

The Economical Development Of Siam During The Last Half Century.

PAPER READ BY MR. J. HOMAN VAN DER HEIDE AT A MEETING
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I intend to give a brief treatise on the economical development of Siam, especially since the middle of the Nineteenth Century.

Economical treatises generally do not tend to be very entertaining.

The material of facts and figures economical treatises generally have to deal with is very liable to be classed by many people as a rather stern and wearisome stuff; and among these practical business men, otherwise well accustomed to stern and wearisome matters, some perhaps may think the subject to be too much of an academical character.

Nevertheless the economy of a country is a thing of extremely practical interest; for, its object is the whole system of production and exchange of the various commodities by which life in our organized human society is distinguished from the wandering life in the forests of our prehistoric ancestors.

It will be unanimously admitted that these various commodities certainly are of a very material and practical character.

The ways and means by which these various commodities are produced and exchanged form the basis of the organization of human society, and it is now generally acknowledged by economists that the ways and means of production and exchange of products have a predominant influence not only on the social and moral conditions, but also on the political history of humanity in general as well as of states and peoples in particular.

It is easy enough to show, as I did just now, that the objects of economy essentially have a practical and not a mere academical character; and in the mean time I had much pleasure, by involving in the case even such mysterious persons as our prehistoric ancestors, at least to give a slight hint in the direction that the science of economy is not so entirely devoid of romance as people may be inclined to suppose.

In regard to the special subject of this evening, however, I do not intend to go back as far as prehistoric times; and neither, will I bother you too much with figures, the last of course in the very first place in order to make the thing not more wearisome than is absolutely indispensable, and in the second place because regular data are fairly scarce in connection with this country in general and in regard to its economical conditions in particular.

I simply intend concisely to point out, firstly the outlines of the economical conditions in the old days, and secondly the causes and circumstances of the development during the last half century; finally I then will give some statements and data in regard to the present conditions of the country.

I.

If we compare the records and descriptions of the kingdom and the people of Siam as given by the travellers, merchants and missionaries of the sixteenth, seventeen and eighteenth centuries, with the descriptions stating the conditions of the country and the people which were written about the middle of the nineteenth century, then it is particularly

striking that in every direction the changes are very small and generally of no virtual importance.

During these centuries wars were waged; capitals were founded and destroyed; dynasties arose and have perished, one after the other; but the general conditions of the country and the people practically remained the same.

For many centuries already, from wandering hill tribes living chiefly on the produce of continuously changing fields, the Siamese had become a fairly sedentary agricultural people.

It is well known that these frequent wanderings of many hill tribes are not caused by their mere fancy for wandering, but simply by the fact that the clearings on which these people practice their agricultural operations generally, after a few years, are exhausted to such a degree that it becomes necessary to abandon them for a number of years and look for, and clear, other places, which seem suitable for a couple of years to yield a sufficient quantity of corn or rice.

When reaching the plains, the Thai people became fairly sedentary cultivators; for, in connection with the fertility and natural conditions of the land in the plains, frequent removals were no more necessary.

The tribal organization thus could make place for states of larger extent.

In consequence a more numerous and powerful ruling class sprang up, which could, and would, not partake of the ordinary labours.

Land, most suitable for cultivation, was still available in great abundance; in consequence land had no value.

Hands, however, for working the land were of course the more valuable; and, as has generally occurred in similar circumstances, the great and powerful in the state saw no better

way for securing on their own behalf the labour of the mass of the people than by enslaving them.

Of course, in regions where there is an abundance of most suitable land available for everybody who desires to work it, so that land practically has no value, by what other means than by main force and slavery can a man compel his fellowmen to work for him?

As soon, however, as the most suitable lands become occupied and consequently land is getting some value, the possessors of the most suitable lands, by their mere right of possession, can arrange to share in the produce of the work of their fellowmen.

Under the last circumstances slavery is no more a necessity for securing the labour of fellowmen; and in consequence, if not forcibly abolished, it generally is gradually vanishing away.

If however slavery is abolished prematurely, as regards the economical conditions of the country concerned, then this naturally will lead to the system of production being entirely disturbed and ruined to a great degree.

When thus we consider the various descriptions of Siam dating from the sixteenth up to about the middle of the nineteenth century, as a first point of importance it is obvious that the land in general scarcely has any selling value at all, whilst, in conformity with the preceding explanation, the great mass of the people is living in a condition of bondage.

The next predominating feature of the old economical conditions of this country, in its grand lines, is that it was a self supporting community, or rather combination of communities.

The material necessities of the great bulk of the people, apart from land and live stock, are practically summed up by enumerating their food, their houses, their implements, their dress, and their boats and vehicles.

The food, chiefly rice and fish, is now as before, of local origin.

The materials for the houses, wood, bamboo, attap, grass, wooden or earthenware tiles, were exclusively of local origin, as chiefly they still are at present, and were applied not by craftsmen, but by the householders themselves, generally with the assistance of their neighbours and friends, after a system of mutual help, which is a usual practice in primitive communities and at present too is still customary with most of the cultivators.

The agricultural and domestic implements also were of local make.

They consisted of materials locally obtained and were manufactured not only locally, but all over the country nearly exclusively by the husbandmen themselves.

Ploughs, harrows, carts, sledges, shovels, waterscoops, mattings, rough earthenware, boats, couches, all these things were of local and generally of domestic make, and chiefly consisted of materials everywhere available. Of course a few pieces of metal were practically indispensable for some of these implements; but with considerable skill people managed to reduce the metal parts to the utmost. And the metal indispensably wanted for implements, arms, etc., was produced locally, of course by primitive methods, from locally obtained ores with local labour.

Paper was also manufactured locally by primitive methods.

The dress in a country with a tropical climate is not such an important factor in human life as it is in the countries lying in a cooler zone. But nevertheless cloth also in this country is one of the principal commodities of everybody's use.

Dress in the old times was simple, as for the bulk of the people it really still is at present; and it was made of homewoven cotton or silk cloth, from homespun yarn of homegrown fibres.

Trade of course could only be of small importance in such a self-supporting primitive community.

The imports chiefly consisted of a small amount of luxuries for the court and the higher classes of the people. (Indian cloth, China porcelain, jewellery.)

The exports also were not commodities of general consumption, but chiefly products of a particularly high value (ivory, metals, deer skins, dyewood, for which articles Japan was the principal market.)

In the old days Siam was not a great country for trade.

Only luxuries and very valuable and little bulky commodities, like spices and such like things, valuable metals, fine cloths, etc., were the usual articles of trade at these times, before modern means of transportation had turned the more bulky stock generally to enter into the scope of the trade with the East.

As Siam, however, practically did not produce to any considerable amount such spices and valuable goods as in the old days were especially demanded by the merchants, the trade of the country could not become important, neither very profitable.

The old Dutch East India Company had a factory, as they called it in those days, in Siam for about two centuries. But the business was small, and the accounts concerning the results very often closed with a loss; in consequence the staff of the factory generally was very limited and often was withdrawn nearly entirely. *

It has been presumed that the principal reason of the trade of Siam in the old days being little flourishing was lying in the fact, that usually foreign trade was practically monopolized by the Kings.

Such monopolies of course, are a great impediment to

* The principal business was the import of Indian cloth and the export of deer skins (up to 100,000 pieces) and sapanwood to Japan, and the export of tin from the Peninsular possessions of Siam. There was also some trade in rice. (Overzicht van de betrekkingen der Nederlandsche Oost-Indische Compagnie met Siam).

regular development of trade; but monopolising of trade by the King in the old days was fairly usual in other countries of the East as well, and did not prevent a comparatively flourishing trade springing up in such places, where products of general demand were available.

Of course such commercial monopolies always were very much against the desire of the foreign traders, as they could deal much more to their advantage with individual native merchants competing amongst themselves, than with a royal monopolist, who better could make them comply with his desire.

But, as I said before, monopolies after all did not prevent trade becoming comparatively flourishing where there was a natural basis for commercial transactions; that is to say, where the products of general demand of these times, or buyers for such goods, regularly could be found.

As regards a buyer of goods, however, in the old days Siam hardly could be counted very much, because it was fairly well a self-supporting community and necessarily it had to be so, as it had little or no products regularly to offer for sale, for which there was a general demand, and thus had little means to buy.*

* D. E. Malloch, an official of the English East India Company, in his "Siam," published in 1852, states the exports of Siam to amount to Tcs. 5,585,000, and the imports to Tcs. 4,331,000.

Amongst the articles of export teakwood does not appear; (used in the country itself, it is qualified; the price is stated to be Tcs 12½ per ton of 50 c fr.) Rice appears among the exports to the amount of 200,000 piculs only (price Tcs. 28—32 per coyan of 25 piculs), but it is stated that it may be had to meet any demand.

The principal items of export are stated as follows:—

Bark	...	...	...	...	Ticals.	110,000
Birds' nests	...	...	...	...	...	172,800
Cardamums	...	...	...	...	...	124,000
Cotton (raw)	...	...	...	...	...	450,000
Cotton cushions and matrasses	...	...	...	...	...	211,500
Fish	...	...	...	...	...	213,500
Hides	...	...	...	...	...	255,500
Iron and ironware	...	...	...	...	...	180,000
Dried buffalo and deer meat	...	...	...	...	...	120,500
Oil (cocoanut-, fish-, wood-)	...	...	...	...	...	101,000

II

Things, however, commenced to change when the continuous improvement of modern means of transport made transportation possible of bulky and cheap goods over great distances.

The easier and the less expensive transportation, especially by sea, gradually became, the more the character of trade in general became changed.

Formerly the main objects of trade had been luxuries and particularly valuable goods; but gradually the bulk commodities of daily use of everybody commenced to take the main place in the commercial relations, even between the most distant countries; and so those countries which could supply such commodities of general use more and more became centres of trade.

Siam soon proved to be such a country.

The bulk commodities which this country could offer for export are rice and teakwood.

These commodities it produced for centuries just as well as at present; but only in consequence of the development of

Rice	...	...	...	...	...	Ticals	150,000
Pepper	...	...	...	...	...		99,000
Skins	...	...	...	...	...		195,000
Tobacco	...	...	...	...	...		100,000
Tin and tin utensils	...	...	...	...	...		253,500
Sticklac	...	...	...	...	...		254,000
Sugar	...	...	...	...	...		708,000
Hog's lard, tallow and feet	...	...	...	...	...		146,000
Sapan wood	...	...	...	...	...		350,000
Agila wood	...	...	...	...	...		100,000

Mgr. Pallegoix, in his "Royaume Thai," and after him Sir John Bowring, in his "Kingdom and People of Siam," give the most fantastical figures concerning the trade as well as the revenue of Siam.

The figures of Malloch, however, are apparently founded on serious investigations by a man conversant with commercial matters, and though most probably somewhat exaggerated, on the whole they make a fairly accurate impression.

modern means of transport, these bulk goods have become main articles of trade. *

It is often presumed that the treaties with the foreign powers, in consequence of which the exportation of rice ceased to be practically prohibited, were the principal cause of the development of trade in this country.

But I think it is evident that the treaties and the abolition

* EXPORT OF RICE AND TEAKWOOD FROM SIAM FROM THE YEAR 1857
TO 1905, IN ENGLISH TONS.

Data provided by Mr. E. Ambrose, Asst. Director-General,
Customs Department.

Year.	Tons Rice.	Year.	Tons Rice.	Tons Teak.
1857	60,000.	1882	199,500.	...
1858	70,000.	1883	158,000.	23,500.
1859	50,000.	1884	284,000.	15,300.
1860	95,000.	1885	217,200.	15,200.
1861	123,000.	1886	215,400.	21,700.
1862	92,500.	1887	396,700.	21,100.
1863	104,000.	1888	449 800.	29,500.
1864	137,000.	1889	254,000.	43,100.
1865	2,100.	1890	475,100.	38,700.
1866	86,400.	1891	226,500.	16,100.
1867	111,500.	1892	203,900.	14,600.
1868	123,800.	1893	775,500.	24,500.
1869	160,000.	1894	507,400.	37,100.
1870	152,000.	1895	464,000.	61,800.
1871	110,700.	1896	457,600.	49,700.
1872	125,000.	1897	557,700.	44,200.
1873	51,500.	1898	519,200.	26,500.
1874	118,400.	1899	445,300.	38,700.
1875	233,600.	1900	414,400.	38,300.
1876	250,800.	1901	682,300.	50,400.
1877	185,000.	1902	792,300.	56,600.
1878	141,700.	1903	581,100.	58,100.
1879	240,000.	1904	837,100.	77,500.
1880	205,000.	1905	813,000.	101,400.
1881	221,000.			

The export of rice and teak greatly depends upon rainfall. After years of abundant rainfall follow years of great export of rice and teak; and after years of scanty rainfall the export is greatly reduced.

of the interdiction to export rice are subsidiary occurrences.

The sequence of reasons and consequences, it seems to me, is the following.

Development of modern means of transportation created a regular and increasing demand for bulk commodities like rice and teak.

In consequence of the regular demand for rice, the production became stimulated and increased ; and development of trade ensued.

Under such circumstances, restriction or prohibition of export of rice as a rule must have soon ceased to be a necessary measure of economical policy.

For, in the old days under ordinary conditions, there was no *regular* foreign demand for rice. Only in cases of scarcity in any country the demand and the price rose high enough to make rice a desirable article of trade, but apart from that rice practically had no value as an object of foreign trade; thus in the old days there was no other stimulus for cultivation of rice than the local demand.

Local demand is based upon local consumption and upon what is wanted for storing up of reserves for bad years.

Occasional foreign demand in the old days generally occurred in consequence of failure of crop in neighbouring countries; and just because such demand was not a regular, but only an occasional and unforeseen occurrence, people could not possibly produce for it. In consequence such occasional demand could only be met at the expense of the local reserves.

A cautious Government of course could not allow these reserves to become liable to be exhausted; the more so as in general failure of crop and scarcity in neighbouring countries occurred simultaneously with local failure and dearth; consequently under such circumstances there was every reason for prohibition of export of rice.

But the *regular* demand for rice as a commodity for export, which had been created by the development of modern means of transport, acted as a great stimulus upon cultivation and caused the production regularly to increase so much, that subsequently under ordinary circumstances all prohibition of export became quite superfluous. Only in years of great failure of crop, prohibition of export could still be advisable. *

Precursory to the development of the rice and teakwood trade, sugar, cotton and fish had already become articles of export of some importance in Siam.

The value of these commodities per unity of weight, at that time, was at least 5 or 6 times greater than of rice, so that it is quite easily to be understood that these products, at an earlier period than rice, could become articles of some importance for general trade. **

But, as I stated before, the trade of the country did not gain real importance before cheap modern transportation had created a regular demand for such bulk products as rice and teakwood.

The development of trade, originated by cheap modern transportation, was facilitated considerably by the increased security in the commercial relations, which has ensued from the treaties with foreign powers.

Herewith the basis has been indicated of the new area of commercial enterprise in Siam; and I now will proceed to show the further development as regards the country and the people.

The first point to be set forth in regard to this development is, that gradually more money was coming into the country; and in consequence little by little the old economical fabric of

* In 1864, in 1865 and in 1877 export of rice was prohibited for some time, for fear of famine in consequence of serious failure of crop.

** In Malloch's "Siam" (published 1852) the price of cotton (cleaned) is stated to be Tcs 16-26 per picul, of sugar Tcs $6\frac{1}{2}$ - $7\frac{1}{2}$ per picul, of fish Tcs 7-8 per picul, and of rice Tcs 28-32 per coyan of 25 picul. (The tical at that time was equivalent to 2s. 6d.)

the self-supporting community, with what trade there was chiefly dependent upon exchange in kind, made place for the modern economical system, based upon cheap transportation, extensive commerce and exchange by means of money.

Another principal point is that when rice became a general product of commerce, people more and more applied themselves to cultivation alone and in consequence gradually commenced to neglect such other occupations, as did not prove to be as profitable or easy as rice-growing.

A third point of importance is that by rice growing becoming profitable, a demand for rice land sprang up.

As the most suitable lands of course had been occupied first, for extension of cultivation people had to take the remaining less suitable and less favourably situated waste lands.

From the advantages, the first occupied lands had above the new lands, the old lands soon commenced to derive a considerable selling value.

In consequence land became a valuable property, from which rent could be obtained.

Slavery and bondage under such circumstances lost their economical basis and ceased to be an indispensable institution; thus in course of time they could be abolished without any disturbance being caused in the system of production of the country.

The consequences of the alteration of circumstances gradually have led to the present conditions of the country.

The increasing importance of rice cultivation tended to lead people more and more to neglect other occupations, and this tendency was greatly enhanced by another result of the progress of modern transportation, namely the development in the manufacturing countries of the industries and trade of cotton goods, metalware, etc.

These goods of comparatively low value, and more still

the raw material required for manufacturing them, also benefitted greatly by the possibilities of modern means of transportation and sought a market all over the world, where any capacity for buying existed or came into existence by development of exports.

These goods of foreign manufacture could be offered to the consumers at a much lower price than the primitive local industries could make them for. Consequently in Siam, like elsewhere, the local manufactures and domestic industries were gradually superseded by imported products of foreign industries.

The general result of the opening up of the country for trade by development of modern transportation thus is that the people, from a self-supporting primitive community, have become large producers of agricultural products for export, and consumers of imported products of foreign industries.

In consequence the principal primitive local industries, namely those connected with cotton and silk goods, metalware, paper, earthenware, etc., have gradually died out. At present in Lower Siam these local industries practically have vanished away entirely.

Weaving and spinning, as in the old days was generally practised as a domestic industry by the women, has practically been dropped.

And with weaving and spinning also the local cotton growing has ceased, in consequence of the product no more being wanted for the local and neighbouring markets, and because the raw cotton is not of a sufficiently superior quality to be able to fetch paying prices in the general market. *

In former times the iron industry of Siam had some reputation in the East, especially in connection with the manufacturing of big iron pans for sugar boiling. * *

* About 1850 an amount of Tics. 450,000 worth of cotton was exported to China. But in China the domestic industries of cotton spinning and weaving and the import of cotton were supplanted by imported yarns and goods.

* * About 1850 there was still an export of iron and ironware amounting to Tics 180,000.

The primitive local metal industries and in consequence also mining and smelting of metals now have been killed by foreign imports; and therewith the charcoal burners lost their principal customers. With pottery and earthen ware-manufacturing to a great extent the same was the case.

Paper making was also of some importance in the old days, but has been superseded by foreign competition. Even such local industries as hat-making lost their hold upon the people and were generally supplanted by imported headgear.

Further sugar manufacturing and fishery must be mentioned especially.

Both industries once were comparatively important.

But as regards sugar manufacturing, an industry in all probability introduced by the Chinese, conditions of soil and water supply were not favourable enough to allow successful competition with foreign countries.

In regard to sea fishery this industry is still fairly flourishing, although comparatively it is no more as important as it was. People say the steamers are frightening away the fish from the once much favoured shores of this country; but I think it is more probable that people generally find rice growing and other occupations more attractive than fishing.

Navigation by sea to neighbouring countries, especially in connection with the cotton, sugar and fish trade and building of seagoing ships once were local industries of some importance; but now they have been supplanted entirely by foreign competition. *

On the other hand, apart from rice-growing and teak trade, new industries have sprung up.

Among these, rice- and saw-mills are to be mentioned in the first place. * *

* In 1835, the Siamese first commenced to build square rigged vessels, and once there were a great number of these ships and junks in the hands of Siamese shipowners.

* * In 1858 the first steam rice mill was erected in Bangkok.

Inland boatbuilding got a great impetus from the increased demand for inland transportation.

The demand for building materials caused brick, tile and lime manufacturing, etc., to become industries of some importance.

There is a tendency of boat and house building becoming a craft instead of a domestic occupation. The same is the case with the making of various implements and furniture as far as they are not imported ready made.

The various industries above mentioned are giving employment to many people, and more or less are taking the place of those industries which were killed by foreign competition.

And what further hands became available could easily find work in the continuously extending agricultural pursuits.

The economical evolution here referred to has thus led to great alterations in the whole social fabric of the country, by the changes in the system of production ensued from it, and by its gradually increasing tendency for specialisation of work, which has made itself felt in every direction.

The gradually increasing influence of foreign trade, it must be observed here, in the main is not due to the country being opened up, as it generally is called, by improvement of the inland means of transport, but simply to the fact that the progress of modern engineering had opened up the sea as a cheap way for distant transportation.

It is well known that under the last and during the present reign several navigation canals have been constructed in Lower Siam, and that more recently construction of railways has facilitated inland communication in various directions; but for the main part of the country, as regards the most important articles of trade, inland transportation is still in the same condition as it was half a century ago and before.

The country, however, is intersected by such a number of natural waterways, which are navigable at least during the high water season, that with the possibilities of inland transportation existing from of old a considerable amount of trade could spring up, as soon as a regular demand for rice and teakwood arose. But before the demand came into existence, the inland transport possibilities obtaining proved of no avail.

From this, again, it is evident that the *regular* demand for rice and teakwood, which chiefly was originated in consequence of progress of transportation by sea, was the real impulse which stimulated to an increase of the production in this country.

But of course this stimulus only in such places has led to results, where increase of production was feasible in connection with the conditions of the soil and the possibilities of inland transport.

It may be worth while here to state in which parts of the country and to what extent, up to the present, results have been attained from the change of economical conditions.

We then see that the teak producing territory is confined to the dry hill regions in the upper Menam and upper Salween basins, lying north of the 17th degree of latitude.

The rice growing regions, as far as export is concerned, are confined to the about triangular territory from Paknampe down to the coast, which forms the plain of Lower Siam and is generally styled the delta of the Menam, although it includes the plains of the Meklong and Bangpakong rivers.

As rice is by far the most important of these products, naturally I have to dwell a little longer on it.

Outside of the territory mentioned, practically no rice for export is cultivated.

This may for instance be inferred, according to transport investigations made in connection with the railway to the north,

now under construction, from the fact that the quantity of paddy coming from above Paknampo does not exceed round 120,000 piculs per year; and that the transport of paddy by rail from the Korat plain (eastward of Hinlap), according to the statistics contained in the ninth traffic report on the Korat railway, at the very highest only amounted to 200,000 piculs of paddy (in the very favorable Siamese year 124, or 1905/06) *

If we reckon 3 piculs of paddy equal to 2 piculs of rice, then we find the export from above Paknampo amounting to less than 1%, and the export from the Korat plateau only to about 1% of the total rice export of Bangkok (of about 14 million piculs in 1905.)

When considering matters closely, it is evident enough that it is not so much want of means of inland transport, as want of land suitable for cultivation on extensive scale, which hampers development of rice export in the north as well as in the eastern provinces.

Transportation, it is true, in these regions, apart from the railways, is only possible during a part of the year; but this is just as much the case in the greatest part of the rice exporting regions of Lower Siam.

And the river channels in the north and also the railway in the plain of Korat cover an area of land which ought to export many times more paddy than the actual quantities exported, if the land were suitable for cultivation on an extensive scale.

If we only take a strip of land of 10 kilometres at both sides of the line as being covered, as regards transport, by the influence of the railway, then the territory of the Korat plain covered by the line, if suitable for cultivation, ought at least to export a million piculs of paddy, to come

* Export of paddy or rice from above Paknampo, otherwise than passing Paknampo, and from the Korat plain otherwise than by rail, cannot possibly occur.

in the same line with the present circumstances in the delta. *

In the province of Korat, however, the people (400,000) have not yet quite one rai of paddy land per capita (total 350,000 rais), against three rais in Lower Siam.

Increase of production depends upon many other circumstances than upon inland transportation only; but an increased influx of products of foreign industries is rendered possible by transportation facilities alone. Improvement of means of inland transport, therefore, in many cases is more liable to increase the demand for imported articles of foreign industries, to the prejudice of local and domestic industries, than to increase the production for export.

It is evident that, in regions where the conditions for increase of production do not duly obtain, improved means of communication, in addition to demand for foreign goods, thus do not at the same time create the necessary increase of production for export.

In such cases opening up of a territory by improvement of means of communication only leads to killing the local and domestic industries of the self-supporting primitive communities by foreign competition, and to increasing the wants of the people for foreign goods. This of course is beneficial to foreign trade and industries, but greatly detrimental to the people concerned. A country of capitalists would be able to stand such conditions; but in primitive countries supplanting of the products of local and domestic industries by foreign imports easily may lead to economical and social disturbances and financial difficulties, if no compensation can be found in development of production in other directions.

If no compensatory increase of production arises, new imports have to be paid for, in the most favorable case, with reserves of foodstuff; and where increase of production of

* The territory covered, according to the presumption mentioned, is more than 100,000 hectare or 625,000 rais. If only about 50 per cent of this territory were cultivated, and 2 piculs of rice (equal to 3 piculs of paddy) per rai were exported, as obtains in Lower Siam, then the export of paddy along the line would be about a million piculs of paddy on an average, instead of 200,000 piculs as a maximum.

foodstuff is limited, export of reserves may easily lead to dearth or famine, not in consequence of absolute absence of food, because by the improved means of transport foodstuff could easily be brought back to such places, but in consequence of absence of means with the bulk of the people to buy anything whatever, food included.

The great zeal and interest generally shown in industrial countries for opening up of new countries is not at all without selfishness; and many peoples have suffered, and are still suffering very badly from the operation of their country being opened up in an inconsiderate way.

Of course this was not, and will not be the case in a country like Lower Siam, when and as long as opening up can be combined and preceded by a rapid increase of production for export.

But for many other parts of the Kingdom it is doubtful whether circumstances will take as favorable a turn.

III.

I will now proceed to state some data in reference to the present economical conditions of the country.

It was already pointed out that in regards to this, a clear distinction must be made between the plain of Lower Siam and the other parts of the country.

It may be of some interest first to ascertain what percentage of the crop at present is exported in the regions of Lower Siam.

No direct data are available by which this is shown; but it is nevertheless possible to give a fairly accurate approximation concerning this matter.

The total area under paddy cultivation in the rice exporting regions of Lower Siam, which embrace the 6 mouthons (administrative circles) of Krung Thep, Krung Kao, Nakorn Chaisi, Ratburi, Nakorn Sawan and Prachin, in the Siamese year 124 (1905/06) was round 6,100,000 rais, according to the statements of the

Inland Land Revenue Office; and the total quantity of rice exported, which, as was explained, practically is derived from the plain of Lower Siam alone, on an average in the last 5 years (1901-05 inclusive) amounts to round 12,500,000 piculs.

In consequence the export per rai can be considered on an average to amount to about 2 piculs (of 60 1/2 kg.) of rice per rai (1600 square metres, *i. e.* about 2/5 of an acre).

There are no general records available here as regards the average yield of rice per rai; but according to various information and after comparison with what is known about the yield of the rice fields in neighbouring countries, it is fairly certain that an average yield of about 3 piculs of rice per rai can be taken as a fair approximation for Lower Siam. *

Consequently the rice export of Lower Siam on an average must amount to about 2/3 of the total yield.

It might be of some interest to add a few data as regards population and live stock of the rice exporting regions concerned.

The results of the recent census, which are considered to be fairly accurate, have supplied valuable material for this purpose.

According to this census, the population of the mentioned six monthons, which entirely comprise the rice exporting regions, in the Siamese year 123 (1904/05) amounted to round 2,080,000 inhabitants.

If we compare this number of inhabitants with the probable yield and the export of rice of the territory concerned, we find on an average about 6 piculs of rice available for export and 3 piculs of rice for consumption per head of population.

This figure of 3 piculs of rice per head of the population available for consumption is a very satisfactory feature of the economical conditions of Lower Siam.

* The average output in Java (irrigated and non-irrigated fields together) is about 13 picul of rice per bahu (7096 sq. metres, *i. e.* 4 7/16 rai).

The data concerning the professional occupations of the population, provided by the census of other countries which are in fairly similar conditions, show that it hardly can be too high an estimate for a nearly exclusively agricultural territory like Lower Siam, if we reckon that 75 per cent of the total population, or 1,560,000, are cultivators and their families.

In this way we come to an average of four rais of paddy land per head of the cultivating community, which for Lower Siam practically means the rice-growing population.* This makes 20 rais of paddy land per household, if the number of persons per household, as usually, is reckoned on an average at 5 persons. (In Burma, where social conditions are about the same as in this country, the average number of persons per household is five).

The extent of on an average 20 rais per household is fairly well confirmed by the results of the cadastral surveys, as stated in the annual reports of the Survey Department.

The average cultivator, with 20 rais of land, as was explained, gets an output of about 3 piculs of rice per rai, thus totally 60 piculs of rice, worth—at Tcs. 5 per picul—about Tics. 300.

Average gross earnings to this amount only, from which the taxes, eventually the rent, etc., have to be paid, cannot afford the average cultivator a much better position than an ordinary coolie has in this country.

Another point of interest is the number of live stock available.

The recent census gives the number of cattle and buffaloes for 5 of the 6 monthons of Lower Siam. For Krung Thep no data are available. For the 5 other monthons together the figures are 491,000 head of cattle and

	501,000 buffaloes.
Total	992,000 head.

* Against round 6,100,000 rais of cultivated rice fields, there are only 320,000 rais of garden land, orchards, etc., in the 6 monthons of Lower Siam, thus just about 5 per cent.

The total extent of paddy land in the 5 monthons to which the above figures do refer, thus the monthon of Krung Thep not counted, is round 5 million rais, which makes about one animal per 5 rais of land, or 4 animals per household of cultivators, (at the rate of 20 rais of land per household).

For comparison it may be stated here that for Lower Burma, by a corresponding calculation, we find 22 1/2 rais of cultivated land and 2 1/2 animals per household of cultivators (of 5 persons).

These figures for Lower Burma, however, cannot straight away serve for comparison with Lower Siam, as Lower Burma includes the hilly regions of Arracan and Tenasserim, where similar conditions obtain as in the northern and peninsular provinces of Siam; whilst the figures for Lower Siam refer to the plain of Lower Siam only.

If as regards Lower Burma only the delta regions were taken into consideration, the average of the extent of land worked per household would be much larger, and the number of animals per household, in all probability, would prove to be smaller.

It is certainly not the cattle and buffaloes that fail in the outlying monthons of Siam, because there is nearly one animal per rai of land, against one on 5 rais in Lower Siam

For, if we add the 7 outlying census monthons of Nakorn Sitamarat, Korat, Pitsanoloke, Puket, Chumpawn, Jhantaburi and Petchabun, to the 5 census monthons of Lower Siam, we find by a corresponding calculation on an average an extent of cultivated land per household of cultivators of 12 rais only, whilst the number of animals rises to 4 1/2 per household. *

* The extent of paddy land under cultivation in these 7 monthons was 1,330,000 rais in the Siamese year 120 (1901-02); the population was 1,820,000 inhabitants in 123 (1904-05); and in that year the number of cattle was 610,000 and of buffaloes 640,000, together 1,250,000 head.

The fact that in these monthons the people have less than one rai of paddy land per head of population, against 3 rais per head in Lower Siam, explains why the former regions do not export rice, whilst Lower Siam can export $\frac{2}{3}$ of its output.

But even with the hill regions included, it results from the mentioned figures that, on an average, in whole Lower Burma, with a much smaller number of animals, people, per household, work a considerably greater extent of land than in the plains of Lower Siam.

From this, one is inclined to infer that in Lower Siam the present population, with their abundant live stock, must thus be able to cultivate a considerably larger extent of land than they do at present; and local experience proves that this really could be the case. With the same number of 4 animals per household, in several districts of Lower Siam, in fact people on an average cultivate more than 40 rais of land, instead of 20 rais, per household.

But this requires more favourable conditions for cultivation than on the whole do obtain in Lower Siam. In Lower Burma, however, conditions are more favourable than in this country, in consequence of the rainfall being nearly twice as much.

The total extent of cultivated land in the 6 rice exporting monthons of Lower Siam in the fiscal year 124 (1905/06) was, as mentioned, round 6,100,000 rais.

The whole extent of the territory which comprises the rice exporting regions of Lower Siam, however, embraces about 15 millions rais. If 20 per cent of this extent, or 3 million rais, is reckoned to be required for houses, gardens, orchards, waterways, roads, etc., then there must be another 6 million rais of waste land available for cultivation, which could be made arable, if conditions would allow to do so, by the present population.

The land still available, however, of course is that which is not the most suitable for cultivation. That the remaining waste lands under present conditions are really not generally so very suitable for cultivation, is proved by the fact that people during the last eight or nine years have preferred to pay considerable sums for the lands opened up by the Rangsit canals, instead of taking up ordinary waste land which is available, without any payment, for everybody who wishes to cultivate it.

I now intend to consider briefly to what extent foreign trade at present has got hold upon the people of Siam

The statistics of imports can furnish some basis for such consideration.

It is well known that, just like the exports being chiefly derived from the plain of Lower Siam, also the imports of Bangkok are chiefly absorbed by these regions.

There is some trade of imported goods from Bangkok to the eastern provinces, and even to French Laos. These goods take their way by the Korat railway to Korat. The total of the trade of imported foreign goods to these regions, however, amounts only to about 5,000 tons, the traffic reports of the Korat railway taken into consideration, and cannot be estimated to amount to a value of more than $2\frac{1}{2}$ million ticals.*

Further there is the trade to the north.

The trade of imported goods to the northern provinces of Siam is said (in the British Consular reports, and by Mr. F. H. Giles in "The Kingdom of Siam" edited by Mr. A. C. Carter), to take its way for the greatest part from Burma.** As far as regards goods, the imports to Northern Siam taking their way from Burma are estimated at about a million Rupees, according to the reports of the British Consul at Chiengmai.

Thus if the imports derived from Bangkok are taken at Tcs. 2,000,000, I think they will not be considered as under-rated.

In the third place there is the coastwise trade of goods from Bangkok to the small ports of the Gulf and the Malay Peninsula, which amounts to not more than about 2 million ticals, the Customs reports taken into consideration.

* Mr. H. Warington Smyth, in his "Five Years in Siam" (1891/96,) estimated, evidently on the ground of competent authority, the imports to and via Korat at £60,000 (Tcs. 1 million) and the exports at the same amount. Mr. J. S. Black, British vice-Consul, estimated both together at £ 200,000 (Tcs. 3 million).

** Mr. H. Warington Smyth is of a contrary opinion, and estimates about £ 130,000 (Tcs. 2 million) for the foreign imports from Bangkok to the North (salt export excluded).

If we take these 3 items of the Bangkok trade together, they do not comprise more than 6 1/2 million ticals, or less than 10 per cent of the Bangkok imports of goods (on an average Tics. 69 1/2 million in 1902-05).

The remainder, making on an average an amount of more than Tics. 60 million, thus is absorbed by the 2,080,000 inhabitants of the rice exporting regions of Lower Siam.

This makes per head about Tics. 30, or per household of the whole population on an average about Tics. 150.

According to what has been explained, the extent of land worked per cultivator's family in Lower Siam is about 20 rais, and the crop about 3 piculs of rice per rai. The gross earnings of the cultivators on an average thus must be taken at 60 piculs of rice, worth about Tics. 300.

Of course, the imports per average household of cultivators are smaller than per average household of the whole population, because the cultivators are not the most wealthy class of the people.

But on the other hand they are the most numerous one. There is only one King, and there are more than 300,000 households of cultivators in Lower Siam. Imports to the amount of a million ticals for the King, thus make only little more than Tics. 3 per household of cultivators.

Moreover among the imports of Siam, articles of general consumption predominate very largely. The articles serving for production purposes, as machinery, raw material, and other articles for industrial pursuits, railway material, etc., do not amount to more than 15 per cent of the imports of Bangkok.

It is thus evident that the difference between the amount of the imports per average household of the whole population and per average household of cultivators is not so great as one might be inclined to presume; and therefore I

think it all but an exaggeration to estimate that on an average Tics 100 per year, or $\frac{1}{3}$ of the average gross earnings per cultivator's household, is spent on payment of imported goods.

The average amount of the imports of about Tics. 30 per head of the population in Lower Siam is already very considerable.

This development of foreign trade shows most evidently how closely the prosperity of trade is connected with the buying capacity of the people ensuing from extensive production for export.

If, however, we compare the above figure with the average amount of the imports per head of population in the countries of Western Europe (United Kingdom £12, Holland £15), it still makes a very poor appearance; but Egypt, which is an agricultural country like Lower Siam and at present enjoys great prosperity, does not show a higher figure of imports per head.

It is evident, therefore, that foreign trade has laid hand very strongly upon Lower Siam, its present conditions taken into consideration; but of course if production for export only increases at a faster pace than the population increases, this is no reason for uneasiness; on the contrary with proper development great possibilities for the future may still be expected.

For the other parts of the Kingdom, however, the amount of trade proved to be of comparatively little importance; indeed many times smaller than could be expected by the existing population and means of communication. But in these regions there is no production for export of any importance and in the consequence the possibilities of the import trade are limited very narrowly.

Apart from teakwood, which is worked by big foreign firms, the exports of the other parts of the Kingdom chiefly consist of live stock and jungle products. But the total of all the exports of Bangkok apart from rice and teak, amounts to about Tics. 10 million only, *i. e.* to about 10 per cent of the total of the Bangkok export in recent years.

These figures do not include the southern and western provinces of the Peninsula, which in addition to some cattle, pepper and jungle products, export about 5,000 tons of tin.

It needs not to be explained that in regard to Government revenue the plain of Lower Siam occupies a similarly predominant position as in regard to trade.

I have tried to point out in a brief way how the economical development of Lower Siam has resulted from the development of modern seaborne trade and from the favourable material conditions of the country.

Similar economical circumstances have led to similar results in other countries, which from political and administrative points of view are in very different conditions. But in different parts of the same country with the same political and administrative institutions a very different economical development does obtain, resulting from different economical conditions.

When seeing this, we must infer that economical results do not principally depend upon the political institutions and administration, but upon the economical conditions in the territory concerned and the efforts taken properly to utilize these conditions or, where necessary, to improve them.

Under the economical conditions of much importance, next to the natural possibilities of the country, are the natural abilities and social circumstances of the people.

In this regard the people of Siam have the advantage of being not hampered by prejudices of religion and caste, neither by unwieldy social institutions, like communal ownership of the soil or a burdensome village system, which tend to impede the development of individual energy.

Instead of the economical results being chiefly dependent upon the political institutions and the administration of the territory, these institutions and the administration, most evidently, much more depend upon the economical conditions

of the country; and necessarily they must do so. Otherwise the due proportions between the economical system and the political administration in some directions may easily be lost; and if the political and administrative institutions do outrun too much, or are kept too much behind the economical development of the country, the whole social fabric is liable to become topheavy or otherwise embroiled; and in consequence serious economical and financial disturbances may easily arise.

That in this country reforms in various directions could be successfully introduced, under this aspect, is greatly due to the advantageous economical development of Lower Siam during the last half century.

It needs simply to be stated here, after what has been set forth, that this advantageous economical development, and the favorable conditions by which it was brought about, evidently only obtain in the plain of Lower Siam.

In many other parts of the Kingdom, however, natural circumstances prove to be very different; and *there* in general economical conditions, in respect to increase of production for export, as yet have changed very little; in many places too little, I think, in order in future successfully to cope with the ever increasing influx of imported goods and the rising financial requirements of the Government.



ORDINARY GENERAL MEETING, 22ND NOVEMBER, 1906.

DISCUSSION ON MR. VAN DER HEIDE'S PAPER.

An ordinary general meeting of the Society was held at the Bangkok United Club on the 22nd November, 1906, to hear Mr. van der Heide's paper. The President, Dr. O. Frankfurter, was in the chair.

In opening the proceedings the PRESIDENT announced that the second part of Volume III. would contain some suggestions about the romanization of Siamese. Then as to future contributions, Mr. Polano was translating Van Vliet's description of Siam in the 17th century, and they had promises of papers from Mr. Beckett, Dr. Dunlap, Rev. J. B. Dunlap, Dr. Masao, and Mr. Giles. He now begged to ask Mr. van der Heide to read his paper on the economic development of Siam. The theme was one with actuality, and Mr. van der Heide's experience gave him the right to speak with some authority.

Mr. van der Heide then read his paper.

In inviting discussion, the PRESIDENT expressed his sense of the very valuable character of the paper to which they had listened. He was, however, of the opinion that sufficient stress had not been laid on the influence that the treaties of the reign of King Mongkut had exerted on the economic development of the country. There was already, a demand for rice and teak before the treaties were concluded, and the treaties enabled the demand to be met. Another factor to which attention might be drawn was the opening of the Suez Canal.

Mr. HAMILTON KING moved a vote of thanks to Mr. van der Heide for his very able paper.

This was seconded by Mr. BELHOMME, and passed with much cordiality.

The Rev. JOHN CARRINGTON said that if all had listened to the paper with the same interest as he had done himself, they would feel it was very profitable to have been {present. But looking at the subject from a philosophic point of view, it was not only the industrial element that was important but also the intellectual element. In considering the economic development of the country, they might consider the Economics of industry, the Economics of education, and the Economics of all the outside influences in the line of civilisation. When he came here first in 1869, he did so in a sailing vessel from Hongkong. At that time there was only one regular steamer running to Bangkok, the old *Chao Phya* from Singapore, and soon after the *Bangkok* was put on the run. The second time he came was from Chefoo, also in a sailing vessel. But the output of the country, to meet the demand from outside which set the people to work, was very much increased after a few years, and the new Siam might be said to have commenced in 1851 with King Mongkut. As regards education there were only the schools connected with the Roman Catholic and other Missions. The native effort was only in the temples, and it was quite superficial. But since then there had been great progress in education, and now Siam had an intelligent body of young men and young woman capable of doing all the work required of them. When he came to the country women could not read. Now thousands of them were reading. They had not been in schools, but had been taught by their fathers and their brothers. Women were becoming more and more intelligent.

Mr VAN DER HEIDE said:—Mr Chairman, I should first like to thank you Mr. Chairman, Mr. Hamilton King and the Rev. Mr Carrington for the kind words expressed in regard to the paper I have read.

Further, as regards your remarks in respect to the treaties and the Suez Canal, I must say that what I especially wanted to point out is, that the economical changes in Siam are caused by the alteration of the commercial conditions, which have resulted from the development of modern transportation by sea.

Among the great engineering achievements which have contributed to this development of transportation by sea, the opening of the

Suez Canal, no doubt, is one of the most important; and for the East especially the Canal is of enormous importance. In consequence, just after the opening of the Suez Canal trade in this country increased by rapid strides. But I have not mentioned the Canal in particular, as it is only one among many modern technical achievements which have contributed to the development of transportation by sea,

The Chairman and also the Rev. Mr. Carrington have remarked that there was already a demand for rice and teak wood, before the treaties were concluded, and that soon after the treaties, rice- and saw mills were erected one after the other.

This shows, I think, that it was the demand, created by improved transportation, by which the changes were brought about; whilst the treaties must be considered more as tending to meet the wants for security which originated from the development of trade.

As the Rev. Mr. Carrington remarked very rightly, it was the demand from outside which set the people of Siam to work; and I think this implies that it was not chiefly caused by political acts like the treaties.

Neither was it simply an act of policy of King Mongkut, which brought about the changes, however great the merits were of the late King as regards his country.

King Mongkut was an enlightened monarch who greatly possessed the ability of seeing and understanding the change of circumstances in regard foreign trade, and of feeling the consequences of this in respect to his Kingdom, and further of directing his policy in conformity with the altered conditions.

Of course, a bad Government can be detrimental to the economical development of its country; and a good King can do much, and King Mongkut, it is well known, has done very much, which was beneficial to the economical development of his Kingdom; but the fundamental causes of the economical development in this country must be sought in the development of transportation by sea, which brought such bulk products as rice and teakwood within the scope of general trade.

It is of course very natural that I especially have laid stress upon rice, as the importance of the rice trade is many, many times greater than of the teak trade.

The development of the country in material welfare, which was originated by the economical changes, has formed the solid basis on which education and progress in civilisation could be founded.

The PRESIDENT said that in 1848 Sir James Brooke came to Siam on a Mission, but he had to leave without making a treaty. Therefore, the President maintained, the way King Mongkut acted showed that he was a great man and that he understood his times.

MR. VAN DER HEIDE: That is what I said just now.

MR. HAMILTON KING suggested that it was the co-operation of the forces referred to that brought about the result. Touching on other considerations he pointed out that there were no richer deposits of tin anywhere than on Siamese territory, and that factor would enter into the politics as well as the economic development of the country. Siam, he proceeded, was young in its social and political fabric. It had a governing class eminently capable of conducting its affairs; it had a labouring class eminently capable of doing their work. The country was strong at the head and the foot; but there was no middle kingdom. What was needed was the development of the yeoman class, the wealth-producing, property owning, tax paying class. That class developed a love for the governing power which protected its homes; and that was patriotism. How was such a class, which was the backbone of a country, to be produced?

The Rev. JOHN CARRINGTON said some people often enquired how a middle class was to be produced in Siam. The question was already answered. Those of them who travelled about the country and came into close contact with the farmers, knew that this important element already existed. Some people said the Chinaman had this country, but that was said only by those who did not know the country, by those who knew only Bangkok and the larger cities. But some of them had travelled where it was rare to see a Chainaman, and where the yeoman was on his own land, holding the plough, sowing the seed and threshing the grain. Siam had a splendid school system, and what was wanted was that it should be extended more and more so that the young men and young women on the farms, and not only in Bangkok, should have the best of knowledge, and know how to make not two but ten heads of grain grow where one did now. There was no need to pray

Heaven to send the yeoman class, the backbone of the country. These people were here, and it was our duty to lift them up. Siam, he said in conclusion, was destined to a noble future.

MR. HAMILTON KING said the ladies and Siam were Mr. Carrington's sensitive subjects. Mr. Carrington said the thing was done, the desired middle class did exist. The thing was not done. But it was being done, and there was no country on God's foot-stool that had made such progress in the last five years as Siam had—no, not even Japan. He had been told that the Siamese was a lazy fellow, and that the Chinaman had to be got to do the work. From figures he had obtained he found that in some provinces only from 2 per cent to 5 per cent of the farmers were owners of their farms; while in the Rangsit district 50 to 60 per cent were owners and not merely tillers of the soil. That, in fact, he found, was the only place where the so-called lazy Siamese had an incentive and inspiration to work. As soon as they had the incentive of ownership, so quickly would they work. The Government was taking measures to produce that great change that they knew Siam was in need of.

Dr. MASAO said that in 1850 Japan and Siam were struggling away under the same yoke, and the same two men were guiding them at this yoke. One was Sir Harry Parkes, and the other Mr. Townsend Harris. These were the men who came and knocked at the door of Siam, made the treaties with her, and brought her to the notice of the world. They were the same men who knocked at the door of Japan, made the treaties with her, and brought her to the notice of the world. But there was one difference that might be worth noting and it was this. Sir Harry Parkes was favourably impressed by the progressive ideas of the late King of Siam, but he was so unfavourably impressed by the old fashioned ideas of the Japanese authorities with whom he had to deal, that on one occasion when he had the honour of dining with the Emperor, he actually had the audacity to tell the Emperor that on the Continent of Asia, on the hither side of India, there was a small country inhabited by a people similar in race to the Japanese, who were very intelligent and from whom Japan might learn. He hoped his Majesty might be pleased to send some one there to see how that country was doing and to learn lessons from that country. The Emperor did actually send a very high official to this country to see what lessons could be learned from Siam. But in those days Bangkok had no City Engineer and was a filthy place, so this high

Japanese official, with the almost religious regard for cleanliness of his race, was disgusted with the insanitary conditions of Bangkok, and, Dr. Masao was afraid, did not report favourably to His Majesty the Emperor. But from those days the two countries had been trying to advance in the same direction. They had the good fortune to have the same men, Sir Harry Parkes and Mr. Townsend Harris, to guide them; and it was a happy coincidence that both had been recognised as the progressive countries of the East. The late King was a progressive man, but the times were not quite ripe for his too progressive ideas. The country could not keep up to his pace; but now the time was ripe, and he quite concurred with the other speakers that in the last few years Siam had made more progress than perhaps any other country. Now that they had Mr. van der Heide to put into execution his schemes for the irrigation of the country and other capable gentlemen to aid in its development in other directions, he felt sure that the man who was fortunate enough to read a paper on the economic development of Siam ten or twenty years from to-day, would be able to say much more for Siam than what Mr. van der Heide had been able to say that evening, although it was already a great deal for Siam.

Mr. VAN DER HEIDE, replying on the discussion, said:—Mr. Chairman, after the eloquent and enthusiastic speeches we have just listened to, I feel somewhat reluctant once more to ask your attention for a few plain words.

But I should like to point out that in my present paper I only have tried to give a sketch of the economical development of Siam in the last half century, and to point out the causes of this development, and further I stated some data in regard to present conditions.

The facts and circumstances, connected with the economical development in the past half century I have mentioned and explained as they have impressed themselves upon my mind.

If, in addition to this, I had ventured into a review of the development of the future half or quarter of a century, I certainly would have pointed to the possibilities in respect to mining, irrigation and many other things; but mining has not considerably contributed to the development of Siam during the last half century, and irrigation is quite a new thing out here. As I had to deal with the past half century

only, I had no reason in my present paper to make excursions in any of these directions.

As the future is now under discussion, I further should like to say that I quite agree with Mr. Hamilton King, who says that a middle class is badly wanted in this country. A numerous, law-abiding, wealth-producing and tax-paying middle class who, by their properties, have interest in the country and its future, would give a strong backbone to the state, economically, and financially, and politically as well. Such a middle class would give stability to the policy of this country.

On the other hand I agree with the Rev. Mr. Carrington's opinion that this middle class is not absolutely failing now; or at least that the groundwork for such a middle class exists, namely that the already fairly numerous body of farmers who own land they work, must be considered as such. At present, however, the average conditions of the land-owning farmers are still much too closely approaching the standard of the coolie class. Average earnings of Tes. 300 annually from 20 rai of land, as I explained to obtain in Lower Siam, are not much superior to the earnings of an ordinary coolie in this country, and thus will not greatly entice people to become cultivators.

There is no doubt that a great number of farmers who work rented land are very desirous and are seriously striving to improve their condition, by getting permanent hold on the land. But in order to make farming more enticing, so that it will tend to originate a real middle class, the extent of land worked per family must be at least two or three times greater than the present average extent of 20 rai; and the value of the crops obtained per rai must increase also.

In this agricultural country it will not be contested that, in the next and even in a fairly far future, the cultivators only can form the main stock from which a fairly numerous, well-to-do middle class can spring up.

Mining and teak trade are businesses for big companies. These industries, like foreign trade and manufacturing industries, require too much capital to expect that they will especially tend to form a middle class.

In consequence, for promoting the rise of such a wealth producing, tax paying and law-abiding middle class among the people in this country, I

think, not in the first place social or political progress is required, on which people often especially lay stress; but before all a great economical progress is necessary.

The power and strength of the middle class is based on its economical position; and it is economically that the middle class is failing most in this country. Average gross earnings of Tics. 300 per year is certainly not the standard on which a strong middle class can subsist.

It is the economical basis which must be created first, by economical progress; this means, at least in Lower Siam, increase of agricultural production and in particular creation of the possibility of increasing the extent of land the farmers can work.

The farmers to raise their earnings, and therewith their standard of life, must work a greater extent of land by better methods.

When the economical basis of a middle-class is created, then education will tend to lead such a class to social and political progress.

But without the proper economical basis, I think, it can hardly be expected that education can have any result in the direction of social or political progress.

On the contrary, education without an economical basis is liable to create a class of *déclassés*, who certainly would make anything but a strong backbone for the country.

The PRESIDENT said he believed the Siamese were not so very badly off—otherwise how could they retain their crop for a year to wait for a better price? He hoped when the next Ambassador, such as Dr. Masao had referred to, came to this country he would find very much more reason for a favourable report.

The meeting closed with a vote of thanks to the Chairman.