok. He travelled back to Pichit, hired boats to bring his paddy from Pichit to Saraburi, which must have cost him another 60 baht per ton. After delivering his paddy he had to come down to Bangkok to get payments, before finally travelling home to Pichit, after spending considerable sums for travelling and living expenses, not to speak of time wasted in waiting around Government offices.

Some Misunderstandings

All this trouble and misery could have been avoided if the Government had not depressed prices in the way it did, ostensibly to keep down living costs. However, it is no good crying over spilt milk. We should now see what should be done and here I would endorse the suggestion made by the Bank of Thailand in its last Annual Report, which said "revise the rice premium system in such a way as to allow the domestic price of rice, particularly that of paddy, to rise gradually to such a level that would raise the income of farmers enough to encourage them to make increased use of fertilizers and grow more rice. At the same time, the domestic price of rice to consumers should not be allowed to become unduly high."

The question is what should be the price that will raise farmers' incomes to the point where they will use fertilizers? And what price would be unduly high to consumers? This is what I will try to examine. Incidentally, the way to meet higher living costs by raising wages is never considered, although it would conform to the professed objectives of the new Five-Year Plan, which is for "a more equitable distribution of incomes." This is also a sort of camouflage, for analysis of the projected per capita income of 3,500 baht will show that the per capita income of agricultural workers will be 1,226 baht while that of the rest will be 10,380 baht. As compared with the First Plan, the gap between their respective incomes will be widened so that there will not be a more but a less equitable distribution of incomes. Comparatively, the status of rice farmers will decline and they will not get a fair share of the results of the great economic progress, which is so consistently stressed.

Before going into the subject of the actual prices farmers should receive, certain misunderstandings should be cleared up.

First there is the dogmatic belief that middlemen make excessive profits. I submit Appendix Paper No 5 which is a breakdown of the shares obtained from the export price of rice. It shows that the farmers get 48.14%, transport, milling and other costs 12.6%, Government 32% and the middlemen only 7.26%. These shares surely cannot be considered excessive. In the words of D. Usher: "Thailand is well served by its rice traders. In competing for trade they force profit margins down, creating a minimal spread between farm prices and consumer prices, and insuring that any change in the tax structure affecting one price will at once be reflected in the other."

The proponents of the premium say that if it were eliminated the consequent increase in the domestic price would be absorbed by rapacious middlemen and the farmers would not benefit at all.

This assertion was disproved, however, by what actually occurred during 1966-1967 when the rise in world prices raised domestic prices and also farm paddy prices. In fact, one of the economists of the Ministry of Economic Affairs admitted that "farmers are receiving higher incomes as a result of the recent rise in world prices" and gave the following figures as proof. On 3rd January 1967 the export price was £58—15s., and the paddy price 1,270 baht; on 27th February 1967 export price had risen to £66—2s., and the paddy price to 1,400 baht. Now, if the rise in the domestic price engendered by the rise in world prices is passed on to the farmer, obviously the rise in the domestic price caused by eliminating the premium would also be passed on to the farmer in just the same way.

Secondly, there seems to be a misunderstanding that the premium influences world prices. What the economists of the Ministry of Economic Affairs have written is that, if the premium were eliminated, importers of our rice would be supplied at a

cheaper price, presumably by the amount of the premium. That is, if the present premium rate of about £ 29 were eliminated the present world price of £ 80 would be lowered to £ 51! I feel certain that all other economists both foreign and Thai will disagree with this. They point out that world prices are dictated less by the amount of rice that enters world trade than by world production as a whole. As our rice exports are only about 1.5% of world production, it follows that changes in our supplies have very little influence on world prices. This is born out by what has actually happened. During 1966 world prices went up and up, while the premium remain fixed at 950 baht per ton. Even right now, when the premium has been fixed at 1,450 baht per ton, export prices fell from £ 90, to £ 75 and went up again to £ 80. What influence did the premium have? None at all.

Thirdly, it is claimed that the premium helps us compete in world markets. If world prices go down, it is alleged we can lower the premium to meet competition without lowering the paddy prices the farmers get. This is but a repetition of what has been said before. I submit Appendix Paper No 6 to show that the domestic price fixed in October 1968 at 1,976 baht per kwien will exceed the world price if the world price falls below £ 65. In this case the only way to meet competition would be to lower domestic prices and the premium would be of no help at all. This shows that what the premium does is to keep domestic prices down to the farmers' detriment. In fact, without the premium they would be far better off, because they could have a share in the high prices like their counterparts in Taiwan or Korea, where farmers enjoy world prices and are, therefore, in a position to use fertilizers to increase production, which our farmers have been precluded from doing because of low prices.

To sum up, I think it is true to say that the main function of the premium is only to depress farm prices and that eliminating it or lowering the rate will increase the domestic price. This increase will not be absorbed by the middlemen, but will raise farm prices to the amount of the increase in domestic prices.

What Price for Rice?

I shall now try to tackle the question of rice prices which would give farmers a decent standard of living, and also enable them to increase production to feed our increasing population with enough left over for exports.

Let us consider first the price proposed by the NEDB. People at NEDB have become much more liberal minded since they made a survey and found that the cost of producing a kwien of rice was 995 baht, 195 baht more than the 800 baht poverty line, which was formerly considered "reasonable." They, therefore, suggested that the farmers should get a price which would cover the production cost and a profit of 15%, and the support price be set at 1,150 baht per kwien ex-farm. With a mark-up of 200 baht per kwien this would make the support price in Bangkok 1,350 baht per kwien. On the other hand, the Economics Ministry support price of 1,200 baht for ordinary quality of grain is equivalent to an ex-farm price of only 1,000 baht, — just 5 baht higher than the cost of production! The support price is of course a device to prevent merchants from depressing prices below this level. In practice, when there is a brisk demand and competition between the buyers, rice merchants will raise the price to say 1,200 baht. This I believe is what the NEDB wanted.

Economists of the Bank of Thailand took another view. They suggested that the support price should cover the cost of production and a profit sufficient to cover living costs and came out with a floor price of 1,600 baht. As a farmer, I would of course endorse this last price. It should be stated that the figure for living costs was the result of survey by the Land Development Department which found living costs to range from 6,032 to 7,988 baht per family, an average of 7,010 baht.

In a study of the economy of a rice growing village in Central Thailand by Dr. Kamol Janlekha many years ago, details are shown of the living costs of a farm family which amounted to 6,056 baht per annum, of which 46% consisted of rice grown on the farm and raw and fermented fish caught by the family, so that cash living costs were only 54% of the whole. I have checked this point up with Dr. Chaiyong Chuchart, who was responsible for the survey, and he kindly told me that he had also included rice and home grown foods, but in view of the rise in prices during the last decade, he agrees with me that at present 40% would be a fair estimate of the amount of home grown food used by the family included in the average of 7,010. The cash living costs of a farm family at present would then be 4,200 baht. To my great relief this presents a rosier view of the farmers' position.

I have stressed this point because I think NEDB's method of calculating the production cost is rather unrealistic from a farmer's point of view, and leads to misunderstanding. For instance, when the NEDB recommends that the support price should be 1,200 baht per kwien, some people may think that a farm producing 10 kwien of rice would get a profit of 2,000 baht for his year's work. This of course is quite wrong, because the farmer has to keep at least 3 kwien for consumption, seed, making merit etc, and can only sell at most 7 kwien at 1,200 baht per kwien which comes to 8,400 baht. But he has grown 10 kwien at a cost of about 10,000 baht, so he would lose 1,600 baht, which is not right either, because a large part of the production cost is his own labour and that of his family.

That is why I think it is more realistic and more comprehensible to consider his status from the point of view of his labour income and see whether his labor income is commensurate with his cost of living. Another point must be taken into account. That is, to make ends meet, many farmers have to find other work during the off season, and this has been found to range from 694 to 1,644 baht or an average of 1,275 baht per family.

With these data we can get a picture of the status of a farm family on an average farm of 25 rai. The largest number of farms are in the 20-30 range.

Of the production cost of 995 baht per kwien, the actual expenditure on cash and materials (seed) is only 415 baht per kwien, spent mainly on

- (1) rent to the amount of 129 baht per kwien;
- (2) fertilizer to the amount of 34 baht par kwien;
- (3) interest on working capital to the amount of 40 baht per kwien.

To put it in the best light possible, I shall deal with the owner farmer who need not pay rent, which will lower the production cost to 286 baht per kwien. Next, the fertilizer cost of 34 baht per kwien means that only 10 baht per rai are used, which is less than 5 kgs. per rai, and should be cut out as perfectly useless lowering production costs to 252 baht per kwien. I may say that many experiments have been carried out, showing that 31 tang per rai is the normal average yield in the Central Plain (that is, without fertilizer).

The 40 baht per kwien interest is the most serious factor, for it leads to the worst form of usury. The local money lender or shop keeper will provide a loan either in cash or in goods on the conditions that the loan will be repaid in the form of paddy at a fixed price much lower than the prevailing one. It should be our aim, therefore, to increase the labor incomes of our rice farmers to a level at which they will be able not only to cover living costs but also to have sufficient income left over to finance the next crop. Only after this level is reached can they begin to make savings as they did in the past. With a favorable fertilizer paddy price ratio this is quite possible.

With regard to fertilizer, in the last report of the Help the Rice Farmers' Committee, it was stated that an average increase

in yield of 13 tangs per rai had been gained by the application of 15 kgs. per rai of 16/20 fertilizer. The market price of this fertilizer comes to about 35 baht per rai.

Prices will be calculated on two levels, namely 1,200 and 1,500 baht per kwien. The first because it is the price set by the NEDB, and the second because it is the lowest price at which the use of fertilizers is economically justified, in the opinion of a UNDP, FAO, World Bank Mission which came to our country last year.

Another reason is in deference to the superior knowledge and wisdom of the Governor of the Bank of Thailand, in the realm of banking and finance. He advised in *The Standard* on 11th February 1967, that "the price of paddy should be raised in such a manner as to encourage the use of better seeds, of fertilizer, etc. while doing no harm to the economy." During that year prices were very high, reaching a peak when prices in Bangkok, Ayuthaya, Ratburi and Choburi were 1,765, 1,897, 1,750 and 1,715 baht per kwien, respectively — all without any apparent harm to the economy. There should be no fear, therefore, that the price of 1,500 will do harm to the economy. The calculations are to be found in Appendix Paper No 7.

Ownership, Profit And Time

I have purposely submitted figures for farms working under the best condition of farm ownership to show first that even at the 1,500 price level the farmer can just get by, and if he got world prices, which at present would be about 1,800 baht per kwien, his economic status would be a sound one enabling him to compete with other countries in future world trade.

Secondly, I have tried to show that at the 1,200 price level, the farmer's position is a very precarious one with a net income of only 844 baht, insufficient to finance the next crop. In consequence, he must borrow nearly 2,000 baht to carry on. But with the present farm support price of 1,000 baht of the Economics Ministry he will have no net income at all and would have to borrow all he needs to finance the next crop. Worst of all, at the 800 baht poverty level, he won't have enough left to pay his debts and will have to increase his debts to carry on. And this is what has been happening, causing farm ownership in Central provinces to fall to about 50%.

This appalling trend in declining farm ownership is bound to continue unless prices are raised. The Government has set up a Committee and provided funds to help relieve farm indebtedness. This is very laudable, but it seems to be overlooked that at the same time a lot of other farmers are getting into debt at a faster pace than the Committee can relieve. As a first priority, therefore, prices must be raised to prevent the debts from increasing, which in the end compels the farmer to sell his farm.

Finally, I must emphasize that to increase production by modern methods of fertilizer usage takes a very long time as I will illustrate with a concrete example of what has happened in another

country, Ceylon. In doing so I feel bound to lodge a protest against the NEDB for what I think is unwarranted criticism of our rice farmers.

The report of the results of the NEDB survey to ascertain the cost of production says among other things that our farmers are not taking advantage of modern methods of producing crops, such as using more fertilizers "although the results of research have shown that fertilizer has given increases worth more than the cost of the fertilizer applied." Now, what the report does not mention is how much this increase was worth. In other words, was the profit high enough to induce farmers to use fertilizers in the first place? In the second place how could farmers be certain of the increase without demonstration.

Unfortunately, the farmers could not be shown by the Rice Department extension officers that investment in fertilizers were a good thing because not enough profit could be shown. This was tacitly admitted when the cost of the fertilizer was lowered to make sufficient profit at the 800 baht price level, for the benefit of less than 10% of all farmers who number nearly 3 million families. As I have previously shown, the NEDB knew all along that 90% of the farmers could not make profitable use of fertilizers, and to turn round and blame the farmers for not using them is, I propose to you, a bit too much. Moreover, NEDB also complained that our national average production of 26-27 tang per rai is very low compared with other countries with the same level of economic progress such as Ceylon, where the national average production is 31 tangs per rai. Now, it makes me wonder if they really know what they are talking about when they make such comparisons. Do they know the reasons why Ceylon has a national average production higher than ours? Was it always so or have they increased their production and if so how? I suspect that they don't know and haven't tried to find out either.

As it happens, I do know something about it! When I was Chairman of International Rice Committee (IRC) about 20 years ago, at one of our meetings the head of the Ceylon delegation said

that their production was abysmally low; it was in fact about 20 tangs or less per rai. They have now advanced it to 31 tangs per rai. How did they do it. Firstly, by experimenting to find the best fertilizer formula, just as our Rice Department has done very successfully. Next, they spent 4 years giving demonstrations on over 3,000 plots on farmers' fields, guaranteeing prices 50% higher than world prices, and selling fertilizers to farmers at 50% below world market prices. The Australian FFHC committee contributed 5 million baht of financial assistance. And yet with all these facilities it took them over 12 years to attain the average increase of 10-11 tang per rai.

What have we done in our country? The Rice Department has done a good job in finding the best formula. But we have stopped right there. Worse, we have gone back if anything, by discarding the results of research to cheapen fertilizer in order to keep paddy prices down, so that after spending millions on making the research, the results could not be used to advantage. This doesn't make sense to me. It seems to be a sort of Alice in Wonderland kind of policy: it is so mixed up and uncoordinated that it is difficult to know what the policy really is.

However, what I should like to emphasise is the question of time. With Ceylon as an example, it surely can be seen that it takes time and money to teach farmers how to use fertilizers properly. This can only be done by demonstrations, done by the farmers themselves, to show what increases in yields and profits they can achieve. If successful, their neighbours will do likewise. The most important thing is *profits*. Every year we have talks and seminars about agricultural progress, how to do this, that and the other, and reams of paper are used to print reports and what not of these discussions, but I have very seldom come across any references to prices, as an incentive to progress. And believe me, without price incentives no agricultural progress will be made in any country in the world. The time to provide incentives is right now.

Industrial and Agricultural Progress

A final word about industrialization. The NEDB has concentrated its efforts on industrialization to promote economic progress, and therefore would like to have low paddy prices to keep down the cost of living and hence low wages as an incentive for foreigners to invest their money in industrial undertakings in this country. That, I suggest, is why the Second Five Year Plan has increased the gap between the rural and urban population. Economic progress should benefit all and not a chosen few. So a compromise must be found if we are to make economic progress both in the agricultural sector and the industrial sector. I submit that increased production of rice must have priority, for without it industrialization would also suffer. Wage rates must, therefore, conform to paddy prices and not vice versa. And in fact a compromise has already been reached. When, as I have said before, rice prices reached a peak of 50 baht a tang, the cost of living index rose 10%, but at the same time Government salaries were raised 20%, and industrial wages even more, so in comparative terms urban population is better off than before. I submit, therefore, that if paddy prices are raised to the level of 1,500 baht which has been reached before and wages have already been adjusted to meet the increased cost of living, the industrial sector will not suffer in any way at all. The increase in prices will in fact benefit the commercial community in the provincial towns, who are now complaining about a lack of business, which is natural because the farmers at present poverty level prices simply cannot afford to buy anything, including goods manufactured by the industrialists.

I thank you, your Excellencies, ladies and gentlemen, for your patience in being kind enough to listen to my long talk and if any of you wish to express any dissenting opinion I shall be glad to hear, for one cannot always be right, and I shall be more than pleased to be corrected if I am wrong.

PART II

Paper No 1

The tax burden of the rice farmers of Siam

It has been stated that although rice farmers suffer as a result of the high export tax, the rice premium, they have the privilege of being exempt from income tax.

The following will show that if the rice farmer paid income tax like others, including agriculturists growing other crops, he would have to pay much less than the rice premium.

A study by the Bank of Thailand found that 1 kwien (ton) of paddy for which the rice farmer got 1200 baht was eventually sold for 2493, a mark-up of 1293 baht. Out of this sum of 1293 baht, transport, milling and labour costs etc came to 304 baht, middlemen's profits 181 baht, business, municipal and export taxes accounted for 160 baht and the rice premium 648 baht.

If there were no premium the farmer would get an increase of at least 600 baht more for his paddy, making the price 1800 baht instead of 1200 baht per kwien.

In a survey by the National Economic Development Board (NEDB), it was found that the production cost of 1 kwien of paddy was 995 baht, and that a farmer working 30 rai had an average production of 10 kwien, of which he sold not more than 60%, i.e. 6 kwien, the rest being kept for home consumption, seed, etc. Statistics show that the average farm family consisted of 6 persons, householder, wife and 4 children.

From the above data, the farmer's income will be as follows:

Sales of 6 kwien paddy at 1200 baht per kwien	7200 baht
Kept for home consumption 4 kwien at production cost of 995 baht per kwien	3980 baht
Total farm income	<u>11,180 baht</u>

For individuals engaged in business, industrial, agricultural undertakings, production costs may be deducted from total income to arrive at the sum liable for income tax. In this case it would be $11,180 - 9950 = 1230$ baht liable for income tax.

A Department of Land Developement survey found that during the off season, farmers engaged in outside work as labourers on construction works etc earning at the most 1644 baht per family. Wage earners are allowed a 20% deduction of their incomes for general expenses, so that under this provision, a farmer earning 1644 baht can deduct 20% i.e. 328 baht and leave 1312 as taxable income. His total taxable income would then be $1230 + 1312 = 2542$ baht.

However, further deductions are allowed, for a householder 4000 baht, his wife 2000 baht and 1000 baht per child. As already mentioned above a farm family on the average consists of 6 persons, and would therefore be allowed deductions to a total of 10,000 baht, which is higher than his taxable income of 2542 baht, so that he would not have to pay income tax at all.

As already stated, if there were no premium the farmer would get an increase of 600 baht for each kwien sold, which in this case would amount to $600 \times 6 = 3600$, which added to 2452 would make his total taxable income 6142. This is again lower than the total deductions of 10,000 baht allowed for him and his family; he would not be liable to income tax.

However, there is a further provision, which says that "those engaged in business, industrial, agricultural etc undertakings shall pay income tax at not less than 0.5% of total income". So agriculturists who grow pineapples, grapes, fruits, maize etc pay income tax at the rate of 50 per 10,000 baht, i.e. 0.5%.

If rice farmers were similarly taxed the following is what he would have to pay:

	At 1200 baht paddy price	At 1800 baht paddy price
Farm Income	11,180 baht	14,780 baht
Income from outside work	<u>1,644 baht</u>	<u>1,644 baht</u>
Total Income	12,824 baht	16,424 baht
Income Tax at 0.5%	65.12	82.12

But in fact this is what he has to pay:

without the premium his income would be	16,424 baht
with the premium his income is	<u>12,824 baht</u>
so he has to pay without any deductions a tax of	3600 baht

In other words, on an income of 16,424 baht he has to pay 3600, which is over 21% of his total income, the same rate as those enjoying incomes of 100,000–150,000 baht, after deductions of 10,000 for tax payer and family.

In comparison with others engaged in business, industrial and other agricultural undertakings, the social injustice is even more glaring, because as will be seen from the above figures, agriculturists growing other crops with the same income of 16,424 baht have to pay only 82.12 income tax, whereas the rice farmer has to pay forty four times that much.

Instances can be given where a coconut plantation owner with an income of 100,000 baht pays only 500 baht, or a durian orchard owner with sales of 40,000 baht pays only 200 baht income tax—a system of taxation which is discriminating and not to be found in any other democratic country.

Paper No 2

Rice production under-estimated

Figures showing how rice production has been under-estimated are based on the following data:

- (1) Annual estimates of production of the Rice Department.
- (2) Rice Exports from the Department of Customs.
- (3) Rice Department figure of 500,000 tons required for seed.
- (4) Statistical Departments figure of 250 kgs paddy for internal consumption per head of population.
- (5) Increase in population at the rate of one million a year.

It is to be understood that the production of one year will be consumed and export during the following year. So beginning with the production of the year 2506 (1963) 10,028,882 tons

which according to the Rice Department was with a population of 30 million in 2507 (1964) the amount required for internal consumption and seed came to	8,000,000 tons
Leaving a surplus of	2,028,882 tons
Equivalent to milled rice products to the amount of	1,552,586 tons
But the amount actually exported was	1,910,760 tons
That is the amount exported was more than estimated production by	585,194 tons
which is equivalent to paddy to the amount of	877,761 tons

Where did all this paddy come from? From stocks carried over from previous years? In that case the following years should show a diminution of exports, but

In 2507 (1964) the estimated production was	9,550,870 tons
In 2508 (1965) with a population of 31 million, Internal consumption and seed required	8,250,000 tons
Leaving a surplus of	1,300,870 tons
Equivalent to milled rice products to the amount of	867,245 tons
But the quantity actually exported was	1,906,211 tons
Exceeding the estimate by	1,038,965 tons
Milled from paddy to the amount of	1,557,747 tons

In other words the 2507 (1964) crop was under estimated by no less than 1.5 million tons of paddy. The error was repeated in the following year.

The 2508 (1965) crop was estimated to be	9,198,893 tons
In 2509 (1966) with a population of 32 million,	
internal consumption and seed required	<u>8,500,000 tons</u>
Leaving a surplus of paddy	698,893 tons
Equivalent to milled rice products	465,262 tons
But actual exports were	<u>1,507,550 tons</u>
That is over the estimate by	1,042,288 tons
Milled from paddy to the amount of	1,563,432 tons

Where could all this paddy have come from but by increased holdings. In three years our rice farmers following their traditional methods, have without the help or knowledge of the authorities enriched the country by the export of 2.5 million tons of rice worth 5000 million baht, and all they get for their efforts is poverty!

Estimates of paddy stocks left at the end of 2511 (1968)

The 2509 (1967) crop was a record one, estimated by the Rice Department at 11.84 tons and the Statistical Department at 13.5 tons, a considerable difference. The former figure seems to have been accepted by the Ministry of Agriculture and the NEDB, but the surplus available for export was calculated on the basis of 13.5 million tons.

The first figure has now been corrected by the Ministry of Agriculture to have been 11.975 million tons, whilst the Statistical Department has increased the quantity for internal consumption by another 500,000 tons to allow for uses as animal feed and industry. On these new data the following comparison can be made between the two estimates.

The Ministry of Agriculture estimate for 2509	11,975,000 tons
In 2510 with population of 33 million	
internal consumption was	<u>8,250,000 tons</u>
	<u>3,725,000 tons</u>
seed, animal feeds and industrial use	<u>1,000,000 tons</u>
surplus available for export	<u>2,725,000 tons</u>
Actual export 1,496,005 rice products milled	
from paddy	<u>2,244,007 tons</u>
surplus earried over to 2511	<u>480,993 tons</u>
Ministry of Agriculture's estimate for 2510	<u>9,595,000 tons</u>
Total production available for consumption	
and export in 2511	<u>10,075,993 tons</u>
In 2511 (1968) with population at 34 million internal	
consumption 8.5 million plus 1 million for seed feeds	
and industry	<u>9,500,000 tons</u>
surplus available for export	<u>575,993 tons</u>
Actual export 1 million tons rice products milled	
from paddy	<u>1,500,000 tons</u>
Deficit of	<u>924,007 tons</u>

which is manifestly absurd, as internal prices would have soared, when in fact farm prices have slumped to the poverty level of 800 baht, due to a glut of stocks in the country.

On the other hand the Statistical Depatment seems to have under-estimated the carry over at the end of 2510 as follows:

Crop production of 2509 (1966)	13,500,000 tons
In 2510 (1967) with population of 33 million	
internal consumption 8.25 million plus 1 million	
for seed, industry	<u>9,250,000 tons</u>
surplus available for export	<u>4,250,000 tons</u>
Actual export 1,496,005 rice products milled from	<u>2,244,007 tons</u>
Carried over to 2510	<u>2,025,993 tons</u>

The Statistical Department says that the carry over

from 2510 was	<u>900,000 tons</u>
What then has become of	1,125,993 tons

It is said that a great deal has been smuggled out of the country, estimated at 100,000 tons of rice equivalent to 150,000 tons of paddy. After allowing for this there would still be over 900,000 tons unaccounted for and which would have to be carried over to 2511 and added to the production from the crop year of 2510 as follows:

Carry over to 2510 (1967) as per Statistical Dept.	900,000 tons
Unaccounted for	900,000 tons
Crop production in 2510 (1967) as per Statistical Department	<u>11,200,000 tons</u>
	13,000,000 tons

In 2511 (1968) with population at 34 million internal consumption, seed, feeds, and industry as per Statistical Department	<u>9,780,000 tons</u>
Surplus	3,220,000 tons
Quantity exported 1 million tons of rice products milled from	<u>1,500,000 tons</u>
Stocks left at the end of 2511	<u>1,720,000 tons</u>

However, by ignoring the 900,000 tons unaccounted for, the Statistical Department estimated the surplus to be 2.3 million tons, of which 75% could be exported as milled rice to the amount of 1 million tons and leave 25% as reserve stocks to be carried forward to 2512 (1969) to the amount of 575,000 tons of paddy. It is now admitted that the carry over is 1 million tons, so that the surplus was underestimated by the Statistical Department by at least 425,000 tons, and an extra 300,000 tons could have been added to the 1 million tons exported.

Note: A later examination of the various figures has shown that certain miscalculations have been made. According to the Ministry of Agriculture, the area harvested in the crop year 2509

(1966) was 43.4 million rai with a yield of 11,975 tons, an average of 27.6 tang per rai. But as shown above the yield of 11.975 tons was under-estimated and manifestly wrong. On the other hand the Statistical Department estimates the production per rai in 2509 (1966) was 28.94 tang to give a yield of 13.5 million tons, which means that this yield was obtained from 46.81 million rai, which is more than the 46.08 million rai officially estimated by the Ministry of Agriculture as the cultivated area for that year. These contradictory and confusing estimates lends credence to the idea that a great deal of rice is being produced from unauthorised holdings. Correct estimates of production are necessary, if we are to know what is available for export, and the state of rice farming generally and since there are undoubtedly many unauthorised holdings, it would appear that serious consideration should be given to a paper submitted by Dr. Siribongsø Bunlong and Dr. Kamol Janlokha, suggesting aerial photography as a means of estimating crop production.

Paper No 3

Premium fails to stabilize prices

<i>Export Price</i>		<i>Baht</i>	<i>30% Premium</i>	<i>Domestic Price</i>
£58	=	3,480	1,044	2,436
£60	=	3,600	1,080	2,520
£65	=	3,900	1,170	2,730

Paddy prices in July 2510 (1967)

<i>Types</i>	<i>Amount</i>	<i>Export Price</i>	<i>Premium Rates</i>
5% white rice	500 kgs.	2,275 baht	700 baht
A. 1. Extra Super	100 kgs.	287 baht	83 baht
A. 1. Ordinary	<u>60 kgs.</u>	<u>170 baht</u>	<u>48 baht</u>
	660 kgs.	2,732 baht	831 baht

Deduct the premium rates	<u>831 baht</u>
Domestic price	1,901 baht
Deduct municipal tax, & sales tax, milling costs	<u>127 baht</u>
	1,774 baht
Deduct custom duty 4.2%	<u>144 baht</u>
	1,630 baht
Exporters' expenses and profit	<u>170 baht</u>
Paddy price	<u>1,460 baht</u>

Paddy bought at 1,400 baht would get a profit of 60 baht per kwien.

Paddy price in October 2510 (1967)

<i>Types</i>	<i>Amount</i>	<i>Export Price</i>	<i>Premium Rates</i>
5% white rice	500 kgs.	2,625 baht	785 baht
A. 1. Extra Super	100 kgs.	336 baht	105 Baht
A. 1. Ordinary	<u>60 kgs.</u>	<u>198 baht</u>	<u>54 Baht</u>
	660 kgs.	3,159 baht	944 Baht
Deduct premium rate		<u>994 baht</u>	
Domestic price		2,165 baht	
Deduct municipal tax, sale tax and milling costs		<u>134 baht</u>	
		2,031 baht	
Deduct custom duty 4.2%		<u>132 baht</u>	
		1,899 baht	
Exporter's expenses & profit		<u>170 baht</u>	
Paddy price		<u>1,729 baht</u>	

Paddy bought at 1,400 baht would make a profit of 1,729—
1,400 = 329 baht per kwien.

Paper No 4
Paddy prices September 2511 (1968)

<i>Types</i>	<i>Amount</i>	<i>Export Prices</i>	<i>Premium Rates</i>
5% White Rice	500 kgs	2025 baht	840 baht
Broken Extra Super	100 kgs	365 baht	126 baht
Broken A 1	60 kgs	195 baht	57 baht
	660 kgs	2585 baht	1023 baht
Deduct premium rates		1023 baht	
Domestic price		1562 baht	
Deduct sales & municipal taxes, milling costs		129 baht	
		1433 baht	
Deduct customs duty 4.2% on export price		108 baht	
		1325 baht	
Exporter's expenses		133 baht	
Equivalent to paddy price per kwien		1192 baht	
Paddy bought at		1200 baht	
Would show a loss per kwien		— 8 baht	

Paddy prices in October 2511

<i>Types</i>	<i>Amount</i>	<i>Export Prices</i>	<i>Premium Rates</i>
5% White Rice	500 kgs	2250 baht	700 baht
Broken Extra Super	100 kgs	365 baht	80 baht
Broken A 1	60 kgs	186 baht	45 baht
	660 kgs	2801 baht	825 baht
Deduct premium rates		825 baht	
Domestic price		1976 baht	
Deduct sales & municipal taxes, milling costs		133 baht	

	1843 baht
Deduct customs duty 4.2% on export price	<u>117 baht</u>
	1726 baht
Exporter's expenses & profit	<u>170 baht</u>
Equivalent to paddy price per kwien	1556 baht
Paddy bought at	<u>1200 baht per kwien</u>
Would bring a profit of	356 baht per kwien

Paddy prices in November 2511

<i>Types</i>	<i>Amount</i>	<i>Export Price</i>	<i>Premium Rates</i>
5% white rice	500 kgs.	1875 baht	725 baht
A. L Extra Super	100 kgs.	325 baht	115 baht
A. L Ordinary	60 kgs.	<u>150 baht</u>	<u>44 baht</u>
	660 kgs.	2350 baht	884 baht
Deduct premium rate		<u>884 baht</u>	
Domestic price		1466 baht	
Deduct sales & municipal taxes, milling costs		<u>116 baht</u>	
		1350 baht	
Deduct customs duty 4.2% on export price		<u>99 baht</u>	
		1251 baht	
Exporter's expenses & profit		<u>133 baht</u>	
Paddy price		1118 baht	
Paddy bought at		<u>1200 baht</u>	
Loss		88 baht per kwien	

Paper No 5

The rice trade from farm to export

Rice trading from the farm in the form of paddy till it is milled and exported in the form of milled rice products, i.e. head rice and broken, can be divided into three stages.

In stage (1) the paddy is bought from rice farmers by local middlemen in small lots, and then transported to trade centres or rice mills, involving in some cases 3-4 transactions, which according to the figures found in a NEDB paper comes to 197 baht per kwien, which includes transport and labour costs, sales taxes and middlemen's profits. In the booklet of the Help the Rice Farmers Committee the mark-up from farm to Bangkok is taken to be 200 baht per kwien.

In stage (2) the rice is milled and according to figures in a paper of the Bank of Thailand, milling costs come to 263 baht per kwien, which includes direct milling costs, sales and municipal taxes, and profits of the miller, consisting mainly of rice polish and bran (63 baht per kwien).

In stage (3) the rice is exported involving costs to the amount of 263 baht per kwien, which includes 4.2% customs duty, municipal tax, cost of jute bags, labour and transport costs, insurance etc and profit of the exporter.

In addition there is the rice premium, which from 2510 (1967) varied in accordance with export prices.

To show how the above costs were divided, and the shares accruing to farmers, middlemen and Government, the following break-down has been made, from figures in a paper by the Bank of Thailand, which showed that as of March 2510 (1968) at the farm price of 1200 baht, one kwien of paddy increased in value to 2493 baht when finally sold. This increase in value to the sum

of $2493 - 1200 = 1293$ baht is broken down to show the amount required for expenses in labour, transport, and milling costs, the amount accruing to the middlemen, and the amount levied by Government as follows: -

<i>Stages</i>	<i>Expenses in</i>	<i>Middlemen's</i>	<i>Government</i>	<i>Total</i>
	<i>Baht</i>	<i>profit</i>	<i>taxes</i>	
(1)	85	88	27	= 200
(2)	86	63	33	= 182
(3)	133	30	100	= 263
			160	
Rice Premium			648	= 648
	304	181	808	= 1293

From the above breakdown, the following will show how the sale value of 1 kwien of paddy to the amount of 2493 baht was divided

Expenses for labour, transport etc	304 baht = 12.60% of sale value 2493 baht
Middlemen's profits	181 baht = 7.26% of sale value 2493 baht
Government and municipal taxes	160 baht = 6.41% of sale value 2493 baht
Rice premium	648 baht = 26.00% of sale value 2493 baht
Rice farmer's share	<u>1200 baht = 48.13% of sale value 2493 baht</u>
	<u>2493 baht 100%</u>

The above figures show that the middlemen's profits are only 7.26%, which surely cannot be considered excessive compared to the Government's share of no less than 32%, of which the premium accounts for 26%.

Paper No 6

A variable premium

How the premium is supposed to help us to compete in foreign markets by a gradual lowering of the rate should world prices fall.

Export Price Milled Rice	Equivalent to Price per kwien	Premium	Domestic Prices per kwien
£ 90 = 4,500 baht	2,801 baht	825 baht	1,976 baht.
£ 75 = 3,750 baht	2,350 baht	374 baht	1,976 baht.
£ 70 = 3,500 baht	2,100 baht	124 baht	1,976 baht.
£ 65 = 3,250 baht	1,950 baht	—	1,976 baht.

Paper No 7

Farm income

For a farm family in the Central Plain on a farm of 25 rai with an average yield of 31 tang per rai = 7.75 kwien, at a production cost of 252 per kwien. Production cost of 7.75 kwien will be 1,953 baht. After keeping 3 kwien for home consumption etc there will be left for sale 4.75 kwien or 475 tang. The labour income at the price of 12 baht and 15 baht will be as follow:

	<i>at 12 baht per tang</i>	<i>at 15 baht per tang</i>
Sale of 475 tang	5,700 baht	7,225 baht
Cost of production	1,953 baht	1,953 baht
Gross income	3,747 baht	5,272 baht
Living costs	4,200 baht	4,200 baht
Net income	— 453 baht	1,072 baht
Work off the farm	1,275 baht	1,275 baht
Total net income	822 baht	2,347 baht

How Labour Incomes can be raised by the use of fertilizers

	<i>at 12 baht per tang</i>	<i>at 15 baht per tang</i>
Sale of 775 tang	9,300 baht	11,625 baht
Cost of production	1,953 baht	1,648 baht
	7,347 baht	9,977 baht
Deduct cost of fertiliser	875 baht	875 baht
Gross income	6,472 baht	9,102 baht

	<i>At 12 baht per tang</i>	<i>at 15 baht per tang</i>
Living costs	4,200 baht	4,200 baht
Net income	2,272 baht	4,902 baht
Outside work	1,275 baht	176 baht
Total net income	3,547 baht	5,078 baht

At the 12 baht level with outside work the farmer would have a net income of 822 baht, which would nearly cover the cost of fertilizer, and he would have to borrow about 2,000 baht to finance the next crop. If all goes well he will have a net income of 2,272 baht. If due to bad weather conditions he loses 100 tang = to 1,200 baht, he will have left 1,072 baht, and to finance his next crop he would have to find outside work again, which he may or may not be able to find. This will give a feeling of apprehension on the farmer's part, and under these conditions most farmers would hesitate to invest in fertilizer at this price level. Those with irrigation facilities might take a chance but not those depending entirely on weather conditions, which applies to the majority of our farmers, as less than 20% of the cultivated area is under irrigation.

Broadly speaking farmers should not be dependent on outside work to make ends meet; in a sound agricultural economy farm should be self supporting, and instead of having to resort to outside work, farmers would be better employed in improving or repairing their dykes and ditches, their houses, and growing off season crops such as beans etc.

At the 15 baht price level, the farmer will have a net income of 2,347 baht which would be sufficient to finance the next crop without having to borrow and lower his production costs by saving interest charges to the amount of 40 baht per kwien. So his production cost will now be $252 - 40 = 212 \times 7.75 = 1,648$ baht. With this lower production cost he would need less than 200 baht from outside work to invest in fertilizer and his net income would amount to 5,078 baht. If owing to unfavourable weather conditions

he loses 100 tang \approx 1,500 baht, he would still have a net income of $5,078 - 1,500 \approx 3,578$ baht still sufficient to finance his next crop to the amount of 2,523 baht, without having to depend on outside work or to get into debt to finance his next crop. He will be free from usury and be able to stand on his own feet.

From the above analysis it would appear that the opinion of the UNDP FAO IBRD Mission is reasonably correct that is 1,500 baht is the lowest price at which the use of fertilizers can be economically justified.

And if the premium is gradually lowered, as it should be, average farmers will not need to depend on outside work, which will be open to the farmers with uneconomic holdings of less than 20 rai to get more outside work and higher wages. This will go a long way towards achieving the objective of the Five Year Plan and future ones for a more equitable distribution of income.

PART III

Extracts and Quotations

As my talk was a personal view of the subject, perhaps biased in favour of our rice farmers, I think it is right and proper to add this Appendix to show how the matter is considered by others in various papers and documents that I have at my disposal. Most of these documents are the results of research or studies by competent economists, both Thai and foreign, and the extracts which I have taken from these documents are those pertinent to the points at issue.

It may seem suspicious that most of these extracts are more or less against the premium, but I have been able to find very few papers wholly in favour of it. In fact I have found only two written by economists of the Ministry of Economic Affairs, which will be found at the end of the Appendix to show their arguments for the premium as opposed to the views of those who are against it.

The National Economic Development Board (NEDB) also seems to favour retention of the premium, so the views of the NEDB Secretary are also presented by extracts from the published proceedings of conferences on Agricultural Science and Economics held at Kasetsart University in 1964 and 1967.

Also included are the views of H.E. Mr. Pote Sarasin, the Minister of National Development, who was among the audience listening to my talk. H.E. The Minister of Agriculture was also present, so I have included his views as expressed at a news conference and reported in the *Bangkok Post* of the 26th April 1969.

I hope I shall be pardoned for the remarks I have interspersed at points where the other side of the argument should be presented.

Some of the documents are in Thai which I have rendered into English to the best of my ability without trying to distort the meaning of the original text in any way.

In one part of my talk I said that in the various discussions that have taken place about agricultural work and progress, the question of price incentives is seldom mentioned. In this I am afraid that I have made a mistake, for after reading more papers and documents, especially Proceedings of the Conferences held by the The Agricultural Economics Society of Thailand, a great deal has been said about the question of paddy prices as the following pages will show.

An Extract from Dr. Kamol Janlekha's Article

The following is an extract from "A study of the economy of a rice growing village in Central Thailand" by Dr Kamol Janlekha, our most senior agricultural economist, published in September 1955.

"Thus rice export has now become "free", but actually under rigid rules and regulations especially with reference to the control of foreign exchange. By abolishing its monopoly over rice export the government simply gives up its trading profit but still retains the huge exchange profit.

It is seen that the government had been strengthening its finances and increasing its revenue through the operations of the rice monopoly and exchange control, and at the same time the internal prices of rice were kept at a low level. The largest share of the burden has no doubt fallen on the rice farmer, who received less than one half of the paddy price he would have received in a really free market.....

The problem of low incomes is closely associated with those of population pressure and limited earning opportunities, both of which are affected by soil and water conditions. As a result, expenses tend to exceed incomes – a condition leading to scarcity of cash and credit, which in turn has caused the rates of interest to be rather high. High rates of interest discourage investment, forcing the farmer to rely solely on returns from rice, which is not purely a business enterprise, but also a way of life. Rice production is affected by the lack of effective control of water and

the small size of the farm, which is limited by population and other job opportunities. Low production and relatively low prices of rice result in low incomes, thus completing the circle.

The sort of circular relationships by which the perpetuation of poverty of rice farmers in the Central Plain of Thailand may be explained, is known as the vicious circle of poverty. Already we have uncovered the conditions circumscribing this vicious circle. The task ahead is to break this circle and create an environment necessary for the attainment of rural prosperity."

This was written 13 years ago and the vicious circle of poverty still remains unbroken, though our country is supposed to have made tremendous economic progress! How ironic and paradoxical it all seems to be from the farmers' point of view.

Ten years later, Dr. Kamol, as Adviser in the Agricultural Economics Division of the Ministry of Agriculture wrote a paper on falling rice prices in world markets and the threat of competition from other countries, especially mainland China and its policy of exporting rice and importing wheat, as world market prices for the latter is about half that of the former. The following are the concluding paragraphs of his paper.

"The implications to the rice trade policy of Thailand are thus quite clear:

1. Thailand (and the other rice exporting countries) may reasonably expect ever increasing competition from mainland China in the world rice trade as long as there is a wide gap between the prices of rice and wheat.

2. To compete successfully in the world market, Thailand must increase the economic efficiency of its rice industry, i.e. the cost of production and the cost of marketing should be reduced so that rice could be sold with reasonable profit in the event of depressed prices.

3. At present the rice premium, which constitutes some 35-40 per cent of export f.o.b. price, may be considered as a shock absorber. Local rice growers will be insulated against any ill-effects of depressed world price if the government is willing to correspondingly lower the rice premium rates.

4. To increase production efficiency at the farm level, it is necessary to re-adjust the cost-price structure. The present farmgate price of paddy is too low to admit any chemical application which is a quick way to reduce cost per unit product as discussed earlier. Again, a favorable adjustment in the premium rates is a key solution to this problem."

Remarks: It should be noted that Dr. Kamol's forbodings were dispelled for a short period of three years when world prices rose and we enjoyed a sellers' market. But now conditions have returned to the position described by Dr. Kamol and we are facing increasing competition and a grave cause for anxiety.

Proceedings of 3rd Conference on Agricultural Economics

Dr. Kamol raised the subject of the premium again when he was Chairman at one of the discussions at the third conference on Agricultural Economics held at Kasetsart University in July 1964. The subject for discussion was "Agricultural Planning for Economic Development" as outlined by Mr. Prayad Buranasiri, Secretary of the National Economic Development Board (NEDB).

The following is a translation from the published Proceeding of that conference, summarising and in parts quoting what was actually said by the speakers.

Dr. Sawaeng Kultongkam, then Chairman of the Agricultural Economics Society of Thailand, and the present Under Secretary of the Ministry of Agriculture, raised the question of the NEDB's planning with reference to the quantity of rice exports, which some considered should be kept up to a level of 1.5 million tons a year, which could not be considered as true development. For a population of 30 million and an export surplus of 1.5 million tons, the quantity exported would be 50 kgs per head of population. When the population increases to 40 million the quantity exported at the same rate should increase to 2 million tons and so on. What is the NEDB planning on this point?

The Secretary replied that he was emphatically against the idea of keeping export surplus at a constant level, because rice was the staple food of an ever growing population. However, we should not be tied down to any definite quantity of rice export per

person, as this depends on world markets and if a future projection study indicates that there will be a strong demand for rice, then we can step up production, and export more than 50 kgs per head of population.

Remarks: The NEDB Secretary seems to have been rather naive to suggest that we can step up production whenever Government policy so requires. The fact is, except for tobacco which is a Government monopoly, very little control can be exercised as to who should grow what and how much. And this applies particularly to rice growing, which the NEDB or Government may propose but it is the rice farming population which disposes, as I have shown in Paper No 2, and which raises some serious problems that will be discussed later.

In the Second Five Year Plan, the projected production of paddy was to rise from 9.6 million tons in 2508 to 13.7 million tons in 2514. This means that in 2515 with a population of 38 million, there will be a surplus for export of over 2 million tons of rice or 55 kgs par head of population, which would be very satisfactory. But this projected figure was later amended to a production of only 12.15 million tons in 2514, which would result in a surplus of only 1.65 million tons in 2515, equivalent to 1.1 million tons of milled rice or less than 30 kgs per head of population, which would be a bad set back.

However these are projections. What are the facts? What has actually happened since 1964 when these discussions took place?

After reaching the highest recorded exports of 1.89 million tons in 1964 and 1965, they have declined to about 1.5 million tons for two years, and sank to only 1 million tons in 2511, with an estimated 1.2 million tons for the present years.

This is disappointing, to say the least, in view of the fact that figures of the National Statistical Office indicate a much

bigger surplus available for export. It would appear, therefore, that our exports have to be cut back, because of competition from other exporting countries, and what Dr. Kamol feared is now becoming a significant fact.

To return to the proceeding of the conference, Dr. Kamol said that as regards export we have been considering the demand for rice, but has any thought been given to the question on supplies? If prices are good there will be no difficulty in increasing production. But as things are, taxes and the premium all tend to make rice growing give lower returns than from producing other crops.

The Secretary of the NEDB replied to the effect that it was true that growing rice gave low returns, because of the low yield of about 230 kgs. per rai. If by intensive methods yields were to be increased to 300 or 400 kgs. per rai, rice farmer certainly would produce more rice. The Irrigation Department has shown that by applying more fertilizer 600 kgs. per rai can be produced. As regards Dr. Kamol's remarks about the premium, what the NEDB Secretary said in Thai can be rendered into English as follows:

“Professor Kamol raised the problem that if the premium is eliminated at that present time or the premium rate lowered, it is believed that the farmers will grow more rice, but it is doubtful whether the yield per rai will be increased: The farmers may enlarge their holding instead. But there is another problem, that is we should recognise that at present the farmers pay no direct taxes at all, the taxes he does pay are indirect taxes on the consumer goods that he buys. If lowering the premium causes an immediate rise in price, the rise in the price of rice will affect the incomes of Government servants, wage earners etc etc. We have not yet considered if the premium is calculated as a direct tax, how much the farmer will have to pay out of this total income. We have not yet really considered this, when we have really studied it then.....” (the report stops at this point.)

With regard to the point raised by the NEDB Secretary that farmers pay no direct taxes. Dr. Pimol Chitman of the Department of Land Cooperatives had this to say:

“The rice premium which Government collects to the amount of several hundred million baht per year does not appear to be a tax levied on the farmer. But the truth is that in the end the one who bears the burden of paying the premium is the rice farmer but it is disguised in the form of the price of paddy, which is lower than it should be.”

Remarks: This last statement is the real crux of the matter which was not sufficiently stressed by Dr. Kamol. When the NEDB Secretary talked of increasing yields to 600 kgs. per rai by using a lot of fertilizer he ignored this crucial point, that is, with low paddy prices as at the time, it simply did not pay to use fertilizer.

It should be noticed that in the event of any price changes resulting from the elimination or lowering of the premium, the first concern of the NEDB was for the interest of the minority, the consumer rather than for the economic status of the majority, the producer. In fact so little interest did they take in the latter, that they had not even taken the trouble to study how the premium affected his total income and hence his economic status. And this is surely rather a strange thing in planning Agriculture for Economic Development, which one imagines is supposed to benefit all by raising incomes and hence living standards.

How then can one plan to raise the living standards for the future when the present standard of living is unknown.

Dr. Chaityong Chuchart then spoke at length about economic questions his students had posed, and some of which he had found some difficulty in answering, especially as regard Economic Justice and the premium, in the same sense as previously expressed by the Chairman (Dr. Kamol). If the Government

still keeps this policy, productivity will not be improved. They (the farmers) will go on as before; they (students) believed eliminating or lowering the premium will be a great incentive and asked whether there is Economic Justice etc.

The NEDB Secretary's reply rendered into English is as follows: "To tell the truth, what we should do to achieve Economic Justice for our farmers can not be done in the plan, because many factors are involved in plan-making. What point should we take? We have to study the life of the farmer both from the economic and social points of view, and we have to see what his expenditure consists of from his income and calculate how much he really pays in taxes compared with other tax payers. As for the premium I do not like it so much. In former days the export duty was 5%, as far as I remember, now the premium is about 20% to 25% according to the price of rice. If we really lower the premium now it will be a cause of hardship for everybody. It is most important to preserve the stability of commodity prices and the stability of wages and living cost in the country at the present time, but we have no reason to lower the premium rate. At the present time the per capita income has risen to a level which I have not yet calculated. But the problem is how high. What will be the incomes of Government servants and the people, by how much will salaries and wages increase? If we could answer these questions, the Government would have some knowledge of how and where to increase or decrease taxes: what taxes can be substituted for the rice premium? However, I still have doubts as to what extent lowering the premium would be of benefit to the farmers; most of it may fall into the hands of others. In lowering the premium we must study to see the amount the farmers get out of the f.o.b. price in Bangkok, what part goes to whom and in what proportion; what proportion the farmer gets. If we could ascertain this point with regards to rice only, we would have data on which to consider plans in connection with living costs. With regards to Economic and Social Justice, I think it is a matter which Prof. Chaityong should study."

Remarks: The general impression one gets from the views expressed by the NEDB Secretary seems to be that the NEDB is not really interested in increasing production, which may come in two ways by increasing the yield per unit area or by expansion of the area. It is a pity that participants in the discussion did not stress these differences. So the Secretary doubted whether lowering the premium would make farmers produce more per rai, instead they might increase the area. This seems to indicate that he preferred the former and quite rightly because it would raise farmers incomes without increasing their holdings. As has been shown, total production from area expansion would come anyhow because of population pressure. But increasing yield per unit area means increased inputs which is quite impossible with low paddy prices, the point raised by Dr. Pimol which was not stressed by the participants and ignored by the Secretary. So although he wants to increase productivity by using fertilizer, he ignores the fact that it cannot be done unless paddy prices are raised by lowering the premium. On the contrary he sees no cause for lowering the premium which would raise prices and cause hardship to everybody.

Here one may ask what he meant by everybody; does he include rice farmers? No one can suppose that good prices of paddy would be a hardship for rice farmers but the contrary. So one must suppose that by everybody he meant people that count, namely public servants, business men and wage-earners etc, whilst the rice farmers are nobody, or as a member of an NEDB working party was to say they are "Second Grade Citizens" and apparently don't count. So the Secretary's chief concern was for stabilizing prices, salaries and wages at the then level, which makes one wonder how this can be reconciled with Economic Development, which should mean increasing incomes for everybody.

However, there is reason to believe that when the NEDB speak of Economic Development they mean that stress should be on Development of Industries rather than Agriculture, as low

wages are conducive to high profit in industrial undertakings. Stabilizing prices and wages were more important than the economic status of the rice farmers and no earnest efforts were made by the NEDB to find out what the Secretary said should be known about their incomes and expenditures, the burden of taxation they bear compared with others, their share in the f.o.b. price of rice etc and suspect that lowering the premium will benefit others rather than the rice farmers. This last has been the position taken by the Government, that eliminating or lowering the premium will not benefit the farmers, but the middlemen who have become the convenient scapegoats as the worst enemy of the rice farmers. (See Papers No 1 and No 5 in Appendix I)

As for Economic and Social Justice, the Secretary in his last sentence seems to have "passed the buck" to Dr. Chaiyong to find out for himself.

I don't know whether Dr. Chaiyong took this as a challenge or not, but in May of the following year (1965) the results of a study by Dr. Chaiyong Chuchart Ph.D and Sopin Tongpan M.S. was published under the Title "The Determination and Analysis of Policies to Support and Stabilize Agricultural Prices and Incomes of the Thai Farmers" (with special reference to rice premium).

This was followed in July of the same year by a paper on "The Structure of Thai Rice Prices: Some Preliminary Findings" by Professor Melvin M. Wagner and Sopin Tongpan.

Then came a paper on "Notes on the Thai Rice Trade" by Dr. D. Usher followed by "The Thai Rice Premium" by Vincent D. Taylor and finally "The Economics of the Rice Premium" again by Dr. D. Usher.

The papers by Dr. D. Usher have often been quoted by other writers on the subject, such as by Dr. Sura Sanitanont, Ph.D. in his Thesis on "Thailand's Rice Export Tax: Its Effects on the Rice Economy" published in 1967 and by Trent J. Bertrand

and Warin Wonghanshao in an article in Thai, published in the *Social Science Review* December 1968 under the title "Lowering the Rice Premium".

Other papers have also been written on the subject and in the following pages I am printing extracts from these papers and documents to show the opinions of many economists more competent than myself, with special reference on how the premium affects domestic and external prices, the rice farmers' economic status and its influence on rice production and productivity, forms of taxation which can be substituted in the event of eliminating or lowering the premium rates.

Extract from a study by Dr. Chaoyong Chuchart and Sopin Tongpan

Conclusion

The operations of rice premium have been considered. The objectives of rice premium were observed, some shown to be effective while the others have yet to fulfil their purpose.

To assess the effectiveness, the objectives of rice premium will be considered. Referring to rice premium's objectives, conclusion is as follows:

(1) The rice premium is employed as the means to stabilize Thai export price with world price. Such purposes, in this sense, seems unnecessary since Thai export price is already bound to world price. Price manipulations to keep pace with or deviate from world price are simply unnecessary. Therefore, the restoring of rice premium or abolishing will not make any difference with regard to Thai export price and world price level.

(2) Imposition of rice premium as a means of regulating volume exported is the most important one. This purpose appears to be accomplished since the amount exported partly depends on export price and wholesale price. The practices which affect export price or wholesale price will therefore determine indirectly the quantity exported.

(3) Rice premium as a means to stabilize domestic prices which is mainly concentrated on the retail price of rice or the price paid by consumers. Price stabilizing in this sense was mainly concerned with lowering retail price of rice. This purpose proved ambiguous and rather ineffective. Since all effects

from rice premium, the government overwhelmingly believed, were influenced from regulating quantity export. Increasing quantity export must improve domestic price. Such expectation were mainly wrong, since varying in quantity export is not the major factor.

(4) Suspending of premium will not effect price received by farmers has been hypothesised by the government for a long time. It is unreasonable to presume that all amount suspended will be absorbed by marketing services. These arguments, of course, seem true, as long as rice premium is being imposed and the effects to farmers never occur. Varying the rice premium only a small amount already shows that changes in export or wholesale price can be clearly observed. The price received by farmers not only depends on export and wholesale prices in Bangkok but rather varies at the same degree. This, of course, does not mean that farmers will get a price as much higher as the suspended premium. But there is no reason both theoretically and practically to presume that the performances of imported price mechanism is imperfect especially in the rice markets which are highly competitive.

The previous discussions of rice premium state both advantages and disadvantages. The recommendations can be stated as follow:

(1) If the target of economic developement is emphasised on increase in rice production, improve income per capita of Thai farmers, improve standard of living, policy on rice premium should be changed.

(2) Increasing production both for export and for domestic demand and also improving productivity would be impossible without creating incentives of farmers by ensuring higher price received by Thai farmer.

(3) To higher prices there is no other direct methods as far as Thailand is concerned, since support or price fixing is not feasible. To couple with marketing and organization improvement, other measurement must be urgently undertaken.

(4) Farmers will not benefit from rice premium as long as rice premium is included in annual budget, since there is no guarantee that this amount will be paid only for the benefits of the farmers. Expenditure on road, education, electricity etc however, would never much benefit farmers as far as their farm price and income are concerned.

(5) Rice premium, however, could be made more effective as seasonal price stabilizer. But for the purpose of price stabilizing there is no need to impose premium at considerable high rate, since premium rate for one metric ton accounts for a large percentage of paddy received by farmers for the same amount. Therefore, premium collection for the purpose of price stabilizing not for deriving national revenue can be reduced drastically.

(6) A complete abolishing of rice premium at the present seen from national revenue and price received by farmers stand-point is rather inadvisable since marketing organization as well as production practices are not improved, but drastic change would be desirable.

The objective of any price policy have been defined variously, mostly in broad general term. In simplest term, price policy should be defined as one which would be fair to producer as well as to consumer. This, however, may be simplified as a policy which would ensure price, within some extent, that would be consistent with the priorities and targets of overall plans. Price guarantee, can be considered in number of ways, such as reasonable price to producer and avoidance of excessive fluctuation.

Programmes and policies which provide for a guarantee of reasonable price to the producer will be most desirable. Government can undertake an operation in many ways, namely price fixation, price guarantee, or indirect control by purchasing stock. These measures entail a number of administrative problems as well as financial problems. Lack of funds in this country is the

most limiting factor in operating any price support policy. Theoretically, it is generally accepted that price support policy is feasible only in a relative minor sector of an economy. It would be rather unpractical to think of 75 per cent of population engaged in agriculture being subsidized by the remaining 25 per cent of other occupation. Increasing farm income at the cost of non-agricultural sector is impossible.

Efforts should, therefore, be concentrated on other implementation program such as production improvement, credit program, and monetary and fiscal policies. However, to some degree, the government could eliminate price fluctuation by improving marketing facilities to bring about orderly marketing. Marketing organization may be strengthened by government action which do not involve price guarantees.

In a country like Thailand, the emphasis of price policy should be attached to indirect or non-price support measures for increasing production and farm income such as by reducing production and marketing costs and increasing efficiency of farming. Indirect or non-price support and measures may take the form of subsidization of production, development of credit and marketing for improving the profit margin of the farmers, release of local or national taxation, improvement of agricultural research and extension etc. The effects of some of these measures on production is felt only in the long run. Others are more safeguard against losses than a means of raising farm incomes.

As mentioned, price to producers can be stabilized by a reduction in taxes especially in export taxes. This would appear to be promising means of raising farm income in the absence of price guarantee programs. Reduction of export taxes not only improves farm prices but also provides an incentive for improving agricultural productivity.

One of the most effective measures would be to increase the domestic price of rice to the world price level. The farmers' price thus would be raised from the present level of 742 baht to about 1,167 baht per kwien (1 metric ton) paddy and would make it profitable for the farmers to use moderate amounts of fertilizer, as the following calculations show :

Cost per rai of 60 kgs. of fertilizer	
2.65 baht per kg.	159 baht
Value of 326 kgs. per rai increase domestic price	241 baht
Value of 326 kgs. per rai increase world price	381 baht

Thus the farmer's net return per rai would increase almost threefold from 82 baht to 222 baht. The application of pesticides would also become more attractive and farmers would be induced to invest in irrigation and improvement.

The question of the advisability of maintaining or abolishing the premium is a complex one that involves fiscal and other consideration on which we cannot pass an informed judgement. An alternative would be to grant a subsidy of about 50 per cent on the price of fertilizer. In the preceding example this subsidy would result in a farm income gain of 2.03 baht for each 1 baht spent on fertilizers, and the cost of government would amount to 244 baht for each ton of increase in paddy production. Since nearly all the increase would be exported, the government would receive a premium of 425 baht per ton of paddy exported.

Extract From Paper by Prof. Wagner and Sopin Tongpan

Rice Price Relationships

Price is determined by the interaction of supply and demand: Marshall's famous scissors. Let us first consider demand.

There are really two demands for Thai rice: domestic and foreign. Over the past eight years, 1956-1963, Thailand's annual exports of rice have averaged 26.3% of production, with a range of from 22.4% in 1963 to 30.1% in 1961. Thus, world demand constitutes about one-fourth and domestic demand about three-fourths of the market for Thai rice. Both of these demand segments are of course important; but which one is ultimately responsible for the determination of rice prices in Thailand?

Some economists believe that since Thailand's exports of rice constitute about one-fifth of the total world exports, increases in quantity exported by Thailand would significantly affect the world price. Others believe that the world demand for Thai rice is perfectly elastic or nearly so; that is, that just as the quantity of rice which an individual farmer sells is such a small proportion of the total rice available for sale that the farmer can increase the quantity he sells many times without affecting price, so also can Thailand increase its sales without affecting price.

One important point here is whether it is day-to-day variations in price or year-to-year variations which are being discussed. Monthly variations in world market price and Bangkok export price are shown in Figure 2. Certainly Thailand's share of total world exports is significant; and changes in the quantity exported by Thailand would no doubt cause day-to-day changes in price at

the port of Bangkok and perhaps elsewhere. For purposes of discussing the general level of rice prices, however, price changes over longer periods are of greater relevance; and to the extent that the world's major rice-producing countries participate in the world market, it is world production and not world exports which determines world and hence exports price. This in fact appears to be the case. Japan, India, Indonesia, the Philippines, mainland China, and many African and European countries have imported rice in recent years. This suggests that, while many of these countries have price programs, they are not isolated from the world market. Thus, since Thailand produces less than 4.5% and exports only about 1% of total world production, changes in the quantity of exports would probably not have much effect on price.

The rice premium may be thought of as a fixed amount subtracted from the world price and the world price minus the rice premium, is the relevant price for exporters in Bangkok. If the premium rate were reduced, there would be a corresponding rise in this price. One of the basic questions about the effects of changing the rice premium level is whether this change would be reflected back through the marketing system and would ultimately reach the farmer.

The extent to which farm prices would reflect increases or decreases in the price received by exporters depends on the elasticity of supply for marketing services. With respect to marketing services in the United States, the assumption is usually made that supply is perfectly elastic, at least in the long run. The implication is that the supply of marketing services is adequate to maintain competition even though the demand for marketing services i.e., the quantities of product to be handled—increases. It does not seem unreasonable to think that this would be the case in Thailand as well. Studies have indicated that there is more than enough milling capacity in Thailand to handle current production. Rice

is transported by boat, rail and truck. It can be stored by farmers, millers, exporters, wholesalers, retailers, and even consumers. Anyone who wishes to do so is free to buy and sell rice. Under these conditions, it would be rather surprising if the performance of these various marketing functions were not rather competitive.

One hypothesis is that changes in export prices are fully reflected in farm prices; that is, if export price increased by one baht farm price would also increase by one baht. This hypothesis was tested using monthly price data. The results are shown in Table 3. The values in the table show the amount which the farm price of paddy changes for each one baht change in the export price of 5% rice in Bangkok. For example, the first row shows that for each one baht change in Bangkok, the price of paddy in Ayuthya changes 0.77 baht. For a number of reasons, these estimates probably tend to understate the degree to which price changes are reflected throughout the marketing chain, for example, the estimates are biased downward by the fact that the series used to represent export price does not include Government-to-Government sales.

From Notes on the Thai Rice Trade by Dr. D. Usher

Conclusion: on Competition and the Rice Premium

The functioning of the rice trade has recently been one subject of public discussion in connection with the rice premium.

In the discussion of whether or not the rice premium ought to be abolished or reduced, one of the arguments in favour of keeping the premium has been that only a small part of the benefits of its abolition would accrue to farmers. Eliminating the premium would raise the domestic price of rice; but this would be only slightly reflected in the paddy price because most of increase in the domestic cost of rice would be siphoned off by the traders. "Undoubtedly the farmers would benefit a little; but capitalist middlemen and exporters would benefit far more."

This view is in my opinion mistaken for two reasons. Firstly, it fails to take account of the magnitudes involved. Taking the example of table Vd as a typical case, the abolition of the rice premium and other taxes on the export of rice, would raise the value (in the domestic market) of the rice yield one ton of paddy from 960 baht to 1,719 baht, the latter figure being the export price less exporter's expenses, plus the retailer's mark-up. If the cost of milling and distribution remained unchanged the paddy price would rise by 759 baht (1719-960), from 770 to 1,529. For the farmer to lose even half of this, the expenses in distribution—milling, transport, retailing, etc would be to rise by 380 baht. The full cost of distribution at present final price of rice (960) less price of paddy at the farm (770) is only 190. Consequently, for the farmer to lose even half the benefit of the

rice premium, the gross income of the rice trade would have to rise by about 200% (380/190). I cannot imagine any force in the Thai economy that might allow the abolition of the rice premium to generate an increase of this magnitude in the cost of distribution.

Secondly, the argument that the increase in the domestic price of rice accompanied by the abolition of the rice premium will be only slightly reflected in the paddy price overlooks the fact that the rice trade is on the whole highly competitive. Normally a farmer receives many bids for his paddy, millers compete with each other in buying paddy and selling rice, truckers bid down rates to the point where profits barely justify continuing business, and exporters bid against each other in their purchases and sales. Except for the effects of the higher labour costs resulting from (but necessarily less than proportional to) the increase in the domestic price of rice, the cost of distribution will keep the margin between cost and income of the traders the same as before, transferring almost the whole of the benefits from the abolition of the rice premium to the farmer alone.

Only if the trade were monopolized, might traders syphon off benefits from the abolition of the rice premium; even this is far from certain, because it is not clear why the degree of monopoly power should increase with the domestic price of rice.

There are two possible lapses from competition in the trade. One is the export market where the exporters, formally, fix prices that are then administered by the Ministry of Economic Affairs. It has been shown that at present this is very largely a facade. Even if the arrangement were made to work it would yield the exporters only 80 baht per ton over costs, a small amount as compared with the increase of 759 in the paddy price.

The other possible weak spot is in the purchase of paddy from the farmer by millers or middlemen. Normally the trader has no monopoly power over the farmer, but it sometimes

happens that a farmer is forced to sell his paddy to one particular trader because he is in debt to that trader. Though this probably goes on to some extent, it can be ruled out as a major determinant of the paddy price by an examination of the statistics of debt. The credit survey cited above shows that of the 68 % of the farmers who have some debt, however small, at some times during the year, only 8.6% are in debt to the purchaser of the farm output and of these surely only a small part are so in debt that they could not deal with another potential purchaser if the usual one offered too low a price.

Of the two possible lapses from competition, that in the export trade is not realized at the moment and can only be realized in future with the active support of the government, and that in the purchase of paddy is too rare to have any appreciable effect on the statistics.

**Extract from paper by
Vincent Taylor of the Rand Corporation
on The Thai Rice Premium**

Effect on Government Revenue

The rice premium is a major source of government revenue. Although its importance has been steadily declining over the years, it still provides 8% to 10% of government revenues. In 1964, a bumper export year, rice premium collections were over one billion baht. Loss of this source of revenue in a single year would undoubtedly cause serious problems for the government. For this reason, total elimination of the rice premium in one step may be infeasible. On the other hand, a reduction in the rice premium might not lead to any loss in revenues. Exports of rice have been running between 25% and 30% of total production; thus a 15% rise in total production would increase export by 50%. A major argument for reduction or elimination of the rice premium is that it will cause a substantial increase in production, and the previous analysis indicates that factors will work toward such an increase in production. Although predictions of the magnitude of the increase in production cannot be made with any accuracy, it is certainly within the bounds of possibility that a one-third reduction in rice premium could lead, over a number of years, to a 15% increase in rice production. Even if the increase in production were somewhat smaller, the rise in domestic prices would discourage domestic consumption; thus the amount available for export might still increase by 50%. A one-third reduction in the rice premium together with a 50% increase in exports would leave government revenue collections unchanged.

The possibility of eliminating a substantial portion of the burden of the rice premium without any loss in government revenue argues in favor of partial reduction of the premium as an initial step. This approach is further supported by the uncertainties about secondary price rises, political effects, production response, and effects on the non-farm sectors. A partial reduction would provide an opportunity to reduce these uncertainties, improving the basis for future decisions.

The Burden of Rice Taxes

Rice taxes substantially lower farm incomes. The depression of farm incomes is, however, offset by lower rice prices to consumers and increased revenues to government. But, a further effect of rice taxes is to reduce the amount of labour, land, and other inputs to rice production far below the levels that would be desirable for the country as a whole. This occurs because the farmer receives only 500–800 baht per ton for paddy that is worth 1,000–1,500 baht per ton in the export market. The value in the export market measures the true economic value of additional rice production to Thailand. As the analysis of production effects has shown, because of the depressing effect of rice taxes on paddy prices, economic incentives are distorted and production retarded. This is the true burden of rice taxes, and it is borne not by the farmer alone, but by all of Thailand.

Extract from a paper by Dr. Usher on Economics of the Rice Premium

The Export Price of Thai Rice

It has been assumed that the abolition of the rice premium would reduce the world price of Thai rice by 3%. The issue of whether and to what extent the abolition of the rice premium would cause a fall in the world price is an important one because if the world price were to fall substantially, the benefit from abolishing the rice premium would accrue, not to Thai farmers, but to foreigners. Whatever justification there may be for abolishing the rice premium if the benefit accrues to Thai farmers, there is no justification (in terms of Thai self-interest) for its abolition if the benefit accrues to foreigners.

The assumption of a fall in the world price of 3% means that 8% of the burden of the rice premium now falls on foreigners and 93% on Thai farmers.

The estimate of 3% was based on several consideration:

1) The world price falls as a result of the premium if and only if Thai exports increase, and the abolition of the rice premium can only have this effect if it raises the domestic price somewhat. It is impossible for the abolition of the rice premium to cause so drastic a fall in the world price that the Thai farmer does not benefit at all.

2) The extent of the fall in the world price caused by the abolition of the rice premium depends not so much on the Thai share in world trade as on the Thai share in world production and consumption, these figures being 33% and 3% respectively.

The extra surplus of Thai rice caused by the rice premium represents only a very small part of total world demand, so that even if world demand as a whole is quite inelastic a small fall in the world price would cause an increase in demand that is large relative to the Thai rice surplus.

In order to place a figure on the fall in the world price of rice caused by the abolition of the rice premium we suppose that Thai rice producers and consumers and foreign rice producers and consumers are equally sensitive to price changes, that in each case the surplus available for export or the deficit made up by imports increases as a percentage of total production in the same proportion to the change in price. The world must take up any surplus Thai production caused by the rice premium; the change in the world price depends on the proportion this bears to total world production; but the change in the Thai surplus as a proportion of total Thai production depends on the percentage change in the Thai domestic price of rice. It then follows that the fall in the world price bears the same relation to the rise in the Thai domestic price as Thai rice production bears to world rice production, i.e.

$$\frac{\% \text{ change in world price}}{\% \text{ change in Thai domestic rice price}} = \frac{\text{Thai rice production}}{\text{world rice production}}$$

The Thai rice production is 10 million tons of a world production of 300 million tons. Since increase in the Thai domestic price is 80% the fall in the world price is 2.7%. This is the explanation of the extra deduction made in the examination of rice price above.

If this formula is, more or less, right, then Thailand has little to fear from a fall in the world price of rice as a result of the rice premium. The price may go up or down as a result of other factors, but this particular cause ought not to influence it very much.

Economics of the Rice Premium

Conclusion :

In evaluating the rice premium, there are two really important considerations: its effect on the distribution of income between farmers and other social classes, and its effect on the composition of output. As for income distribution it must be decided whether the present distribution of the tax burden is reasonable and fair, or whether the farmers ought to be benefited at the expense of other social classes; one must choose between these views as both cannot be held simultaneously. The premium promotes the production of other crops at the expense of rice, and lowering the cost of living, stimulates manufacturing at the expense of agriculture; it also inhibits rice farmers from using fertilizer as much as they would if domestic prices of rice and fertilizer reflected world prices. To ask whether the rice premium is a good tax is to ask whether this bundle of effects is on the whole desirable. Other considerations, stability of farm income, domestic inflation, the balance of payments, are by themselves of secondary importance, of course, the desirability of the premium would depend on what, if any, tax is to replace it. My view is that either a flat 10% export duty on all goods (coupled with a subsidy on fertilizer) or a 10% additional tariff would be an improvement over the rice premium, and that an abolition without any additional tax would be desirable if collection of existing taxes can be improved to make up the loss.

Extract from a paper by Dr. Sura Sanitanont on “Thailand’s Rice Export Tax: It’s Effects on the Rice Economy”

Summary and Conclusion

The examination and analysis of the available data and information about the subject matter of this study have confirmed those hypotheses stated in Chapter I. The results and conclusions are recapitulated below.

I. Foreign demand for rice exports. The foreign demand for rice export from Thailand is found to be highly elastic. The numerical value of the foreign demand elasticity of -20 obtained in Chapter III, however, cannot be taken literally, because it has been on the assumption that the international rice markets and the domestic markets in the individual countries participating in rice trading are well integrated and completely inter-dependent. As was pointed out in Chapter III, international rice trade as well as domestic is subject to extensive government intervention on both the exporting side and the importing side. Furthermore, rice imports into certain countries (e.g. India and Indonesia) are sometimes limited by balance of payments considerations. These factors tend to make the interdependence between the various markets less than complete. Finally, the estimate of the price elasticity of demand for rice as a whole used in the calculation is somewhat speculative (see Chapter III). In spite of these reservations, the available evidence still suggests that foreign demand for Thai rice exports is highly elastic. Several data limitations have made it impossible to arrive at more conclusive findings about the international rice trade and markets. The lack of data information is due to following reasons.

a) Only the period since 1954 can be considered as "normal" for international rice trade. From the end of the war until the end of 1949, the world rice trade was under United Nations control (see Chapter II). The Korean War (1951-53) which took place near the center of world rice production and trade, had exerted serious inflationary pressure on prices in those years. The small number of "normal" observations defies the use of sophisticated or quantitative measures.

1. In the very short (market) run, there will be virtually no change in domestic demand for rice, which is highly inelastic and (b) paddy production takes time to respond to price increases.

2. Domestic retail rice price will increase by virtually the full amount of the rice tax, to the export price level. Paddy price paid to the farmers will also rise by a comparable margin (see Chapter IV).

3. Paddy output will, after the necessary time lags, increase significantly (see Table 44).

4. Because domestic demand is highly inelastic, any increase in output will be exported entirely. Consequently the supply of rice export from Thailand will increase at a higher rate than the increase in production (see Table 44).

5. Because of the highly elastic nature of the foreign demand, changes in the export price will be small even when there is a relatively large increase in the supply of exports.

Therefore it is highly desirable from the viewpoint of the economy as a whole to eliminate the rice export tax, which will have the following net effects:

1. Income of the rice farmers will increase greatly.

2. Rice and paddy production will increase significantly in response to the increase in paddy prices.

3. Foreign exchange earnings of the country will increase as a result of the increase in rice exports.

Two further arguments are usually advanced in opposition to the elimination of the rice export tax :

1. When the tax is eliminated, domestic rice prices will rise to the world market price level. This will not only cause grave hardship to the domestic rice consumers but will also create serious inflation in the economy.

2. No alternative sources of government revenue are available to replace the rice tax when it is eliminated and the government cannot afford to lose this important source of government revenue without replenishment.

In analyzing the consumer revenue and expenditure in Thailand, it is found that even if the domestic rice price rises by entire amount of the tax, only a relatively small fraction of the population will be affected appreciably and very few families will suffer excessive losses of income. Therefore, it is unlikely that eliminating the tax will generate any serious inflationary pressure in the economy (see Chapter VI).

The examination of the government revenue and tax structure in Chapter VII reveals that there are a number of ways to recoup the government revenue lost through tax elimination. In fact, there is room for increasing the total tax revenue of the government, since the economy as a whole is somewhat undertaxed relative to other underdeveloped countries. This can be achieved by undertaking a tax reform which calls for a relative shift from the present excessive reliance on indirect taxation to greater emphasis on direct taxation. More precisely, it calls for a two points tax reform consisting of the following :

1. Replace the rice export tax with a land tax that will yield the same or even greater revenue to the government.

2. Increase the tax revenue from the non-agricultural sector by increasing direct taxes while maintaining indirect taxes at more or less the same level.

Direct taxes are objected to in underdeveloped countries for two reasons: administratively difficult and politically unpopular. Income tax administration difficulties may indeed be awesome, but administering a land tax may not be as formidable a task as it is believed to be. On the other hand the political hurdle in introducing a land tax and other direct taxes is much more difficult to overcome, because the propertied and the landed class who are powerful economically are, as a rule, also powerful politically; and they would certainly choose not to disown themselves. Such political decisions are, however, beyond the scope of economic analysis.

Extract from a paper by Prof. Forrest Cookson on Control of the Rice Export Trade

In the absence of quotas or taxes the domestic rice price is equal to the external price. The only differences arise from the details of price formation. This will be discussed in detail shortly. For the moment, however, the identity of these prices is assumed. Given such equality the only way Thailand can affect the external price is through producing so much rice that the magnitude of this production affects the external price. A rough measure of the ability of the Thai level of production to affect the level of the rice price is the percentage of total rice production produced in Thailand. Thai rice production is perhaps 5% of the world total. If Thai rice production were to increase 10% the world price would probably decrease between $\frac{1}{2}\%$ and 1%. This estimate may be a bit low since it is worked out on the assumption of a single market for rice. However, it is probably not off by more than a factor or two. The conclusion is that the external price is largely independent of the level of Thai rice production; instead, the world rice price should be taken as a datum.

If the effect of the Thai production on the world price is so small as to leave the latter virtually unchanged, the movement of domestic prices is essentially a response to the movement of world prices. It is the latter which is the main determinant of the domestic price. The conclusions from this idea are very strong. One should not look for a domestic culprit when the domestic price increases; this is a response to an increase in the world price. The actual relationship between domestic and world price is more complicated and we shall shortly discuss this issue in more detail. Subject to the qualifications of the next section and to the existence of quotas or taxes the domestic rice price is beyond the control of the Thai government or the Thai exporters.

Extract from a paper by Dr. Snoh Unakul of the NEDB

“1. Fluctuations in the international rice price take place because of the fluctuations in the international demand and supply conditions. While it is true that Thailand supplies about 15% of all the rice entering international trade, the volume of rice that enters into world trade is itself determined by world production and consumption. The fluctuation in international demand and supply are thus due to fluctuations in world production and consumption (especially the former since the latter has a stable trend) of which Thailand's shares are rather small.

2. International prices, being essentially due to factors outside Thailand's control, cannot therefore be influenced by any action which the Thai Government may take.”

The only economist who differed with the foregoing opinions on the structure of world prices was Mr. Somporn Thebsita of the Economics Ministry, who in a paper presented at a seminar held at Thammasart University in March 1967, wrote as follows:

Question 4. How much influence does the quantity of Thai rice exports have on the export price?

Answer Since Thailand is the world's largest rice exporting country and the main rice supplier of many countries, the quantity of Thai rice exports does exercise great influence on the export price. This year the export of rice is subject to quantitative restriction. The limited availability of Thai rice is the main cause of price rises in Hong Kong, Singapore and Malaysia, which have to depend heavily on rice supply from Thailand.

Extract from a paper by Dr. Siribongse Boon-long et alia

At a seminar of the National Research Council held in October 1965 a paper on "The Inter-Action of Agricultural Production and the Population of Thailand" was presented by Dr. Siribongse Boon-long, Secretary of the FAO National Committee, Dr. Sala Tasanonda, of the Rice Department and Mr. Chuwong Thanombulabutr of the Agricultural Economics Division of the Ministry of Agriculture, in which was included the following paragraph.

"Investment in the agricultural sector was very important. At the present time in Thailand there was very little direct agricultural investment to increase yields both by the Government and the people. Government investment has been on infrastructures such as irrigation.

Interest in improving yields has only become evident in this year of 1965. On the part of the farmers there is yet no incentive to increase yields per rai because paddy prices are very low. The price of paddy is lower than the cost of production; the more they produce the more they lose. If the price of paddy was increased the farmers would have the ability to invest in fertilizers and other improvements."

**Extract from an article in *The Standard*
by M.C. Sithiporn Kridakara**

The advantages of eliminating the premium are, there will at once be a substantial increase in the per capita income of rice farmers, which at present prices could be as much as 100% which surely is eminently desirable; high prices will be an incentive to plant more rice, and high prices will make possible the profitable use of fertilizers to increase yield and the wealth on which the 20% minority depends for its living. The total result will be rapid progress.

The sole disadvantage apparent is that it will raise the cost of living for the 20% minority, mostly living in towns, and wage earners.

Taking the opposite view, the premium has the advantage of keeping down the cost of living for the 20% minority, but has the disadvantage of destroying the means by which the 80% majority can increase their income and the wealth of the country in the form of rice. The total result can only be slow progress.

The premium, then, is the means by which low living costs can be maintained for the 20% minority, wage earners including Government servants, which means that their incomes will be kept at a constant level by adjusting prices, which in effect decreases the incomes of the 80% majority, and stultifies their efforts to increase production and wealth. This seems to be a static economy rather than a progressive one, for the wage earners will not be any richer and the producers of wealth will remain as poor as before.

On the other hand, if the majority, the producers, are allowed to get the fullest returns for their labour and the resulting high cost of living is met by adjusting wages to increase the incomes of the 20% minority, the result will be a progressive economy, for the per capita income will be higher for all.

In short, which is the better for the economy as a whole, to adjust the incomes of the majority down, or to adjust the incomes of the minority up? That is the question.

However, I am not an economist and my views on the matter may be rather naive, so I hope the economist who recently contributed articles to *The Standard* will give his views on what I believe to be an important subject. And, of course, every one would like to hear what the Governor of the Bank of Thailand has to say, for a higher level of prices will, I suppose, bring problems relating to the money supply, and other matters beyond the knowledge of the layman.

**FROM THE GOVERNOR OF THE BANK OF THAILAND
AND DEAN OF THE FACULTY OF ECONOMICS,
THAMMASART UNIVERSITY**

7th February, 1967.

Dear Editor,

This letter is in response to M.C. Sithiporn Kridakara's appeal in your paper (January 21, 1967) for me to state my views on "The Agricultural Sector of Thai Economy." I am writing to you at some cost because I have never been busier in my life; only I feel that my respect for M.C. Sithiporn must prevail. I hope that you and the famous veteran will forgive me for the brevity of the letter, which may not do justice to the important subject under discussion.

I agree with almost everything that M.C. Sithiporn said in his article. In particular I believe with him that:

(a) "The problem facing us is not to enlarge our farms, but to prevent them getting smaller still";

(b) The price of paddy must be in the right relationship with the price of fertilizer, in order to encourage the farmer to increase his productivity and his income;

(c) It is better to adjust the incomes of the majority up and to adjust the incomes of the minority down, if that is necessary for the sake of the majority and for the sake of social justice.

The following further points are offered for consideration:

(1) We must increase the productivity and hence the income of the individual rice farmers, by means of better seeds, fertilizer, and better methods of farming.

(2) The price of paddy should be raised in such a manner as to do no harm to the economy, in order to encourage the use of better seeds, of fertilizer, etc.

(3) If the internal price of rice and paddy is raised suddenly, by the abolition of the premium, or by any other cause, other prices and wages are likely to be affected. And if this happens, the farmer's real income may not rise as much as we would wish to see. For the nation as a whole, the general rise in prices and wages will create additional serious problems, especially if dynamic forces in the economy are such as to generate a wage-price inflationary spiral.

(4) I would like to see a long-term policy of gradual increase in the internal price of rice towards the level of world price. Gradualness in this case means a gradual reduction of the export rice premium structure over a period of years.

(5) During the period of adjustment, while the internal price of rice still remains below the world price, the proceeds of the rice premium should be utilized partly to subsidize the cost of fertilizer to the farmer, partly to provide for public services which directly or indirectly benefit the farmer.

(6) If the aim of raising the income of the individual is to be achieved, we must also consider two other factors: namely the arable land which can be increased neither rapidly nor without limit, and the farming population which does increase rapidly and boundlessly. Some farmer's sons and daughters ought to seek some other jobs sometime, and let us help them find these other jobs which are remunerative enough. This leads us to what is, for convenience, called "industrialization."

(7) The problems of industrialization for small and inexperienced countries like Thailand are numerous. In brief, the solution lies partly in education investment, and partly in the integration of our industrial plan with neighbouring countries similarly situated.

As far as rice policy is concerned, I would suggest a formula "Up price of paddy, down the premium. Subsidise fertilizer. Easy does it."

Yours sincerely,

Puey Ungphakorn

M.C. Sithiporn's Comments on Various Papers

I have submitted at some length extracts from papers and documents to show that there is a large body of opinion which favours a modification of the premium, and there is common agreement that the premium has no influence on world prices. Most economists agree that the rice trade in Siam is highly competitive so that any rise in the domestic price, consequent on abolishing the premium would be reflected in a rise in farm paddy prices.

However it may be said that high Government circles have been unaware of this body of opinion. It has not been officially presented to them, so to speak. But this cannot be said of the representations made by the Farmers' Groups to the Prime Minister in 1965, to abolish the premium, to raise farm prices which had dropped to 800 baht per kwien.

As narrated in my talk, the matter was referred to the NEDB for consideration. The latter set up a working party of experts whose opinions were set out in several papers from which the following relevant points are briefly stated. Dr. Sala Tasanond Director General of the Rice Department said that the most important factor in increasing productivity was the price of paddy, because farmers would have to purchase fertilizer and pesticides

which they cannot do with low paddy prices because they will lose money by so doing. In 2506 paddy prices went up to 1,000 baht per kwien but they have now (1965) fallen to 700-800 baht per kwien. Government should take measures so that farmers could get at least 1,000 baht per kwien.

Dr. Prayun Kanchanadul of the Internal Trade Department wrote on the marketing chain in which he showed that the middlemen's profits from farm to mill average 85 baht per kwien; milling profit are small mainly derived from the sale of bran for about 20 baht per kwien, the milled rice sold through wholesale dealers and retailers brought a profit of 86 baht per kwien making a total of 181 baht per kwien. Since the distribution services or mark-ups would remain constant the higher the price of paddy the less percentage wise would the farmer have to pay for these services. Dr. Chaoyong Chuchart of the Land Development Department made many recommendations such as consolidation of small holdings, better tenancy laws but which would take a long time to accomplish. In the short run he suggested that better credit facilities should be provided, and that the rice premium should be used to subsidise fertilizers.

Dr. Kamol Janlekha showed that paddy production costs were higher than sales prices; farmers managed to survive because a large part of these production costs were provided by the labour of the farm family. But with low paddy prices they could not make ends meet and had to get into debt, the latter increasing until they lost their farms. So better prices must have priority. The measures being considered such as better credit, land reform etc are important but they will not achieve their purpose, if owing to low paddy prices they cannot pay their debts and remain land owners but wind up being tenants as before. He emphasised that paddy prices high enough to pay for production costs and a reasonable return for their labour must come first and be the basis on which the other measures of assistance can be built.

Mr. Sanit Wilaisakdi of the Interior Ministry deplored the social conditions under which our rice farmers lived and carried on their vocation of providing rice for the whole population and for exports on which our economy has been built. But they get the least attention and lack the amenities of life enjoyed by the urban population so that they may be called "second grade citizens". The economic status of our farmers is so low because of poor productivity from their rice fields, due to lack of education. They employ outmoded methods of cultivation; they fail to make improvements on their fields; they don't know how to use fertilizers; or select good seed, they lack labour saving implements etc.

But he fails to point out that the prime cause of all these failings is poverty, due to low paddy prices. The best educated farmers in the world could not make the improvements he mentions or raise productivity if he cannot get profitable prices for his product.

A profitable paddy price was stressed both by Dr. Kamol and Dr. Sala, who as Head of the Rice Department should have carried weight, but it was rejected by the NEDB, who wanted to maintain the price of paddy at the poverty level of 800 baht, and lowered the quality and price of the fertilizer in order that reasonable profits could be obtained at this low paddy price. Subsidised fertilizer was the slight concession to the appeal of the Farmers' Groups regarding the premium as narrated in my talk and was of benefit only to these and other Farmers' Associations, forming less than 10% of the rice farming population, leaving the 90% without any help and as poor as before.

The Government in effect paid no heed to our leading agricultural economists and pinned their faith on those in the Ministry of Economic Affairs, whose opinions in favour of the rice premium have been published in two articles. One by Mr. Somporn Thebsita in the *Commercial Accountancy Journal* of June 1966,

and the other by Mr. Nam Poonwatu in the *Journal of the Board of Tax Supervision* of July 1967.

The first article was prompted by one of the articles I had been writing in the Siamese and English newspapers, and the one he picked on to criticise was entitled "The premium is a bar to progress"

It should be noted that my article was written when prices were still at the 800 baht level, just after the Farmers' Help Committee had been set up, whilst Mr. Somporn's article was written in June 1966 after the rise in farm prices in April of the same year.

Mr. Somporn's summary of my article can be briefly stated as follows:

- (1) Paddy prices in Thailand were much lower than other countries such as Indonesia and Japan.
- (2) The premium was the cause of low paddy prices in Thailand.
- (3) Farmers growing other crops enjoyed higher incomes than rice farmers because the former get world prices for their products whilst the latter had to sell their paddy at lower than world prices.
- (4) Eliminating the premium would raise paddy prices by 444 baht over above the then going price of 800 baht.
- (5) Helping the farmers by supplying fertilizers to increase production was limited by diminishing returns unless paddy prices were increased.
- (6) The premium was therefore a bar to progress making the farmers poor and should therefore be eliminated.

The point of my article was that low paddy prices precluded the fullest advantage that could be obtained from fertilizers because of diminishing returns which I illustrated in my article as follows:

**Excerpt from an article in the *Bangkok Post*
by M.C. Sithiporn Kridakara**

“But at the present fertilizer prices in relation to the low paddy prices, it will be found that additional fertilizer will increase the production of paddy, but lower the farmers’ earnings. To make this point clear I must now refer to the important series of experiments carried out by the Rice Department in conjunction with the International Rice Commission with the advice of experts of the FAO. These experiments were designed to find out the increased yields to be obtained from various combinations of fertilizers. They were carried out on rice farmers’ fields all over the country involving hundreds of trials over a period of six years from 2501--2506 inclusive. The results have been published by the Rice Department and they show increasing yields from increasing amounts of fertilizer in all four regions; especially in the North Eastern Provinces. For the purposes of this article, and not to make it unduly long, it will be sufficient to deal only with the North Eastern Provinces, where the rice area is 40% of the whole; but yields and prices are the lowest, consequently rice farmers of that region are in the most need for help. In the following tables, I have tried to avoid technicalities by designating the different combinations of fertilizers by number ranging from I to VII, indicating the gradually increasing amount of fertilizers in each combination or formula. This occupies the first line in the tables.

The second line shows the increased yields obtained from each formula expressed in tang.

The third line shows the sale value of each increase calculated at the internal price of 6 baht per tang for table A, and at world price for table B.

The fourth line shows the cost of fertilizer at present market prices for each formula.

The fifth line shows the profit from each formula.

Table A showing profits from fertilizers at internal price of 6 baht per tang in the North Eastern Provinces, the normal average yield is 20.4 tang per rai.

Fertilizer formulae	I	II	III	IV	V	VI	VII
Increased yield in tang	4.4	7.4	10.5	12.6	14.9	16.3	18.7
Value in baht	25.8	44.4	63.0	75.6	89.4	97.8	112.2
Cost of fertilizer in baht	15.0	21.0	36.0	51.0	66.0	81.0	92.4
Profit per rai in baht	10.8	23.4	27.0	24.6	23.4	16.8	19.8

From the above it can be seen that the normal yield of 20.4 tang per rai is progressively increased by progressive increases in fertilizer, but the profits progressively decline from formula IV, the point of diminishing returns, the optimum profit stopping at formula III. As long as fertilizer and paddy prices remain the same no further increases can be obtained, and we come to a dead end, and the only way out is to increase the price of paddy. For instance if the world price of 9.56 baht per rai could be obtained then the following will be the result :

Table B showing profits from fertilizers at world price of 9.56 baht per tang in the North East Provinces the normal average yield is 20.4 tang per rai.

Fertilizer formulae	I	II	III	IV	V	VI	VII
Increased yield in tang	4.3	7.4	10.5	12.6	14.9	16.3	18.7
Value in baht	441.7	740.7	100.3	120.4	142.4	153.8	178.7
Cost of fertilizer in baht	15	21	36	51	66	81	92.4
Profit per rai in baht	26.1	49.7	64.3	69.4	76.4	74.8	86.3

From the above it can be seen that with paddy at world price, the point of diminishing returns is moved from formula IV to VI with optimum profit from V, which shows that there will be an increase of nearly 76% with a yield of 35 tang and a profit of 76 baht per rai."

I then went on to say that "We cannot of course hope to equal the yields obtained in Japan by raising prices to such inordinate lengths, because we are an exporting country. On the other hand we should not go to the other extreme and depress prices to the extent of inhibiting increased production to the limit possible under world prices, and incidentally keeping our rice farmers in a state of poverty."

Finally whilst some of the figures and calculations I have made above may not be strictly accurate, and may be assessed by professional economists as the mere guesses of an amateur, yet I feel sure that they are sufficiently near the truth as to achieve the object of this article. Namely to show that beside keeping our rice farmers poorer than they should be, the premium is an impediment to improving their lot through scientific research, because instead of helping research workers by maintaining high prices as in Japan, the premium does the opposite and handicaps the efforts of our research workers to a degree not experienced anywhere else.

My point in comparing our paddy prices with those of Japan was to show that Japanese farmers get higher yields because high prices overcame the problem of diminishing returns and we could not overcome this problem as long as paddy prices were kept below world prices by the premium.

M.C. Sithiporn's Review of Mr. Somporn Thebsitha's Article

Mr. Somporn, in his article, avoids discussing this main point altogether, and makes no comment on point (3) concerning the higher incomes enjoyed by farmers growing other crops because they were not handicapped by a premium.

He goes on to say that many foreign economists had taken interest on the subject and most of them think that the premium lowers paddy prices and hence incentives for farmers to grow more rice. He mentions Dr. Usher's paper "The Economics of the Rice Premium" in which he thinks the premium should be eliminated, which would result in lowering world rice prices by 3%, domestic paddy prices would rise 85% and the cost of living would rise by 23%. Dr. Usher further suggests that to make up for loss of government revenues a 10% duty could be levied on all exports or imports.

Mr. Somporn, in his article, went on to ask his readers to consider 3 important points in connection with the premium namely:

- (1) Does the premium really make the domestic price of rice low or not?
- (2) Would eliminating the premium cause the rice farmers to get higher prices for his paddy or will it lower the price of rice in world markets?
- (3) What detrimental results can be expected from abolishing the premium?

With regard to the first question, after referring to the post war measures taken by Government to gain large profits from Government to Government trading and exchange regulations, he has given a table showing that after these measures ceased and the premium imposed instead, paddy prices were actually higher than before the introduction of the premium, so he reasons that "to say that the premium made the paddy prices *lower* is not true". With all the deference due to Mr. Somporn as an outstanding economist I think there he is guilty of quibbling, for the fact is that no one has stated that the premium made paddy prices lower than the domestic price before its imposition. What every economist outside the Economics Ministry claims is that the premium makes the domestic price lower than world price. In fact in the very next sentence Mr. Somporn confesses that the premium does set up a barrier which prevents the domestic price from going up to the level of world prices. That surely is the answer to his own question. If the premium prevents the price of rice from going up to world prices, it must necessarily make the domestic price lower than the world price. As to how low it is depends of course on the rate of premium levied. However, he seems to ignore his self-contradicting statement and goes on to say that one of the reasons our paddy prices are low is because our cost of production is low compared with other countries. Japan's area is limited and must increase productivity by heavy inputs, raising the cost of production so the paddy price must also be higher. Though our productivity is low, our cost of production is low, so prices are low. Another reason is that we have a surplus so that we can keep paddy prices below world prices. This Japan cannot do, because there is no surplus and the reason why Japanese prices are 4 times higher than ours is because high prices must be given as an incentive to increase production and is in fact a subsidised price higher than world prices. It is wrong therefore to compare our prices with those of other countries and expect to get the same prices as they do, because cost of production and living costs are very different.

There is no reason whatever from an economic point of view to raise our prices to the level of Japanese prices.

The above statements are both astonishing and misleading.

It is astonishing to learn that farm paddy prices are low because the cost of production is low. This goes against the point of view of the farmer or any businessman for that matter. Our conception has always been that the lower the cost of production and the higher price we can get for our product, the more profit we shall get. And in fact this is really what is happening: the difference from ordinary business transactions is that the profits which the farmers should enjoy are taken by the Government in the form of the premium, and Mr. Somporn's statement is misleading because it hides the true facts.

To say that I or anyone else wanted our paddy prices to equal those in other countries is also misleading, and ignores the final part of my article, in which I said that paddy prices should not be depressed to the point where it inhibits the use of fertilizers. This was the whole point of my article which Mr. Somporn does not mention at all in his criticism of it. So one must suppose that he does not consider increasing productivity to be an important matter, because as long as our cost of production is low and the profits in the form of the premium are high, increased productivity is undesirable if it also necessitates higher paddy prices.

So he goes on to say that our prices should not be decided by comparison with other countries but whether it is fair and remunerative considered on the principles of the "cost approach" or "parity price approach".

Using the former principle he states that the cost of production per kwien was 963 baht per kwien and that farmers should therefore be satisfied with a price of 1000 baht.

There was therefore no need to increase the price by 444 baht which according to my calculation would make it equal to world price or as high as an increase of 85% according to Dr. Usher's estimate. Prices for paddy should be set at a rate which is fair to both producer and consumer.

To this I would say that the price of 1000 baht suggested by Mr. Somporn as fair and remunerative gives a return of 4% on the production cost of 963 baht per kwien. Now would Mr. Somporn invest his money in growing rice, with all the risks entailed, for a return of 4%. when he could get a return of 7% from Government Bonds without any risk whatever?

It's absurd and ridiculous on the face of it!

Mr. Somporn then takes up the question regarding the effect of the premium in the internal and external prices of rice in which he cites the opposing views of those like myself and Dr. Usher who think that eliminating the premium would raise farm prices to a similar amount as the premium. In my case, with the premium at 684 baht per ton of export rice and a 65% extraction rate, the equivalent paddy price would rise by 444 baht per kwien. Dr. Usher estimates that world prices would fall 3% and farm prices would rise 85%. The opposite view is that eliminating the premium would not benefit our farmers so much as people in importing countries who could then buy our rice at lower prices, or the middlemen and rice dealers who would not pass their increased profits on to the farmers.

Mr. Somporn then gives a long dissertation on how prices will be affected by a seller's market or a buyer's market. In the former case eliminating the premium will not affect the world price very much, but in the latter case it will lower world prices much more than the 3% estimated by Dr. Usher, because if our rice exporters were relieved of the premium it would be lowering their export price by nearly 30% and would lead to a price cutting competition which could bring prices down to a very low level.

From this it appears that in Mr. Somporn's opinion world prices are set by our rice premium, which it certainly did not do in B.E. 2509 when the premium remained fixed and world prices went up and up; and as recently as last October when the premium rate was fixed at 1450 baht per ton world prices fell from £ 90 to £75 without any change in the premium rate at all

Moreover it will be seen from the quotations I have given from papers written by many economists, they are all agreed that world prices are set by world production as a whole, of which Siam's share is only 3% and Dr. Usher's estimate is based on the assumption that eliminating the premium will lead to a substantial rise in production and increase the supply of rice in the world in relation to world demand, which can only happen in the long run. In the short run eliminating the premium will not increase the supply of rice in the world and will therefore have little effect in bringing down world prices.

I think this is probably clear even to a layman like myself and Mr. Somporn underestimated the intelligence of our rice exporters if he thinks they will sell our rice at under world prices.

However, if what Mr. Somporn said is true, it means that the premium is keeping up world prices and that the burden of the premium is born by importers of our rice and would therefore have no effect on domestic prices, which would remain at the same level as before.

But this is contradictory to what Mr. Somporn said earlier in his article that the premium acted as a barrier to prevent domestic prices from rising to the level of world prices. So eliminating the premium would make domestic prices rise to the same level as world prices, a fact which Mr. Somporn himself corroborated later in his article.

As a layman I find this contradictory statement rather confusing and can only come to the conclusion that Mr. Somporn considered that the premium functions as an instrument to do two things at the same time; that is, it keeps up world prices and keeps down domestic prices.

I doubt whether other economists will agree with the first point, but have no doubt whatever that every thinking person will agree with the second. Indeed it is the position taken by the Government that a premium must be imposed to keep down the cost of living, that eliminating the premium will raise domestic

prices to the same amount and cause great hardship to consumers without much benefit to the farmers, because the increase in the domestic price will be absorbed by middlemen in the rice trade, who will therefore be the sole beneficiaries. Mr. Somporn shared the same opinion when he said in his article that the benefits will accrue to consumers in importing countries or the middlemen who will be unwilling to pass their profits on to the farmers.

He further stresses the point by saying that "as long as middlemen have superior bargaining power over the farmers as at present the hope of seeing paddy prices rising by 85% or by 444 baht per kwien can never be realised". That middlemen's profits will remain the same after eliminating the premium was only Dr. Usher's theoretical assumption and it will be difficult to find any one who would agree with it.

On the contrary other economists did agree with Dr. Usher as shown from the extracts I have made from the papers by Dr. Chaoyong Chuchart and Sopin Tongpan, Prof. Wagner and Sopin Tongpan, Dr. Sura Sanitanont, and I venture to think many other economists would also agree, because even a layman can see that it is competition that determines the level of prices.

We have then two opposing opinions, that of the economists who hold the orthodox view that competition in the rice trade will raise farm prices to the amount of the premium if it were eliminated; whilst Mr. Somporn takes the opposite and unorthodox stand that our rice traders are monopolists who will divide the resulting rise in prices between themselves and the farmers will get nothing or very little out of it.

As a layman I suggest that a measure of truth can be arrived at by considering the actual figures at a time when the rice trade situation was analogous to that which would obtain were the premium to be eliminated.

Writing at the time when paddy prices were 800 baht per kwien and the average premium was 684 baht per ton, I said that

if the premium were eliminated, farm prices at the extraction rate of 65% would rise by 444 baht, making the price 1244 baht per kwien.

I believe all agree that eliminating the premium of 684 baht would raise the domestic price by the same amount, and that at the extraction rate of 65% this would be the equivalent to a rise in paddy prices of 444 baht per kwien; What is not agreed on is what happens to the rise of 444 baht per kwien? One side says that it would accrue to the farmer and the other maintains that it will benefit the rice traders only. It follows therefore that any rise in the domestic from other causes than eliminating the premium would follow the same course; that is it would either accrue to the farmer or to the rice traders.

Mr. Somporn's assumption that paddy prices are determined by the middlemen's superior bargaining power can only be true, if the latter formed a cartel or monopoly setting a price limit and agreeing not to compete with each other.

In view of the fact that there are thousands of rice mills and many more rice dealers engaged in the rice trade all over the country, it cannot be supposed that they can all come together to form such a cartel, so that Mr. Somporn's theory will, I think, find little credence amongst economists. But it must be admitted that there is a wide belief, amounting to a dogma, that middlemen do depress prices, and Government spokesmen have taken full advantage of this fact in their propaganda of deluding people into thinking that the middlemen is to be blamed for low paddy prices, and not the premium which is usually hardly mentioned at all.

The average export price for rice in 1965 was £ 48 per ton. In 1966 world prices rose to about £ 60 per ton in April of that year, that is an increase of £ 12 equal to 696 baht at the then average exchange rate of 58 baht to the pound.

As at that time the premium rate was fixed and levied on quantity and not ad valorem, this increase in world price of 696

baht would also increase the domestic price by the same amount, just as eliminating the premium of 684 would increase the domestic price by the same amount. The analogy is obvious, a slight difference in the two sums would also make a difference in the paddy equivalent, being 452 baht per kwien for the actual increase of 690 baht per ton instead of 444 baht per kwien for the assumed increase of 684 per ton. Now what actually happened to this 452 baht increase per kwien? If it was divided between the rice traders as agreed by Mr. Somporn and the Government there would have been no increase in the paddy price of about 800 baht per kwien. If the opinions of Dr. Usher and other economists mentioned are correct, then the price of paddy would rise to $800 + 452 = 1252$ baht to the farmere's benefit.

Published statistics of the Internal Trade Department of the Economics Ministry show that paddy prices at Ayuthia in April of 2509 was 1244 baht per kwien, and Mr. Somporn himself said further in his article that in that same month he met Mr. Phaibul Areechon, National Chairman of the Farmers' Groups who told Mr. Somporn that in his province farmers were getting 1200 baht per kwien for their paddy. He found the same in Nakorn Sawan and he gave the reason for this increase in price was due to a rise in world market prices and consequent increase in the domestic price. Now does not this definitely show that the estimated increase of 452 baht per kwien in the domestic price due to a similar rise in the world price was not all absorbed by the middlemen and raised the farm prices to at least 1200 baht?

It logically follows that the assumed elimination of the 684 baht premium and its paddy equivalent of 444 baht would raise the domestic price by a similar amount and would also have the same result as what actually happened, i.e. increasing farm paddy price to 1200 baht per kwien.

This I submit shows that the assumption of Dr. Usher and other economists is much nearer the truth than Mr. Somporn's and the Government's assumption that any increase in the domestic price would be all absorbed by the middlemen, the convenient scapegoat of their deluding propaganda.

However Mr. Somporn went on to say that even if eliminating the premium raised paddy prices and benefited the rice farmers, many disadvantages would result from this action.

- (1) There would be a great loss of revenue to the extent of 1200 million baht a year, and without it the Government would not be able to carry out the various projects which benefit the farmers, such as irrigation, roads etc, and Mr. Somporn criticises Dr. Usher's suggestion of increasing import or export taxes on all products to cover the loss of revenue.

To this it may be said that there are other methods of taxation which will fully cover the loss of 1200 million baht obtained from the premium.

The excellent suggestion of Dr. Sura Sanitanont for a land tax even on agricultural only, would bring as much, if not more than, the premium, and can be made fairer for the rice farmers. Mr. Somporn stresses a fair price for the consumers, but completely ignores the unfair burden of taxation borne by the rice farmers.

According to the Department of Land Development there are 70 million rai in agricultural production, of which 20 million or more are producing other crops than rice.

A tax of 20 baht per rai would bring in 1400 million baht, but can be graduated in record with the value of crops produced. For instance the present land tax on a coconut plantation is only 2 baht per rai covered by 2 coconuts!

Even a tax on rice fields at 20 baht per rai would benefit rice farmers if the premium were eliminated. On a 25 rai farm the tax would amount to 500 baht but at world prices the paddy price would increase by 600 baht per kwien, and a sale of only 4 kwien would increase farm income by 2400 baht.

Mr. Somporn will of course violently oppose this because it would be the 2nd disadvantage from his point of view, that is

- (2) It will increase the cost of living. Since the cost of rice is a major factor in the cost of living index, eliminating the premium will also raise the cost of living, which according to Dr. Usher's estimate would rise by 23% and the retail price of rice by 60%. Whether these estimates are correct cannot be affirmed but what can be affirmed is that when the retail price of rice rise by only 11%, there was an outcry in the papers that the price was too high and all the rest of it, Mr. Somporn sums it up by saying if a rise of only 11% caused so much hardship, a rise of 60% according to Dr. Usher's estimate would make it ever so much worse.

To this I would say that Mr. Somporn exaggerates the degree of hardship suffered by the 2 million inhabitants of Bangkok who are the only people he thinks of. Outside Bangkok high rice prices had the opposite effect.

In 2510 (1967) rice prices actually rose 60% from 30-35 baht per tang to 48-50 baht per tang, and where I live in Hua Hin and in the neighbouring town of Petchaburi the prices remained at that level for several months. But the merchants and trades people were delighted as trade was brisk, farmers paid up their debts incurred for pumps and engines, and bought more; wage earners in the town did not complain, because their fathers, uncles and relatives were all farmers enjoying high prices, work was more abundant and at higher wages. These conditions were surely not applicable to Petchaburi alone; and one most important result of high paddy prices was that rice farmers bought more fertilizers than they ever did before. This, I submit, proves the thesis of my article.

That the premium was a bar to progress was correct because at the time I wrote it the premium was keeping paddy prices down to 800 baht per kwien and made the use of fertilizers unprofitable.

But what of the people of Bangkok when the price of rice rose 60% to 50 baht per tang? Did they suffer the terrible hardships that Mr. Somporn had envisaged? Well, they didn't fall dead in the streets, and the cinema theatres were as well filled as ever. In fact more of them were built.

That high rice prices will cause a great deal of hardship to the people is a favourite propaganda theme constantly employed by the Economics Ministry, which in fact is far from the truth. In 1966 the Government increased salaries in the lowest category 20% and wages have increased by over 30% whilst the Commercial Intelligence Department's Consumer Price Index rose from 103.8 in 1965 to its highest point in October 1966 to 113.9 i.e. an increase of just over 10% as against an increase of 20% and more in wages. So where does the great hardship come in? A further fact generally ignored is that since rice prices were forced down in 1968 by restricting exports, the Consumer Price Index actually went up in October 1968 to 115.2, so Mr. Somporn's statement that the price of rice is a major factor in the Consumer Price Index is a wrong assumption; if it were so the Consumer Price Index should fall instead of going up, showing that it is due to other factors, such as the high price of pork and other foodstuffs, so high rice prices is not a valid excuse for high living costs.

However Mr. Somporn goes on to say that foreign experts especially Americans who propose eliminating the premium, do not see the importance of rice prices. Perhaps they are apt to forget and think the economy of Siam is similar to the American Economy. In America very little rice is eaten and however high the price may be, it will not affect consumers to any extent, because their staple food is wheat bread and their expenditure on rice would hardly be 1% of their expenses for food. The very opposite is the case in Siam and high rice prices would incur hardship on millions of people.

Of course Mr. Somporn has no consideration for the many more millions who suffer even greater hardships from low rice

prices and that their hardships can be alleviated by increasing rice prices for the majority the producers, and raising incomes of the minorities—the consumers.

However, it seems that Mr. Somporn has a poor opinion of Dr. Usher and his fellow experts. He seems to think that they are like schoolboys with unbalanced minds. They are competent economists with no axes to grind and are surely capable of objective research into the rice economy of Siam, or the maize economy of Mexico for that matter. To suspect that their thinking would be guided by the wheat economy of America is an affront to their intelligence and the expression of a superiority complex that is both unwarranted and ill considered.

- (3) Without the premium the Government would be without a prime instrument for controlling the amount of rice exported and to maintain the level of domestic prices.

Mr. Somporn explained that if exports rose to a point which might cause a shortage on internal consumption then premium could be increased to restrain exports. On the other hand, if low exports tended to depress internal prices, then the premium could be lowered to increase exports.

This seems to indicate that the premium would be used to control exports in order to maintain the domestic price at a desired level. If internal stocks increased to a point where the supply exceeded domestic demand and thus cause a drop in prices then the amount of export would be increased to lower internal stocks and restore the price level. This means that keeping domestic prices down to a certain level for the benefit of the 2 million of Bangkokians is more important than the amount of rice we export.

Since rice exports are the main source of our foreign exchange earnings, surely it must be against the public interest to curtail export to keep domestic prices down for the sake of less than 10% of the population who live in Bangkok.

Unfortunately a recent broadcast by the present Economics Minister seem to indicate that this policy is being followed, though there is reason to suspect it is the Government's propaganda designed to hide the fact that difficulty is being found in selling our rice in competition with other countries. For there is a surplus of 1.8 million tons to be sold. With even a smaller surplus of 1.5 million tons in 1966, the quantity exported in the first 4½ months of that year was nearly 800,000 tons, whilst in the present year it has shrunk to 372,185 tons. A gloomy prospect indeed!

As a matter of fact, restraining exports by the premium or any other means is only necessary in a sellers' market, where there may be a danger of shortage for internal consumption as happened in 1966. But it is now a buyer's market and we need have no fear of an internal shortage, but rather that we cannot export as much as we would like to. In these circumstances the function of the premium is obviously only to keep down domestic prices.

Now let us see what actually happened during 1966-1967. There was a rise in world prices and consequent rise in paddy prices which as previously shown did benefit the farmers, a fact which Mr. Somporn himself endorsed.

This shows that Mr. Somporn has been at fault on two counts. Firstly, since he has himself said that the rise in domestic price was due to a rise in world prices, he contradicts himself again because he previously assumed that the premium controlled world prices. If this were true then world prices would not have risen because during 1966 the premium rate was fixed and the world price would have also been fixed. The reason for the rise in world prices was due in a large part to the famine in India, which decreased world rice production and made the world supply short of world demand. This shows the opinions of the economists I quoted from were quite right and Mr. Somporn's assumption completely wrong.

Secondly when it came to the point Mr. Somporn and his colleagues in the Economics Ministry did not practise what they preached. For when domestic prices did rise the premium rate was not increased, as he said it would be, and the result was that exports were not restrained either, and export had to be peremptorily forbidden although the premium was still in force.

In fact the then Minister of Economic Affairs endorsed that maintaining the premium at a fixed rate had been a mistake, and if Mr. Somporn and his colleagues had anything to do with the mistake, then our rice farmers owe a debt of thanks to him and his colleagues for the best mistake ever made, which resulted in high prices and bringing benefits not only to rice farmers but to the whole economy. For high prices were the incentives which led to an increase in the area planted and made rice farmers "fertilizer minded". Recent contacts with many farmers have shown me that they are fully aware of the advantages of fertilizer use. And this is a good sign, because fertilizers will be a major factor in the ability of our farmers to compete with those of other countries in the world markets in the not too distant future.

This leads me to the next point in Mr. Somporn's article in which he says that without the premium it would be difficult for Thai rice to compete with other countries, because eliminating the premium would cause domestic and world prices to be on the same level, which of course is what opponents of the premium want to see.

But Mr. Somporn thinks that in future world prices may fall because other countries are striving for self sufficiency. If domestic prices are in the same level as world prices when world prices fall, it may make it difficult for Thai rice to compete with rice from other countries, especially mainland China and the U.S.A. and domestic prices will fall affecting farmers' incomes. But if we still have the premium when world prices fall, we can lower the premium so that Thai rice can compete with other countries without having to lower domestic prices.

First of all we have to be sure what Mr. Somporn means by "the level of world prices". It may be remembered that earlier in his article he said that eliminating premium would bring world prices to the level of domestic prices which presumably would be fixed at a level which is remunerative to the producer and fair to the consumer.

In this case the premium would have no place at all, since world prices would fall to the level desired for the domestic price. In other words, this would be the result if world prices conformed to the premium. But he now says that when world prices fall as a result of competition, the premium would be lowered: it is the premium that conforms to world prices. So it seems that Mr. Somporn is contradicting himself again or tacitly admits that world prices depend on supply and demand in relation to world production, and the premium, as I have shown in my Paper No 6, does not help us compete in world markets at all. All it does is to keep down the domestic price at a fixed level, and lowering the premium to meet competition only means lowering our export prices which we would have to do anyhow whether there is a premium or not. As an economist Mr. Somporn should know that world competition means that our farmers are competing against farmers in other producing countries, and whether we can or not depends as his former chief, who said on the comparative cost advantage that we may or may not have over other producing countries.

I shall try later to show that the premium far from helping us compete with other countries is actually impeding our farmers from making the most of our comparative cost advantage and rendering their task of meeting future competition more difficult than it should be.

Before summing up, Mr. Somporn cites instances showing how the premium is being used to aid competition.

Firstly, the premium is lowered for exporters who export more than a given quantity of rice.

Secondly, a rebate is given to foreign importers who buy steadily from us in order to keep their custom.

Thirdly, in Government to Government transactions we can lower the premium as a sign of goodwill and to preserve friendly relations.

Mr. Somporn argues that without the premium we could do none of these things, and we would lose customers as they will turn elsewhere.

In essence what all this amounts to is, either directly or indirectly, that lowering our prices to meet competition can be done just as well without the premium.

Without the premium or other restrictions there would be free trade, and exporters will lower prices and indeed must lower prices if necessary to get a share in world trade. The premium has done the opposite and restricted trade sometimes with disastrous results as in 2511.

As regards the first two instances they are an indirect lowering of prices because they take the form of export subsidies.

Subsidies are a form of aid to some ailing industry which Government thinks it to be of public interest to sustain and is therefore paid for by the public, that is all tax payers. For instance, the sugar industry is subsidised and everybody has to buy sugar at higher than world prices, for the benefit of the sugar millers and also the farmers who grow sugar cane. But the rice export subsidies in the form of discounts or rebates do not benefit our rice farmers at all.

If the Government thinks it is in the public interest to subsidise rice exporters and foreign importers then the subsidy should come from the public revenue as is done in the U.S.A. In fact they could be met from the 4.2% customs duty on rice exports without the burden imposed by the premium, which in fact is a living cost subsidy for the consumers.

In a rather lengthy peroration Mr. Somporn sums up by saying that the disadvantages resulting from elimination of the premium are very much more than the advantages to be gained thereby. He does not even agree with those, such as the Governor of the Bank of Thailand, who advocate the gradual elimination of the premium in the space of 10-15 years—as long as world prices are higher than domestic prices which are fair and remunerative to the rice farmers. The premium brings a great deal of revenue to the Government; it can control the amount of exports and maintain domestic prices, it helps in competing in world markets and as long as world prices are high, why should the premium be lowered?

He goes on to say that everybody wishes well for our farmers and would like them to get higher prices and higher incomes, but we should not concentrate only on eliminating or lowering the premium but find other ways of doing so, such as increasing productivity, improving transport and marketing methods, better credit facilities and Government guarantee for a minimum support price such as the Government is already doing. World prices have sent domestic prices up above the Government support price of 800-1000 per kwien to 1200-1330 baht per kwien.

Nai Phaibul Areechon, National Chairman of the Farmers' Groups, had assured him that farmers were getting 1200 baht per kwien and were very satisfied. By helping the farmers get high prices as in 2509 there is no need to eliminate or lower the premium. As we can export a lot of rice at high prices, it will also help farmers to get high prices.

Taking the above points in reverse order, it should be noted that Dr. Usher and others proposed abolishing the premium in 2508 when farm prices were about 800 baht and without the premium a rise to 1200 or higher would be expected. In 2509 world prices rose followed by a rise in domestic prices which contrary to Mr. Somporn's assumption were not absorbed by the middlemen but was reflected in farm prices to the same level as

previously expected and more. There was of course no reason to alter the premium rate, but to say that farm prices rose by help of the Government is hardly correct. Mr. Somporn knew very well that domestic and farm prices went up because as I said before he and his colleagues failed to practise what he preaches, and failed to adjust the premium to meet rising world prices.

If the Government had really wanted to help keep up farm prices, no attempt in 2511 would have been made to depress prices by raising the premium and at the same time restricting exports which brought prices lower than they bargained for, so that the price support scheme was put to the test and failed miserably from lack of funds.

As regards other methods of increasing farm income suggested by Mr. Somporn, such as increasing production, easy credit, better marketing facilities etc, Dr. Kamol Janlekha has pointed out that higher paddy prices must have priority before other forms of aid can be really beneficial, and increased production especially through fertilizer use depends entirely on high prices, as I tried to point out in my article.

The other advantages claimed for the premium have already been dealt with and I would like to answer Mr. Somporn's previous question as to why should the premium be abolished.

It should be noted that whilst Mr. Somporn maintained that the disadvantages resulting from abolishing the premium are much greater than any advantage to be gained, he does not say a word as to what these advantages would be, so that his readers could judge the pros and cons of the subject. His article therefore seems to be one sided and biased in favour of the premium. So I venture to put forward the other side of the case and show the advantages to be gained as an answer to his question, "Why abolish the premium?"

- (1) It will correct the gross social injustice imposed on at least 75% of the population by a tax which is discri-

minating and oppressive, as it is 44 times more than the tax levied on other agriculturists.

- (2) It will increase farm incomes for all and not only for a favoured 10% and help relieve the poverty which the Rice Farmer's Help Committee deplores.
- (3) It will help close the gap and the disparity of incomes between the rural and urban population.
- (4) It will raise the per capita income for all and make a reality of the professed objective of the Five Year Plan to achieve a more equitable distribution of incomes.
- (5) It will enable rice farmers to buy and use fertilizers profitably and thus increase their incomes and the supply of rice to keep up with the growing population and still have substantial quantities for export on which our economy depends.

The National Statistical Office has predicted that unless productivity is increased, by the year 1973 there will be no rice for export and Mr. Somporn and his colleagues will have no premium to collect at all.

My article showing that "the premium was a bar to progress" was written at the time when paddy prices due to the premium were so low that fertilizer use was unprofitable and increased productivity was impossible and it was therefore a bar to progress. But in his criticism of my article Mr. Somporn did not discuss the pros and cons of this point and evaded the issue altogether. Instead he used my article as a means for airing his views favouring the premium, which were rather confusing, sometimes self-contradictory and I would say not very convincing.

Discussions on Rice Premium From Proceedings of the National Conference on Agricultural Science

I will now refer to the next discussions on the premium from the Proceedings of the National Conference on Agricultural Science which took place at Kasetsart University during 30th January – 2nd February 1969.

After a discourse by Mr. Prayad Buranasiri, the NEDB Secretary, on the 1967–1971 Agricultural Development Plan, the following question was put to him.

The NEDB has said that the rice premium cannot be abolished, the questioner would like to know why, since abolishing the premium would raise the incomes of rice farmers who form 80% of the population, besides other benefits, the only drawback being to raise the cost of living for 20% of the people.

The NEDB Secretary answered as follows:

“Regarding the rice premium problem the NEDB also thinks that it should be abolished, but it cannot be done at once, it would make the cost of living higher because higher rice prices would raise the prices of all other commodities which would also increase living costs for the rice farmers. The problem therefore is: if the premium is abolished would the resulting higher living costs of the rice farmers be covered by increased income from higher paddy prices? If the domestic price of rice rises wages and capital investments would have to be increased; inflation will result which will greatly affect the rice farmers. If we lower the premium it will be a good thing but we must do it in steps so that incomes of all should gradually rise because as commodity

prices rise, salaries and wages must rise in proportion. If the premium is lowered there will arise the problem that as farmers' incomes rise should they pay income taxes or not, but it is difficult to assess farmers' incomes. There must be other taxes to be levied on agricultural products. At the present time there is a sales tax on those trading in agricultural products but not from the producer which in fact is an indirect tax. To make up for the loss of revenue from the premium the Government would have to increase taxation on land, building rents and sales taxes to obtain sufficient revenue to cover overall expenditures.

One must consider how much Government has to expend in the country which indirectly benefits all agricultural workers. For instance one impassable road was put in order and farmers in that district were able to get an increased price from 400 baht per kwien to 500 baht per kwien—an increase of 30%, just by lowering transport costs, the rice farmers obtained increased incomes without any expenditure on their part. Taxes collected by Government are spent in various ways: Government loans are obtained from all including indirectly from the farmers. All of these expenditures will be returned to the rice farmers in the form of benefits which in value may be more than the 1200 baht collected from the rice farmers. We have to ascertain whether they get more or less; no research work has yet been done to find out.

The policy of the premium must be considered in all its aspects. Another thing we are not sure of is when the premium has been lowered, what proportion of the increase in the price of paddy will accrue to the farmers? Certainly it will not be as much as 30%.

We are studying the marketing chain with regard to rice from the time it leaves the farmers' hands until it reaches the export FOB price. How is it divided? Who gets what proportion? How much does the farmer get? The miller and the transporter, the middlemen and the exporter, how much do these people get?

When we know these facts we can calculate how much the farmer will get. If the price rises it will be an incentive for farmers to grow more rice, when they will probably not use fertilizer; using fertilizers demands special techniques. Besides will the increase pay for the investment and how much? We have no exact figures and we have never made any research as to where fertilizers can be used. This is the great problem that we have not yet considered. If rice prices rise then expanding the rice area by the farmers will present greater problems than the use of fertilizers. Encroachment on reserved forests will present many problems in its economic and social aspects."

Remarks: I feel it is incumbent upon me to review the above statements by the NEDB Secretary, because they raise important points of agricultural policy and I regret to say they show an ignorance of our research work on rice, and a failure to learn from the agricultural history of our country.

In answering the question posed about the premium the NEDB Secretary began with the encouraging statement that the NEDB also thinks that it should be abolished, but not all at once, because he seems to think that the rise in the price of rice would raise other commodity prices to such a height that the farmers' higher living costs will offset the increased incomes they would get from the increase in paddy prices.

On this point Dr. Usher in his paper on "The Economies of the Rice Premium" estimated that abolishing the premium would raise paddy prices 85% and increase living costs of the urban population and other rice buyer by 23%. He did not mention how rice farmers would be affected by increased living costs, which in any case must be less than those of others simply because he does not have to buy rice and other home produced foods. So if Dr. Usher's estimate is correct, the increase in farmers' living cost cannot be more than 20%.

Now let us see what actually took place from the year 1965 when paddy prices were at their lowest to the period September to October 1967 when they were at their highest, according to

published figures from the Bank of Thailand and the Department of Internal Trade.

Period	Paddy Price baht/kwien	Wholesale Rice Price baht/ton	Retail Prices baht/tang	Consumer Prices Index
1965	800	1,649	30 - 35	103.4
Sept.-Oct. 1967	1,600	2,992	45 - 50	113.9
Increase	100%	53%	60% - 70%	10%

The above is what actually took place when the rise in world prices was reflected in paddy prices because of faulty adjustment of the premium, and show that a rise of 100% in the paddy price caused a rise of only 10% in the cost of living; so that the usual argument that living costs depend wholly on rice prices has been exaggerated out of all proportion to the real facts.

Now if we consider the present price situation, abolishing the premium would raise paddy price from 1200 baht per kwien considered "reasonable" by the NEDB to 1800 baht per kwien if world prices remained at present at about £ 80 per ton. This would be an increase of only 50% as compared to the rise of 100% cited above. It is, I submit, reasonable to expect that the rise in living costs will be no greater. However, even if the farmers' living costs were to rise by 20% as estimated by Dr. Usher, farmers would on balance augment their incomes over and above the increased cost of living. By referring to figures in my paper No 7, it will be seen that a 20% increase in cost of living would come to about 800 baht whereas an increase of 600 per kwien on the sale of 4.75 kwien would come to 2850 baht, increasing his labour income by 2000, that is an increase of over 53%.

From this I think that it is true to say that the economists whose papers I have quoted from will agree with me that for the

farmers the benefits will far outsway any detrimental effects which might result from abolishing the premium.

However, it is probably true that any abrupt action will cause inflation, and he advocates a gradual reduction in the premium and rises in salaries and wages to meet the increasing costs of living, which is as it should be, because increasing incomes for all means real economic progress and if the Government would really implement such a policy it would be welcomed by those interested in the welfare of all the people and not of the urban population only.

But the NEDB Secretary still felt that a number of problems have to be solved before such a policy could be put into effect. Among these problems are whether farmers should pay income tax or not and farmers' incomes would be difficult to assess. To replace the loss in revenue taxes would have to be imposed on other agricultural products, and increased taxation on land, rents and sales.

To this I would say that there would be no more difficulty in assessing rice farmers' incomes than on those of farmers growing other crops such as pineapples, coconuts, fruits etc as it is actually being done now. But this would not bring in enough to cover the loss in revenue, which can easily be done by increasing taxes on all agricultural land as I have already shown following the suggestion of Dr. Sura Sanitanont. There would be no need to tax other agricultural commodities and increasing taxation as the Secretary had intimated, and moreover this only applies to the case of abolishing the premium at once.

If the premium were to be gradually lowered, the gradual losses in revenue in the first phase can be covered by an increased tax on land growing other crops such as coconut and fruits which are now ridiculously under taxed. Then as incomes increase more goods will be bought which will be followed by increases in sales taxes and customs duties; increased paddy prices will make fertilizer use profitable and thus increase production and rice

exports, bringing increases in the export duty of 4.2%. All these combined will automatically replace the gradual losses in Government revenue by gradually lowering the premium.

The next point emphasized by the NEDB Secretary was that the public utilities especially roads rendered benefits to the rice farmers without any expense to them at all and was provided by Government revenues exceeding the 1000-1200 million baht collected from them.

Public utilities, broadly speaking, are of two categories, those in which the services rendered are paid for by the user; such as railway travel, electricity and irrigation water, which should be paid for by the farmer using the water. That they are not doing so as much as they should is due to the lack of a proper distribution system, and if the premium had been spent more for this purpose, some real and direct benefits would have accrued to the farmers. As it is the dams and hydro-electric installations on which a great deal more money has been spent has benefited the minority in the towns and cities much more than the majority who have had no share in the progress achieved in this field at all.

Roads are in a different category; they are public utilities which benefit all who use the roads and they do not have to pay anything either, so that farmers get no special benefits in this regard as the NEDB Secretary seemed to imply.

Although in some exceptional cases farmers may have benefited from cheaper road transport and therefore got better prices, as stated by the NEDB Secretary, yet speaking generally rice farmers get less benefit from roads than others because most of the paddy and rice is transported by water and rail, as they are much cheaper than road transport. The people who benefit more are the upland crop farmers, transport companies and workers, businessmen, tourists and a host of others, so to speak as if the money spent on roads was of special benefit to rice farmers is rather misleading. Roads in fact benefit all and are paid for by all including rice farmers in the form of indirect taxes such as

customs and excise duties, licence fees and so forth, and these taxes are mostly levied in accordance with the capability of each taxpayer. That is rich men will buy more and pay more sales taxes; he may buy a beautiful dress and cosmetics from Paris for his wife and pay high duties for them, whilst a poor farmer pays much less in customs duties on imported clothes and so on.

It is these taxes and Government loans, on which interest is paid by all, that builds roads and bridges; and farmers pay their share of these taxes. Why then should they be made to pay the extra 1000-1200 million baht the NEDB Secretary talks about? Why should they pay more than their fair share for roads from which many more people benefit than they do? Worse yet, the amount of paddy sold for domestic consumption is as much as that exported, and the domestic price is lowered by about the same amount as the premium. The result is that farmers' incomes are lowered by the premium by about 2000 million baht, of which half goes to the Government and the other half serves to subsidise the living costs of the urban population, who enjoy higher incomes than the farmers who subsidise them. Could anything be more ridiculous and unfair? This side of the picture is not mentioned by the NEDB Secretary at all. I venture to say that his statements on the subject were therefore one sided if not misleading.

The NEDB Secretary went on to say that policy regarding the premium must be considered in all its aspects, that it is not yet known how much the farmers' share will be out of the f.o.b. price; he feels certain that it would not be as much as 30%. That all these factors are being studied etc.

It should be noted that, excepting the concession that farmers might get 30% of the increased domestic price, the rest of his statement was practically the same as what he said at the last conference held three years before in 1964.

In my Paper No 5 I have shown how the f.o.b. price has been divided between the farmers, traders and Government. And in my review of Mr. Somporn Thebsitha's article I have shown

that increases in the domestic price have been reflected in full by the increase in farm paddy prices. If a rank amateur can do something to find out the information required by the NEDB, surely their experts should be able in three years to find out even more reliable information, if they tried. One cannot help suspecting that they have not tried very hard, or in fact tried at all, and that these are convenient excuses to be regularly trotted out whenever the premium system comes under criticism.

The final reason for not increasing paddy prices given by the NEDB Secretary is that it would lead to increased production by undesirable means. That is rice farmers will not increase production by using fertilizers because we lack the requisite knowledge and techniques, so that increased production would come from expansion of the area, involving the destruction of reserved forest and consequent economic and social problems. In other words he prefers to halt increased production until we get a better knowledge of how to use fertilizers. This would of course mean a period of decreasing amounts of export, which may have serious economic consequences and he seems to have forgotten that the increasing population at the rate of about 1 million a year must find places to live and make a living on. He also seems to have forgotten the NEDB's own estimate that 30 million will be opened up for cultivation in the next 20–26 years that is at the rate of 1.5–1.3 million rai a year, which must surely include some paddy land, since statistics of the Ministry of Agriculture show that paddy land holdings of 41.518 million rai in 1947 have risen to 48,353 rai in 1969, i.e. at the rate of 750,000 rai a year, which I believe are underestimated just as production has been underestimated as shown in my Paper No 2.

If the NEDB Secretary will look back on our agricultural history, he will find that our economy has been built up by our farmers gradually expanding our rice area in accord with increasing population, and this pattern will continue whether the NEDB desires it or not, as long as the instinct for survival exists, and growing rice in preference to other crops where possible is a

manifestation of this instinct. So our people will continue to expand our rice area as long as there is room for expansion along with the increasing use of fertilizers if the paddy prices are high enough to give good profits.

It is on the use of fertilizers that the NEDB Secretary made some astonishing statements, which show either ignorance of what we have done in the field of rice research or that the results of that research are considered to be untrustworthy and cannot be relied on—a reflection on the ability of our research workers, which is unfair and unjustified, as I shall now try to show.

The first plot experiments to find out to what extent yields could be increased by the use of fertilizers were made prior to my taking over the post of Director General of the Agriculture Department in 1932, when the results of these experiments were tested out in a field scale at one of our sub-stations. The results of this test were a confirmation of our knowledge gained from the plot experiments that on soils of the Central Plain, production could be increased 30% by the use of fertilizers; in addition we found that increasing amounts of fertilizers did not increase yields above a certain point, i.e. 400 to 500 kgs per rai. However, the value of the 30% increase in paddy production showed no profit because world paddy prices were too low and fertilizer prices were too high, a situation common to all South East Asian countries at that time.

After World War II this situation was radically changed, paddy prices were very high and fertilizers prices much lower owing to the important advance in the production of nitrogen from the air. In 1947 when I was Minister of Agriculture, an FAO mission of experts came to advise us how to improve our agriculture. They examined the research work done on fertilizers and found them sufficiently reliable to recommend that field scale tests should be expanded in the form of small units on farmer's fields scattered over the Central Plain to verify the results of the plot experiments and to serve as demonstrations for the rice farmers to see for themselves the benefits to be derived from fertilizers. This

scheme was initiated by my successor and confirmed the increased yield of 30%, but it again became abortive because of the low paddy prices consequent on Government action, so that there was no profit from fertilizer use.

In 1949, the FAO set up the International Rice Commission of which I was Chairman for some time, and it was found that the limited response to fertilizers that we had come up against in our experiments was also the case in other South East Asian countries, due in fact to the use of indica types which are not so responsive to fertilizers as the japonica types used in Japan, Korea and Taiwan. This led to efforts by rice breeders to evolve indica type varieties which would be equally responsive to fertilizers as the japonica types. The first "break through" was made by the International Rice Research Institute with the so-called "miracle rice", which however is quite unsuited to our conditions and trade.

I have cited the above to show that the information obtained by our research workers of former times were reliable and accepted as such by international experts of the FAO, why then should not the work of our research workers of the present time be just as reliable, if not more so in view of their superior education and the technological advances made since those former days? This applies especially to the series of experiments carried out from 1958—1963 to which I have already referred to in my review of Mr. Somporn's article.

These experiments covered all areas outside the Central Plain including the North East Provinces where fertilizer response was greater than in other areas due in large part to the fact that normal yields are low. These experiments again confirmed the results obtained in former times and established beyond doubt that the Formula III ($N_2 P_4$) was the basic formula applicable to all parts of the country and an increase of 100 kgs or more per rai could be expected.

Whether this would be profitable or not can easily be calculated if the prices of the fertilizer and paddy were known.

Therefore when the NEDB Secretary said that "we have no exact figures to show how much profit can be made from the use of fertilizers, and that we have never made any research as to where fertilizers can be used", he made a statement that was quite wrong and showed either complete ignorance about our research work on rice or that he had no belief in the results of the research work of the Rice Department, and this seems to be the explanation of the action taken by the Help the Farmers Committee. That is, although Dr. Sala recommended a paddy price of at least 1000 baht per kwien so that the use of fertilizer bought through the regular channels of trade would be profitable, his advice was discarded. Instead the paddy price of 800 baht was maintained, and to make the use of fertilizer profitable, the quality of the latter was lowered to make it cheaper and the cost of transport was subsidised, so that farmers could buy on credit anywhere in the country fertilizer at the uniform price of 2 baht per kilogramme channelled through officials of the Rice Department who were also responsible for collecting the money at harvest time. I said in my talk that changing the formula was a radical mistake, because the formula (16:20) adopted by the Help the Farmers Committee is less effective than the Rice Department basic formula (N2 P4). It is less effective because it has less plant food and the two components are mixed together giving less scope for varying techniques in application. The Rice Department formula (N2 P4) has more plant food, the two components are separate and can therefore be separately applied at different stages of plant growth in accordance with the requirements of the plant. Recent trials by farmers on their fields at Patumthani have shown the superiority of these techniques (called split application).

In the case of broadcasted paddy, the 16/20 gave no increase at all over the normal yield of 10 stangs per rai. The N2 P4 gave a yield of 35 stangs i.e. 25 stangs more than normal. In the case of transplanted paddy, 16/20 gave yields of 30 stangs (20 over

normal) whereas a split application of N₂ P₄ yielded 54 stangs (24 tang more than the 16/20 application).

Now, the most informative thing is that contrary to NEDB Secretary's assumption that high paddy prices would not induce farmers to use fertilizers, the opposite has happened.

The increase in paddy prices in 1966—1968 was reflected in increased imports of 16/20 fertilizers rising to 80,000 tons in 1967, so that it has become the standard fertilizer for paddy farmers who are using fertilizer at all.

This is unfortunate because it will be difficult now to persuade farmers to use N₂ P₄, which is more expensive but also much profitable than 16/20, and it is doubly unfortunate because one of the components of N₂ P₄ namely urea is manufactured in the country and has not been used at all for agricultural purposes as it should be, because Government through the Help the Farmers Committee has adopted the 16/20 for sale to the Farmers' Groups and paved the way for its general use. It should be noted that the use of urea for paddy is increasing in neighbouring countries, even Burma, and in the Philippines a factory is being set up to produce urea with liquid ammonia imported from Japan. We on the other hand continue to import increasing quantities of 16/20, whilst our factory on which hundreds of millions of the taxpayers' money has been spent lies idle because instead of using N₂ P₄, the results of scientific research, a less efficient and cheaper formula has been substituted in order to keep down the price of paddy. And the absurdity of it all was that the price of paddy was not kept down, for within 8 months, that is October of the same year, the NEDB published the report of a study group set up to find out the cost of producing rice, in which the rice farmers were criticised for not using more fertilizers and it was necessary to use more because results from experiments had shown that the cost of the fertilizer applied to the soil had increased yields by more than the cost of the fertilizer applied. Words opposite to those of the NEDB Secretary, who said not sufficient research had been carried out etc.

Moreover the report recommends that the minimum paddy price should be 1150 baht per kwien, which is higher than the 1000 baht requested by Dr. Sala, Head of the Rice Department the year before.

Now, if the work of the Rice Department was considered to be unreliable and the scheme to help selected groups of farmers was a test to verify the results of the Rice Department experiments, then the Rice Department formula should have been adopted by increasing the amount of the subsidy to make the fertilizer price low enough to bring a profit. This would be the proper scientific approach. Instead of this, after spending millions on the research work the results were discarded for a cheaper and less effective formula with the consequence that the fertilizer factory, on which millions have also been spent, has had to cease production because its product has not and is not being used to fertilize paddy, because the less effective formula has become standard practice.

Such is the sad result of investing money on research work without taking advantage of the results obtained.

Later on at this Conference the then Minister of Economic Affairs, Mr. Sunthorn Hongladarom, gave a discourse on "Agricultural Marketing Development Policies of Thailand" in which he said that we should promote crops in which our farmers had skill and experience or, as he said, in "economic jargon" where we had a comparative cost advantage. But at the end of his talk he said that there are still many problems facing our farmers namely, (1) Increasing tenancy (2) Too much dependence of rice traders on credit facilities (3) Improving yields by the use of fertilizer and other inputs, was still very backward owing to lack of information from officials concerned (presumably extension workers) (4) Storage and transport facilities were still inadequate (5) The ability of rice traders to depress paddy prices was great and the co-operative movement has not yet been able to break their monopoly.

The Minister, of course, did not mention that the prime cause of these problems was low paddy prices as a consequence of the premium, which has caused many farmers to lose their land and become tenants. It is low paddy prices that has made farmers get into debt as their incomes were insufficient to cover living costs. Transport cost can be lowered if Government backed transport companies did not have monopolistic advantages over others. It is competition that can bring about cheaper transport. And it is competition that raises paddy prices when there is a rise in world prices, how otherwise could paddy prices rise from 800 baht to 1200, and even to 1600 baht per kwien?

When the Minister says that the rice traders have a monopoly he implies that the thousands of millers and tens of thousands of rice dealers all over the country can get together and agree not to raise prices. A fantastic assumption which, if it had been true, would have kept paddy prices at the poverty level of 800 baht.

It is low paddy prices that has made the use of fertilizer and other inputs unprofitable. Obviously any advice from extension workers to use production methods which brings no profit to the farmers is doomed to failure from the start. For the Minister to put the blame on extension workers, is a piece of propaganda nonsense which is unfair to them.

When questioned about the premium, he replied as follows:

“The rice premium is a big problem still being considered by the NEDB as to whether it should be abolished or modified. After considering it in all aspects whatever, the decision may be made as to the best method of dealing with the subject, this decision will be implemented. Up to the present the rate of premium has been fixed as 800—950 baht according to the grade of rice. To be fair there should be some flexibility, that is when the price rises the Government should get a bigger share and when the price decreases the premium paid by exporters should be lessened.

What has taken place is that when prices rose the exporters got a good profit but the Government got only 800-900 baht as before. In the opposite sense with a decrease in price the exporters would have to pay the same as before.

It is unfair to both parties therefore the premium should be in flexible. As regards whether the premium is a good thing or not, should it be maintained or not is a grave problem. But at this time we are not so sure about the first step. We should have the problem investigated by independent persons so that we can be sure. But as the premium is a part of the public revenue, which is spent in various ways and in truth agriculture has had a large share from the revenues, either in the form of irrigation, or to promote production so the premium collected has been beneficial indeed—not benefits that can be actually seen for individuals but for all such as our irrigation has been improved, transport services to bring commodities to the market have been improved. As previously stated the chief points which present problems we have to solve in the field of agriculture or that of our farmers are two: the second point is how to get a better price, the first point is how to do away with the need for farmers to borrow from the public. An idea I have been considering for 4-5 years, is now taking shape that is the Agricultural and Co-operative Bank. Next year I shall ask for an increased share of the premium for this purpose. At the present time we have taken 130 million baht (from the premium) to buy fertilizer and pumps to sell to farmers at cheap or half price. The amount of 50 million baht has been allotted to the Bank. Next year I shall propose to increase the amount from the premium to 100-200 million baht, and the balance will be used as part of the Government revenue for irrigation and other purposes. With regard to the premium whether it should be abolished or what we ought to do about it, is a problem that must be exhaustively investigated. Theoretically it does not seem to be a good thing, but practically the premium has been of great benefit because it has been an instrument to regulate our price in foreign countries (presumably in world

markets?). Farmers may get a little better price, but the rest will go into the pockets of the middlemen, that is the rice millers, the exporters and all the others. What would be the use in that? When we have collected the premium and spent some of it in helping farmers indirectly is still better than that it should accrue to the rice millers or all the other middlemen."

The above is translated from report of a speech which at some points were ungrammatical and difficult to understand and a literal translation would have been rather incomprehensible to the reader. I have therefore tried my best to give a translation that represents the meaning intended by the speaker. And as the speaker was an important member of the Government, his recorded views should be presented to show the Government side of the argument.

He takes the usual line of presenting the advantages of the premium without mentioning its disadvantages, and in a misleading and sometimes subtle way. For instance when he said that with a fixed premium rate a rise in prices would increase the traders' profits, he seems to imply that any rise in prices would be absorbed by the traders and not reach the farmers, which of course is not true, because even his chief economist, Mr. Somporn Thebsitha, admitted in his article that the rise in world prices had resulted in raising farm paddy prices from 800 baht to 1200 baht per kwien. He also repeats the line that the problem was under investigation and the results must first be known before taking any action. That was said 5 years ago in 1967 and the matter is presumably still under investigation!

He also repeats the NEDB's Secretary assertions that the premium is returned in the form of public utilities, with which I have already dealt with. He avoided discussing his major point No 1 as to how paddy prices can be raised and only discussed his second point of providing farm credit, which in fact will benefit less than 10% of the farming population. As for the premium being an instrument to regulate our prices in foreign markets, the

Minister must have been deceiving himself, as he should have known as well as anyone, that during 1966 world prices went up and up regardless of the premium, and at the time the Minister was speaking, he had already changed over to a "flexible" premium rate of 30% ad volorem instead of a fixed one. This rate failed again to regulate not only world prices but even domestic prices, which continued to climb following world prices until 1968 when the drastic step of restricting exports, which led to the disastrous results of which I have already spoken of in my talk.

His final words that the rise in the domestic prices, consequent on abolishing the premium would go into the middlemen's pockets, is the usual propaganda line taken by the Government which cannot be directly proved, and which the Government does want not to be disproved. But if the Minister and his economists really wanted to know the truth they could employ common sense and see from the Department of Internal Trade's figures that the mounting world prices were being reflected in rising paddy prices, in spite of the 30% premium, and reasonably conclude that the rise in domestic prices were of benefit to farmers.

This was endorsed by Mr. Somporn Thebsitha himself a month later in a paper he submitted at a seminar held at Thammasart University on March 24th 1967 from which the following extract is taken.

Question 2 Do existing wholesale price figures reflect movements of prices received by farmers? Do prices received by farmers move up and down in response to variations in export price? Are farmers receiving higher incomes as result of the recent rise in export price?

Answer Wholesale prices, export prices, and paddy prices received by farmers usually move up and down in the same direction. Therefore, farmers are receiving higher incomes as a result of the recent rise in export price.

The followings are movements of prices during January-February 1967.

	Export price of white rice 100% (per metric ton f.o.b. Bangkok)	Wholesale price of white rice 100% (per picul of 60 kilos.)	Price of paddy (per kwien of 1,000 kilos.)
3/1/63	£ 58-15-0	123 baht	1,270 baht
16/1/63	£ 59-16-0	123 baht	1,220 baht
30/1/63	£ 62-13-0	133 baht	1,270 baht
13/2/63	£ 63-15-0	137 baht	1,340 baht
27/2/63	£ 66- 2-0	145 baht	1,400 baht

From this it will be seen that Mr. Somporn has changed his mind about the middlemen absorbing all of the increase in domestic prices. For if it is maintained that the rise in the domestic price consequent in abolishing the premium would benefit the middlemen only, then a rise in the domestic price from any other cause would also be absorbed by the middlemen. But in fact the very opposite has taken place; that is the rise in domestic price due to the rise in world prices has not been absorbed by the middlemen, and it is reasonable therefore to expect that a rise in the domestic price due to abolishing the premium would follow the same course.

Mr. Nam Punwathu's Article on the Rice Premium

The next article extolling the advantages of the premium was from the pen of Mr. Nam Punwathu, Director General of the Department of External Trade in the journal of the Board of Tax Supervision published on the 25th July 1967.

The Director General of the Department of Foreign Trade in his article repeats what his colleague Mr. Somporn Thebsita wrote in his article, which I have already reviewed.

Like Mr. Somporn he bases his article on what other economists would not agree to, that is the premium controls world market prices and that there is no competition amongst the rice traders of Thailand. And like his colleague, Mr. Somporn, contradicts himself on the effect of eliminating the premium.

For instance, he says that the premium controls the domestic price at a level lower than world market prices, and eliminating it would raise the domestic price and cause great hardship on rice consumers. This means that domestic prices depend on the level of world prices. But Mr. Nam also says that the burden of the premium is borne by foreigners who buy our rice.

If this were true then eliminating the premium would bring world prices down to the level of domestic prices and would not raise them and cause hardship at all. These statements cannot both be true, and the first is accepted as the true one by many, including the government which has all along said that abolishing the premium would raise domestic prices to an undesirable level, as Mr. Nam himself said. Mr. Nam's second and contradictory statement seems to be a bit of a hocus pocus designed to confuse the reader.

With regard to competition, Mr. Nam raises the point that in order to keep enough rice for internal consumption, a premium combined with a quota system is necessary to keep rice exports at a determined level. Since quota holders know that the amount of

rice exports is limited they will not compete against each other and proceed to depress paddy prices and would make large profits, if part of these profits were not taken by the Government in the form of the premium.

This argument would be true if the quota holders are few in number which means that the Government has granted a monopoly to a few exporters who can get together to fix prices, and make enormous profits at the expense of others in the rice trade right down to farm prices. In other countries monopolies are considered to be against the public interest, especially in the U.S.A. where there are Anti-trust laws to restrain any monopolistic tendencies and to keep up competition and price levels according to supply and demand. But our Government proceeds to take a share of the profits enjoyed by monopolists by means of the premium, to the detriment of our rice farmers, which seems deplorable, to say the least of it. And if it is to be claimed that this system of the premium and quotas is the only way to insure that there will be enough rice left for internal consumption, it is open to argument that a more rational way can be found without detriment to our farmers.

But first of all it should be understood that taking steps to retain sufficient stocks for internal consumption is only necessary in a seller's market, where world demand is so great that exports will exceed or cut into the amount needed for consumption by the urban dwellers or rice buyers who form about 20% of the population i.e. 6-7 million persons.

Now if the methods of estimating crop production by the National Statistical Office can in future be relied on, then it is an easy matter to estimate the surplus available for export. If the Government really wants rice farmers to get a good price, then a higher support price should be announced and the government should be ready to buy from anyone at the support price, from the first month of the year when paddy is still in the farmers' hands.

At the same time exports should be freely encouraged without restrictions or quotas.

Under this set up the rice millers will soon enter the market, as they cannot afford to remain idle with overhead expenses running all the time. As there are plenty of rice mills, the millers will compete against each other and the middlemen who bring paddy to the mills will also compete against each other to buy paddy from the farmers. Similarly exporters will compete against each other to buy rice for export from the millers, as long as exports are allowed. When the estimated surplus for export is exhausted then exports can be disallowed, just as was done in 1919 when there was no premium, and in 1966 when there was one. The premium in fact is immaterial to the issue and quotas are not needed if there is genuine free trade.

If, however, crop production estimates cannot be relied on, then to be on the safe side, the Government would have to step in and buy up enough stocks to feed rice buyers for a period of six months. This would amount to about 1 million tons, to the value of 1,800 million baht. In the meanwhile trading and the exports of rice can go on as before until domestic demands require the release of Government stocks, when further exports would be disallowed.

However, these serious steps would not be necessary in a buyer's market as it is now and will likely be for sometime to come, and there need not be any fear of a shortage for domestic consumption ; but rather a fear that we shall not be able to export all of our surplus, so that the premium is no longer needed as an instrument to control export which in point of fact it did not do in 1966.

Mr. Nam goes on to repeat his colleague Mr. Somporn's assertions as to how the premium helps us to compete in foreign markets etc. Specious arguments to which I have already replied are contained in my review of Mr. Somporn's article.

Mr. Nam, however, does concede that the premium does have some disadvantages including:

1. "It seems unjust that a premium is levied on rice only and not other exports, but rice is different from other export in that it is the staple food of the people and enough must be retained for domestic consumption."

This of course refers to the claim that the premium controls exports, but as has been shown there are other ways of controlling exports, and in fact the premium failed to do so in 1966.

The only way the premium can prevent excessive exports is to raise the rate to a level that there is no profit for exporters, but then there will be no premium to collect, and the method is self-defeating.

However, as I have said before, in a buyer's market as it is now, there is no fear of internal stocks being insufficient for domestic consumption.

2. "It has given rise to misunderstanding on the part of farmers that the Government taxes them and not others, but the truth is the tax is levied on exporters who naturally have to add the premium to the export price, so that it affects the foreign buyers more than the producers in Thailand." The same argument in another form, which Mr. Nam tried to put across to a national meeting of Farmers Groups, according to information I received from Mr. Phaibul Areechon, National Chairman of the Farmers Groups.

Mr. Nam may hope to fool readers of his article into believing him but he did not fool Mr. Phaibul and his colleagues by any means. They argued rightly that the premium was not added, but subtracted from the export price, which is the world price. Exporters would naturally have to buy from millers lower than export price by more than the amount of the premium to

make a profit, without which they would go out of business. The millers in turn would have to lower their prices to the middlemen who bring paddy for sale and the latter would have to scale down prices they pay the farmers.

The point at issue is who pays the premium, the Thai exporter or the foreign importer, as both Mr. Nam and Mr. Somporn alleged. As already pointed out, if the latter were true then eliminating the premium would bring the world price down by the same amount, which of course is ridiculous because world prices are determined by the amount of rice in the world and world prices will only decline if the supply of rice is increased. Eliminating the premium would not increase the supply of rice at all, and the world price would remain at the same level. Our foreign importers are buying our rice at world prices, and eliminating the premium will not lower world prices but increase our domestic price to the same level as world prices, a fact which Mr. Somporn admitted in his article. The premium is therefore a domestic measure which has no influence whatever on world prices and is paid for by our farmers through the marketing chain described by Mr. Phaibul and his colleagues in the Farmers Group, and I have no doubt that the economists whose writing I have quoted from will agree with the Farmers Groups.

Mr. Nam sums up his article by expressing the opinion that advantages gained from the premium outweigh the disadvantages, and goes on to emphasize these advantages, which are open to argument.

1. He makes the astonishing statement that the premium is of great benefit to the rice farmers, because if it were to be abolished government would have to make up for the loss of revenue by increased taxation in other fields, such as increasing import duties on imported consumer goods, increasing sales taxes and so on. Since the farmers form 80% of the population they will be the people who would have to bear the burden of this

increased taxation, and since the premium relieves the farmers of these higher taxes it is actually of benefit to them rather than the reverse.

This of course is one sided and misleading, because it entirely overlooks the fact that the premium which has amounted to as much as 1,400 million baht a year is paid by the farmers only and the 20% of the population go scot free. Now if this 1,400 million baht is obtained from taxing the whole population, such as raising customs duties on imported goods as suggested by Mr. Nam, then these taxes will be paid for by every body, each in accordance with his capacity to pay.

As I have previously pointed out, this would mean that the rich people will contribute more than the farmers, because they can afford to buy more goods and therefore pay more indirect taxes than the farmers who are poor and cannot afford to buy as much as the rich and therefore pay less taxes, which is as it should be, because it will be the fair and accepted system of taxation, in which every citizen contributes to the state revenues, each in accordance with his capacity to pay.

And in spite of what Mr. Nam says it will benefit the farmers far more than having to pay the premium, as can be shown by a specific instance.

An increase of 7% on our yearly imports of 20,000 million baht will be sufficient to cover the loss of revenue by abolishing the premium amounting to 1,400 million baht.

Without the premium, paddy prices will be on the same level as world prices. This would result in an increase of 500--600 baht per kwien of paddy, and a farmer selling 4 kwien would increase his income by at least $500 \times 4 = 2,000$ baht. On the other hand his living costs of 4,200 baht will be increased by $7\% = 294$ baht. Abolishing the premium would therefore increase his income by 1,706 baht and to say that the premium benefits the farmer is unmitigated nonsense.

2. The second point raised by Mr. Nam was to the effect that the way to raise farm prices "was not to abolish or lower the premium unnecessarily, but to promote increased exports of rice to a point which will make rice traders buy paddy from farmers at high prices, and at the same time there should be a guaranteed price, and if paddy prices should fall below this price, Government will at once step in and buy up unlimited amounts as the Government is doing now. If the guaranteed price is too low it can be raised, after mature consideration as to its effects. If it is too high it will cause hardship by raising living costs and one cannot have high paddy prices with low rice prices, high paddy prices must result in high rice prices. If and when paddy prices are high enough to increase rice prices to a point at which rice exporters cannot compete with rice from other countries, then the premium ought to be lowered to enable Thai rice to continue to successfully compete with rice from other countries.

The premium system of obtaining government revenue to develop the country including expenditures for the farmers' benefit and at the same time to have a support price for them is surely of more use than to call for abolishing the premium without thought of the effects of increased rice prices on consumers. It is not right and proper to do so without thought as to whom will benefit from abolishing the premium, the farmers or others".

The above is the English translation of Mr. Nam's statements, which are rather confusing and sometimes inconsistent with some of his other pronouncements.

However, what should be noted are the indications showing that the main aim of the Ministry of Economic Affairs is to keep down farm paddy prices, by carrying out measures the very opposite to the above statements of Mr. Nam.

When he talks of helping the farmers by supporting prices, the support price set by the Ministry of Economic Affairs was lower than that recommended by the NEDB, and less than the cost of production, which cannot be called help in any way.

When he says that farmers can get higher prices by promoting exports, what was actually done was to restrict exports and lower farm prices to the 1,200 baht level. In March 1968, after farmers had sold off their paddy and world prices in October rose to £ 90 per ton, instead of raising premium rates to keep down the domestic prices of rice for consumers, the premium rate was actually lowered, which of course benefited only the rice traders holding stocks of paddy. However, when in November world prices fell from £ 90 to £ 75 per ton, traders faced a loss and could not do any export business. By Mr. Nam's tenets the premium rate should have been lowered to meet competition but it was not. So with the new crop coming in and very little exports going out, internal stocks piled up depressing paddy prices to 800 baht per kwien, lower than the support price. And when farmers tried to sell at the support price, difficulties were put in their way, and instead of buying unlimited amounts, as Mr. Nam said, only 100,000 kwien was bought by his Ministry, representing sales of two kwien each from 50,000 farmers out of nearly 3 million. By refusing to lower the premium in accordance with Mr. Nam's views, farm prices were kept down and exports were held up, until after most of the farmers had to sell off at 800 baht per kwien and world prices had recovered and risen to £ 80 or more, then and only then was the premium rate lowered from 1,450 baht to 1,000 baht per ton. The results will follow the pattern of former years; the stock holding middlemen will benefit to the tune of 200 baht per kwien, not so much as before but not so bad for all that.

Thus do Mr. Nam and his colleagues say one thing and act in the opposite way to help our farmers get better paddy prices !

On this last subject, Mr. Nam is also inconsistent, when he says that "increased exports of rice to a point which will make

traders buy paddy from farmers at high prices" which is a tacit admission that there is competition among rice traders, without which they could offer and get away with low prices.

But in this final paragraph Mr. Nam indicates just the opposite, when he exhorts his readers to consider that if they were rice exporters, paying a premium of 1,300 baht per ton as at present, and this was lowered to 800 baht would they raise the price they pay to the rice traders by 500 baht, when they could continue to buy at the same rate as before. And even if exporters were liberal enough to increase the price they pay to the traders, would the latter or the millers or the middlemen who buy from the farmers do likewise? In spite Mr. Nam's idea to the contrary the answer would be Yes, because if some exporters tried to give rice traders the same price as before, other exporters, to get the business, would increase the price, and so would others in the marketing chain right down to the farmers, for if some refused to raise prices others would in order to stay in business. This is what is called competition and Mr. Nam must have turned a blind eye to actual facts going on all the time he was writing his article in 1967, when paddy prices were continually rising, following world prices which rose to a peak of over £100 a ton.

The rise in paddy price in the different provinces all over the country can be seen from figures of the Department of Internal Trades, which could only have been the result of competition between rice traders in the marketing chain coupled with failure of the premium to keep down domestic prices as it was supposed to do. At the end of his article Mr. Nam tacitly admits this, when he says that paddy prices do not depend on the premium so much as on the supply and demand for rice in world markets.

I think it may be said that the premium does not measure up to the advantages claimed for it and has not fulfilled its supposed functions except to increase Government revenues and keep down paddy prices to below world prices to the detriment of 80% of the population, our rice farmers.

Mr. Pote Sarasin's View

I would, in legal phraseology, rest my case for our rice farmers here, were it not for the fact that H.E. Mr. Pote Sarasin, an important member of the Government, has also voiced his views in favour of the premium and they should receive due consideration.

It may be remembered that at the end of my talk, I said I would be glad to hear any dissenting opinion, "as one cannot be always right."

After kindly proposing a vote of thanks for my talk H.E. Mr. Pote Sarasin took the opportunity to voice his dissent, and I afterwards wrote him a letter informing him that an anonymous donor had offered to pay for publication of my talk, and that I thought the publication would be improved if it had an appendix showing the views of other well informed people, such as economists both Thai and foreign, and the opinion of statemen such as himself, as expressed at the end of my talk, as far as I could gather, to the affect that:

- (1) H.E. considered the premium is a good thing, because it controlled the internal prices of rice.
- (2) The middlemen took a great advantage over the rice farmers according to the investigations which have been carried out.
- (3) The rice farmers must enjoy prosperity because they formed the majority of the population.

As I might have misunderstood his remarks, I asked H.E. for a confirmation of his views in English, which could be included in the Appendix, and further asked him to expand his views on how the premium was a good thing for rice farmers, as some sociologists did not think it was, because it was equivalent to a tax 44 times higher than that levied on the other agriculturists.

With regard to the middlemen, I would be very grateful if he would be kind enough to send the results of the investigation so that it could be included in the Appendix for the benefit of interested readers. At the same time I could not help wondering how the middlemen had slipped up in their tactics during 1966—1967, when they allowed farmers to get prices as high as 1,400—1,600 baht per kwien, acting as incentives for farmers to invest much more in fertilizers than previously, as shown by imports of 16:20:0 fertilizer to the amount of 80,000 tons, which surely is desirable as increased yields from fertilizer used would increase the prosperity of the farmers as H.E. required.

Why then did H.E. as acting Minister of Economic Affairs in 1968 raise the premium rate and restrict exports at the beginning of that year and create a glut in domestic stocks, so that paddy prices fell from 1,400—1,500 baht per kwien to 1,100—1,200 per kwien?

Was the price of 1,500 baht so high that it had to be depressed and eventually falling to 800 baht per kwien this year?

Would using the premium to depress prices to such a low level make the rice farmers prosperous?

H.E. The Minister was kind enough to send a reply expressing his views as follows:

“I am writing this brief memorandum in response to the request of H.S.H. Prince Sithiporn Kridakara. The learned prince gave a lecture at the Siam Society on the 23rd of April on the subject of the Thai farmers in the past and present which was much appreciated by members and guests of the Siam Society. I was privileged to move a vote of thanks to the prince and in my brief remarks I touched upon the question of Rice Premium. H.S.H. requested me to clarify my views on that particular subject. I am contributing this memorandum as an appendix to the printed speech of Prince Sithiporn.

I believe that rice premium is the best policy instrument, so far conceived, to isolate domestic prices of rice from fluctuations

of world prices; and on the ground that economic conditions of farmers being as they are, to abolish rice premium now would adversely affect well-being of farmers as a whole.

I do not think that rice premium was first conceived as a policy instrument to stabilize domestic prices but rather as a means to absorb part of profits rice exporters gained from conversion of foreign currencies. But whatever be the reason, rice premium is now regarded and used as policy instrument to regulate the flow of rice export with the aim to stabilize domestic prices.

Generally speaking, fluctuations in world prices of rice are due to fluctuations in demand and supply of rice in world market, which in turn are the results of fluctuations in world production. Production of Thailand being relatively small, it is improbable that its fluctuations will appreciably affect world prices. This, however, does not mean that fluctuations in world price have no influence on the movements of domestic prices; it simply means that factors affecting world prices lie outside our control. And because of this, fluctuations in world prices will necessarily bring about equal fluctuations in domestic prices. During a period of pure premium when there is no quantitative restriction on rice export, domestic prices of rice may be said to equal to world prices less premium and export taxes less exporters' expenses and profits. This is an equilibrium to which domestic prices tend to move. Other things (premium, taxes, expenses) remaining the same, a rise in world prices will induce more export, which in turn tend to raise domestic prices: conversely a fall in world prices will reduce export which in turn tend to depress domestic prices. The prime mover of this is profit margin. Other things being the same, a rise or a fall in world prices means greater or lesser profit margin, for exporters as well as foreign buyers. By adjusting premium and rebate rates to absorb profits as well as losses of exporters and foreign buyers, it is possible to regulate the flow of rice export to stabilize domestic prices. At present, rice premium constitutes 20-30% of export prices, and therefore, it is logical to assume that if world prices fluctuate within 30% limit,

it is possible to maintain steady level of domestic prices by varying premium rates—provided always that the rates are calculated on the basis of profit margin of exporters as well as foreign buyers.

During the past few years, between 800—1,000 million baht of premium were collected from rice exporters each year. Out of this, about 15% were used to help farmers directly in the form of free distribution of seeds, water pumps, fertilizers and in the form of capital for Agriculture Credit Bank; the rest, to finance infrastructure schemes—irrigation, highways etc. Since farmers constitute about 70% of the total population, it is reasonable to say that premium has been utilized wholly for the benefits of farmers.

If rice premium were to be abolished, the question one must ask is: would farmers attain full benefit thereby? Primarily premium is collected from rice exporters. Exporters are not likely to turn over the benefits to farmers, but would make his own adjustment in relations to foreign markets and the local price for paddies, the greater part of the profit would probably go into the hands of the exporters and foreign buyers, some will go to the farmers. It is submitted therefore, until such time the farmers are in better bargaining position through effective development of agricultural credit system, co-operatives and price support programme, it would be better to maintain the flexibility to adjust the price utilizing premium for the benefit of farmers rather than by abolishing it.”

With all the deterrence due to H.E. The Minister, it is difficult to understand how isolating domestic prices from fluctuations in world prices by means of the premium, can benefit the well being of our farmers, and abolishing it will have an adverse effect.

It is admitted that the premium isolates the domestic price to a lower level than world prices and keeps down the cost of living for the benefit of rice consumers. This automatically depresses paddy prices, which surely cannot be of benefit to our

farmers. By abolishing the premium the process will be reversed, it would increase domestic prices equal to world prices, as H.E. implies. If our farmers were to get world prices for their paddy, would this adversely affect their well being? One would have thought it would have the opposite effect. That the premium adversely affects the farmers is the opinion of not only of laymen like myself, but also of the economists, whose writings I have quoted from, including the leading agricultural economist of H.E.'s own Ministry, Dr Chaiyong Chuchart, who submitted a paper at a World Conference on Land Reform sponsored by the FAO in Rome in 1966, in which he alluded to the premium in the following words:

“Income of the Rice Farmer

While the Thai Government is enjoying to receive about 800—1200 million baht per year as revenue from rice export tax so-called “premium” the rice farmers are getting poorer and poorer. The study shows that rice farmers earned smaller net income than their living expenses. The average income of the farmer who owned his land was 9,699 baht (approximately 485 dollars) per farm while the landless tenant received 8,014 baht (approximately 400 dollars) per farm. The income between these two types of operators was not much different, but after deduction of farm expenses, (approximately 354 dollars) for the owned land farmer and 3,670 baht per farm (approximately 183 dollars) for the landless farmer, these net incomes again minus living expenditures, result in farmers having deficit net incomes from rice. Off farm incomes and wages were then major sources of rice farmers’ revenue.”

Does not this quotation imply that the premium is making the farmers poorer and poorer? And it is unreasonable to believe that abolishing the premium would adversely affect the well being of farmers by making them poorer still.

That fluctuations in world prices will bring about equal fluctuations in domestic prices, provided there is no premium, is understandable. But what is not so clear is why high world prices will induce exports and low world prices will reduce them. Exporters will always try to export as much as they can whatever the world price may be, and without the premium domestic prices will follow world prices, which will not be affected by the quantity of our exports, as the latter is not large enough to affect world prices, as H.E. himself implies.

But the premium upsets all this. World prices are now high and according to H.E. should induce exports and raise domestic prices, but neither has happened. Our exports have never been so low and paddy prices are low, because in spite of high world prices the premium has restricted exports. Being a layman I am unable to understand what H.E. means when he says that the prime mover of this is profit margin, and to say that exporters and foreign buyers profits increase or decrease according to world prices is even more difficult to understand. Rice traders will get the same profit margins whatever the world price may be. That rice traders, whether exporters or others, will lessen their profits because world prices fall, doesn't make sense. If prices fall exporters will lower their prices they buy from millers and so on down to the producers; if they did not they would have to go out of business; and this would happen whether there was a premium or not. All the latter does is to make the price to the producer even lower. To claim that the premium can intervene to absorb profits or losses of the rice traders is, I must confess, beyond my understanding, and although H.E. says it is possible to regulate the flow of rice exports to stabilise domestic prices, it is certainly not doing so in the case of exports, which are flowing out at a very slow rate indeed. H.E.'s statement that 15% of the 1000 million baht premium is helping farmers in the free distribution of water pumps and fertilizers indicates that he is not conversant with what is actually done for the 10% of the farmers, who have this special privilege of buying these things on credit and that

about 20 million baht is still outstanding at the expenses of the 90% who also contributed to the premium of 1000 million baht. As for the rest being used to finance infrastructure schemes wholly for the benefits of farmers, H.E. should surely know that this is an over-statement, to say the least of it, for very little has been spent on irrigation facilities compared to the large expenditures on electrical installations from which farmers get no benefit at all. It is the 20%, the urban population, that has enjoyed these benefits.

H.E.'s last paragraph re-iterates the Government's line that the farmers will not attain full benefit because only the middle-men will benefit etc.

It would be more convincing if H.E. had explained how in 1966—1967 farm prices had risen to 1,400—1,600 baht per kwien and how to adjust the premium to get the same results, it would have been more to the point, as it was of the greatest help to farmers.

M.R. Chakthong Thongyai's View

On April 26th 1969, the *Bangkok Post* reported what H.E. M.R. Chakthong Thongyai, the new Minister of Agriculture, said at a press conference held at the Ministry on the previous day. The chief points of interest in relation to the economic status of farmers were as follows:

"Middlemen Must Go

MIDDLEMEN must be eliminated to improve the living condition of the farmers, the new Minister of Agriculture, M.R. Chakthong Thongyai announced yesterday in his first press conference since acquiring the new post.

"The solution in this respect must be carried out to give justice to all parties concerned, though," he said.

The former Under-Secretary of the Agriculture Ministry was accompanied yesterday by all the department chiefs, who helped in explaining the policies and related problems.

"Middlemen," the Minister said, "have caused economic instability among farmers which is a reason why our farmers have been in difficult circumstances."

He admitted however that the problem of middlemen taking advantage of farmers was not limited to Thailand alone. It is an international drawback, he said.

The reward of each investment of farmers must be commensurate with his efforts and energy consumed, the minister said.

M.R. Chakthong indicated that he would attempt to bring down the number of middlemen as much as possible.

“The Agriculture Ministry will try its best to reach farmers directly. Official marketing organisations will be set up to fulfil farmers’ demands for easy sale terms,” he said.

Admitting that agricultural problems prevailing in the country would take a long time to solve, M.R. Chakthong said the ministry would spare no efforts to see that those immediate defects were cleared first.

“One cannot expect to see sudden success once the administration of an organisation changes,” the Minister said.

The main policy of the Agriculture Ministry, he pointed out, would be more or less the same as that established by the former minister.

“Concentration will be on the improvement of production, technical know-how and the seeking of more foreign aid funds,” the Minister emphasised.

“We will make sure that the farmers receive what they deserve,” he added.

Farmers had been dubbed “backbone” of the country, he said.

“Now they have only bones left with them,” he said jokingly, meaning that the farmers have become so poor that their bones are showing.

M.C. Sithiporn's letter to the Minister of Agriculture

After reading the above article I wrote to the Minister informing him of the proposed publication of my talk and Appendix in the same sense as I had written to H.E. the Minister of National Development, but newspaper reports were not always accurate so I asked him to be kind enough as to confirm or correct any mistake that may have been made by the reporter. It would also be of great benefit if he would expand his remarks and make clearer what he meant when he said that "We will make sure that the farmers receive what they deserve". How much will they deserve? During 1966—1967 received prices of 1,400—1,600 per kwien: was this more than they deserved, so that the price this year has been depressed to 1,000—1,100 baht per kwien? Does the Minister think they only deserve this much? If however, he thinks they deserve more, how high does he think paddy prices should be and how can he make sure that farmers will get prices that he thinks they deserve. Is H.E. would be kind enough as to give his views to be included in the publication, it will be received with the greatest satisfaction from its readers.

Unfortunately I received no reply to my letter and so have had to submit the article as printed in the *Bangkok Post*.

It will be seen that the Minister continues the usual government line of blaming everything on the middlemen, and if they did go, as he says they must, then nearly all rice trading would stop.

For the fact is they do perform a service, and however bad that service may be, it is better than to have none at all. The solution which government constantly puts forward is the formation of co-operatives. The history of co-ops in Siam has not been a happy one, for after fifty years none of them can run their own affairs without officials breathing down their necks to

see that funds are not wrongly used, with the officials sometimes doing the very thing they are supposed to control. Co-ops can only succeed if their members can afford to hire competent men to run their business under their own control and not that of Government.

Hence present efforts by government to form multi-purpose co-ops with thousands of members to provide enough capital to run businesses, which must handle enough commodities to provide profits sufficient to hire competent men to run those businesses. Co-ops dealing in other agricultural commodities may be able to do this but it will be very difficult with rice trading in which is highly competitive, as all economists, from whom I have quoted agree. Dr. Prayura Kajanadul of the Department of Internal Trade has shown that middlemen's profits from farm to Bangkok mills is 85 baht per kwien and from mill to consumers is another 184 baht. But there is no way by which rural Co-ops can have a part in the retail trade of Bangkok. They would have to confine their efforts to competing with the middlemen who make profits of 85 baht per kwien. In any case however efficient these co-ops may be, they will take many years to cover the whole country, so that the middlemen such as they are will still be with us for at least another generation if not more, and their profits of 85 baht per kwien are after all very much less than the 600 baht or more taken by Government in the form of the premium.

Which, therefore, has contributed more to create the state of poverty suffered by our rice farmers, alluded to by the Minister when he said that "Now they have only bones left with them"? Is not this state of poverty the result of former Government policies? How then can the farmers' state of poverty be improved, when the Minister pointed out that the "main policy of the Agricultural Ministry would be more or less the same as that established by the former Minister"? Presumably by making sure that the farmers "receive what they deserve", one of those ambiguous statements politicians are fond of making, because it commits them to nothing and raises vague hopes which may or may not be fulfilled, according to expediency and circumstances.

And it will be presumed from circumstances and population that will perhaps bring changes in the present policy of keeping paddy prices down and 80% of the population poor in order to provide a cost of living subsidy for 20% of the more affluent population.

If rice production is not improved, it has been predicted that Siam will become a deficit country within 8–25 years, according to the data used in making these predictions. When that point is reached then the present policy will be automatically changed, for there will be no premium to collect, and rice will have to be imported at world prices, and thus raise domestic prices to world level. Unless other exports can be found to take the place of rice, then what the state of our economy will be is beyond the imagination or calculation of a layman. It may be that the NEDB thinks we shall become an industrial nation like Japan, and get foreign exchange earnings from the industrial sector. To be able to do this within even 25 years is, I believe, beyond the imagination of most people. And to expect that other agricultural commodities can in future take the place of rice is to go against the concept of “comparative cost advantage” in the production of crops. We are at a disadvantage with other countries in the production of upland crops because they are new to our farmers, who have not yet adopted modern methods of production, whilst we do have certain advantages in the production of rice as I shall later try to show.

I believe that most of our economists will agree that rice will still have to be the basis of our economy and that every effort should be made to maintain and even increase our exportable surplus, by increasing production and attaining higher levels of productivity by increasing inputs, especially fertilizers, which of course require a favourable paddy fertilizer price ratio,

It should be noted that the proponents of the premium have studiously ignored this aspect of the problem. They were quick to point out its advantage in keeping down living costs, but failed

to mention its great disadvantage of preventing the use of fertilizer to increase production.

It may be wondered if the present Minister of Agriculture had this point in mind, when he said that "Concentration will be on the improvement of crop production" and does he think that past policies, which he proposes to follow, did increase production as claimed by some including the Ministry of Agriculture, but denied by others.

An Extract from a Paper by Prof. V. Ruttan and Arkom Soothipan

In a paper delivered to the Agricultural Economics Society of Thailand, Prof. V. Ruttan and Acharn Arkom Soothipan argued that recent increases in yield were due to better weather and decreases in the proportion of areas damaged rather than other factors, and ended their paper as follows:

“Factor Affecting Yields

Factor which may have had some impact on the rise in yield per hectare in Thailand during the last decade may be changes in variety planted and change in technological inputs, such as fertilizer and herbicides.

Varieties

Variety improvement efforts, including both selection and breeding, expanded rapidly in the early 1950's. Since 1954 this work has been under the direction of the Rice Department in the Ministry of Agriculture. Data on differences in yield by variety are not available nor are data on the proportion of the total area devoted to each variety. Data has been published on the area devoted to glutinous and non-glutinous varieties.

Fertilizer

Increased use of fertilizer probably has not been an important factor in the rise in rice yields in recent years. The fertilizer/rough rice price ratio in Thailand is among the highest in Asia.

Fertilizer response has not represented an important objective in the rice breeding program in Thailand.

Summary and Conclusions

The long-term trends in rice production, area, and yield in Thailand can be divided into three periods: (1) period of rapid growth in output and area with little change in yield from 1907/21; (2) period of slow growth in production, rapid growth in area, and declining yield from 1921/22 to 1946/47, and (3) period of rapid growth in production, moderate growth in area, and rising yield from 1947/48 to 1963/64.

Since 1950/51--1952/53, increases in yield have been more important than increases in area planted in accounting for growth in output in central and north Thailand. In south Thailand yield area change have been of approximately equal importance. Only the northeast has continued to depend more heavily on change in area planted than in yield as a source of output growth.

It is not possible to present a definitive measure of the relative contribution of irrigation, natural damage, fertilizer, and newer varieties in achieving higher yield per hectare. The yield has risen in both irrigated and nonirrigated land in all regions in recent years. In the northeast and the central plain, which account for more than 80 percent of total production, it appears that a decline in natural damage is sufficient to account for most of the increase in yield of the last half decade. If data were available to permit an assessment of the effect of new varieties and technical inputs such as fertilizer, it is apparent that there would be little yield increase for these factors to explain after taken into account the effect of irrigation and change in damaged area.

An implication of the analysis is that the data does not support a conclusion that the yield of rice in Thailand has "taken off" to new and higher levels."

Prof. Trescott's View

At a seminar held in March 1967 at Thammasart University, Prof. Paul B. Trescott, visiting Professor of Economics presented a paper disagreeing with the views Prof. Ruttan and Acharn Arkom Soothipan and concluded his paper with the following words:

Contrary to Ruttan's assertion, there seems to be considerable scope in the data for increased productivity resulting from modernization. Indeed, considering the past downward trend in yields, one might argue that it takes some modernization merely to keep yield constant. An internal memorandum of the IBRD, prepared in 1965, emphasized the increased productivity which has resulted from the seed improvement program begun with USOM assistance and carried on by the Rice Department. My conclusion is that productivity in paddy production has genuinely risen, and that the rise reflects modernization chiefly in the form of expanded irrigation and improved seed. However, this conclusion should not direct attention away from the need for further large improvement both in paddy productivity itself and in the statistical information we have about it.

PART IV

The Future of Siam's Export of Rice

At a National Conference on the Agricultural Sciences held at Kasetsart University January 30th—February 2nd 1967, Dr. Sawaeng Kultongkam, at that time Deputy Under-Secretary of the Ministry of Agriculture, stated that the Ministry had promoted increased production both by expanding the planted area from 31.7 million rai in 1957 to 45.6 million rai in 1966, and had increased yields per rai by fertilizers, new techniques (such as late planting) protecting crops from past damage by the use of pesticides, so that yields had increased from 200 kgs. per rai in 1959 to 277 kgs. in 1966.

In August 1967 the *Bangkok Bank Monthly Review* reprinted an article "The Malthusian Squeeze" in the *Asian Review*, by Edward van Roy, Assistant Professor of Economics at the State University of New York, which presented a very pessimistic view of our rice situation. Using data from the National Statistical Office, the NEDB and ECAFE, he predicted that we shall be deficit in rice in the years 1973 (NSO) 1977 (NEDB) or 1980 (ECAFE) respectively. To combat the coming danger here is a part of what he wrote "Opening new territories to rice cultivation may be practicable. Irrigation projects nearly invariably have this as one of their purposes. Fertilizers, new varieties of rice seed, and new production techniques may also prove successful in opening marginal lands to rice. But since 1949/50 the acreage given over to rice cultivation has expanded by less than one fourth, most of the new land being of relatively low productivity."

I have quoted this paragraph because it shows what I think is the mistake made by those who have been estimating our rice production and yields, either favourably or otherwise. They have not taken into account that the land opened up for rice cultivation in recent years has not all been marginal land with low yields but on the contrary some have very high yields, and I believe that what remains to be opened up will also be high yielding.

It is my belief that the opening up of our land for rice cultivation has been done in three stages, the first stage being normal lands along the banks of rivers subject to flood irrigation, which deposits organic matter in the form of silt and maintains fertility; lands further away from rivers and streams are the next to be brought into cultivation in what may be called the second, the marginal, stage; the further away from the rivers they are the less sediment is deposited and so they are less fertile and become marginal lands. By expanding further and further away from the rivers we get nearer to the foot hills, where the fertility is very high, because rain water running down from the forested hills above bring down enormous quantities of detritus and organic matter, which is deposited on the soil in lessening quantities as the water flows down towards the lower levels which form the marginal land.

Cultivation has now entered into the third phase, on to lands which may be called virginal, i.e. virgin forest, where yields of 50-80 tang per rai are obtained.

I have observed that in 1932 when I was Director-General of the Agricultural Department, normal yields in the central plain were about 30 tang per rai, and this is still the case 35-37 years after. On the other hand in the Klong Rangsit district, which was the first to come under dam irrigation, when I was D.G., yields were 20 tang per rai; when I was Minister of Agriculture 15 years

after, in 1947, the yield had dropped to 15 tang per rai, and now it is only 10 tang per rai. However recent trials have shown that with the proper use of fertilizer yields have been increased to 50 tang per rai. This indicates that as the central plain comes under dam irrigation, where the silt deposits are held up by the dams, fertilizer use will become imperative; lands in the foot hills depending on rain water run off should be able to maintain soil fertility reasonably well, though yields will have to depend on rainfall like most other parts of the country. The above concept may be considered fanciful, but there is no doubt whatever about the yields of 60-80 tang being obtained from provinces like Petchabun, which formerly lacked communications and was virtually inaccessible. Also some parts of Pitsanuloke, where flood waters were so deep that even floating rice could not be grown. With the flood waters now under control by the dams, these lands are being brought into cultivation, also with high yields due to the accumulation of silt and organic matter deposited by the flood waters of many years.

Just as the low yields in the North Eastern Provinces brought the level of the national average yield down, so do the high yields of these virgin lands help to bring the level of the national average up, as I will try to show by the following table, which is an elaboration of the figures I presented in my Paper No 2.

I have, however, made some slight re-adjustments that is under item (3) 500,000 kgs for seed purposes for the cultivated area of 40 million rai = 12.5 kgs per rai, is calculated according to the cultivated area in each year and not as a constant item (5) population readjusted to estimates of the NEDB. (see table next page.)

The table shows that from the years 1959-1966 our exports have exceeded the estimated yields by increasing amounts from 1959, when unit yield of 206 kgs was at the lowest point and

gradually rising to 247 kgs per rai in 1965, when exports exceeded estimates by 1,348 million tons. This would be milled from 2.022 million tons of paddy which would make the total yield of the previous year (exported in 1966) $9.218 + 2.022 = 11.24$ million tons. If this quantity was obtained from the harvested area of 37.234 million rai, it would mean a yield of 302 kgs per rai, or if the yield had been 247 kgs per rai to produce 11.24 million tons would require the harvested area to be 45,500 million rai, i.e. over 8 million rai higher than the estimate.

Both suppositions are hard to believe, the latter because a discrepancy of over 8 million rai is surely too great even for the present poor methods of getting statistics, and the former because they don't fit the facts.

When Dr. Sawaeng said that improving yields were being obtained by "modernisation" such as the use of fertilizer, late planting, pesticides and better seeds etc, he was guilty of exaggeration. Up to the end of 1965 very little fertilizer was used, because low paddy prices made it unprofitable; the Minister of Agriculture said as much at the F.A.O. conference in that year. Pesticides have even been less used for the same reason.

With regard to the "late planting" alluded to by Dr. Sawaeng, he was referring to a new method being tried out by the Rice Department with spectacular results, but up to present has not even been recommended to farmers for adoption, because of certain technical difficulties, which need not be gone into here. Suffice to say it has contributed nothing whatever to increasing yields.

Irrigation as such does not increase yields but stabilizes them and enables maximum yields to be obtained from soils according to their level of fertility – labour saving tools such as tractors do not increase yields either.

Both these “modernising” methods may have increased yields somewhat but not over a large area, and would increase the national average to only a small amount.

The only “modernisation” means of increasing yields fairly substantially is better seeds. But the use of better seeds spreads very slowly indeed, and even so the increase from better seeds alone is not more than 10%—15%

So even if better seeds were used on as much as half the harvested area in 1965 or say 20 million rai, the 15% increase from better seeds would amount to only 0.600,000 tons which added to a normal yield of 200 kgs on 37 million rai would give a total yield of $7.446 + .600 = 8.046$ million tons divided by 37 million rai (harvested area) would make the average yield 221 kgs per rai; i.e. an increase of only 21 kgs.

The possibilities from virgin soils with yields of 50 tang or 500 kgs per rai are much greater. From 1959 to 1965 there was an increase of 4.4 million rai in the harvested area: if these came from new holdings from virgin soils, there would be an increase of 300 kgs per rai over the normal yields of 200 kgs making the total increase $4.4 \text{ million rai} \times 300 \text{ kgs.} = 1.320 \text{ million tons}$. This added to the normal yield of 7.446 i.e. $7.446 + 1.320 = 8.766$ million tons which divided by the harvested area of 37.234 rai would show an average yield of 235 kgs per rai, an increase of 35 kgs.

There is no pretense to accuracy in the above, but I submit that it does show that the increasing yields have come more from the virgin soils than the so-called modernisation of which these has been very little that has come into actual use.

Now I have not written the above just to show how wrong the Agricultural Ministry has been, but to prepare the ground for what I shall now try to do and that is to predict the time we shall be a rice deficit country, if we do not improve productivity.

As I am not an economist but belong to the age when we were an ignorant uneducated lot, with no economists to help us we had to rely on our wits and common sense to estimate our exportable surplus. Because I believe our old method will be applicable in the near future, I shall employ it in the following calculations. At that time the average yield was about 30 tang per rai (3 rai per kwien was a common saying) and it was held that 1 rai per head of population would suffice for internal use i.e. 250 kgs for human consumption and that 5 tang or 50 kgs per person would be required for seed, animal feeds, and further processing (such as distilling spirits, the manufacture of noodles in various forms etc) any production above 1 rai would be available for export. For instance if the harvested area was 1.5 rai per person then 1 rai would be for internal consumption and the yield from 0.5 rai per person would be available for export.

As the yields per rai in now not less than 276 kgs per rai, there is no doubt that expansion of the area in virgin soils together with the increasing use of fertilizers on the poorest soils will soon raise the average yield to 30 tang or 300 kgs per rai. Then by the simple method of calculating internal consumption at 1 rai per person, we shall have no surplus for export when the harvested area comes to no more than 1 rai per head of population.

When this will be depended on the area left available for expansion and the rate of expansion. At a conference on Land Reform held in Taiwan in December 1967, Drs. Chaiyong Chuchart and Praiwan Resanond presented a paper dealing with Thailand and stating that "It was estimated by the Land Development Department of the Ministry of National Development that an additional 20 million acres could be brought under cultivation if there was need for further extension", 20 million acres = 50 million rai, which together with the 70 million rai already under cultivation makes a total of 120 million rai available for agricultural purposes. Unfortunately there is yet no definite information as to how much is suitable for rice, as the land and soil

classification work is still unfinished and may take a long time before definite decisions can be made. In the meantime the people won't and cannot wait, but will go along opening up land for cultivation as they have done in the past and we can only make a tentative estimate that at least half of the total area, that is 60 million rai can be turned into paddy fields. In the above mentioned paper on Land Reform by Dr. Chaoyong and his associate, they state that the NEDB aims at "only an additional 12 million acres (30 million rai) or so will be brought under cultivation in the next 26 years if necessary".

It is not clear how the NEDB is going to implement its aims as they have no control over the actions of the people in opening up new land, but if its estimate is correct, then the rate of expansion will be 1.15 million rai a year.

Official figures in the table show that from 1957 to 1967 holdings have increased by 7.483 million rai, that is an expansion rate of 0.748 million rai a year. But these figures are open to doubt as the year to year increases are so erratic, varying from 0.393 million rai to as much as 1.153 million rai in one year. This is at variance with the past when the rate of expansion was correlated to population growth but at the present time may be modified because unlike the past, upland farming is also expanding but at a lower rate than rice farming, because rice is the preferred crop. These erratic figures are no doubt due to laxity and bad reporting on the part of the local authorities. There have been instances where whole communities of hundreds of families have opened up land in restricted forests and settled down for a number of years before being discovered or reported. Attempts at eviction could not succeed because these settlers had to live somewhere, and their action had to be condoned.

I believe therefore that the number of holdings has been underestimated and that in 1968 they amounted to no less than 50 million rai representing a ratio of 1.43 rai per head of population.

It is therefore not unreasonable to estimate that rice land will expand at not less than 0.8 million rai per year, and that the balance of 10 million rai available will be fully occupied in 12-13 years, dating from 1968, that is 1980, when the population will have reached 52 million. If the cultivated area reaches 60 million we must allow 10% as damaged areas, leaving the harvested area at 54 million rai that can be counted on. Two years later, that is, in 1982, population will reach a total of 54 million, making a ratio of 1 rai per head of population, after which we shall be a rice deficit country, i.e. in 13-14 years from now, unless we can raise yields by the use of fertilizers.

It is perfectly possible to raise yields from 30 tang to 40 and even 50 tang per rai, by the application of the simple basic formula of the Rice Department, and thus raise the average yields to at least 40 tang per rai. This will mean that 10 tang or 100 kgs of paddy from every rai of the harvested area will be a surplus and available for export. Actual figures will be 54 million rai \times 100 kgs = 5.4 million tons of paddy equivalent to 3.6 million tons of rice products.

However, getting farmers to use fertilizers properly to get the best results takes a long time, as I have shown in the case of Ceylon. This point was raised by Prof. Wagner and Sopin Thongpan in their paper, which reads as follows:

The Supply of Thai Rice

We have argued above that changes in the world price or in the general level of the rice premium would logically be expected to be and in fact appears to be reflected back to the Thai farmers at least in some degree. This raises the question of what supply response might be expected to a significant change in price.

In recent years, Griliches and others have conducted some very interesting research on the rate at which various groups of farmers adopt new technologies. Some empirical tests have been

made of the argument that in a large group of producers such as Thai rice farmers, there will be a small group of innovators for whom a new technology will obviously be profitable and who will adopt it almost immediately. This group will be small, however, and there will be a rather long interval between the time the new technology is introduced and the time by which as many as 10% of all producers will have adopted it.

Then, as many producers learn about the new technology and see that it has proven profitable for the 10% who adopted it first, a large proportion of the remaining 90% will adopt rather quickly. For various reasons, a small proportion of the 90% will be very slow to adopt; it will not be profitable, they fear to change, etc.

This phenomenon is shown graphically in Figure 4, where time in years is represented on the horizontal axis and the per cent of farmers who have adopted the new technology is represented on the vertical axis.

Economists are testing the hypothesis that the shape of this curve — that is, the rate of adoption — depends on the profitability of the technology. If this is true, it is possible that an increase in prices could result in a rapid increase in supply. If at present price and costs, for example, the profitability of using fertilizer were such that most Thai farmers would be using fertilizer ten years after the first farmers started to do so, then increasing the price of rice would make using fertilizer more profitable and would lower the adoption time to less than ten years. Curve M of Figure 4 is an example of what might happen if, after 10% of the farmers had adopted a practice, price was changed so that the adoption rate was doubled. If this hypothesis is valid for Thailand, it is possible that increased prices might speed up the innovation rate and result in higher yields and a rapid increase in supply.”

There is, therefore, no time to be lost and better ways must be found to demonstrate and teach farmers than the few large

demonstration farms of the Minister of Agriculture, which during a period of four years have managed to teach farmers to use improved methods to the extent of only 65,506 rai. One of the main reasons for this slow growth and the reluctance of farmers to use fertilizers was the small profit obtained, because of the unfavourable paddy/fertilizer price ratio. There has been a good deal of talk that we lack an efficient extension service, and efforts are being made to turn out many more extension service workers, and a new Extension Service Department has been set up, but the best extension service in the world will fail to persuade farmers to use any new methods which do not give substantial profits. High Government officials concerned seem to ignore this crucial point, because a favourable paddy/fertilizer price ratio means that the premium must be lowered to get a higher paddy price, and our statesmen will continue to argue that lowering the premium will not raise paddy prices, because the middlemen will get it all. So in the eyes of our statesmen our farmers will continue to get low prices until all the middlemen are replaced by Farmers' Co-operatives.

To organise all our farmers into co-ops within the space of 12 years is surely beyond the imagination of most people, including enthusiasts of the Department of Co-operatives. But it should not be beyond the imagination of our statesmen to adjust the premium to attain a situation similar to the beginning of 1967, when the most enthusiastic proponent of the premium, Mr. Somporn Thepsita showed that when the world price rose from £ 58—15s. to £ 66—2s. per ton the increase was *not* all swallowed up by the middlemen but was passed on to the farmers to reach a price of 1400 baht per kwien in February when the paddy was still in the farmers' hands. With world prices now at £ 80 per ton the paddy price can surely be raised to 1500 baht, the price at which UN experts consider that the use of fertilizers would be economically justified.

The final point that needs consideration is whether we shall be able to compete with other countries in world markets if we do obtain surpluses of 3 million tons or more.

Indeed the subject of competition needs serious consideration right now, because it is quite evident that this year our exports have fallen to a very low point, although we have plenty of rice to sell.

Competition in world markets depends on the ability of farmers in each producing country to sell at lowest possible prices, whilst maintaining an economic status, which will enable them to continue selling at those low prices, that is they must make profits enough not only to carry on their business but to take advantage of improving production techniques to lower production costs.

Production will vary from country to country depending on the skill and intelligence of their farmers, the level of soil fertility, weather conditions and other factors which, as I understand it, is what economists mean by the term "comparative cost advantage."

To get a clearer understanding of what this all means we should compare the pre-World War II situation with the present.

What advantages did Burma formerly enjoy, so that they could export 3 million tons of rice a year, whilst our exports were less than half, i.e. about 1.250 millions?

Burma had the advantage of us in two respects, firstly, a more consistent rainfall, because the south west monsoon coming up against the mountain barrier dividing our two countries precipitated a lot of the rain, and left less for Thailand. Secondly there was a huge force of migrant labourers from India (estimated at about half a million) that came over to do the transplanting work, go back and return to bring in the harvest.

In this way Burmese farm families could work more land and therefore produce more rice, although the yields per unit area and population were about the same.

Burma however had two disadvantages, firstly rice of poor quality and their farmers were heavily indebted to the Indian money lenders (*chetiyars*) who financed the crop.

We had two advantages namely rice of high quality which brought higher prices, and though less land was worked, the land belonged to the farmers, who were less heavily in debt, and were prosperous enough to make savings in gold as I pointed out in my talk. In fact they achieved the economic status which enabled them to maintain their share in world markets.

It should be understood that at that period, fertilizer prices were so high that rice exporting countries could not use them profitably so that crop production was under "natural" conditions devoid of technological improvements.

After World War II there was a complete change in the Burmese situation. On gaining independence, the Indian Chetiars, who previously financed crop production were bundled out of the country and the migrant farm labourers were refused entry, so that the advantage of working large holdings was lost and with the political troubles that disturbed the country resulted in a sizable diminution of exports.

This of course was very lucky for us, because our foremost competitor was not so formidable as before, so we continued to maintain exports and at present still have the advantage of high quality and larger holdings than most of our neighbours.

If production were to continue under "natural" conditions as before, we would have the advantage, because farmers working larger holding would produce more than those with smaller ones.

But technological advances in the manufacture of fertilizers have made them much cheaper and our neighbours are overcoming the disadvantage of small holdings by increasing production on them, so that their total production is equal to the production on our larger holding. The only way then to maintain our cost advantage is to do the same by the use of fertilizers just as they are doing. Our farmers are also suffering the disadvantages of having to sell their paddy at lower than world prices, and buying their fertilizer at higher than world prices, besides high interest

rates on expenditures for crop production, which of course raises production cost. To compete successfully in world markets we must wipe out these disadvantages in order to make the most of our advantage of larger holdings. If the paddy price is raised to world level the disadvantage of high interest rates can be overcome, and if the price of fertilizer is lowered to world prices, the fullest advantage will be gained from their use.

To illustrate by using figures in my Paper No 7, the present world price of £ 80 = 4,000 baht per ton, would be equivalent to the farm price of 1,800 baht per kwien, so on a 25 rai farm:

Sale of 475 tang @ 18	= 8,550
Cost of production	= <u>1,953</u>
Labour income	= 6,597
Living cost	= <u>4,200</u>
Net income	= 2,397

The above shows how much better off the farmer would be if he got world prices. Without having to find work off the farm, he will have a net income of 2,397 baht sufficient to finance the next crop amounting to 1,953, without having to borrow and thus save interest charges which amount to 40 baht per kwien.

This will lower his production costs from 1,953 to 1,643 baht, so we now get the following

Sale of 475 tangs @ 18	= 8,550
Cost of production	= <u>1,643</u>
Labour income	= 6,907
Living costs	= <u>4,200</u>
Net income	= <u>2,707</u>

Fertilizer costs have now fallen to 30 baht per rai for the present formula being used and the latest report of the Extension Service Department says that average gains of 16 tangs per rai have been achieved. So with additional expenditure of 750 baht for fertilizer the total production would come to 11.75 kwien and

the farmer's income would be raised substantially, for after keeping 3 kwien for home use, he would now

Having for sale 875 tang @ 18 baht	=	16,750 baht
Crop production cost	=	<u>1,643</u> baht
	=	15,107 baht
Cost of fertilizer	=	<u>750</u> baht
Labour income	=	14,357 baht
With better income living cost would increase		
	to	<u>6,000</u> baht
Net income		<u>8,357</u> baht

The farmer is now in a position to pay his debts and increase his fertilizer with a better formula which at world price would cost 40 baht per rai and bring his yield up to 50 tang per rai; this would increase the fertilizer cost to 1,000 baht to get a total yield of

12.50 kwien of which he can sell 950 tang		
@ 18 baht	=	17,100 Baht
Production costs	=	<u>1,643</u> baht
	=	15,457 baht
Cost of fertilizer	=	<u>1,000</u> baht
Labour income	=	14,457 baht
Living costs	=	<u>6,000</u> baht
Net income	=	<u>8,467</u> baht

When the farmers have thus increased their incomes, they will have attained a strong economic position. They would not be at the mercy of the middlemen because they can afford to bargain, they can hold their paddy waiting for better prices, and they could then form co-operatives which could really work, because they could provide the capital to run, for instance, a co-operative rice mill to mill their own paddy, which would save

part of middlemen's profits and enable them to sell their paddy at higher prices in the form of milled rice. These co-ops can succeed because members have provided the capital, and it is to their interest that a competent manager is hired, who will be responsible to them and not to any Government agency.

A co-op of 150 members each with 9.5 kwien to sell would have a total sales production of over 1,400 kwien, which would keep a rice mill of moderate size occupied the year round. The cost of such a mill at present prices is not more than 200,000 baht, so that 2,000 baht from each member would provide a capital of 300,000 baht, ample for capital costs and running expenses.

Such opportunities would not be open to them without a sound financial basis. They will also be in a position to meet competition. For instance if world prices fell from £ 80 per ton to £ 60 per ton (see my Paper No 6). This would bring paddy prices down to 1,200 baht and the farmer's income would be:

Sale of 950 tang @ 12	= 11,400 baht
Production cost	= <u>1,643</u> baht
	= 9,757 baht
Fertilizer costs	= <u>1,000</u> baht
Labour income	= 8,757 baht
Living cost	= <u>6,000</u> bhat
Net income	= <u>2,757</u> baht

Which would still be sufficient to finance the next crop without need to call on their reserves.

Here it may be asked if the sale of 950 baht as per the NEDB price of 1,200 baht can enable the farmer to have sufficient funds to finance the next crop, why should paddy prices be raised to 1,800 baht—the present world price?

The answer can be found by figures in my Paper No 7 which shows that the sale of 475 tang at 12 baht leaves him in the precarious position of having to depend in on outside work to

make ends meet. He is not in a position to increase his indebtedness to purchase fertilizers without risk of getting further into debt. He is shackled by debts, and he must be rid of this disadvantage before he can "take off" toward higher yields by using fertilizers, and gradually build up reserves to meet future competition.

It should also be remembered that it takes a long time to teach farmers how to use fertilizers and the higher the profits the quicker farmers will learn. If 10% be considered to be progressive farmers who learn quickly, the 90% will continue to get more into debt and progressively less likely to use fertilizers. As the population increases there will be more competition for outside work and decrease their incomes still further.

It is therefore important to gradually increase paddy prices to world level as soon as the economy permits, so that our farmers can get out of debt, for this on analysis seems to be the most important factor acting as a disadvantage to increasing crop production.

With paddy prices at world level even the farmer with 20 rai could do well.

$20 \times 31 =$ production of 6.2 kwien at production cost of 252 per kwien would make total production cost 1,562 baht. After keeping 300 tang for home use the farmer can sell 320 tang @ 18

	=	5,760
Production cost	=	<u>1,562</u>
Labour income	=	4,198
Living cost	=	<u>4,200</u>

With living costs covered by his labour income, and outside work bringing in only enough to meet the cost of fertilizer amounting to 600 baht, his crop would be increased to 940 tang of which he can sell

640 tangs @ 18	=	11,520
Production cost	=	<u>1,562</u>
	=	9,958
Fertilizer cost	=	<u>600</u>
	=	9,358
Living costs	=	<u>4,200</u>
Net income	=	<u>5,158</u>

He will now have ample funds to finance his next crop without having to borrow but be free of interest charges and lessen his production cost to 212 baht per kwien making his total production cost 1,314 baht and he should have confidence by this time to invest 800 baht for fertilizer to get full yields of 50 tang per rai increasing his total production to 1,000 tang of which he can sell.

700 tangs @ 18	=	12,600
Production costs	=	<u>1,314</u>
		11,286
Fertilizer cost	=	<u>800</u>
Labour income	=	10,486
Living costs increased to	=	<u>6,000</u>
Net income	=	<u>4,486</u>

He would now be able to pay off his debts and eventually have sufficient funds to contribute his share in co-operative ventures.

Contrast the above with the present set up for the 20 rai farmer selling at 1,200 baht per kwien.

Sale of 320 tang @ 12	=	3,840
Production cost	=	<u>1,562</u>
	=	2,278
Outside work	=	<u>1,275</u>
	=	3,553
Living costs	=	<u>4,200</u>
		<u>647</u>

So even with outside work he still cannot make ends meet and will get further and further into debt until he loses his farm. He is in a hopeless position and it cannot be expected that he will risk any money on fertilizers under these conditions.

Most of our farmers have holdings of 20 — 30 rai and they cannot be expected to “take off” towards higher yields, unless they have a firm platform to take off from. A sound economic status is the platform required, without which it is difficult to see how yields can be increased to keep pace with population growth, and we shall eventually become a rice deficit country.

In this regard I am more optimistic than others, such as Prof. Edward van Roy to whose article I have already referred. Using differing statistical data he has calculated that according to the NSO (National Statistical Office), his own study, the NEDB and ECAFE, we shall be a deficit country in 1973, 1976, 1977 and 1980 respectively.

Up to the present he has been proved wrong in stating that “the crisis should occur during 1967 or 1968, when the total volume of rice production will no longer be sufficient to satisfy both export and domestic requirements”.

On the contrary rice production was sufficient for domestic requirements with a surplus which we were not able to dispose of, leaving a carry over of 1 million tons at the beginning of 1969.

The crisis that has occurred is not lack of rice, but our inability to dispose of it.

I am optimistic enough to extend the crucial year to 1982, by depending on our natural resources. If I am wrong, then all the more reason for giving our rice farmers a fair chance to rescue us from the impending economic crisis, as they have done more than once in the past. Will the handicaps which restrict their work be removed? In short will our farmers be given a fair chance to do the job which no one else can do?

