

REPORT  
ON THE  
SUMMARY SETTLEMENT OF THE KADONBAW  
COLONY  
IN THE  
HANTHAWADDY DISTRICT  
SEASON—1916-17

BY  
J. ST. C. SAUNDERS, C.S.



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From I. G. LLOYD, Esq., I.C.S., Secretary to the Financial Commissioner, Burma, to the Revenue Secretary to the Government of Burma,—No. 809—2S.-25 of the 26th July 1917.

I am directed to invite a reference to the correspondence ending with your letter No. 139—4S.-12, dated the 8th December 1916, and to submit for the orders of Government a copy of the report on the Summary Settlement of the area of the Kadoobaw Colony, Hanthawaddy District, season 1916-17, by Mr. J. St. C. Saunders, I.C.S., with a review thereof by the Settlement Conference. In supporting the proposals of the Conference the Financial Commissioner recommends that the rates which they suggest be sanctioned as reduced rates of assessment in this area for a term of five years and that thereafter the ordinary Settlement rates be imposed. Before the full rates come into force, a cadastral survey should be made and a detailed soil classification be carried out.

From the Hon'ble Mr. W. J. KERR, C.I.E., I.C.S., Revenue Secretary to the Government of Burma, to the Financial Commissioner, Burma.—No. 1134M.—RS.-27 of the 25th August 1917.

In reply to your Secretary's letter No. 809—2S.-25 of the 26th July 1917, I am directed to say that the Local Government sanctions the imposition of the marginally noted assessment rates in the area of Kadonbaw Colony, Hanthawaddy District, for a period of five years, with effect from the current year, and the levy thereafter, of the rates sanctioned for Tract XVI of the 1907—10 Settlement.

Soil class.	Rates. Rs.
1 ...	4'00
2 ...	2'25
3 ..	1'00

Proceedings of the Conference held at Rangoon on the 17th July 1917 to consider the report on the Summary Settlement of the Kadonbaw Colony in the Hanthawaddy District.

MEMBERS OF THE CONFERENCE.

R. E. V. ARBUTHNOT, Esq., C.S., Commissioner of Settlements and Land Records, Burma.

Lieutenant-Colonel O. J. OBBARD, I.A., Commissioner, Pegu Division.

W. F. GRAHAME, Esq., C.S., Deputy Commissioner, Hanthawaddy.

Mr. L. E. Palmer, Superintendent of Land Records, Hanthawaddy, was present at the Conference. Mr. J. St. C. Saunders, C.S., Settlement Officer, was unable to be present.

Review.

The Kadonbaw colonization area is situated in the Phôngwa township of the Hanthawaddy district to the east of the area settled in 1907-10. The report shows that out of 18,000 culturable acres approximately 14,500 or four-fifths have already been brought under cultivation.

2. The classification in the present existing conditions had necessarily to be carried out on broad lines. The unit of classification adopted by the Settlement Officer was the block into which the Society's allotments were divided, varying roughly from 600 to 100 acres. These blocks were classified in 3 classes, and the Settlement Officer's classification may be accepted.

3. The outturns assumed by the Settlement Officer for the 3 classes of soil are 50, 40 and 30 baskets respectively. These outturns are supported by the crop reappings but we are disposed to think that they are higher than can safely be accepted; the Settlement Officer notes that there was a marked tendency on the part of the crop-reaping staff to select the most fertile fields, though this tendency was to some extent counterbalanced by the fact that the crop, owing to failure of the late rains, threshed out light and was somewhat below normal. It must be remembered that these assumed outturns are to be applied to large blocks in which there is probably considerable variation in productiveness in different parts. We therefore reduce the assumed outturn by 5 baskets in each class and adopt 45, 35 and 25. At the Settlement of 1907-10, in assessment tract XVI, of which this area forms a part, the outturns assumed for the three classes of soil were 40, 30 and 20 baskets, but slightly higher rates of outturn can safely be assumed in the case of land newly brought under cultivation.

4. The statistics collected by the Settlement Officer show a cost of cultivation of Rs. 24 per acre which, as he admits, includes a considerable item for the cost of clearing new land. For the next four seasons he assumes a gradually decreasing rate ranging from Rs. 23 in 1917-18 to Rs. 17 in 1920-21 and thus deduces an average rate of Rs. 20. It is a pity that the Settlement Officer did not attempt to frame any estimate of the actual cost of clearing the land for cultivation as distinguished from the normal annual expenses, and that he did not give some details regarding the wages paid in the tract for the various agricultural operations. In assessment tract XVI the allowance for cost of cultivation was Rs. 13.50 while in the adjoining tract (assessment tract XV), in which transplanting is usual, the figure adopted for cost of cultivation was Rs. 16.50. Although the clearing of the land on the area now under consideration has been practically completed, there is probably more to be done in the way of making *kassins* than in tracts in which the cultivation is more settled, and possibly it is the case that labour is at present slightly dearer, though the Settlement Officer has given no figures in support of his statement. On the other hand the cultivators in this

area presumably do a good deal more of the actual work of cultivation themselves than is the case in the more settled parts of the assessment tract, where the average size of the holding is nearly 70 acres and practically the whole of the work is done by hired labour. On the whole we consider that the Settlement Officer's proposed assumed cost of cultivation of Rs. 20 is too high and that Rs. 18 per acre would be a liberal assumption.

5. The price of Rs. 83 per 100 baskets, which is the price assumed at settlement in the remainder of the assessment tract, may be accepted.

6. Assuming outturns of 50, 40 and 30 baskets, a price of Rs. 83 per 100 baskets, and a cost of cultivation of Rs. 20 per acre, the Settlement Officer deduces the net value of the outturn in the three classes as Rs. 21.50, Rs. 13.20, and Rs. 4.90 respectively. From these figures he proceeds to deduct Rs. 12 per acre to cover an assumed cost of living of Rs. 8 per acre and interest on Government loans of Rs. 4 per acre, and then proceeds to propose rates based on a consideration of the assumed balance remaining to the cultivator. On this basis he has proposed rates of Rs. 4 for first class land, and Re. 1 for second class land, and proposes to exempt third class land altogether from assessment. It has long been recognized that any attempt to frame rates on a basis of the calculations which include cost of living is unsatisfactory. It is always possible to prove by mathematics that all except the best land must be worked at a loss, whereas it is known as an actual fact that all except the very poorest land does, in fact, yield a profit to the cultivator. There seems no reason why in the present case the rates should not be calculated in the ordinary way, a fraction of the net produce being taken, based on a consideration of the existing conditions of the tract. The rates in assessment tract XVI amount in the case of the first two classes to approximately one third of the net produce. We consider, however, that in view of the undeveloped condition of the tract and of the loans incurred in order to provide the necessary capital for the purchase of cattle and the initial clearing of the land, a somewhat lower fraction should be taken, and this may, in our opinion, fairly be fixed at one-fifth of the net produce. The rates proposed on this basis are shown in the following table, —

Soil class.	Out-turn.	Price of paddy.	Gross value of outturn.	Cost of cultivation.	Net value of outturn.	One-fifth net produce.	Rates proposed.
	Bkts.		Rs.	Rs.	Rs.	Rs.	Rs.
1	45	Rs. 83 per 100 gallon baskets.	37.35	18.00	19.35	3.87	14.00
2	35		29.05		11.05	2.27	2.25
3	25		20.75		2.75	.55	1.00

The existing rates in assessment tract XVI are Rs. 6.25 for first class, Rs. 3.75 for second class, Rs. 1.50 for third class land and the rates proposed are approximately two-thirds of these rates. On general grounds this would seem to be a very fair proportion of the full rates to impose at present. The rates now proposed may be imposed for a term of five years at the end of which time the full rates current in the rest of the tract may be imposed.

RANGOON, }  
July 17th, 1917. }

R. E. V. ARBUTHNOT,  
Commissioner of Settlements and Land Records, Burma.

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# REPORT

ON THE

## SUMMARY SETTLEMENT OF THE KADONBAW COLONY IN THE HANTHAWADDY DISTRICT.

SEASON 1916-17.

### CHAPTER I.

#### GENERAL DESCRIPTION OF THE SETTLEMENT AREA

1. The area dealt with in the present report is the disafforested Kadonbaw Reserve occupying the eastern portion of the Thongwa township of the Hanthawaddy district, and bounded on the north and east by the Yitkangyi Reserve and Singyun Island, on the south by the Alangon Reserve and on the west by previously cultivated lands of the Thongwa township. The reserve was originally constituted in 1902 as a fuel reserve, but it gradually became denuded of tree growth, and disafforestation having been recommended by the Deputy Commissioner, Hanthawaddy, and the Forest Department in 1912, the whole area was disafforested in 1915 [Revenue (Forest) Department Notification No. 79, dated the 17th May 1915]. The Government of India had agreed to disafforestation in 1914 and at the beginning of the cold weather of that year Mr. R. F. Greer, I.C.S., was placed on special duty to colonise the area on co-operative lines in accordance with a scheme drawn up by the Registrar of Co-operative Societies, Mr. A. E. English, C.I.E., I.C.S. The fundamentals of the scheme were that the land was to be leased to tenancy co-partnership societies organised on co-operative lines. The societies were to sublet the land to their members, and members were to be financed by their societies, which would derive the necessary funds from agricultural loans issued by Government. Mr. Greer began work in December 1914 and by the time of the publication of the disafforestation notification had settled 13 societies on the land with a total membership of 578. Two crops have so far been taken off the land. At the time of writing roughly about 25 acres per member have been brought under the plough.

2. In the open season of 1914-15 a traverse survey of the reserve was carried out under the direction of Mr. Swiney of the Land Records Department and from this a map on the scale one mile to 2-inch was prepared. This map was used by Mr. Greer in making allotments of land to the various societies. According to this survey the area is 23,516.08 acres. In the absence of a cadastral survey it is impossible to calculate exactly the area brought under cultivation, but it is probably nearly 25 acres per member or a total of 14,525 acres, there being now 581 members. There are probably nearly 4,000 acres of unculturable flooded land in the tract and a further deduction of about 1,500 acres must be made on account of village sites, roads, etc. The total culturable area may, therefore, be put at 18,000 acres, of which about four-fifths have already been brought under cultivation.

3. The whole area is a level plain with nothing that can properly be termed rising ground anywhere. There are, however, well-marked differences of level and the central portion comprising lands belonging to the Kyonkan, Sinminaing, Onbin and Nyaunglan societies forms a depression probably averaging two feet lower than the rest of the area, and at present for the most part water-logged and unculturable. The highest land is as a rule found round the edge of the old reserve boundary. This *thetke kondan* grows good paddy and its soil is of a sandy texture, but it is not so productive as the land of a slightly lower level which has a fertile clay soil and an abundant water-supply.

The area is bounded by fairly large *chaungs* and is intersected by small watercourses, but none of these fulfil the important function of draining the central flooded tract.



At the time of reservation the tract is said still to have produced a certain amount of tree growth, mostly salt water species, but when disafforestation took place there was little or no jungle left and the whole area was covered with *kaing*, *thetke*, *kyu*, and other grasses and reeds.

## CHAPTER II

### AGRICULTURE.

4. The only crop is paddy, of which *ngasein* is the chief variety. That grown in the colony, as is said to be the case throughout the district, is *ngasein-yaw-gyaw*, i.e. white *ngasein* with a slight admixture of red grains. Pure *ngasein-byu* is said to fetch 10 per cent. more than *yaw-gyan*, but the cultivator does not seem to consider it worth while to go to the trouble of eliminating the red grains. This, if done at all, has to be done in the ear before threshing.

*Ngasein*, however, will not do on the lower-lying lands. It is not a good water-resister, and here the cultivator generally plants *kamagyi*, *midon* or *myitpyin*. These are all slightly longer-lived than *ngasein* and all fetch about 10 per cent. more, the reason apparently being that they produce a good eating rice. *Kamagyi* and *midon* both like fairly deep water, but they will not stand flooding to the same extent as *myitpyin*, which is undoubtedly the best water-resisting variety so far introduced. It is said to stand immersion for several days and at repeated intervals and to grow rapidly as the water rises. Rumour says that it was imported from Yandoon and Henzada by colonists in the *patta* (i.e. the land excluded from the Alangon and Kadonbaw Reserves in 1905 and allotted to squatters without written title) and to have been introduced thence to the Kadonbaw colony. The name is said to bear a reference to flooded riverine tracts. Some claim that it gives a better outturn than *ngasein*, but this seems doubtful. The yield of rice is certainly high, being not less than 50 per cent. Some cultivators, probably wrongly, would identify it with *tadaungbo*.

Some *kaukhnyin* is grown, mostly on patches of salt land. It is reaped in *Tazaungmdu*, and is generally kept for home consumption. A few societies had some to sell last season. Chinamen are the chief buyers and are said to use it in the manufacture of *kasawye* and similar beverages.

5. I would divide the soils broadly into the sandy loams of the higher land, the heavy clays of the flooded tract, the lighter clays of the medium tract and the salt-impregnated soils of the salt tracts. No hard-and-fast line of demarcation can, however, be drawn. One soil shades imperceptibly into another and salt patches occur in all soils and at all levels. The correct supply of water is of such importance in paddy cultivation that one finds it difficult to consider soil fertility apart from this aspect of the question. Yet the cultivator habitually does so, and he considers, probably correctly, the heavy clays of the flooded lands the most fertile and the sandy soils of the higher levels the poorest, with the exception of course of salt land. The salt-impregnated land seems to vary enormously. Patches occurring in the level fertile tracts of Zibyubin and Kinmunchon are already, after two seasons' cultivation, producing good outturns. Elsewhere, salt land does not yet repay the cost of cultivation, and it is almost impossible to say how long a period of working will be required to make the cultivation of a given piece of salt land a paying proposition.

It is generally agreed by cultivators that the fertility of new land tends to increase for the first five years of working and that thereafter there is no deterioration for ten or fifteen years.

6. The climate of the tract does not differ perceptibly from that of the rest of the eastern portion of the Hanthawaddy district. It is possible that the rainfall is somewhat heavier than at Thongwa, and the harvest is said to be about a fortnight later in the colony than in the western portion of the township. The rainfall is probably well over

100 inches, but there are no statistics available. Extremes of temperature are not experienced. Throughout the hot weather the heat is tempered by a southerly breeze and I have never seen the thermometer even in an unshaded tent rise above 100° F. or fall to fall well below 80° at night.

The climate is admirably suited to the cultivation of paddy and a crop of some sort is a certainty everywhere, except on badly flooded and on the worst salt land. Varying outturns are produced according to the distribution of the rainfall.

7. Crops suffer to some extent from the depredations of pig, hog-deer and rats. Damage is also done by insects, of which

**Destructive Agencies.** the best known and the most destructive is a small black insect known as *palanbyu* which attacks the leaves of the young plants, generally appearing after late planting in *Tawthalin*. Others complained of are the *gok-bo* and *u-shauk-bo*.

8. The agricultural seasons, the method of cultivation practised, and the system of hiring labour are much the same in the colony as elsewhere in the district, and it would be a waste of time to describe them in detail here. I may note, however, that, whereas broadcasting is the rule in many parts of the district, transplanting is practically the sole system in vogue in the colony. New land is said to produce too much grass for broadcasting to be attended with good results. It is possible that broadcasting may replace transplanting as the land becomes more mature, and, if this should happen, considerable expense would be saved, but against this has to be put a reduced outturn and an increased risk of failure.

**Method of Cultivation.** In the first two seasons the rates of hire demanded by labourers have been somewhat in excess of those customary outside the colony, the reason being that labour on new land is more arduous, and the conditions of living more uncomfortable than on land which had been some time in cultivation. In future rates will no doubt approximate to those current in the adjoining tracts.

9. The crop for the two seasons during which the land has been under cultivation has been sold jointly by the thirteen societies. The price obtained in the first year was Rs. 121 per 100 nine-gallon baskets, and in the second year 135 for *ngasein* and Rs. 149-8-0 for other varieties. (Other varieties are about one-fifth of *ngasein*.) Joint sale has no doubt secured the colonists a higher price than they could have expected from individual selling by bringing the larger brokers into the market. Last season's prices were particularly favourable, and are probably in excess of what may be expected in normal years. The place of sale has so far been Kayan and in all probability will continue to be so, as the majority of the societies lie nearer to Kayan than to Thongwa.

10. In the first season cattle were bought locally, generally from traders from Upper Burma, the usual price being about Rs. 75. **Cattle.** This year an experiment in joint purchase has been made; 648 animals were bought in the Meiktila district by representatives of the societies at an average price of 68-57 inclusive of all expenses, a saving on the local price of about Rs. 6 per animal. The cattle secured in this way are satisfactory. So far the mortality among plough cattle has been heavy in the rains partly owing to overwork in the absence of anything but grass feeding and partly owing to the trying climatic conditions.

### CHAPTER III.

#### THE SETTLEMENT.

11. By the terms of their leases societies are exempted from the payment of land revenue for two years. The exemption expires in the present season and the land will become assessable next season, 1917-18.

12. The survey and settlement of the area were discussed at a conference held at the office of the Commissioner of Settlements and Land Records, Burma, on the 6th November 1916, at which were present the Settlement Commissioner, the Registrar, Co-operative Societies, Burma, the Joint Registrar, Lower Burma, and the Superintendent of Land Records, Hanthawaddy. It was recommended that no cadastral survey should be undertaken in the present year, as it would be of little use owing to the rapid extension of cultivation, while the survey division already shown on the map prepared by Mr. Swiney would provide sufficient subdivisions in case it was found necessary to differentiate the soil classification in any *kwin*. It was further recommended that the officer in charge of the colonisation scheme should supervise the settlement operations.

These proposals were sanctioned by the Local Government in letter No. 139-4S.-12, dated 8th December 1916, from the Revenue Secretary to the Government of Burma, to the Financial Commissioner, Burma.

13. The establishment sanctioned was—

	3 field clerks at	Rs. 50 per mensem for 4 months.		
Staff.	1 messenger	" " 15	" 4	" "
	4 chainmen	" " 15	" 1½	" "
	1 inspector	" " 70	" 1½	" "

The inspector was employed from 16th November 1916 to the 7th January 1917 and the field clerks from 25th November to the 9th February. The total expenditure on pay and travelling allowance of the sanctioned establishment was Rs 652-2-4.

14. The work of making selections for crop cutting was begun under the supervision of the Inspector, Maung Po Su, in December. As I had to tour with the Joint Registrar, Lower Burma, in that month for the purpose of receiving instruction in co-operation, I was unable to spend more than two days in the colony, and so saw but little of the work of selection. In January I had to explore the Yitkangyi Reserve in order to decide what area it was desirable to colonise in the present season, and I had to select my colonists. The work of supervising the crop cutting had, therefore, to be left practically entirely to the Inspector, and although I am satisfied that he made a genuine effort to select fields representative of the average outturn of their blocks, it became clear to me in the course of classification that the task had proved too much for him, and that the selections as a general rule are somewhat in excess of the average of the blocks which they represent.

The Inspector left on the 7th of January, the period of his sanction having then expired. Crop cutting was by this time practically completed, and thereafter the three clerks were employed on measuring the areas of selected holdings with a view to the determination of the cost of cultivation per acre and the outturn per acre according to the statements of colonists. I dispensed with their services on the 9th February, as I had no further employment for them, statistics as to tenancies, sales and mortgages, on the collection of which clerks are usually employed, being by the nature of the tenure not required.

15. I have not found it necessary to divide the colony into different assessment tracts. The area is small and homogeneous in character, and the difference in the cost of carriage, about Re. 1 from one end of the tract to the other, does not seem to be sufficient to warrant any subdivision for the purpose of fixing rates.

Soil classification has had of necessity to be carried out on broad lines, no nice discrimination being possible in the absence of a field to field survey. There being no smaller divisions, it has been necessary to take as the unit of classification the blocks varying roughly from 600 to 100 acres into which societies' allotment are divided in the 1915 map.

A meeting to discuss the soil classification of the colony, to which each society sent three *myethamadis* was held on the 3rd of April 1917. These delegates were of the opinion that the land would fall naturally into three soil classes. This coincided with my own views based on a preliminary examination of the land



and on a comparison of the crop-reaping results with the statistics of admitted outturns which had been collected. The late rains in 1916 were unevenly distributed and the crop threshed out light. It was probably at least one-fifth below what might be expected in an average year. Cultivators thought that the deficiency was more than this, but it is necessary to make allowance for their tendency to exaggerate. If an addition of one-fifth is made to the admitted outturns of each class, the following average outturns, which are fairly well supported by the crop reaping results, if allowance is made for the tendency to select fields above the average level of their blocks, are indicated.

1st class	...	...	...	50 baskets
2nd class	...	...	...	40 "
3rd class	...	...	...	30 "

I have endeavoured to classify the blocks in accordance with these assumed outturns as far as possible. From the 4th to the 17th April 1917 I was engaged on this work. I visited and examined carefully every block in the colony, at the same time inspecting every field where crop-cutting experiments had been made. I made it a rule that nine *thamadis* should accompany me, three from the society whose land was being classified and three each from two neighbouring societies, in order that the result might be as even as possible. The class into which a given block would fall was decided on the principle of averaging out the good and bad land contained therein, except where the land was of sufficiently even quality to make its classification obvious. In the former category may be put the whole of the second class and in the second all the first and most of the third. Certain blocks where as yet there is no cultivation owing to flooding have, however, gone into the third class as for example blocks Nos. 1 and 2 of the Nyaungtan Society.

16. The only statistical work on which the Inspector was employed was the collection of admitted outturns. Owing to the crop threshing out considerably lighter than was anticipated, his figures had afterwards to be revised, and Junior Assistant Registrars were partly employed on this work. The only enquiries made by me personally apart from revising the Inspector's work were into the cost of cultivation. I had originally intended to attempt to determine both the cost of cultivation and the cost of living, but, as I could make available for classification and enquiries only about a fortnight and had to combine with the settlement work proper a good deal of ordinary co-operative work connected with the Kadonhaw Societies, I was compelled to restrict myself to the cost of cultivation. In any case, conditions of living not yet being normal, the figures obtained would not have been of any great value. This holds good also of the cost of cultivation. In the first place the areas are not absolutely reliable, and in the second, as the land is not yet completely cleared the rates of hire for labourers are still above what is normal in the adjacent tracts, as is also the amount of labour per acre that must be hired.

17. In estimating the cost of cultivation per acre, allowance has been made for the replacement of, but not for, the original purchase of cattle. The value of the colonists' own labour has not been included. In all twenty-six witnesses were examined in Field Form 6 in the ordinary way. The enquiry was limited to the season 1916-17, as there was no means of determining the areas worked in the previous year.

The cultivation expenses of the witnesses examined totalled Rs. 14,657.53 and the area worked by them, according to measurements made by the Settlement clerks, is 619.08 acres. The average cost per acre is, therefore, Rs. 23.67. This result may be checked by an examination of the loans made to the colony during the season 1916-17. The total loan made was Rs. 1,84,397.81. To this must be added Rs. 1,74,300 on account of payments to labourers made in paddy (four labourers supposed hired by each colonist at Rs. 75 each), total Rs. 3,58,697.81. Altogether 142 holdings were measured and the average per member works out at 23.55 acres. The total area worked may, therefore, be put at 13,682.55 acres (23.55 × 581). From the total cost must be deducted the amount lent for purchase of cattle and *wansa*, Rs. 26,710. The balance debitable to the cost of

cultivation is thus Rs. 3,58,697·81—Rs. 26,710, or Rs. 3,31,987·81, and the cost per acre will be Rs.  $\frac{3,31,987 \cdot 81}{13,8255}$  or Rs. 24·26. It seems safe, therefore, to say that the cost of cultivation per acre in the season 1916-17 was somewhere about Rs. 24. This figure is obviously far in excess of the normal rate for mature land, and the cost should now decrease year by year, as the land is worked, until normal conditions are reached. Mr. Arbuthnot has assumed a cost of Rs. 13·50 for Assessment Tract No. XVI bordering on the colony, but here broadcasting is the rule. In Tract No. XV, where transplanting is more common, it has been put at Rs. 16·50. Cultivators both in the colony and in the adjacent tracts say that new land takes three or four years to reach a normal cost of cultivation. Nearly four-fifths of each colonist's allotment appear already to have been cleared, and after next season (1917-18) there will remain no more land to clear. It seems, therefore, reasonable to suppose that by 1920-21 the cost will have become reduced to a normal level, somewhere about Rs. 16 or Rs. 17. Perhaps the probable progressive fall may be estimated as follows, on the assumption that the cost was Rs. 24 in 1916-17:—

			Rs.	
1917-18	...	...	...	23 (new land still to be cleared).
1918-19	...	...	...	21
1919-20	...	...	...	19
1920-21	...	...	...	17
				<hr/>
Average for four seasons	...	...	...	20

I would, therefore, take Rs. 20 as the probable cost of cultivation for the first four, or say five, years of assessment.

18. Mr. Arbuthnot obtained his price of paddy by calculating the average Rangoon price for the past twenty years during the first three months of the year. With the allowance given by the Rangoon mills for weight ( $2\frac{1}{2}$  per cent. for every pound over 46 lb.) the average price worked out at Rs. 105·31 per 100 nine-gallon baskets weighing 50 lb. each. From this deductions on account of brokers' profits and expenses, estimated at Rs. 17·31, and on account of the cost of carriage, put at Rs. 5, Rs. 10 and Rs. 15 according to the remoteness of the tract, were made. In Assessment Tract No. XVI bordering on the colony, the cost of carriage was taken as being Rs. 15, and the resulting price was, therefore, Rs. 83. The cost of cartage to Kayan from villages in the colony averages about Rs. 15, so that it seems reasonable to assume Rs. 83 as the price of paddy in the colony. Although the prices obtained in the past two seasons have been far in excess of this figure, it is obviously desirable that the colony should be brought into line with the rest of the district in the matter of the price assumed, and there seems to be no good reason why the colonist should not in common with the outside cultivator share in any benefit resulting from the excess of the actual over the assumed price.

19. In paragraph 110 of his report Mr. Arbuthnot points out that, although the proportion of the net produce taken as calculated on the figures presented by the Settlement Officer at the first revision settlement varied from one-fifth to one-seventh, they amounted in fact in the majority of tracts to 25 to 32 per cent. of the net produce and in some cases exceeded the latter figure. Having shown the impossibility of adopting the rent rate as a standard of assessment, and having estimated that the actual net assets are not more than 70 per cent. of the nominal net assets, he concludes that a sum representing slightly over one-third of the nominal net assets will represent the full share to which Government is entitled, namely one-half. He proposed, therefore, to fix the general standard of assessment slightly below the full standard of one-third of the nominal net assets and to take as the normal Government share of the profits of cultivation a sum equivalent to thirty per cent. of the nominal net assets in each tract.

I do not think that so high a standard can at present be adopted in the colony. It can be shown that though to take 30 per cent. as the share of Government will in the case of first class land leave the colonist a margin for living, the

margin left in the case of second class land will be insufficient, while in the case of the third class, as it is at present being worked at a loss, there are no assessable profits. The following considerations will make my meaning clear :—

- (1) The average holding will be about 30 acres.
- (2) The cost of living of a family cannot be put at less than Rs. 250 per annum, and will probably exceed that figure. (In Assessment Tract No. XVI adjoining the colony the Settlement Officer calculated this to be Rs. 272 for Burman tenants.) Therefore the cost of living per acre will be  $\frac{250}{30}$  or rather more than Rs. 8.
- (3) The probable indebtedness of the colony has been estimated as follows :—

(Letter No. 1300—2S.-30. from the Registrar, Co-operative Societies, to the Assistant Secretary to the Financial Commissioner, Burma, dated the 7th June 1917)

				Per acre.
				Rs.
1916-17	...	...	...	23
1917-18	...	...	...	28
1918-19	...	...	...	32
1919-20	...	...	...	28
1920-21	...	...	...	22
				—
Average	...	...	...	$\frac{133}{5}$ or Rs. 27 roughly.

The colonist pays interest at the rate of Rs. 15 per cent.

The incidence per acre will be about Rs. 4.

The following table should give a fair indication of the financial position of colonists cultivating the three classes of land :—

Soil class.	Outturn.								Assessment standards.		
	Standard.	Price.	Gross value of outturn.	Cost of cultivation.	Net value of outturn.	Interest on loan.	Cost of living.	Balance.	30 per cent. net produce.	20 per cent. net produce.	10 per cent. net produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			
1	50	83	41'50	20	21'50	4	8	+ 9'50	6'45	4'30	2'15
	40		33'20		13'20			+ 1'20	3'96	2'64	1'32
3	30		24'90		4'90			- 7'10	1'4	0'98	0'49

20. I would propose the following rates :—

Rates proposed, 1st class—Rs. 4 or slightly less than 20 per cent.  
2nd class—Rs. 1 or slightly less than 10 per cent.  
3rd class—Nil.

Third class land should be exempted. Unless the outturn should rise above 30 baskets or the price of paddy be considerably in excess of the price assumed, it is clear that cultivation cannot pay, at any rate in 30-acre allotments. Personally I consider it probable that the outturn will rise in the next five years, but whether this will be so or not depends upon the success or failure of the scheme to drain the central flooded tract, and on the period required to render the salt lands productive.

The figures given above would seem to show that even 2nd class land can bear assessment only with difficulty at present, but it is to be remembered that as

a general rule the 2nd class consists of land of varying fertility and that in each block there will be allotments little inferior in outturn to the 1st class. The assessment will be on the society, which in practice can distribute the demand so that the whole burden will fall on those allotments which are in a position to bear it. I do not think, therefore, that any particular hardship will be caused by the imposition of a rate of Re. 1 on the 2nd class.

I would recommend that the above rates be imposed for a period of five years. The cost of cultivation per acre five years hence ought not to exceed Rs. 17 and perhaps might fall as low as Rs. 15, though I doubt whether so low a figure will be reached as long as transplanting continues the rule. The whole question is so complicated that it seems almost impossible to give adequate data for the recommendation of rates to be imposed after the lapse of five years. The difficulty is that one is dealing with an experiment in its infancy, and with an area which has been two seasons only under cultivation, and which is not yet entirely cleared. Methods of cultivation have not yet become stereotyped, nor have labour rates and conditions become normal, and to forecast with any accuracy the indebtedness of the colony five years hence is almost impossible. The average outturn of the land is strictly speaking not yet ascertainable, and this holds good also of the cost of living and of the cost of cultivation. If the projected drainage scheme is carried out, some 4,000 acres of swamp may be converted into highly valuable paddy land, while, on the other hand, if the drainage of this area is postponed, 200 or 300 acres at present occupied may have to go out of cultivation owing to the bankruptcy of the societies concerned.

The whole question can be solved only in the light of future knowledge, and I therefore, refrain from making any further recommendations. If my proposals are approved, a new soil classification should be undertaken on the expiry of the present rates, when it can probably be done on scientific lines.

I recommend that village lands be exempted from the payment of revenue for the next five years.

There is as yet no cultivation within village areas and house sites do not exceed one-fourth of an acre and are, therefore, not assessable [section 22 (c), Lower Burma Town and Village Lands Act].

MAYMYO, ' }  
The 12th June 1917. }

J. St. C. SAUNDERS,  
Colonisation Officer.



## STATEMENT NO. 1.

*Crop Measurements and Fertility Assumptions.*

Main kind and soil class.	Total measurements in year.	Total area reaped in year.	Total outturn in year.	Average outturn per acre in year.	Acre outturn assumed.	Cultivator's statements.			Outturn at assumed rates.
						Acres cropped.	Outturn stated.	Rate per acre.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Acres	Baskets.	Baskets.	Baskets	Acres	Baskets.	Rs.	Baskets.
R-1	14	6'72	335'70	49'95	50	2,298	86,075	37'45	114,900
R-2	27	12'65	549'74	43'45	40	4,465	136,540	30'58	178,000
R-3	10	4'60	160'53	34'89	30	1,388	32,625	23'50	41,640

R.=Rice land.

## STATEMENT NO. 2.

*Cost of Cultivation—Actual and Assumed.*

Assessment Tract.	Race and status.	Total number of		Average cost per acre.								Cost per acre.	
		Cultivators examined.	Acres cropped.	Seed.	Cattle.	Labour.	Manure.	Implements	Huts and byres.	Irrigation and bunding	Other expenditure	Average total.	Assumed.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
			Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kadon-baw Colony.	Burman and Karen tenants.	26	619'08	'56	3'37	17'92	...	1'17	'65	...	...	23'67	24'00

## STATEMENT NO. 3.

*Proposed Soil Classification—Revenue Rate and Demand.*

Soil class.	Total area.	Rate	Demand.	Remarks.
(1)	(2)	(3)	(4)	(5)
1	5,409'88	4'00	21,639'52	NOTE.—The demand cannot be exactly calculated, as the area assessable in each soil class is not at present known. The figures given are calculated on the assumption that the whole area in each soil class is assessed and are therefore somewhat in excess of what the actual demand is likely to be.
2	10,693'17	1'00	10,693'17	
3	6,116'29	...	...	
Village sites	1,296'74	...	...	
Total	23,516'08	...	32,332'69	



# THONGWA TOWNSHIP HANTHAWADDY DISTRICT LOWER BURMA

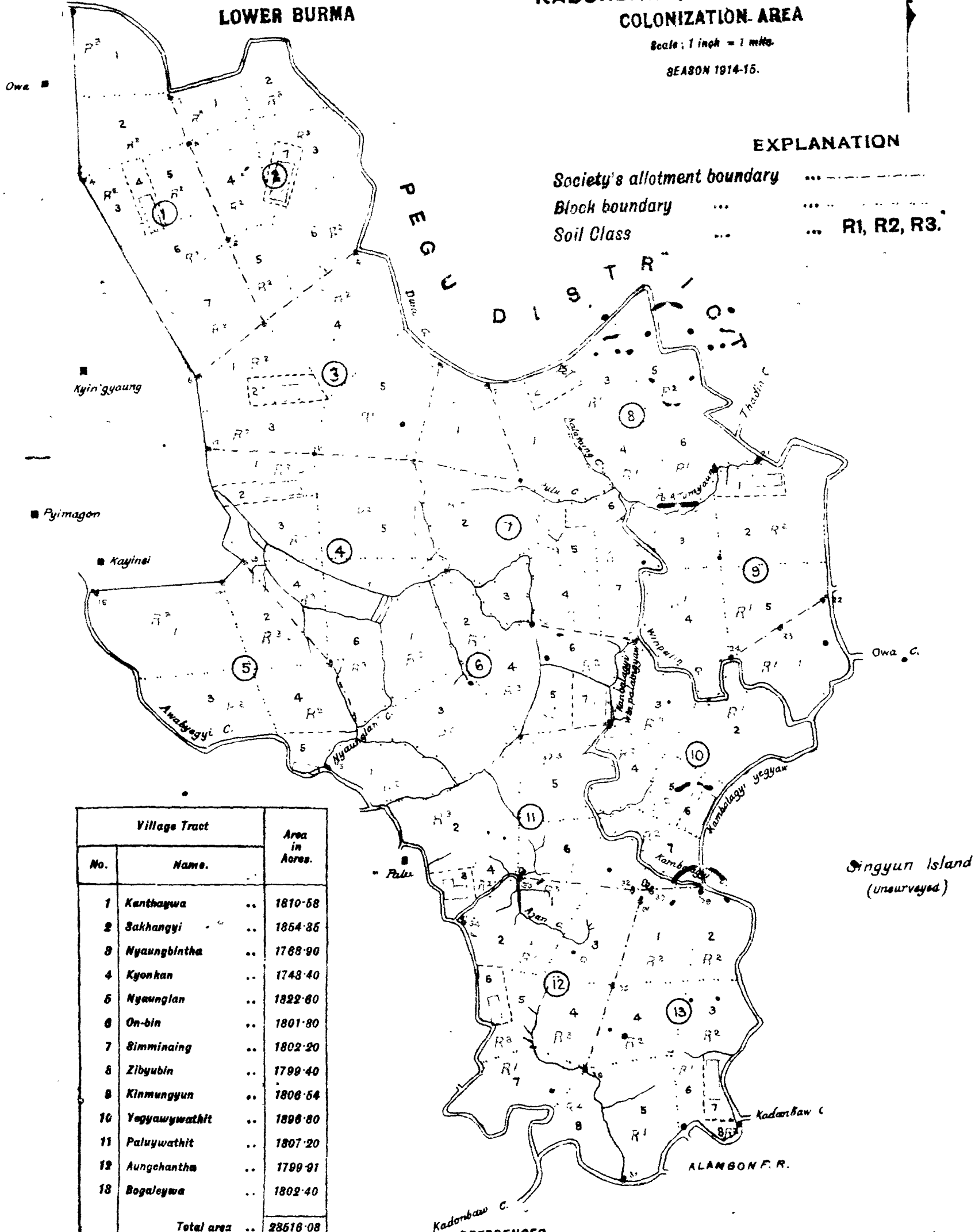
# SKETCH MAP OF THE KADONBAW (FOREST RESERVE) COLONIZATION AREA

Scale: 1 inch = 1 mile.

SEASON 1914-15.

### EXPLANATION

Society's allotment boundary ... - - - -  
Block boundary ... ..  
Soil Class ... .. R1, R2, R3.



Village Tract		Area in Acres.
No.	Name.	
1	Konthaywa ..	1810-58
2	Sakhanyi ..	1854-35
3	Nyaungbintha ..	1788-90
4	Kyonkan ..	1748-40
5	Nyaunglan ..	1822-80
6	On-bin ..	1801-80
7	Simminaing ..	1802-20
8	Zibyubin ..	1799-40
9	Kinmungyun ..	1808-54
10	Yegyawwathit ..	1898-80
11	Paluwathit ..	1807-20
12	Aungchantha ..	1799-91
13	Bogalejwa ..	1802-40
Total area ..		28516-08

**REFERENCES.**  
Village sites ...  
Demarcation Pillars with Numbers

St. C. SAUNDERS,  
Colonization Officer,  
12-8-17.