

than the Myoók of the township. It is a somewhat extraordinary thing that in all the voluminous papers that have been written during the last few years on the village system, its usefulness or otherwise as a factor in the revenue administration of the country has scarcely been touched on. I think it would be well that this subject should receive attention before the breaking up of circles goes much further. What is wanted is some *modus operandi* by which the detrimental effects which I have pointed out might be removed and at the same time the benefits of the system preserved."

Mr. Smeaton does not share the views of this officer. The burden of his lamentation is that the village system gives more trouble than the large circle system in Lower Burma, where the taikthugyi is the man of all work. Mr. Harvey Adamson found the ywathugyis in the Lower Chindwin to be good revenue collectors and never complained of the village system while he was Deputy Commissioner of that district. His views appear to have changed since then.

#### PROCESSES.

177. The total number of processes issued has increased by 1,081 over the number of the preceding year. In the Northern and Central divisions the number fell off, but in the remaining divisions there has been a large increase, especially in the Eastern division, where the number has risen from 761 in 1891-92 to 1,585 in the year under report. This increase was most marked in the Meiktila, Yamèthin, and Pyinmana districts. No sufficient explanation is given of this. The people with few exceptions were better off than in the previous year. The Commissioner suggests as a possible reason that, in Meiktila, the large expenditure on famine works during the previous year enabled people to pay their taxes more easily than in the present year when the expenditure on famine works was very small. Seven hundred and fifty-five persons were arrested, but in nearly every case they paid up, and nine persons only were actually imprisoned. The number imprisoned in the preceding year was 28. Moveable property was sold in 41 cases and in 22 the land was resumed or sold.

#### AGRICULTURAL ADVANCES.

178. The advances and recoveries made in each division during the year under report are shown in the statement below.

District.	Outstand- ings on 31st March 1892.	Advances made in 1892-93.	Recoveries in 1892-93.	Outstand- ings on 31st March 1893.
	Rs.	Rs.	Rs.	Rs.
Mandalay ... ..	6,032	8,731	2,651	12,112
Bhamo ... ..	3,495	9,200	4,580	8,115
Katha ... ..	12,725	7,030	11,310	8,451
Shwebo ... ..	24,931	20,000	6,848	38,083
Ruby Mines ... ..	8,300	9,529	4,910	12,919
Total Northern Division ...	55,483	54,496	30,299	79,680
Ye-u ... ..	11,285	32,000	26,720	16,565
Sagaing ... ..	14,180	15,000	21,644	7,542
Lower Chindwin ... ..	11,760	21,541	31,421	1,880
Upper Chindwin ... ..	10,821	4,371	8,377	6,815
Total Central Division ...	48,052	72,912	88,162	32,802
Myingyan ... ..	18,367	9,150	17,492	10,025
Pakòkku ... ..	16,487	15,690	15,379	16,798
Minbu ... ..	15,780	13,610	29,210	180
Magwe ... ..	35,392	6,887	35,778	6,501
Total Southern Division ...	86,026	45,337	97,859	33,504
Kyaukse ... ..	...	...	...	...
Meiktila ... ..	1,05,864	31,821	63,499	74,186
Yamèthin ... ..	94,120	22,726	3,302	1,13,544
Pyinmana ... ..	24,132	...	16,202	7,930
Total Eastern Division ...	2,24,116	54,547	83,003	1,95,660
Thayetmyo (Upper Burma portion) ...	675	2,000	1,650	1,025
GRAND TOTAL ...	4,14,352	2,29,292	3,00,973	3,42,671

The total sum advanced during the year under report amounted to Rs. 2,29,292 compared with Rs. 4,13,758 in the preceding year. The large advances in 1891-92 were rendered necessary by a succession of bad seasons, and the people required money not only to buy cattle and food-grains, but also to save them from being compelled to part with what cattle they had. In the year under report this urgent necessity did not exist. The outstandings at the close of the year including those of the previous year amounted to Rs. 3,42,671.

The Financial Commissioner has observed that in many cases the period for repayment by agriculturists of these loans has been too short and several applications for extension of the period have been made. Instructions have accordingly been issued to all Commissioners and Deputy Commissioners that the maximum period for repayment is five years and that it is not intended that the loans should be recovered within one year, as has been done in many cases. The ordinary period should be two years, but where a Deputy Commissioner proposes to extend the period of repayment beyond two years, he should submit the case for the Commissioner's orders. The attention of Deputy Commissioners is invited to these instructions.

179 The total sum advanced in the Northern division during the year under report was Rs. 54,496. Of this Rs. 8,731 was advanced to agriculturists in the Mandalay district for cattle and seed. The Deputy Commissioner reports that one result of these advances has been to encourage the cultivation of wheat and 1,550 acres have been brought under this crop. Rupees 7,036 were given out in Katha and Rs. 20,000 in Shwebo. The repayment in the latter district depends upon the outturn of the harvest, and owing to the bad season of 1891-92 very small recoveries could be made on account of the previous year's advances. Including the previous year's balance the outstandings at the close of the year amounted to Rs. 38,083. The advances in the Ruby Mines and Bhamo districts were made to enable cultivators to buy plough cattle.

180. There was a large increase in the amount advanced in the Central division compared with the previous year. This was chiefly due to the larger loans made in Ye-u, which amounted to Rs. 32,000 against Rs. 12,350 in 1891-92. Owing to the scarcity in 1891-92 the cultivators had been compelled to sell their seed-grain and cattle and large advances had to be made to enable them to buy cattle for cultivation; these advances were highly appreciated. During the year Rs. 26,720 were recovered and the outstandings at the close of the year were Rs. 16,565. Rupees 15,000 were advanced in the Sagaing district and Rs. 7,558 of this were recovered. In the Lower Chindwin district Rs. 21,541 were advanced and recovered during the year under report. The advances enabled the cultivators to buy seed, and owing to the comparatively good harvest they were, the Deputy Commissioner reports, able to repay without hardship. It is satisfactory to learn that the cultivators were in a position to repay these loans within the year, but special care should be taken that they are not unduly pressed. Very small advances were required in the Upper Chindwin district, only Rs. 4,371 having been given out compared with Rs. 9,930 in the preceding year.

181. Rupees 45,337 were given out in the Southern division during the year of report compared with Rs. 92,461 in the preceding year. Myingyan received Rs. 9,150, of which Rs. 1,150 was for purchase of seed-grain. In Pakòkku Rs. 15,690 were advanced, of which Rs. 7,190 were for seed-grain and Rs. 8,500 for purchase of cattle. The period of repayment in most cases has been extended to 2 years, and this has been a great boon to the people. The advances made in Minbu (Rs. 13,610) were distributed as follows:—

	Rs.
Minbu subdivision ... ..	4,110
Salin subdivision ... ..	4,500
Mòu subdivision ... ..	5,000

and were all recovered during the year except the sum of Rs. 180. In addition to this Rs. 15,780 were recovered on account of the previous year, making a total of Rs. 29,210. Rupees 6,887 were advanced to agriculturists in the Magwe dis-

trict. The sum of Rs. 35,392 outstanding on the 31st March 1892 was repaid during the year under review. The Deputy Commissioner reports that in some cases the thugyis misappropriated the money given out for advances to their villagers and in some cases the surety took half of the amount advanced. In two cases the amount advanced for the purchase of seed was spent in two hours, in the first case in paying debts and in the second in buying a *patso*.

182. In the Eastern division advances were made in two districts only, Meiktila and Yamèthin, the total sum advanced being Rs. 54,547 against Rs. 2,16,465 in the preceding year. The advances in the Yamèthin district were made to enable the cultivators to buy seed-grain, but owing to the drought comparatively little benefit was derived from them. The interest due has been paid up and the period for repayment has been extended as the people were quite unable to meet the instalments originally fixed. In addition to its other misfortunes this district has suffered severely from fires, over 80 houses having been burnt down in Yamèthin town and 430 in Pyawbwè, the damage in the latter town being estimated at over 2½ lakhs of rupees. Rupees 31,821 were given out in the Meiktila district during the year under report. The Deputy Commissioner reports that this was given out in sums of Rs. 5 and Rs. 10 and expresses his doubt whether a sum of Rs. 30,000 given out in this way among a population of 150,000 could be of much real benefit, while it entails a great deal of trouble in distribution and collection. The Commissioner, however, does not agree in this view. Mr. Bridges says—

"I think there cannot be the slightest doubt that these advances did considerable good by enabling the people to raise a crop which they would otherwise not have been able to sow. The advances no doubt give trouble to the Deputy Commissioner, but this can hardly be taken into account considering the good they do."

The Financial Commissioner agrees with the Commissioner in these remarks. District officers are paid handsome salaries for taking trouble.

183. Rupees 2,000 only were advanced in the Upper Burma portion of this district and of this Rs. 1,100 was repaid during the year.

Thayetmyo

#### SURVEY AND SETTLEMENT.

184. There were two parties (cadastral) of the Survey of India at work in Upper Burma in the year. Number 3 Party surveyed 1,766 square miles in Ye-u and Shwebo districts, while No. 12 Party surveyed 1,143 square miles in the Minbu and Magwe districts.

Mr. Gibson was engaged with a Local Survey Party in Meiktila and Yamèthin districts. The areas traversed and in which the village boundaries were demarcated, were, in Meiktila 300 square miles and in Yamèthin 186 miles. The area cadastrally surveyed was 71 miles in Meiktila and 141 miles in Yamèthin. The holding boundaries were also marked on the 16-inch maps which were prepared and preliminary records of rights were compiled. There were also 82 miles topographically surveyed on the 2-inch scale. The cost of the operations was Rs. 50,155. The area liable to assessment or temporarily fallow as found by survey is 109,826 acres as compared with 47,930 acres shown by the thugyis.

The Financial Commissioner desires to bring to the Chief Commissioner's special notice the services of Mr. G. B. Scott, Deputy Superintendent, Survey of India, Party No. 3. This officer during the year under report succeeded in surveying cadastrally a very large area at the risk of his own health. He also made topographical surveys in the coal tract of Shwebo and in the gold tract of Katha, both of which were very trying. In the previous year he had the survey of the coal tract in the Upper Chindwin, which he successfully executed under great difficulties. Mr. Scott is always ready to undertake the hardest and most trying work without complaint and regardless of his personal convenience: he generally succeeds in what he undertakes; and he has the faculty of getting on smoothly with the District Officers. His ungrudging services, rendered at the cost of his health, deserve the recognition of the local Government.

185. The reports on the Kyauksè and Mandalay Settlements remained under consideration. Certain statements required from Kyauksè were received after the close of the year

Settlement.



under review and the report has since been submitted to the Chief Commissioner for final orders. The Financial Commissioner received a manuscript copy of the Settlement report of the Mandalay district and took the opportunity of examining it during a tour in the district with the Settlement Officer (Mr. Laurie) in May. Mr. Smeaton found the report defective in many important respects and directed the Settlement Officer to revise it. It has not yet been received from the Commissioner. Before the close of the year settlement operations were started in the Sagaing and Minbu districts and are now progressing favourably so far as can be judged. The Financial Commissioner made short tours in both districts with the Settlement Officers. The revised draft of Directions to Settlement Officers in Upper Burma is now complete and will shortly be issued. In Meiktila the work of recording tenures was proceeded with and steady progress has been made. Certain important points were referred by the Commissioner to the Financial Commissioner for orders, and before these are decided it will not be possible to close the tenure registers which, however, are in the meantime being written up as far as possible.

186. As usual the survey of State lands and of grants was carried on in most districts by the district surveyors. In Katha 2,919 acres were so surveyed, and in the Ruby Mines the district surveyor surveyed 343 acres, a small area, but the Deputy Commissioner reports that practically the whole area of State land has now been surveyed. In Pakòkku the district surveyor surveyed 16,397 acres of State or disputed land. In Minbu the two district surveyors surveyed 28,417 acres of State land grants and house-sites. In Magwe the district surveyor surveyed 9,981 acres, of which part consisted of islands, while the extra surveyor surveyed 3,332 acres. In Ye-u the district surveyor surveyed 5,414 acres of land, which was principally State land and land for which grants had been applied for. In the Upper Chindwin the district surveyor was employed on similar work.

187. There was no change in the area under supplementary survey in the Mandalay district, the maps being as before kept up to date pending orders as to the revenue rates. The area of land assessed or occupied but exempted was 30,110 acres as compared with 29,976 acres in 1891-92, and the cost of the survey fell from Rs. 5,740 to Rs. 5,597. The area of the land liable to assessment was 17,251 acres or 40·5 per cent. more than the area (12,274) as given by the thugyis—the difference being due as before to undermeasurements by thugyis and also to their not assessing lands on which the crops failed. The supplementary survey was carried on by eight surveyors and the work was inspected by Mr. Gibson and Myoòk Maung Byaung. It was found that there were 475 acres of non-State land with *kaukkyi* crop sublet at Rs. 10·32 the acre and 89 acres of land under *mayin* sublet at Rs. 6·09 the acre. Fourteen acres of State land were sublet at Rs. 11·26 the acre. Of State land 181 acres were transferred at an average rate of Rs. 12·76 the acre, or little more than one year's rent. Mr. Gibson has as in former years been in charge of such surveys by local surveyors as have been carried on in Upper Burma. He has kept the maps up to date and collected valuable statistics in the Mandalay and Kyaukse districts and he has also carried on extensive surveys in the Meiktila and Yamèthin districts. Mr. Gibson deserves credit for the very hard and good work done by him during the year and for his skilful management of the motley establishments with which he sometimes has to work. He generally succeeds in turning out useful surveyors even from the rawest material. He reports that Maung Byaung, one of the Myoòks who assisted him in his cadastral and supplementary surveys, did exceptionally good work. Mr. Gibson could not possibly carry on his numerous surveys without reliable assistants, and among these Maung Byaung, still a Myoòk of the 5th grade, was foremost. The Financial Commissioner commends Maung Byaung.

188. The Financial Commissioner desires to record his special satisfaction with the work of the following Officers:—

In the Northern division Mr. Shaw, Deputy Commissioner of Shwebo, was most painstaking in his enquiries regarding the salt industry and the pressure of



the salt duty, and has by careful personal investigation thrown considerable light on the difficult land tenures in his district.

In the Central division Mr. McDermott, Deputy Commissioner, Sagaing, was persevering in his administration of the State lands, and Major Eyre, Deputy Commissioner, Lower Chindwin, spared no pains to ascertain by personal enquiry the resources of the people of this district.

Mr. Porter, Deputy Commissioner, Upper Chindwin, made a successful effort to delimit State from non-State lands in certain important tracts and he is continuing the work.

In the Southern division, Messrs. Eales (Magwe) and Hartnoll (Minbu) maintained their reputation as thoroughly efficient Revenue Officers in all branches.

In the Eastern division, Captain Strickland had a difficult task in the administration of the Kvaüksè district, in which he has acquitted himself well. Mr. Harvey Adamson interested himself in every branch of the revenue administration of the Meikula district and contributed largely towards the solution of the sisa lands difficulty. His diaries on tour, as records of the condition of the country and people, were excellent.

Colonel Cooke, Commissioner, Northern Division, had his hands full of work and did it well. Mr. Bridges, Commissioner, Eastern Division, was indefatigable in his inspections of Revenue offices and in touring over his division. His careful investigations have thrown much light on a number of vexed land questions.

189. The reports were received from Commissioners on the following dates —

Commissioner, Eastern Division, 16th June 1893.  
 Commissioner, Central Division, 26th June 1893.  
 Commissioner, Southern Division, 27th June 1893.  
 Commissioner, Irrawaddy Division, 5th July 1893.  
 Commissioner, Northern Division, 17th July 1893.

RANGOON }  
 The 1st December 1893. }

W. F. NOYCE,  
 Secretary to the Financial Commissioner.

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## APPENDICES.

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EXTRACTS FROM THE REPORT ON THE OPERATIONS OF THE LOWER BURMA FIELD-  
TO-FIELD SURVEY BY LOCAL AGENCY PARTY FOR THE YEAR 1892-93.

CADASTRAL SECTION.

3. As the programme of Survey work intended for completion during the year extended to several districts that were widely apart from each other, and that the combined area of the tracts to be operated in was as extensive as that of the previous season, while the anticipated difficulties of work were much greater, it was decided to employ four more field-surveyors than were entertained the year before. Besides this the number of Survey Inspectors was increased by two, as experience had shown that the supervision exercised by one such Inspector over a squad of 12 field-surveyors was inadequate.

4 Officers.  
10 Survey Inspectors.  
100 Field-surveyors.  
2 Holding-marking Inspectors.  
10 Holding-markers.  
1 Hospital Assistant  
5 Clerks.  
5 Draughtsmen.  
16 Tracers  
525 Tindals, chammen, &c.

The total strength of the establishment was as is denoted in the margin. Among the surveyors and others were included the hands that had worked as computers and mappers in the recess-season, as well as those of the field-surveyors who were furnished with leave-pay certificates at the conclusion of the previous field-season and who now returned for re-employment. Of the field-surveyors 10 were Hindustanis, eight of whom had worked with the party before, one of this class was attached to each of the Inspector's squads.

5. Two detachments were again formed this year, to correspond with the same number of traverse camps that were to be employed on the work for the season. One, that known as Camp No. 1, was in charge of Myōōk Maung San Dun and had to work first in the Thayetmyo and Bassein districts on 16-inch traverse plots already in hand, which were supplied by the traverse section last season, and afterwards in the northern half of the Kyaukpyu district on plots to be furnished later on by Traverse Camp No. 3; the other under Myōōk Maung Tun was to commence operations in the Sandoway district and then to proceed to the Kyaukpyu district to survey in its southern half on plots to be provided there by Traverse Camp No. 4.

6. The field-work of the main detachment of Camp No. 1 was at once begun on its arrival at its centre of work, and was confined chiefly to the left bank of the river where 12 circles were surveyed in whole or part, and small portions too of three circles on the right bank, but situated at a considerable distance to the west of it, were also undertaken and finished. This detachment having finished the areas given to it for survey in the Thayetmyo district again assembled at Allanmyo where they left by steamer on the 26th January and came into Rangoon on the 29th. The minor detachment which was sent to complete the remaining areas for survey in six of the circles of the Bassein district that lie on either bank of the Bassein river towards its mouth, got through the work assigned to it just in time to get back to Rangoon by the steamer which arrived here on the 30th January. Arrangements having been previously made in this behalf, the whole of Camp No. 1 started from Rangoon per R. I. M. steamer *Dalhousie* on the 1st February and arrived at Kyaukpyu on the 4th idem. Here a sufficient number of traverse plots were in readiness for it to enable all the squads being at once sent out in connection with the detail work—some to the circles of the Kyaukpyu township and others to the Myebōn township. The remaining months of the field-season were spent by this camp in the work of the two townships abovenamed.

Camp No. 2 started its field-work shortly after its arrival at Sandoway, namely, on the 8th December, surveying entirely on the triangulation system. During the two months allotted to it for this purpose, it was only able to complete the work in 10 circles of the central township and seven circles (two in part) of the northern township. This was entirely due, apart from the very much longer time that such work must always occupy, and which was allowed for, to the excessively scattered nature of the work, the length of the country in which the areas intended for survey measuring so much as 120 miles, the consequent disproportionate amount of time taken up by the surveyors in moving about from place to place in the district, the difficult kind of work in hand, the cultivation for the most part being situated in patches between hills and dales, and the extreme smallness of the average field. The work in one circle of the central township, four circles (three in part) of the northern township, and four circles of the southern township had consequently to be left unfinished and the camp moved to the Ramree and Cheduba townships of the Kyaukpyu district where by this time traverse plots were awaiting it, and where it would now have to work in the more inexpensive method of surveying on ready-made plots. A week or 10 days alone was lost in shifting the camp from the Sandoway to the Kyaukpyu district. During the remainder of the field-season this camp was engaged on the surveys to be done of the two townships previously named, of the Kyaukpyu district.



It also sent an Inspector and five field-surveyors to do the detail survey on traverse plots in the Taungup circle of the Sandoway district where the field-work was supervised by the Assistant Camp Officer of Camp No. 4 in addition to his other duties.

A number of the hands taken on in the year were raw to their work, and had to be trained in the field by the Myoôks and Inspectors. \* \* \* No less than 10 sheets executed on the triangulation system by these raw, and even some of the older, hands had to be totally rejected and done over afresh. \* \* \*

7. During the four months, commencing with February, that traverse plots were furnished by the two traverse camps, ample and regular supplies were received by Camp No. 2 from the time it entered the Kyaukpyu district up to the very end of the field-season. The same was, however, not the case with Camp No. 1, where, through unavoidable causes, it could not be provided with a sufficient number of plots towards the end of the season and in consequence of which a small portion of country in the Myèbon and Kyaukpyu townships had to be taken up in survey on the triangulation system, in order to keep all the hands of the detachment fully employed.

8. Ordinarily it is not advisable to adopt the triangulation system of survey at all, as such work is necessarily slow, office work is increased and the real benefits of the traverse are lost. But occasions arise such as those of the present year, when recourse has to be had to such a method, in order to find employment for hands that would be otherwise idle, and to save in expenditure as much as possible.

The matter of the survey of the area in Sandoway, on the triangulation system, was given the most careful thought; but any other method besides this could not be devised which would have adequately met the requirements of the case. There was, or would be, altogether in hand, in the early part of the season, only a sufficient number of skeleton plots of last year, relating to the Thayetmyo and Bassein districts (including those of 22 square miles of rejected field-to-field work of the previous year which had to be re-done in the present year and also of another 10 square miles of which the traverse work remained over for revision and of which it was thought that the plots should be completed by December), to employ one camp fully for about 2 months; the other camp would thus have no skeleton plots to start work with as it would not be possible for the traverse camps to supply sheets within a month of their starting field operations.

\* \* \* The triangulation work of both the camps was found to be of excellent quality as evidenced by the partals run through the kwins thus surveyed, and by a comparison of the detail sheets with the traverse plots which were subsequently prepared. The adoption of the triangulation system of work, \* \* although it has helped to find continuous employment for the detachments in the season, has likewise tended to enhance the cost of operations—firstly, in the higher contract rates payable to surveyors for this description of work (being 100 per cent. over ordinary rates for kwins in which there is much jungle and work consequently more difficult, and 50 per cent. for such as are better cultivated and work therefore easier to do); secondly, in the extra time spent in line-cutting, making double measurements of the main chain lines, and the like, owing to which the charges on account of the pay of the chainmen and others are heavier; thirdly, in the additional labour which such work requires in the inking-up of sheets and copying them afresh on the 16-inch plots; and, fourthly, in the extra charge for supervision which this slower kind of work necessitates.

Tracts surveyed in previous years, those surveyed this year, and those remaining for survey.

9. The areas of these various tracts \* \* for each of the ten districts named below are as under.

District.	Excluded area.	Area surveyed in 1889-90.		Area surveyed in 1890-91.		Area surveyed in 1891-92.		Area surveyed in 1892-93.		Area for survey by District Land Records staffs in 1892-94, of which traverse plots are in readiness.	Total area.	Remarks
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	
Hanthawaddy.	...	67.41	349.85	...	...	...	...	...	...	408.26	...	* Of which 35.48 square miles falls inside of main circuits.
Henzada.	19.30	...	416.81	...	...	...	...	...	...	436.71	...	† Includes 100 square miles falling inside of main circuits.
Tharrawaddy.	24.31	...	126.25	...	...	...	...	...	...	150.57	...	‡ Falls inside of main circuits.
Prome.	433.08*	14.03	483.50	367.41	...	...	...	...	...	1,395.62	...	
Thongya.	...	...	267.91	...	...	...	...	...	...	267.91	...	
Bassein.	498.88†	105.52	73.12	598.09	212.79	...	...	...	...	1,488.40	...	
Thayetmyo.	135.18‡	...	...	332.19	260.86	...	...	...	...	828.15	...	§ An area of 10.62 square miles out of this relating to plots completed only in part has already been surveyed. It is not included in the figures of the previous column.
Kyaukpyu.	550.11‡	...	...	...	727.68	145.54§	...	...	...	1,433.33	...	
Sandoway.	100.00‡	...	...	...	134.47	66.22	...	...	...	300.69	...	
Akyah.	7.67‡	...	...	...	...	...	...	...	...	97.00	104.67	
Total.	1,869.14	83.96	1,440.83	1,565.60	1,345.80	308.75§	6,813.79					

These figures are in accordance with the Survey Conference Programmes of 1889 and 1891 and subsequent orders. The area surveyed in detail by local agency this year was completed entirely on plots furnished by the local traverse camps, the sheets relating to an area of 102.39 square miles which were done on the triangulation system having been provided only on the return of the party to headquarters. In addition to the work done by Camp No. 1 in the Thayetmyo and Bassein districts, the survey in the Kyaukpyu district of 21 circles (three in part) of the Kyaukpyu township, and four circles (one in part) of the Myèbôn township were finished. Camp No. 2 similarly completed, besides the triangulation work done by it in Sandoway, the survey, on traverse plots, of 18 circles (nine in part) of the Ramree township and eight circles of the Cheduba township in the Kyaukpyu district; also of one circle (in part) of the northern township in the Sandoway district.

10. As will be seen from the table in the preceding paragraph, there is still an area of 308.76 square miles including 10.62 square miles relating to only partially completed sheets left in the Kyaukpyu, Sandoway, and Akyab districts for survey, of which the traverse plots are in readiness, and which would have been finished in the year but for the most unusually early setting in of the rains and the frequent showers that fell and high winds that prevailed in the districts named in the latter half of April and throughout the whole of May. This completely blocked work, and prevented the completion of the season's programme of operations.

11. For the districts of Thayetmyo and Bassein the Deputy Commissioners were duly addressed by the Director with a view to the necessary advance demarcation being done, in accordance with the boundary rules, in respect to gardens, orchards, burial-grounds, roads, monasteries, pagoda and school lands, and village-sites. On the whole this work seems to have been indifferently performed by or under the orders of the thugyis and ywathugyis, for in many instances the surveyors had themselves to get the villagers to demarcate such lands prior to surveying them.

In the Kyaukpyu and Sandoway districts the demarcation of the lands above described was throughout well done, except in the case of dani gardens, the demarcation of which appears to have been somehow omitted in several places. The satisfactory state of this particular work was entirely due to the appointment of demarcation officers in the districts alluded to who personally supervised the demarcation of the lands in question.

12. The average size of the kwins surveyed in detail this year is 1.79 square miles. This is fair considering that several of the kwins in question contain a large proportion of waste. In Sandoway the average kwin was 1.02 square miles in area. The proper size of good workable kwins is from about 1 to 2 square miles.

13. The field-season consisted of about six months, the ordinary term for the outdoor work of cadastral camps; it began on the 1st December 1892 exactly and ended on the 4th June 1893, the date of the return of the camp to Rangoon by steamer from Kyaukpyu. It might with advantage have been less by an entire month, since little or no work could be performed in May, owing to the almost incessant rain that fell during this time. This may be judged from the fact of over 40 inches of rainfall having been registered for Kyaukpyu up to the end of May.

15. The total areas surveyed of fields and topographical features, together with the amounts earned by the field-surveyors, are shown for each camp separately in Statement A. There were 136 field-surveyors employed off and on in the party, but the average strength was throughout kept at 100. The average monthly earnings of a field-surveyor this year was Rs. 39, which is Rs. 2 above what it was last year. This is due to the higher rates payable on account of the smallness of the field, notwithstanding that the area surveyed under both cultivation and topography was considerably under what it was in the year before. The average earnings of the Burmān surveyors was a trifle better than those of the Hindustāni surveyors. The proportion of first to second class work executed by the surveyors was as 1 : 2.4, which is an improvement on that of last year; the rates of payment for these classes being in the ratio of 5 : 4. Third class work is that which is rejected, and therefore not paid for. The average size of the field this year has been so small as 0.15; in Sandoway it was only 0.11 and in Kyaukpyu 0.14. These facts in themselves go to show that the country operated on in the abovenamed districts was unfit for survey cadastrally. With perhaps the exception of the Cheduba and Myèbôn islands, where cultivation is fairly extensive, the rest of the cultivated tracts in Kyaukpyu might with advantage have been mapped on the holding-survey principle. In Sandoway such a survey had already been done two or three years previously, but the areas thus obtained do not appear to have been utilized for the purpose of assessment. A strong argument in favour of the prosecution of a holding-survey, which is a comparatively inexpensive one, in such tracts as are referred to is that cultivation has throughout reached its maximum limits, holdings are more or less

of a permanent character, and the cultivated tracts are for the best part in isolated patches all over the country. The average size of the field of the present year is about one-third of what it was the year before.

16. These were very considerable, and were even greater than what has been experienced hitherto. In the matter of survey particularly the difficulties and drawbacks met with were very great. The areas dealt with this year were situated in four different districts widely apart from each other, the cultivation was in patches and scattered all over the country, the fields in the Ramree island and in Sandoway were to a large extent irregular and in terraces lying on the slopes of hills, the average size of the field was excessively small, line-cutting through jungle was heavy, the country on the Arakan side was steeped in malaria, communications on the same side were almost entirely by water, navigation by the sea and large river routes being both dangerous and difficult, a great loss of time was necessitated by the frequent shifting of the camps from one base to another and by the time occupied by the surveyors in getting to their respective centres of work. A certain amount of the survey was done on the triangulation system instead of on ready-made plots and finally the general character of the country was such as to cause fears to be entertained for the complete success of the undertaking. In getting together the necessary establishments too much trouble and anxiety was caused. The Arakan side, in which most of the work of the year was to be done, was reputed for its extreme unhealthiness, and it was with no little pressure brought to bear upon the men and the assumption of a firm attitude in the matter that the hands were induced to proceed to Kyaukpyu and Sandoway.

17. A total area consisting of 1345.80 square miles was completed during the year by both the camps, as follows—

By Camp No. 1	In Thavemyo	260.86	} = 849.56 square miles
	In Bassein	21.79	
By Camp No. 2	In Kyaukpyu	375.93	} = 496.22 square miles
	In Sandoway	134.47	

The proportion of cultivation to waste for the entire tract surveyed in the year is as 1 : 4.06, and for each of the districts separately as under, namely,—

In Thavemyo as	1	6.92
In Bassein do	1	10.95
In Kyaukpyu as	1	3.47
In Sandoway	1	1.66

The average proportion was slightly better than that of last year. In Bassein, although the extent of waste as compared with that of cultivation is large, the waste bits are intermixed with the cultivated areas and are such as are likely to be soon brought under the plough, so that in this sense they were worth surveying. For Sandoway the proportion is very good, but this was the effect of all intervening blocks of hilly country, however small, being wholly excluded from the operation of survey.

19. The total cost of the work exclusive of that for holding marking, preparation of maps and registers for Supplementary Survey Offices, revision surveys and on account of the drawing and preparation of the 16 and 2-inch maps for lithography for the entire survey year, comprising the period 1st December 1892 to 30th November 1893 amounts to Rs. 1,00,282-15-11. This sum includes the actual expenditure of the field season together with the sanctioned estimates for the current recess. The cost rate of the work done in the year, therefore, comes to Rs. 75 per square mile, or annas 1-10 an acre, against Rs. 58 and Rs. 67 per square mile of the two preceding years respectively. This higher rate is attributable to the comparatively smaller area of work executed in the year and also to the excessive smallness of the average field in consequence of which higher contract rates had to be paid for this class of work, a larger area being surveyed on the triangulation system than before, the expenditure of such a large sum as Rs. 4,261-8-10 alone on account of boat-hire on the Arakan side, apart from the cost of journeys by railway and steamer, and the loss of a month at the end of the season owing to stress of weather.

20. The partalling done in the year was more thorough than it was possible to have got done before. This was due to an increase in the number of inspectors, and the reduction of their charges from 12 to 10 field-surveyors, to the supervision of the holding-marking work having been transferred to special inspectors employed for this particular duty only, and the diminution of the area surveyed as contrasted with that completed in the year before.

Altogether the work of the field surveyors was partalled by Inspecting Officers to the extent of 1,272 miles of linear measurements. Of this 1,113 miles was executed by the Inspectors. The amount of line cutting through jungle done in connection with these partalls consisted of 156 miles in all which goes to show the nature of the country worked in. The



number of miles of similar line-cutting done by the surveyors themselves for their own work purely was 792. Check lines were run in 718 kwins out of a total of 751 surveyed; in the remaining 33 no-partals were run for want of time, but these relate to jungle or water areas only.

Camp.	District.	Number of visits.	Of the kwins tested by the Inspectors, either before or after the visits of their superior officers, 215 were checked by the Myoòks and 47 by the Superintendent. The Superintendent examined the field-work of the camps to the extent mentioned in the margin. The Director inspected the field-work of Camp No. 1 in the Thayetmyo district in 9 kwins. In 8 of these the work was found to be good * *
No. 1	Thayetmyo ...	2	
	Bassein ...	1	
	Kyaukpyu ...	4	
No. 2	Kyaukpyu ...	3	
	Sandoway ...	2	

Some of the field-work in Sandoway was tested by the Commissioner of the division and the Deputy Commissioner of the district, and found to be correct. The number of kwins that had to be re-surveyed in the year in consequence of inferiority of work as disclosed by the partals was 36.

As a precautionary measure, a number of the Inspectors' partial lines were gone over again by the Myoòks and Superintendent. These checks proved that the work of the Inspectors was well done, except in two cases where the persons in fault were punished each by a reduction to a lower grade. The quality of the survey work of the sheets which have been passed by the Inspectors is good.

Holding-marking.

21. The holding-marking work was completed of the entire area surveyed in the year.

There were in all 77,730 holdings representing an area of 166,672 acres delineated on the traces. The average size of the holding obtained from these figures is 2.14 acres, which is less than one-half of what it was last year, and is as small as is perhaps met with anywhere in Burma. The holdings are smallest on the Ramree island and in Sandoway. The cost of the holding-marking work amounts to Rs. 7,839-0-11, which is much higher than what it was last year.

The number of holdings tested by Inspecting Officers was 20,228, or about one-fourth of the total marked. The work on the whole was found well done.

22. Revisions were conducted this year in one kwin of Thayetmyo, where the Myoòk himself discovered some errors of work early in the field-season and which was therefore re-surveyed and the corrected work utilized for the supplementary survey of the year. They were also undertaken in one kwin of Bassein which was surveyed last year and in three of Hanthawaddy surveyed three years ago, on certain alleged discrepancies in these being brought to notice. The kwins were accordingly re-surveyed, it being found in the case of Bassein that the surveyor had clearly fudged portions of his work. It may be mentioned that during the last open season the Director (Mr. Wilson) confined his examination of supplementary survey work in the Bassein district entirely to the tracts surveyed by local agency in the previous years, and he expressed himself in unmistakable terms in respect to the quality of the survey work which was described by him as being exceptionally good. In regard to Hanthawaddy, the changes in the aspect of the land that were found to exist in places were due to the annual floods to which the kwins are subject and the consequent alterations of the positions of the more or less temporary field boundaries which take place from time to time to suit the new requirements of the land. The kwins are situated on either bank of the Hlaing river which overflows its banks almost annually, and there is even now a project in hand for the construction of an embankment for the protection and extension of cultivation on the island of which these kwins form part. All five sheets in question of the three districts referred to will be re-printed in their amended form shortly. The cost of the revision surveys amounted to Rs. 373-0-9.

23. There was an increase due to the present survey of 56,598 acres in area and Rs. 83,801 in revenue, exclusive of the 10 per cent. cess, over the corresponding figures of the thugyis for the year 1892-93, against similar increases last year of 76,877 acres and Rs. 1,10,077 respectively. The figures of the survey and of the thugyis have been contrasted with each other for the same identical year in conformity with the views of the Director, as expressed in last year's report on the Department of Land Records and Agriculture. If the thugyis' figures in some instances, for the years in which the arbitrary increases on the part of the thugyis were rendered manifest, were taken into account, for the purposes of the comparison, instead of their figures of the present year, the corresponding increases would of course have been much larger than those shown. The case of Bassein may be singled out as a glaring instance in which the thugyis fearing lest the introduction of the survey would disclose their notorious annual under-measurements suddenly increased their areas without any apparent legitimate cause. In this instance, as will be seen from the figures furnished below, if the thugyis' figures for 1889-90 are accepted for the purposes

of comparison, the resulting increase in area, due to survey, would be 93 per cent, and in revenue 125 per cent, whereas when compared with the figures of 1892-93, the respective increases are in area 39 per cent, and in revenue 45 per cent. The percentages of increase in area and revenue of the survey figures over those of the thugyis for the year 1892-93, together with the figures on which these calculations are based, are for each district operated in the year, as follows, namely —

District	AREA			REVENUE, EXCLUSIVE OF CHSS			PERCENTAGE OF INCREASE	
	According to survey	According to thugyis	Increase	Calculated on survey area	Calculated on thugyis' area	Increase	In area	In revenue, exclusive of chss
	Acs	Acs	Acs	Rs	Rs	Rs.	Acs	Rs
Thayemyo	21,900	11,160	10,740	23,082	12,080	11,002	96 23	98 52
Bassein	11,000	7,915	3,085	17,354	11,935	5,419	38 98	45 41
Kyaukpada	101,809	63,639	33,190	153,377	102,501	50,876	43 35	49 63
Sandoway	31,943	22,360	9,583	51,900	36,305	15,595	42 80	42 08
Total	166,672	110,074	56,598	246,622	162,821	83,801	51 42	51 47
Bassein*	11,000	5,093	5,907	17,353	7,713	9,640	93 20	124 99

The increases in area and revenue in the year are only about two thirds of what they were in the year before. This is because a smaller area was surveyed this year, and also to some extent because of the fact of the cultivation in the Kyaukpada and Sandoway districts, in which survey operations were principally carried on, being of a more settled character than in the deltaic districts in which survey work was executed previously. In the Ramree island the whole of which was surveyed on the scale of 4 inches to the mile by a party of the Survey of India Department in the years 1868-70, the area then found as under cultivation (including abandoned fields) was 48,486 acres, while the present survey gives this area as it now stands, approximately, at 76,161 acres (of which 72,157 acres approximately are under actual ownership, and the thugyis at 48,769 acres (of lands in possession). From this it will be apparent that while cultivation has extended (although it may be considered to have pretty well reached its utmost limits now) in the Ramree island during the last quarter of a century the thugyis areas have remained almost steadfast.

Lithographing and publishing of maps

25. The lithographic portion of the work has been executed as heretofore, that is, the maps have been prepared on the litho-paper in the Lower Burma Field-to-field Survey Office and the printing done at the Government Press at Rangoon.

Of the work relating to the surveys executed in the year, there are 1,797 16-inch sheets for lithography and 86 2-inch sheets. Every effort is being made to have the former in readiness as early as October next, to enable the supplementary survey work of the districts concerned being started, if possible, in November of the current year. The cost rates for the printing of the maps at the Government Press are fixed this year by the Superintendent of Government Printing at Rs 5 per 16-inch sheet and Rs 10 per 2-inch sheet. The cost of the Map section of office for this year, actual and estimated, amounts to Rs 10,147-15 7, which will give the cost per 16 inch sheet at Rs. 4-10-0 and per 2-inch sheet at Rs 21-6-0. The combined cost of these maps will, therefore, come to Rs 9-10-0 for each 16-inch sheet and Rs 31-6-0 for each 2-inch sheet, against similar charges last year of Rs 11-3-0 and Rs 17-10-0 respectively.

26. The Map section of the office was in charge of Myoök Maung Pyu Than throughout the year. The work of this section consists of the preparing and passing of the 16-inch litho sheets, the reduction by pantagraph, from the original 16-inch sheets to the 2-inch, the inking, typing, and printing of the original 2-inch sheets, the preparation on litho-paper for the press of such 2-inch work, and of all other general mapping that has to be done from time to time in the office. From December to June the reduction of last season's 16-inch sheets and the preparation of the original 2-inch sheets relating to these was done. The litho map work of the 2-inch sheets of the previous year was also finished. During the recess months the Map section will be principally employed on the litho work of the 16-inch sheets of the year, after completing which their reduction to the smaller scale and the preparation of

\*The thugyis' figures in this line relate to the year 1889-90, and are given for purposes of comparison only.

the 2-inch original sheets, 86 in number, corresponding to them will be got on with. After all this has been done, the litho map work of this year and the one before, making 162 2-inch sheets in all, will be proceeded with, and completed, it is hoped, by next May. For this purpose, the Map section of the office will, after the party has been broken up in November, have to be kept on till the 31st May 1894; and will, besides, have to be strengthened, to enable the whole of this work being completed by the date named.

27. The health of the Cadastral Camps was remarkably good during the first two months or so of the season, while they were employed in the Thayetmyo, Bassein, and Sandoway districts; but it was on their coming into the Kyaukpyu district that the members suffered most seriously throughout the remainder of the field term from the malaria of the place and in a lesser degree from bowel-complaints. Both the Myoòks were prostrated from fever for the space of about a month each, and had attacks of the complaint, off and on, at different other times. Both, too, applied for leave, but on their fever taking a favourable turn withdrew their applications. The Inspectors, surveyors, and khulassis as well suffered a good deal from the fever. Two of the Inspectors were from this cause totally incapacitated for work for a considerable time. One of them, I regret to say, died on his return to Rangoon. The very bad cases were sent into the Camp Hospitals for treatment; the others having the necessary remedies sent out to them. \* \* \*

28. The Inspectors have this year worked zealously and well, with the exception of two who were reduced, each in a grade, for running defective partial lines and passing of inferior work submitted by their field-surveyors. Two of the Inspectors, also, who had worked in a most unsatisfactory manner in the previous field-season had to be removed from their appointments last recess owing to continued gross and culpable neglect of duty. The field-surveyors, too, as a body, did good, reliable work, due to closer supervision on the part of the Camp Officers and Inspectors. Their work has stood the test of numerous partials run across their sheets, and considering the difficult nature of the surveys this year, they have acquitted themselves very creditably indeed. Several sheets had to be rejected owing to their not being up to the required standard, but as compared with previous years they were not numerous. The quality of the work of the Burman field-surveyors this year was a great improvement on that of the Hindustanis, taken as a whole. Some of the latter class of workers were endeavouring to rush over the ground under survey without proper regard to accuracy of work, with the result that they paid for this in lines, rejections of their sheets, and other ways. \* \* \*

I would bring to special notice the excellent work done by Inspector Maung Lu Gyi, who was placed in charge of a sub-detachment for work in the Bassein district, and acquitted himself in a very creditable manner. During the trying cyclonic period of May last, Maung Lu Gyi, whose squad of 57 men were stranded on Paungne Kyun island (their boat having been smashed up against the rocks) where they were without food for five days, came by himself into Kyaukpyu, under dangerous circumstances, to give the news. He then took the necessary assistance to the stranded men, in very rough weather indeed, and brought the party safely into Kyaukpyu. Maung Lu Gyi is an Inspector of the 1st grade. He is an intelligent and active man, and has worked in various capacities and on good pay, in the Public Works Department and in Supplementary Survey and other offices. \* \* \*

29. Myoòk Maung San Dun was throughout the year in charge of Camp No. 1. He is a most energetic and hardworking officer and continues to acquit himself very creditably in the discharge of his important duties. He is much respected by his subordinates and possesses a knack of exacting the maximum amount of work from them, with the least amount of friction. It is due to his hard work in the face of serious obstacles that his camp has such a satisfactory outturn of work to show as has been accomplished in the year. He kept very bad health for the space of a month in Kyaukpyu. Maung San Dun was promoted to the 3rd grade of Myoòks last February, a promotion which he well deserved. \* \* \*

Maung Tun held charge of Camp No. 2. He exerted himself in a commendable manner in conducting the triangulation work of Sandoway. On his coming to the Kyaukpyu district, however, he suffered a great deal from fever which hampered his movements considerably, and he was therefore unable to go about testing field work to the extent that he otherwise would have been expected to. \* \* \*

Maung Pyu Than, Myoòk, had the supervision of the Map section in the year. This is a less important sphere of work to which he was transferred last year in consequence of his mismanagement of work when in charge of a cadastral camp. He has worked steadily in his present capacity, although the map work has not progressed as rapidly as I should like to have seen it do. Maung Pyu Than is a 4th grade Myoòk, *sub. pro tem.* He has not yet succeeded in passing his departmental examinations. It is proposed to let him continue in charge of the map work till May 1894, when it will be time enough to determine as to where he should be sent afterwards.



# APPENDICES.

## TRAVERSE SECTION.

30. All the requisite computations relating to last year's field-work were duly brought up in the recess. The work was very heavy, but with the computers being kept regularly at their duties and the exertions of the camp officers themselves, it was finished by the end of October.

31. In order for it to be possible to complete the large area sketched out for survey in traverse in the season, a working party of the full strength, on last year's lines, was estimated for and in course of time organized.

The entire strength of the establishment engaged upon the work is detailed in the margin. The composition of the camps was unchanged. Messrs Haddock and Hardinge each held charge of a camp, with Maung Tha Byaw and Maung Shwe O as their Assistants respectively. The superior appointments were held by 32 Burmans and Karens and by 16 Hindustanis, that is, in the proportion of two of the former to one of the latter; of the latter number 13 were sub-surveyors, all of whom, except two who were engaged from Upper India, had worked as such in the party in the year before and having been more or less trained in it previously were permitted to return to work again, while three were computers. Two of the Hindustani Sub-Surveyors who were removed for misconduct during the season were replaced by Burmans. Of the 17 Burman and Karen Sub-Surveyors, 13 had worked as sub-surveyors with the party last year, and had done duty during the recess season in the Cadastral section as computers and draughtsmen; the other four were locally trained men of the office. The older hands had been taught the use of the theodolite in the party before.

32. Two theodolite classes were opened out in the office during the last two months of the recess season, one being attached to each camp. The classes were regularly taught on week days by the Camp Officers and their two Burman Assistants. They were attended by the Burman Surveyors of the party of the year before and by a similar number of the more intelligent field-surveyors belonging to the cadastral camps; in all, 26 were thus instructed.

To Messrs. Haddock and Hardinge is due the credit of having thoroughly trained their field and office staffs to their respective duties, and to the success of the year's traverse work generally.

33. The same system of payments as was adopted last year was continued in this. Sub-surveyors received fixed monthly salaries from Rs. 40 to Rs. 60 per mensem.

The computers and draughtsmen, whose services are retained for the entire year, got from Rs. 30 to Rs. 70 exclusive of the usual travelling allowance while out in the field.

34. There were two traverse camps formed this year, just as was done in the year before. Mr. Haddock held charge of one and Mr. Hardinge of the other. The original arrangement was for Camp No. 3, the one in charge of Mr. Hardinge, to first operate in the Kyaukpyu and Myebon townships of the Kyaukpyu district and then in the lower half of Sandoway district, and for Camp No. 4, the one under Mr. Haddock, to work at the start in the Ramree and Cheduba townships of the Kyaukpyu district and then to proceed to Sandoway district for work there in its upper half. But owing to later orders received in January, enlarging the programme of the season's work, whereby the party was also required to survey three circles of the Minbya township of the Akyab district, the above plan of operations was altered to the extent that Camp No. 3 instead of undertaking the survey work sketched out for it in Sandoway was to do that of Akyab which adjoined the Myebon township of Kyaukpyu, while Camp No. 4 was to do the whole of the work of Sandoway. All requisite arrangements having therefore been completed for starting field-work, Camps 3 and 4 left Rangoon by the R. I. M. S. *Dalhousie* on the 1st November, and after a somewhat rough and stormy passage reached Kyaukpyu on the 5th of that month. Here the detachments were met by the Deputy Commissioner, and duly landed in the boats of the party.

35. During the field-season Camp No. 3 supplied 620 sheets relating to 306 kwins to Cadastral Camp No. 1. The Cadastral Camp was well kept in plots for the first two months from early in February, but later on there was a marked falling off in this respect owing to the office staff suffering very considerably from fever towards the end of the season; so that although the field-books of the sub-surveyors were being received in sufficient numbers, the office hands, owing to sickness, were unable to keep pace with the field-work, in the completion of the requisite computations and the preparation of the plots. Camp No. 4 amply provided Cadastral Camp No. 2 with traverse plots throughout the last four months of the season during which alone it was intended that it should so furnish

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them. The Cadastral Camp in question had thus right through this term always enough plots in hand to keep all its hands fully in work. The total number of plots supplied up to the end of the field-season was 590 appertaining to 236 kwins, and since then 200 sheets referring to 180 kwins chiefly of those that were previously surveyed on the triangulation system. Considering that the traverse camps had only two clear months in which to do the traversing and preparation of plots before the arrival of the Cadastral Camps on the same ground and then to have these camps to closely follow in their footsteps for the remainder of the field-term, the results recorded reflect great credit upon the Camp officers concerned, and show that the advance surveys were pushed on both vigorously and successfully.

38. A total area of 1,802.93 square miles situated in the districts of Kyaukpyu, Sandoway, and Akyab was traversed during the year. Tracts surveyed in the previous year and those surveyed this year. This excludes 10 square miles of revision of last year's work in Bassein, which occupied a full squad an entire month to finish. Of the total area surveyed this year, an area of 643.58 square miles was not set up or plotted owing to the blocks composing it consisting chiefly of hills and jungle which it was decided to omit as unfit for survey, in a revenue sense, in detail on a large scale. Particulars regarding the areas surveyed, in traverse, by local agency during the past two seasons (see Map E) are given below, namely,—

District.	TOTAL AREA SURVEYED.		SURVEYED AREA OF WHICH KWIN PLOTS WERE PREPARED.		TOTAL WORK EXECUTED IN 1891-92 AND 1892-93.		Remarks.
	In 1891-92.	In 1892-93.	In 1891-92.	In 1892-93.	Area surveyed.	Area of which kwin plots were prepared.	
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	
Thayetmyo	747.24	...	537.00	...	747.24	537.00	* Revision.
Prome	8.92	...	8.92	...	8.92	8.92	
Thongwa	136.05	...	136.05	...	136.05	136.05	
Bassein	695.23	...	595.23	10.00	695.23	605.23	
Kyaukpyu	...	1,403.96	...	852.35	1,403.96	852.35	
Sandoway	...	294.00	...	190.00	294.00	190.00	
Akyab	...	104.97	...	97.00	104.97	97.00	
Total	1,587.44	1,802.93	1,277.20	1,149.35	3,390.37	2,420.55	

41. Out of a total number of 28,424 theodolite stations fixed in the season, 20,486 were permanently marked with the usual pottery pipes (to the extent of one-sixth) or with zinc tubes (to the extent of five-sixths) in lieu of these; in 1,050 cases natural rocks and stones *in situ* were used as permanent marks; and the remaining 6,888 stations were denoted by stout wooden pegs well driven into the ground which represent the temporary marks. All trijunctions and "jawabs" whatsoever were marked in a permanent manner; also alternate, and in some cases every third or fourth bijunction station. This latter plan was adopted to save expense, chiefly in uncultivated, marshy, and hilly tracts through which an abnormal number of short lines had to be taken and where there is not the same need for marks of a lasting kind as there is in cultivated tracts. In all cases where zinc tubes or clay pipes were employed, the embedding of these in the ground was invariably done before observation.

43. At the commencement of the season a great deal of trouble was experienced in the Ramree island in the matter of the wholesale destruction of permanent survey station marks soon after they were laid down. Most of the cases of the uprooting of marks, as well as of the refusal of villagers to render lawful assistance to the surveyors, occurred in the Ramree township and were dealt with by the present Township Officer, Maung Tet Kaing, of Ramree, the parties in fault having been fined or otherwise punished by him. Orders were at the same time issued by the Deputy Commissioner to the local officials of the district to protect the interests of the survey as much as they could. The Deputy Commissioner likewise issued stringent orders to all the taikthugyis and ywathugyis to attend to the protection of all permanent survey marks laid down within their respective jurisdictions in the manner required by the Director's Circular letter on the subject. The effect of

them, and the other measures adopted was that all such marks were thereafter protected by the raising over them of mounds of earth or cairns of stones, and no further complaints came in from surveyors regarding damage done to survey marks or obstructions to survey work in any other manner whatsoever.

After this the survey work in the Kyaukpyu district progressed satisfactorily, which was due in a great measure to the ready help given to the survey camps working in that district by the Deputy Commissioner (Mr. Leeds) and by the Township Officers working under his orders. It would seem that the real cause for the obstructions to survey work generally at the commencement of survey operations in the Kyaukpyu district is traceable to the apparent antagonism of the people to the introduction of the survey into their part of the country, as evidenced by the complaints lodged by them before the district revenue authorities when it became generally known that the district was to be surveyed cadastrally. In the Sandoway and Akyab districts the survey marks do not appear to have been tampered with to any serious extent.

47. \*\* The area of kwin traverses, exclusive of jungle kwins which were not set up and plotted, consists of 1,149.35 square miles appertaining to 828 kwins. The number of subtraverses run was 210 and the number of linear miles of chaining performed, with two distinct chains, one of 66 feet length and the other of 100 feet, was 3,217. The theodolite was set up, in all, at 28,424 stations, being 16 to the square mile; the total number of angles observed with it being 29,470. The average distance between two consecutive stations was 8.73 chains, and the number of miles of line-cutting done through jungle was 2,135. These figures in themselves go to show the nature of the ground over which the work was carried.

The average number of theodolite stations that were permanently marked per square mile of kwin and jungle blocks taken together is 12 and of kwins alone 19. The angular work was checked by 204 star and 22 sun observations for azimuth, and the linear work by connection with 11 Great Trigonometrical Survey stations.

On a comparison with the corresponding figures as furnished in last year's report, it will be seen that the output of this year is in every way even an improvement on what it was before: the area completed is larger, the number of stations observed at and angles measured is about half as much again, more line-cutting was done, there was an increase in the number of permanent marks laid down by about 25 per cent; and there were over twice as many azimuth observations made. For these excellent results Messrs. Haddock and Hardinge and their staff of workers are to be congratulated.

49. The entire cost of the work, exclusive of that for pipe-embedding, preparation and service of notices to ywathugyis and revision survey, comes to Rs. 79,682-8-5. This is made up of the actual expenditure of the seven months of the field-season with the sanctioned allotment for the five months of the recess. The cost rate for traversing, according to this calculation, comes to Rs. 44 per square mile for the work of the year against Rs. 46, which it was the year before. Properly speaking, the cost of this year should comparatively have been much less, as there was not the same initial expenditure in the equipping of camps for the first time and the area completed was larger than before. On the other hand, however, increased establishments had to be employed in the field as a provision against cases of sickness, and there was a heavy expenditure incurred in steamer fares and in the monthly hire of a large fleet of country boats which were absolutely necessary in a country so covered with waterways as that worked in.

50. The re-measurements rendered necessary this year in consequence of traverses not proving, consisted of 5,312 angles in the angular work and of 625.13 miles in the linear work. Thus one-sixth of the total number of angles had to be re-observed and one-fifth of the total distances re-chained, against similar ratios arrived at last year of one-fourth and one-third respectively.

Camp.	Place.	No. of visits.	The Superintendent inspected the work of Camps 3 and 4 on nine occasions, as noted in the margin, and found the same in order on every visit. The Director inspected the work of the former camp at Kyaukpyu in December.
No. 3.	Kyaukpyu	... 5	
No. 4.	{ Ramree	... 3	
	{ Sandoway	... 1	

51. As will be apparent from a reference to Statement D the quality of the work executed this year was remarkably good. The limit of error allowed, in regard to the co-ordinate distances, was 10 links per mille for kwin traverses and 5 links for main circuits; and in respect to the angular work, it was one minute in every five angles for main and minor circuits, and one minute in every three angles for kwin traverses and subtraverse lines or "pu'ahs." Larger corrections than these in the traverse computations necessitated a re-survey. The average angular error in the season's work was 3 seconds per station, and of distances 0.6 of a link per 1,000 links. The smallness of these errors shows the excellent quality of the surveys executed.



\* \* \* \* \*

54. Taken as a body, the sub-surveyors worked very satisfactorily this year. Of those who did exceptionally good work seven were Burmans and five Hindustanis. Two of the Hindustani surveyors were dismissed in the middle of the season for falsifying their work and other faults; they were replaced by Burmans. Another was found to have "cooked" his double angles and B and C vernier readings, while his tindals had only measured their distances with one chain and "fudged" in the corresponding readings of the other. \* \* \*

Of the office staff three of the draughtsmen and six computers worked more than ordinarily well, two-thirds of these combined numbers were Burmans. \* \* \*

I desire to bring to special notice the uniformly excellent work done during the past two years by the two Head computers of the traverse camps. Kunhia Lall, who belongs to Camp No. 3, understands his work thoroughly and has been of invaluable assistance to his camp officer. He has rendered good work throughout his time of service in this office, and is worthy of commendation. I shall be glad if he can be found suitable work as an Accountant or Clerk in a Government office on the breaking up of the party. He knows English, but not very well. His present pay is Rs. 70 per mensem. The other Head Computer is Maung San Shwe, attached to Camp No. 4. He too has worked well and given his camp officer every satisfaction. In Ramree he suffered a good deal from fever, but stuck to his work all the same in a very commendable manner. He possesses, for a Burman, a good knowledge of English. \* \* \*

He is very intelligent and smart at his work, and I believe would, in course of time, be capable of carrying on the work of a Superintendent of Land Records in a small district. \* \*

55. Mr. Hardinge continued to be in charge of Traverse Camp No. 3 in the year. He has done exceptionally good work throughout his four years' service with the local Agency Survey Party, but more especially during the latter half of this term, in which he has held an important professional charge. In the face of many difficulties, Mr. Hardinge succeeded in traversing an area, in two districts, of 677.93 square miles, being the whole of that which was allotted to him for completion in the season; and considering the intricate nature of the country worked in and the scattered nature of the work, this outturn was every good indeed. \* \* \*

Maung Shwe O is the Assistant Camp Officer of Camp No. 3, and has performed his duties as such in a highly satisfactory manner. He was employed for the major portion of the field-season upon main-circuiting, and in supervising the work in the Myebon township of Kyaukpyu and also in the three circles traversed in Akyab. He suffered a good deal from fever at the commencement, but stuck manfully to his work. Maung Shwe O's qualifications and claims to promotion have been previously brought to notice. \* \*

Mr. Haddock has remained in charge of Traverse Camp No. 4 throughout the season. He originally belonged to the Survey of India Department, but since then has been permanently transferred, under the orders of the Secretary of State for India, to Burma, for service in the local Provincial Survey. Mr. Haddock is a very capable, energetic, and valuable officer of the Government. Throughout the two years of his employment in the local Agency Survey Party he has performed his important duties as officer in charge of a traverse camp in a highly efficient and satisfactory manner. During the season his camp alone accomplished the traverse survey of so large an area as 1,125 square miles of original traverses in two districts and another 10 square miles of revisional work in a third district. This was in the face of numerous difficulties, such as the presence of sickness among the men in the earlier half of the field season, the jungly nature of the country worked in and the like; and, therefore, all the more reflects great credit on Mr. Haddock and is proof of his general good management. \* \* \*

Maung Tha Byaw is the Assistant Camp Officer of Camp No. 4. He did not do much actual survey work himself in the field-season having been chiefly employed in supervising the work of the sub-surveyors who in parts of the country worked at great distances from the base camp. The work of picking up by traverse the triangulation work in Sandoway was well attended to by him. \* \* \*

## GENERAL.

\* \* \* \* \*

56. The cost per square mile of the combined work of the traverse and detail survey of the year amounts to Rs. 119, and per acre to 3 annas against Rs. 104 and 2 annas 7 pies respectively last year. The rate per field for traversing, detail survey, and preparation of maps comes to 2 annas 6 pies. \* \* \*

\* \* \* \* \*

59. The system for the preparation and submission of the accounts and returns of both sections of the office was precisely the same as that in force last year, and has worked very satisfactorily. Money needed for the working expenses of the party were drawn for on abstract bills, as required, and the usual detailed bills, together with separate accounts-current relating to the cadastral and traverse sections, submitted to the Comptroller

at the end of each month. In the field-season camp officers were kept in funds by means of abstract bills, drawn in their favour, on such treasuries as they required them; the necessary money provisions having been made in this respect before the taking of the field.

60. On the whole, the help received by the survey camps from local officials this year in the districts in which the party worked was sufficient for the due prosecution of survey operations. In Kyaukpyu in particular, where the Deputy Commissioner (Mr. Leeds) took a keen interest in the work of the survey, and generally afforded much help to all the camps, ample assistance was given by most of the petty officials and others owing to the very stringent orders that were issued by him in the matter. The Township Officers of Ramree and Cheduba (namely, Maung Tet Kaing and Maung Shwe Hman) gave every help to the survey, and it was in consequence of the interest taken by them in the work that excellent help was rendered to the surveyors by the villagers of their townships. This was very encouraging to the men of the party in a country so difficult of survey as that worked in, and it was owing to the assistance thus received that the traversing of Ramree and Cheduba was accomplished so quickly as was done.

61. Application was accordingly made and the services of two Hospital Assistants secured for employment with the party during the field season. The two officers appointed were third grade Hospital Assistant, No. 1195, Ram Chandra Naidu, and first grade Hospital Assistant, No. 7, Shaik Rahim Buksh. The former reported himself for duty on the 19th November 1892, and was attached to Camp No. 3, but to attend to the sick of Camp No. 1 also; the latter arrived on the 25th November 1892 and was posted to Camp No. 4 for duty with it and likewise Camp No. 2. Later on, early in March, Ram Chandra Naidu was sent in medical charge of Camp No. 4, where his services were urgently required for work on the Taungup side; the other Hospital Assistant continuing in charge of Camp No. 2 at Ramree. From this time forward the sick of Camps 1 and 3 were treated in the civil hospital at Kyaukpyu.

There were treated, as indoor-patients, in the Camp Hospitals, by Ram Chandra Naidu, 246 patients, and by Shaik Rahim Buksh, 173 patients. This was exclusive of the sick to whom medicines were constantly being sent out into the field. The daily average sick in each of the camp hospitals was 10 in the earlier and unhealthier part of the season and 8 in the latter part.

67. This will perhaps be a fitting place to give a short *resumé* of the work performed by the local Agency Survey Party during its period of existence since 1889-90. During the first two years of its operations it worked on the plots furnished by No. 12 Party of the Survey of India Department; but owing to the transfer of this party to Upper Burma, the local agency one did the combined work of both the traverse and cadastral survey during the remaining two years. Nearly all the hands of the office are Burmans, even to the officers, who have been locally trained to their duties. This in itself throws an extra burden of work on the office, in the matter of accounts and in most of the correspondence having to be carried on through the medium of the vernacular. On the whole the survey staff has worked hard and well both in the field-season as also during the recess. The men have had to survey in difficult, remote, and unhealthy localities, exposed to numerous privations and dangers and have undergone much fatigue and labour; and I doubt very much, if they, or at least the larger number of them, could be induced to continue much longer in their present spheres of work after their past experiences. The present office has been organized and maintained by personal influence and the hope that the members have throughout entertained of its proving a stepping stone to more congenial and lucrative employment hereafter. Speaking generally, Burmans do not usually seek occupations demanding much labour or which are attended with great personal inconveniences; and unless actually driven to it by force of circumstances, will rather take up work which is more agreeable to their indolent habits and carrying lesser pay with it than take service where they will be called upon to exert themselves to a somewhat larger extent although the remuneration for so doing would be greater. It would, in fact, be inadvisable to continue survey work by local agency on an extensive scale, by either of the two systems that have prevailed within the past four years; such work is best left to Survey of India parties which belong to an old and well-organized department and whose hands are thoroughly trained and particularly fitted for the duty. The local Land Records Department should, I think, only concern itself in addition to its supplementary survey work proper with the survey of scattered patches of cultivation, in districts through which the Survey of India parties have already passed, which were left unsurveyed by them owing to their unimportance and of such other tracts, too, as are from time to time subsequently brought under the plough. With such minor work Superintendents could always be safely entrusted; also, with the final revisionary work following the expiration of the various terms of settlement.

A general abstract of the work done by the local Agency Party during the last four years is exhibited in Statement C. From this it will be seen that the operations of the party

have extended over 10 districts in the Pegu, Irrawaddy, and Arakan divisions. The total area that has been surveyed in detail comprises 4,637 square miles, and in traverse 5,677 square miles; of the latter 2,287 square miles was executed by No. 12 Party of the Survey of India Department. The cost, per square mile, of the detail work comes to Rs. 73, and of the traverse work to Rs. 65; the combined cost rate being Rs. 138 per square mile or 3 annas 5 pies per acre. If a deduction is made for the stock of surveying instruments, &c., in hand, in the way indicated in paragraph 56, this combined cost rate is further reduced to Rs. 134 per square mile. The cost of the detail survey, per field, comes to 2 annas 6 pies. The cost rate of the work of the first year 1889-90 is very high; this was, however, due to the initial expenditure in the equipment of camps being considerable and in the field-season of the cadastral section being limited for its work to so short a period as 4½ months only and the consequent small area completed by it in that year. In the three succeeding years the cost was kept down at its lowest limits; to have attempted to go below which would have proved dangerous to the efficiency of the work.

The proportion of cultivation to waste is rather high, being as 1:4.33. This forms an important factor in the working out of cost rates as the cost for surveying jungle may be assumed to be about one-fourth of that for cultivation; and to this fact is attributable to some extent the naturally low rate at which the survey has been done. But, on the other hand, the average size of the field, which takes a prominent part in the calculation has also to be considered. This is so small as 0.26 having been as minute as 0.15 in the final year of the work, and the smaller the field the proportionately higher contract rate at which the field-surveyors are paid, and the larger amount of office work that it involves—thus, for fields whose average sizes are 1.00, 0.80, 0.60, 0.40, and 0.20 of an acre, the corresponding contract rates of payment would be Re. 0.053, 0.060, 0.065, 0.086, 0.105, respectively, per acre. Then the circumstance of the scattered location of the areas surveyed instead of their being in compact blocks, and the great physical difficulties of the country with the concomitant difficulties of supervision, have also to be taken into account; likewise, the extreme unhealthiness of the tracts and other varying conditions of the work in hand. As regards the traverse section, also, the cost is enhanced by surveying in disconnected tracts and in hilly regions, in which line-cutting through jungle is necessarily heavy and seriously retards the progress of work; it may be assumed to be about twice as expensive to work in areas in which jungle predominates than where cultivation is more extensive. The existence of the large amount of jungle in the tracts operated on by the local Agency Party is due to only such areas being assigned to it for survey as were left untouched by the Survey of India parties when working in the same districts, or where the cultivation was not in homogeneous blocks and sufficiently extensive to be made over to them.

\* \* \* \* \*

In addition to the work of survey, that of holding-marking has been carried on. As soon as the survey of the revenue-paying lands was completed, kwin traces were prepared in the Cadastral Camp Offices and handed over for the necessary delineation of holdings thereon to the holding-marking staff. All the revenue-paying areas which have been surveyed and mapped have been thus finished. The average size of the holding has been found to be 3.68 acres.

The total number of fields surveyed was 2,166,299; while the number of miles of line-cutting through jungle, for both the sections, amounted to 12,411 square miles, which serves to show the nature of the country worked in. The number of miles of partalling of the detail work executed by Inspecting Officers was 3,820; one-fifth of the holding-marking work was tested on the ground; the number of angles of the traverse survey observed was 102,406; and the linear miles of chaining (double measurements) done was 1,167—of one-fifth of the former and one-fourth of the latter re-measurements were made owing to the errors of working having been over the percentage allowable. The average number of stations fixed per square mile is 17, the average distance between two consecutive stations 9.11 chains, and the average size of the kwins about 1½ square miles. The number of permanent survey marks (clay pipes and zinc tubes) imbedded and handed over to the charge of village headmen or ywathugyis aggregates 86,372. The angular work of the traverses was checked by 514 azimuth observations (sun and star); and 34 stations of the Great Trigonometrical Survey were connected, which furnished checks to the linear measurements. The partalling and other checks applied to the various descriptions of work done show that the quality of the surveys, &c., was good. This will be apparent, too, by an inspection of the mathematical results of the traverses, where the average corrections are so small as five seconds per station for the angular work and six links per 100 chains of the distances.

During the recess months, after the due completion of the original 15-inch and 2-inch maps relating to the previous field-season's surveys, their lithography and publication has always been undertaken. The litho sheets were prepared in this office and the printing done at the Government Press. On the published 16-inch sheets of the year, the holdings, &c., were marked in pencil, in the usual way, for the first year's supplementary survey work, and these along with the holding traces and registers, area statements, &c., then forwarded to the district officers concerned by the end of November. In this way the traverse and cadastral work was carried on simultaneously, the latter following in the footsteps of the former, on

its very heels, so to speak, as closely as it was possible to do so; the maps were published in the same year, and the supplementary survey was thus enabled to start its work in the year immediately succeeding that of survey, applying the current revenue rates to the correct areas of the holdings. This resulted in the State gaining at about 50 per cent. on the previous assessments without any loss of time whatsoever.

As will be seen from the statement referred to the effect of the survey has been to increase the area and revenue (without the 10 per cent. cess) over the thugyis' figures by 178,143 acres and Rs. 2,80,199 respectively. This gives an increase of 48 per cent. in the area and 50 per cent. in regard to the revenue, exclusive of cess. For the reasons given in paragraph 23, the comparisons of the survey figures with those of the thugyis have been made in each case for the year of survey only. The average prevailing rate on the land, per acre, is found to be Re. 1.52.

From what has been stated above, it is hoped that the work accomplished by the local Agency Party will be considered to have been in every way satisfactory, and that the mission of the office has been adequately fulfilled.



STATEMENT A.—Abstract of Work performed by the Lower Burma Field-to-field Survey by Local Agency Party for the year 1892-93.

[illegible]

• Where the traverse was preceded the data	+	Where the traverse work followed the data
• Of this, 16 sheets relating to 106 square miles have been partly done		

STATEMENT A.—Abstract of Work performed by the Lower Burma Field-to-field Survey by Local Agency Party for the year 1892-93—concluded.

District.	Resulting increase in area for year of survey.				Resulting increase in revenue (a) for year of survey.				Cost of operations to Government from 1st December 1892 to 30th November 1893, i.e., actuals up to 31st May 1893 with sanctioned estimates thereafter.				Value of mathematical instruments, furniture, and tents in stock, less for wear-and-tear at 50 per cent. off cost, of mathematical instruments, 20 per cent. off furniture, and 50 per cent. off tents.				Reduced cost with present value of stock in hand allowed for as calculated in foregoing column.		Remarks.	44																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54			55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	1496	1497	1498	1499	1500

\* Of this Rs. 4,261.8-1-0 was on account of boat-hire.

(a) Exclusive of the 10 per cent. cess.







STATEMENT C.—General Abstract of Work performed by the Lower Burma Field-to-field Survey by Local Agency Party between and inclusive of the years 1889-90 and 1892-93.

CADASTRAL SECTION.

Year.	DETAIL SURVEY.										HOLDING-MARKING.					MAP-WORK.		COST OF OPERATIONS.							
	Total area of all descriptions surveyed (including fields and topographical features).	Area of preceding survey on the triangulation system, instead of ready-made plots.	Area of fields surveyed.	Number of fields surveyed.	Average size of fields.	Proportion of cultivation to waste.	Number of miles of line-cutting done through jungle.	Number of miles of pathing executed by inspecting officers.	Acres remaining for survey by land records are in readiness.	Number of holdings marked.	Number of holdings tested by inspecting officers.	Average size of holding.	Number of or 16 inch sheets prepared and published.	Number of 2 inch sheets prepared and published.	Detail survey.	Holding-marking.	Preparation of supplementary maps, register, area statements, &c.	Revision survey.	Reduction and preparation of 2 inch maps, sheets, and triangulation work of 10-inch and 2-inch.	Total.	Per square mile.	Per acre.	Per field.	Per 16-inch sheet.	Per 2-inch sheet.
	Sq. mile	Sq. mile	Acres.	Acres.	Acres.	%	Mile	Miles.	Acres			Acres.			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1889-90	3	284	53,977	133,311	0'41	112'33	31'	41'	65'	65'	5'57	902	3,500	5,749	47,700	902	3,500	5,749	57,843	23	23	0 4 4	0 5 9	16 8 0	24 11 0
1890-91	5	1,441	197	452,776	432,364	0'33	12'11	1,225	1,161	25,748	3,500	574	1,235	43	97,250	3,242	4,300	8,810	1,12,855	67	67	0 1 8	0 3 6	13 8 0	20 13 0
1891-93	4	1,566	91	181,226	441,374	0'41	11'52	3,650	9'0	39,101	6,342	1'41	1,073	75	91,039	3,675	4,000	8,311	1,07,859	56	56	0 1 5	0 3 4	11 5 0	17 10 0
1892-93	5	1,340	102	179,390	1,193,310	0'15	1'405	0'47	1,272	22,730	22,225	2'14	1,500	85	1,00,153	7,839	4,510	10,124	1,22,153	75	75	0 1 10	0 1 5	9 10 0	31 6 0
Total	17	4,657	590	556,163	1,166,296	0'25	11'4'3	4,442	3,420	139,277	139,121	3'63	6,007	224	3,57,388	1,6779	15,500	33,013	4,01,531	73	73	0 1 10	0 2 6	11 12 0	24 9 0

(a) This rate was high owing to the field season having consisted of four mid-a-half months only and the area surveyed being short, of 45.1–11 square miles relating to only portions of sheets completed have already been surveyed, though not shown in column 1 of this statement.

of 11 square miles relating to only portions of sheets completed has already been surveyed, though not shown in column 3 of this statement.



STATEMENT C.—General Abstract of Work performed by the Lower Burma Field-to-field Survey by Local Agency Party between and inclusive of the years 1889-90 and 1892-93—concluded.

COMBINED WORK OF TRAVERSE AND CADASTRAL SURVEY.													RESULTING INCREASE IN AREA AND REVENUE OF REVENUE-PAY- ING LANDS OVER CORRESPONDING FIGURES OF THUGYIS.										Remarks.
Year.	Cost rate of traverse and detail survey.		VALUE OF MATHEMATICAL INSTRUMENTS, FURNITURE, AND TENTS IN STOCK LESS FOR WEAR-AND-TEAR.			REDUCED COST WITH PRESENT VALUE OF STOCK IN HAND ALLOWED FOR AS CALCULATED IN FOREGOING COLUMNS.						AREA FOR YEAR OF SURVEY.			REVENUE EXCLUSIVE OF CESS, AT CURRENT RATES.			PERCENTAGE OF INCREASE.		Average prevailing revenue rate on land per acre.			
	Per square mile	Per acre.	For detail survey.	For map section.	For traverse survey.	For detail survey.		For traverse survey.		For detail survey.		For traverse survey.		According to survey and of which holdings have been marked).	According to Thugyis.	Increase.	Calculated on survey area.	Calculated on Thugyis' area.	Increase.		In area.	In revenue exclusive of cess.	
						Of entire area.	Per square mile.	Of all the sheets.	Per 16-inch sheet.	Per 4-inch sheet.	Of entire area.	Per square mile.											
1889-90	Rs. 1,91,176	319 8 0	Rs. 47,700	175 5 12	16 8	24 12	4,33,332	144	52,451	16,000	39,451	16,000	78,152	53,152	25,000	41	47	1 49	Rs.	Rs.	Rs.	74	
1890-91	...	128 3 1	Rs. 97,320	67 9 312	13 8	20 12	82,794	61	153,372	39,948	113,624	39,948	2,31,386	1,76,013	61,373	35	36	1 51	(a) The traverse work for 1890-91 was done by No. 12 Party, Survey of India.				
1891-92	...	104 2 7	Rs. 97,079	58 8 311	11 3	17 10	74,073	46	178,165	65,897	112,268	65,897	2,56,776	1,76,699	1,16,077	58	61	1 58					
1892-93	...	119 3 0	Rs. 92,437	69 9 145	9 3	22 4	67,077	37	168,672	56,598	112,074	56,598	2,46,612	1,62,821	83,801	51	51	1 48					
Total	...	138 3 5	Rs. 3,28,536	71 32,010	11 10	23 12	3,57,376	63	589,860	178,143	372,717	178,143	5,36,906	3,56,707	2,80,199	48	50	1 52					

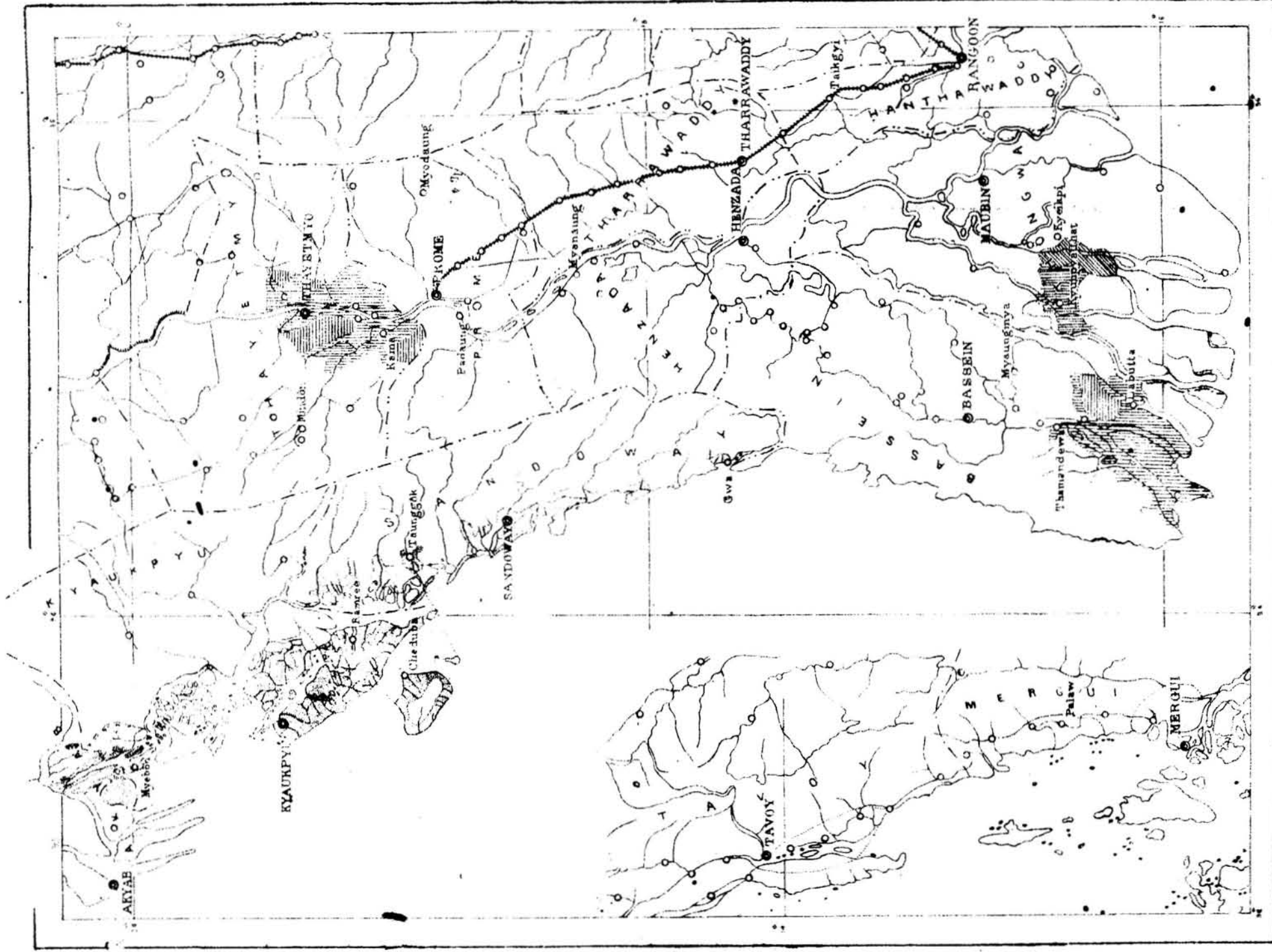
## DEPARTMENT OF LAND RECORDS AND AGRICULTURE.

## A.—Area under Supplementary Survey and Cost of the Operations.

1	2	3	4	5	6	7	8	9	10
District.	Number of circles.	Total area in square miles.	AREA ASSESSED OR HELD UNDER TEMPORARY EXEMPTION.			Actual cost of supplementary survey operations.	Cost per square mile of total area.		Remarks.
			Paddy.	Garden and miscellaneous cultivation.	Total.				
			1891-92.	1891-92.	1891-92.	1891-92.	1891-92.	1891-92.	1891-92.
			Acres.	Acres.	Acres.	Rs.	Rs. A. P.	Pies.	
Pegu	38	2,019	779,352	12,476	792,028	16,345	8 1 6	396	3 59
Hanthawaddy	37	1,818	514,425	36,292	550,715	16,275	8 15 3	567	5 20
Tharrawaddy	27	1,211	332,076	17,768	349,844	10,792	8 14 7	592	6 70
Prome	56	1,269	258,585	34,778	293,563	11,894	9 6 4	777	7 16
Bassein	57	2,603	571,133	28,005	599,228	19,747	7 9 5	633	6 94
Henzada	51	1,785	378,369	33,560	411,729	13,153	7 5 11	613	5 51
Akyab	74	1,839	459,485	27,776	487,261	13,078	7 1 9	515	4 92
Thongwa	19	1,461	179,537	43,147	222,684	7,857	5 6 0	677	4 01
Thayetmyo	...	...	...	...	...	...	...	...	5 14
Total	355	14,002	3,473,560	233,692	3,707,252	1,09,141	7 12 9	565	5 21







# E. Index Map

OF

## LOWER BURMA

SHOWING

TRACTS OF COUNTRY SURVEYED IN TRAVERSE BY LOCAL AGENCY DURING 1891-93

- Kwin traverses inside of main circuits
- Jungle blocks inside of main circuits
- Kwin traverses outside of main circuits
- Kwin areas surveyed in 1891-92, but revised in 1892-93
- Kwin traverses surveyed in 1891-92
- Jungle blocks inside of main circuits surveyed in 1891-92
- Kwins surveyed by No. 7 Party, Survey of India, but of which plots were furnished by local traverse camps in 1891-92

## B.—Assessments in the Tracts under Supplementary Survey.

District.	Paddy-land.		Garden and miscellaneous.		Total.		Remarks.
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Pegu ...	15,71,916	19,02,386	27,036	27,177	15,98,952	19,29,563	
Hanthawaddy ...	11,39,750	11,84,817	88,890	92,925	12,28,652	12,77,742	
Tharrawaddy ...	5,80,904	6,41,069	37,751	39,466	6,24,655	6,80,555	
Prome ...	2,67,023	2,84,204	72,869	81,807	3,39,883	3,66,101	
Bassein ...	9,21,815(a)	9,91,753	69,637(a)	71,444	9,91,452(a)	10,63,197	
Henzada ...	6,99,418	7,14,012	80,373	1,12,141	7,79,791	8,26,153	
Akyab ...	9,52,142	9,73,552†	54,404	58,308†	10,06,546	10,31,860	
Thongwa ...	7,53,429*	11,52,062	33,683*	54,880	7,87,112*	12,06,942	
Thayetmyo ...	...	36,879	...	19,210	...	50,089	
Total ...	68,92,403	78,80,844	4,64,640	5,57,358	73,57,043	84,38,202	

\* Revised figures.

† Including Rs. 870 taungya-tax.

\* Including Rs. 34 fruit-tree tax.

(a) Includes the new tract brought under Supplementary Survey.

## C.—Agency by which the Supplementary Survey was conducted.

District.	Number of circles.	Number of thugyis who have qualified in surveying.	Number of thugyis who actually took part in supplementary survey.	Number of circles in which thugyisayes were employed.	Number of circles in which it was necessary to employ two thugyisayes.	Remarks.
1	2	3	4	5	6	7
Pegu ...	38	32	38	36	16	
Hanthawaddy ...	37	32	35	36	10*	
Tharrawaddy ...	27	20	18	25	13	
Prome ...	56	21	10	55	13	
Bassein ...	42	29	22	41	29	
Henzada ...	51	37	37	42	3	
Akyab ...	66	26	10	60	1	
Thongwa ...	40	26	26	40	28	
Thayetmyo ...	21	14	3	21	...	
Total ...	378	237	199	356	113	*These extra hands were employed till April.

## D.—Supplementary Survey Inspection.

District.	Year.	Number of kwins in tract under supplementary survey.	Number of kwins in which the field work was checked by the Superintendent.	WORK DONE BY INSPECTORS.			Total number of kwins, the field work of which was checked by Land Records staff.	Number of kwins, the field work of which was checked by the Deputy Commissioner.	WORK DONE BY SUB-DIVISIONAL OFFICERS.			WORK DONE BY TOWNSHIP OFFICERS.		
				Number of Inspectors.	Number of kwins checked.	Average.			Number of Sub-divisional Officers.	Number of kwins checked.	Average.	Number of Township Officers.	Number of kwins checked.	Average.
Pegu ...	1891-92	924	82	4	428	107	509	21	2	18	9	5	91	18
	1892-93	924	78	4	498	124	530	26	2	24	12	5	99	20
Hanthawaddy ...	1891-92	1,305	123	4	550	137	619	72	1	8	8	4	65	16
	1892-93	1,303	110	4	555	139	651	...	1	5	5	4	45	11
Tharrawaddy ...	1891-92	506	77	4	318	79	395	26	2	11	5	5	18	4
	1892-93	506	81	4	362	90	443	12	2	15	7	5	19	4
Prome ...	1891-92	772	119	4	397	73	411	21	3	32	11	4	18	7
	1892-93	930	165	4	517	129	632	19	3	45	15	5	45	10
Bassein ...	1891-92	1,383	159	8	809	101	782	14	4	30	7	8	54	8
	1892-93	1,639	161	9	1,043	116	1,093	27	...	31	...	8	118	15
Henzada ...	1891-92	835	105	5	382	76	489	26	4	43	11	6	102	17
	1892-93	835	100	5	455	91	555	9	2	34	15	6	80	13
Akyab ...	1891-92	1,010	59	5	489	92	518	7	3	21	7	5	40	6
	1892-93	1,024	94	5	553	111	645	8	3	69	23	6	55	11
Thongwa ...	1891-92	521	40	4	211	53	261	...	1	5	5	2	11	5
	1892-93	1,315	136	7	516	74	652	...	3	18	6	9	19	...
Thayetmyo ...	1891-92	...	...	...	...	...	...	...	...	...	...	...	...	...
	1892-93	199	69	1	61	61	117	...	...	...	...	...	...	...
Total ...	1891-92	7,321	769	38	3,410	91	3,972	187	20	163	8	39	479	10
	1892-93	8,778	992	43	4,590	106	5,373	101	10	247	13	47	489	13

## E.—Result of Corrections.

District.	EFFECT OF CORRECTION.							
	Total increase.		Total decrease.		Net increase.		Net decrease.	
	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.
1	2	3	4	5	6	7	8	9
	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.
Pegu ...	183	489	26	219	157	270	...	...
Hanthawaddy ...	423	943	309	564	114	379	...	...
Tharrawaddy ...	509	850	14	42	495	814	...	...
Prome ...	393	335	11	256	292	79	...	...
Bassein ...	1,869	4,150	221	2,721	1,648	1,429	...	...
Henzada ...	713	1,323	47	302	666	961	...	...
Akyab ...	548	1,595	290	748	258	757	...	...
Thongwa ...	611	1,390	112	214	499	1,176	...	...
Thayetmyo ...	90	137	18	243	72	...	...	106
Total ...	5,249	11,128	1,048	5,369	4,201	5,865	...	106

## F.—Table showing the nature of Errors found by the Superintendents and Inspectors.

(a) New plots wrongly surveyed.

District.	Number of new fields or plots checked by Superintendent or Inspector.	NUMBER OF SUCH PLOTS IN WHICH ERRORS WERE FOUND.			Remarks.
		Errors amounting to $\frac{1}{4}$ an acre or more.	Errors of less than $\frac{1}{4}$ an acre.	Total number of errors.	
1	2	3	4	5	6
Pegu ...	2,964	46	257	303	
Hanthawaddy ...	1,597	68	110	178	
Tharrawaddy ...	1,773	95	583	678	
Prome ...	366	22	84	106	
Bassein ...	1,604	124	249	373	
Henzada ...	799	44	254	298	
Akyab ...	1,660	40	205	245	
Thongwa ...	798	131	149	280	
Thayetmyo ...	399	32	46	78	
Total ...	11,960	602	1,937	2,539	

(b) Omissions to survey new plots.

District.	NUMBER NEW PLOTS FOUND NOT SURVEYED.			Remarks.
	Errors amounting to $\frac{1}{4}$ an acre or more.	Errors of less than $\frac{1}{4}$ an acre.	Total number of errors.	
1	2	3	4	5
Pegu ...	50	670	720	
Hanthawaddy ...	251	808	1,059	
Tharrawaddy ...	100	820	920	
Prome ...	102	453	555	
Bassein ...	509	1,479	1,988	
Henzada ...	232	651	883	
Akyab ...	82	480	562	
Thongwa ...	324	699	1,023	
Thayetmyo ...	77	130	207	
Total ...	1,727	6,190	7,917	



F. Table showing the nature of Errors found by the Superintendents and Inspectors—  
continued.

(c) Errors in marking fallows.

District.	Number of fields marked fallow that were checked.	FALLOW FIELDS SHOWN AS CULTIVATED.			CULTIVATED FIELDS SHOWN AS FALLOW.			Remarks.
		Errors amounting to $\frac{1}{2}$ an acre or more.	Errors of less than $\frac{1}{2}$ an acre.	Total number of errors.	Errors amounting to $\frac{1}{2}$ an acre or more.	Errors of less than $\frac{1}{2}$ an acre.	Total number of errors.	
1	2	3	4	5	6	7	8	9
Pegu ...	11,512	47	475	522	17	59	76	
Hanthawaddy ...	10,242	91	660	751	27	26	53	
Tharrawaddy ...	5,696	60	989	1,049	5	63	68	
Prome ...	11,814	440	1,779	2,219	76	248	324	
Bassein ...	56,049	1,197	5,289	6,486	369	1,460	1,829	
Henzada ...	8,612	196	2,548	2,744	30	467	497	
Akyab ...	39,031	15	1,886	1,901	48	212	260	
Thongwa ...	2,224	266	1,067	1,333	48	68	116	
Thayetmyo ...	2,595	...	...	690	...	...	415	
Total ...	147,775	2,312	14,693	17,005	620	2,603	3,638	

(d) Lands wrongly classified and errors in field boundaries in the interior of holdings.

District.	CLASSIFICATION OF LAND.		INTERIOR HOLDING BOUNDARY ERRORS.		Remarks.
	Number of holdings visited.	Number of holdings in which land was found wrongly classified.	Number of boundaries checked.	Number of boundaries in which errors were found.	
1	2	3	4	5	6
Pegu ...	4,732	18	7,782	126	
Hanthawaddy ...	8,319	86	8,930	413	
Tharrawaddy ...	10,936	30	37,355	555	
Prome ...	2,600	30	11,463	377	
Bassein ...	15,252	35	16,640	282	
Henzada ...	8,451	90	56,822	4,477	
Akyab ...	2,053	12	23,023	426	
Thongwa ...	958	388	15,161	1,067	
Thayetmyo ...	...	...	4,059	627	
Total ...	53,301	689	1,81,235	8,350	

F.—Table showing the nature of Errors found by the Superintendents and Inspectors—concluded.

(c) Errors in noting sales, transfers, and sub-letting of land.

District.	TENANT STATISTICS.		STATISTICS OF SALES, TRANSFERS, MORTGAGES, &c.		KAZIN ERRORS.		OTHERS.	
	Number of cases of sub-letting checked.	Omissions to note or errors in showing tenancies.	Number of cases in which sales, transfers, and mortgages were checked.	Omissions to show, or errors in noting terms of sales, transfers, and mortgages.	Number of fields checked.	Number of errors.	Number of fields checked.	Number of errors.
1	2	3	4	5	6	7	8	9
Pegu ...	5,813	576	3,904	181	140,899	3,375	1,209	114
Hanthawaddy ...	2,524	267	718	229	211,655	3,485	...	...
Tharrawaddy ...	2,662	507	1,530	279	83,292	5,232	...	...
Prome ...	5,270	295	5,979	292	...	1,578	...	450
Bassein ...	2,598	893	362	123	243,651	4,318	5,648	1,083
Henzada ...	3,232	591	803	193	64	33	193	123
Akyab ...	5,927	320	891	172	342,370	4,837	3,723	392
Thongwa ...	921	701	420	342	349	349	1,705	1,697
Thayetmyo ...	103	33	138	62	...	...	42,510*	246
Total ...	29,056	4,183	14,745	1,873	1,022,280	23,207	54,988	4,105

\* Including Kazin errors.

G.—Condition of the Permanent Survey marks.

District.	Total number of permanent survey marks in the district.	Number of marks visited by thugyis and taiksayes.	NUMBER OF MARKS				Remarks.
			Found broken.	Re-placed.	Missing.	Re-placed.	
1	2	3	4	5	6	7	8
Pegu ...	12,122	7,411	1,134	1,128	964	960	
Hanthawaddy ...	16,992	10,670	1,049	1,049	360	360	
Tharrawaddy ...	10,832	5,523	176	176	279	196	
Prome ...	20,401	10,798	2,669	2,312	183	183	
Bassein ...	41,921	17,508	1,630	1,630	1,302	1,302	
Henzada ...	28,074	18,282	1,104	844	1,573	734	
Akyab ...	11,173	8,655	639	639	250	90	
Thongwa ...	38,141	16,460	1,845	141	2,403	19	
Thayetmyo ...	4,124	4,124	68	25	7	2	
Total ...	190,680	99,431	10,314	7,944	7,321	3,852	

## H—Thugyis' commission and Thugyis' assistants' salaries

District.	Number of Thugyis	Years	THUGYIS' COMMISSION				DEDUCTIONS MADE FROM THUGYIS' COMMISSION				Remarks.
			Total area assessed or held under temporary exemption	On land revenue	Or capitation tax and other taxes or rates	Total	For Thugyis		Chainmen	Total	Balance paid to Thugyis
							Number	Amount per annum			
			Acres	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
Pegu ...	{ 38	1891-92	792,028	88,452	26,881	1,15,333	48	18,770	2,829	21,399	93,934
	{ 38	1892-93	829,359	96,553	26,441	1,22,994	59	19,864	3,005	22,869	99,925
Hanthawaddy ..	{ 37	1891-92	550,715	65,701	25,195	90,896	36	14,233		14,233	76,663
	{ 37	1892-93	581,482	65,840	24,920	90,760	36	15,890		15,890	74,879
Tharrawaddy	{ 27	1891-92	340,844	30,045	22,474	52,519	41	13,362	4,788	18,150	34,669
	{ 27	1892-93	306,069	31,376	22,041	53,417	44	14,029	3,802	17,831	36,429
Prome ...	{ 49	1891-92	293,763	18,467	28,114	46,581	41	12,758	3,108	15,866	30,915
	{ 58	1892-93	318,420	20,951	28,777	49,728	40	14,254	3,194	17,448	31,600
Bassem	{ 40	1891-92	500,223	70,771	27,311	98,082	60	20,944	8,578	29,522	68,560
	{ 42	1892-93	662,878	62,245	25,072	87,317	70	24,810	9,824	34,634	56,583
Henzada...	{ 47	1891-92	411,729	35,443	32,577	68,020	40	13,057	2,782	15,839	51,581
	{ 47	1892-93	437,651	37,289	33,553	70,842	41	15,355	2,913	18,268	53,674
Akyab ..	{ 74	1891-92	487,261	59,365	30,826	90,191	52	21,782	3,255	25,037	65,154
	{ 63	1892-93	502,901	57,701	31,116	88,817	52	22,137	3,640	25,777	63,034
Thongwa	{ 19	1891-92	222,684	26,807	15,037	41,844	19	6,180	2,597	8,777	33,777
	{ 40	1892-93	779,170	80,820	33,914	1,14,734	42	19,403	5,049	24,452	90,282
Thayetmyo	{ 21	1891-92	49,892	5,774	8,176	13,950	15	1,668	986	2,594	10,856
	{ 331	1891-92	3,707,252	3,06,011	209,305	6,05,316	337	1,22,186	27,937	1,50,123	4,55,253
Total	{ 373	1892-93	4,527,822	4,65,049	237,922	7,02,971	399	1,17,230	32,479	1,50,709	5,23,262

## 1.—Survey Examinations in Lower Burma.

District.	NUMBER OF CANDIDATES WHO PASSED IN				Remarks.
	October 1892.		April 1893.		
	From Government survey schools.	From other schools or private students.	From Government survey schools.	From other schools or private students.	
I	2	3	4	5	6
Akyab	9	...	10	...	
Kyaukpyn	6	...	...	...	
Sandoway	...	...	...	...	
Rangoon	...	3	...	1	
Hanthawaddy	8	...	9	1	
Pegu	5	1	12	6	
Tharrawaddy	11	1	9	2	
Prome	8	3	15	7	
Bassein	15	4	15	3	
Thongwa	19	1	21	1	
Henzada	16	2	13	2	
Thayetmyo	...	1	...	...	
Amherst (Moulmein)	6	1	7	1	
Shwegyin	...	1	...	2	
Toungoo	...	...	6	...	
Total	103	18	117	26	

## 11.—Survey Examinations in Upper Burma.

District.	NUMBER OF CANDIDATES WHO PASSED IN				Remarks.
	October 1892.		March 1893.		
	From Government survey schools.	From other schools or private students.	From Government survey schools.	From other schools or private students.	
1	2	3	4	5	6
Mandalay	...	...	22	20	
Bhamo	...	...	...	...	
Katha	...	...	...	...	
Shwebo	...	...	...	...	
Ruby Mines	...	...	...	...	
Ye-u	...	...	...	...	
Sagaing	...	...	14	4	
Lower Chindwin	...	...	...	...	
Upper Chindwin	...	...	...	...	
Mingyan	...	...	...	...	
Pakokku	...	...	...	...	
Minbu	...	12	15	1	
Magwe	...	...	...	...	
Kyaukse	...	...	16	12	
Meiktila	...	...	...	1	
Yamethin	...	...	6	...	
Pyinmana	...	...	...	...	
Total	...	12	...	38	



FORM NO. 1.—Table showing for each Township Statistics of existing Circles for the year ending 31st March 1893.

Division	District	Township	Number of circles		Number of Inspectors		Area in acres		Area and Revenue		Area of per in		Average per		Number of		Number of		Remarks
			Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	Thuglaks	
Akrab	Setlita Tract.	Akrab	3	1	2	24,000	23,314	6,509	6,509	2,718	6,509	1,217	1,217	1,217	1,217	1,217	1,217	1,217	(a) Excluding the Takase of Myoma circle, who was engaged for a couple of months only.
			1	1	1	75,400	75,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	
			9	6	4	1,534,345	7,519	5,106	5,106	6,322	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	
			9	7	2	117,200	5,045	9,101	9,101	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	
			11	8	3	191,034	31,803	1,506	1,506	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			11	8	3	422,716	62,317	1,227	1,227	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			14	10	4	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
Akrab	Total	Akrab	75	5	60	1,481,000	204,441	73,430	73,430	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	(b) The averages in columns 14 and 15 are calculated excluding the circles in which there were no thuglaks.
			3	1	2	24,000	23,314	6,509	6,509	2,718	6,509	1,217	1,217	1,217	1,217	1,217	1,217	1,217	
			1	1	1	75,400	75,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	
			9	6	4	1,534,345	7,519	5,106	5,106	6,322	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	
			9	7	2	117,200	5,045	9,101	9,101	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	
			11	8	3	191,034	31,803	1,506	1,506	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			11	8	3	422,716	62,317	1,227	1,227	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			14	10	4	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
Akrab	Total	Akrab	75	5	60	1,481,000	204,441	73,430	73,430	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	(c) Including Rs. 1,331 revenue that has been on record after 31st March. This is for the year ending 31st March 1893. The averages in columns 14 and 15 are calculated excluding the circles in which there were no thuglaks.
			3	1	2	24,000	23,314	6,509	6,509	2,718	6,509	1,217	1,217	1,217	1,217	1,217	1,217	1,217	
			1	1	1	75,400	75,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	
			9	6	4	1,534,345	7,519	5,106	5,106	6,322	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	
			9	7	2	117,200	5,045	9,101	9,101	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	
			11	8	3	191,034	31,803	1,506	1,506	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			11	8	3	422,716	62,317	1,227	1,227	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			14	10	4	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
Akrab	Total	Akrab	75	5	60	1,481,000	204,441	73,430	73,430	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	(d) Including the Takase of Myoma circle, who was engaged for a couple of months only.
			3	1	2	24,000	23,314	6,509	6,509	2,718	6,509	1,217	1,217	1,217	1,217	1,217	1,217	1,217	
			1	1	1	75,400	75,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	
			9	6	4	1,534,345	7,519	5,106	5,106	6,322	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	
			9	7	2	117,200	5,045	9,101	9,101	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	
			11	8	3	191,034	31,803	1,506	1,506	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			11	8	3	422,716	62,317	1,227	1,227	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			14	10	4	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
Akrab	Total	Akrab	75	5	60	1,481,000	204,441	73,430	73,430	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	(e) Including the Takase of Myoma circle, who was engaged for a couple of months only.
			3	1	2	24,000	23,314	6,509	6,509	2,718	6,509	1,217	1,217	1,217	1,217	1,217	1,217	1,217	
			1	1	1	75,400	75,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	
			9	6	4	1,534,345	7,519	5,106	5,106	6,322	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	
			9	7	2	117,200	5,045	9,101	9,101	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	
			11	8	3	191,034	31,803	1,506	1,506	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			11	8	3	422,716	62,317	1,227	1,227	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			14	10	4	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
Akrab	Total	Akrab	75	5	60	1,481,000	204,441	73,430	73,430	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	(f) Including the Takase of Myoma circle, who was engaged for a couple of months only.
			3	1	2	24,000	23,314	6,509	6,509	2,718	6,509	1,217	1,217	1,217	1,217	1,217	1,217	1,217	
			1	1	1	75,400	75,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	
			9	6	4	1,534,345	7,519	5,106	5,106	6,322	8,664	8,664	8,664	8,664	8,664	8,664	8,664	8,664	
			9	7	2	117,200	5,045	9,101	9,101	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	1,314	
			11	8	3	191,034	31,803	1,506	1,506	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			11	8	3	422,716	62,317	1,227	1,227	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	6,944	
			14	10	4	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
			7	6	1	2,200,000	64,000	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	1,154,336	
Akrab	Total	Akrab	75	5	60	1,481,000	204,441	73,430	73,430	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	1,481,000	(g) Including the Takase of Myoma circle, who was engaged for a couple of months only.
			3	1	2	24,000	23,314	6,509	6,509	2,718	6,509	1,217	1,217	1,217	1,217	1,217	1,217	1,217	
			1	1	1	75,400	75,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	
			9	6	4	1,534,345	7,519	5,106	5,106	6,322	8,664	8,664	8,664	8,664	8,664				

FORM NO. 1.—Table showing for each Township Statistics of existing Circles for the year ending 31st March 1893—continued.

Division.	District.	Township.	NUMBER OF			AREA AND REVENUE.				AVERAGE INCOME.		AVERAGE PER THING.		INSTRUMENTS.			REMARKS.		
			Number of circles.	Revenue Inspectors.	Things.	Takayes.	Total area of district.	Cultivated.	Total assessment.	Number of holdings.	Cultivated area.	Holdings.	Cultivated area.	Holdings.	Number newly appointed during the year.	Number of those newly appointed who have not passed examination.		Number previously appointed who, though pointed to pass the survey, examination, have not yet passed.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Rangoon Town...	Hanthawaddy	Kongrangan	10	1	10	10	10	10	10,594.00	4,842	39,573	420	350	61	...	...	...	...	...
		Tante	9	1	9	9	9	9	9	4,842	161,869	4,842	161,869	485	...	...	...	...	...
		Hnawbi	13	1	13	13	13	13	13	8,550	192,419	8,550	192,419	583	...	...	...	...	...
		Hiang	5	1	5	5	5	5	5	5,219	52,419	5,219	52,419	1,046	...	...	...	...	...
		Total	37	4	37	37	37	37	37	23,798	507,715	5,027	16,211	641	...	...	...	...	...
		Paragale	8	1	8	8	8	8	8	6,636	230,639	6,636	230,639	1,203	...	...	...	...	...
		Panangin	6	1	6	6	6	6	6	5,549	192,419	5,549	192,419	1,046	...	...	...	...	...
		Kawa	7	1	7	7	7	7	7	7,559	261,869	7,559	261,869	1,046	...	...	...	...	...
		Pagandaung	13	1	13	13	13	13	13	12,559	431,869	12,559	431,869	1,046	...	...	...	...	...
		Kyauktan	9	1	9	9	9	9	9	6,072	210,273	6,072	210,273	1,046	...	...	...	...	...
Pegu	Tharawaddy	Total	35	4	35	35	35	35	35,883	210,273	8,071	23,031	944	...	...	...	...	...	...
		Sawwe	10	1	10	10	10	10	10	15,211	524,100	15,211	524,100	2,702	...	...	...	...	...
		Nimbia	6	1	6	6	6	6	6	15,015	501,869	15,015	501,869	2,702	...	...	...	...	...
		Groingauk	8	1	8	8	8	8	8	20,231	678,274	20,231	678,274	2,702	...	...	...	...	...
		Japan	7	1	7	7	7	7	7	20,231	678,274	20,231	678,274	2,702	...	...	...	...	...
		Monyo	3	1	3	3	3	3	3	3,531	115,273	3,531	115,273	1,046	...	...	...	...	...
		Total	33	4	33	33	33	33	33	75,597	210,273	18,592	13,012	2,609	...	...	...	...	...
		Padang	14	1	14	14	14	14	14	13,045	41,636	13,045	41,636	1,165	...	...	...	...	...
		Shedang	7	1	7	7	7	7	7	29,256	90,000	29,256	90,000	3,657	...	...	...	...	...
		Prong	2	1	2	2	2	2	2	744	23,798	744	23,798	272	...	...	...	...	...
Prome	Tharawaddy	Padang	10	1	10	10	10	10	19,250	61,869	19,250	61,869	2,702	...	...	...	...	...	...
		Prong	6	1	6	6	6	6	6	25,696	82,427	25,696	82,427	2,702	...	...	...	...	...
		Thiegon	4	1	4	4	4	4	4	15,542	50,146	15,542	50,146	2,702	...	...	...	...	...
		Shwele	3	1	3	3	3	3	3	8,177	26,146	8,177	26,146	2,702	...	...	...	...	...
		Maharajan	13	1	13	13	13	13	13	51,154	161,869	51,154	161,869	5,115	...	...	...	...	...
		Total	56	4	56	56	56	56	56	145,211	478,043	37,045	23,031	2,664	...	...	...	...	...
		Padang	14	1	14	14	14	14	14	13,045	41,636	13,045	41,636	1,165	...	...	...	...	...
		Shedang	7	1	7	7	7	7	7	29,256	90,000	29,256	90,000	3,657	...	...	...	...	...
		Prong	2	1	2	2	2	2	2	744	23,798	744	23,798	272	...	...	...	...	...
		Total	33	4	33	33	33	33	33	75,597	210,273	18,592	13,012	2,609	...	...	...	...	...
Total Pegu Division ...			171	17	161	171	171	171	2,539,909	128,117	16,695	13,543	1,763	...	6	...	...	...	3

(a) There are six agricultural circles in charge of the survey.

The three of Bawle died during the month of March. By a recent order his place will not be filled up.

\* Includes Rs. 524 assessed after the 31st March.

(b) Acting.

(c) All passed.

(d) Three circles are brought under the ywathugy-system.

FORM No. 1.—Table showing for each Township Statistics of existing Circles for the year ending 31st March 1893—continued.

Division.	District.	Township.	NUMBER OF			AREA AND REVENUE.			AVERAGE PER INSPECTOR.		AVERAGE PER TROOP.		INSPECTORS.			THEORY.			Remarks.
			Revenue Inspectors.	Thugs.	Talukdars.	Total area of district.	Cultivated.	Total assessment.	Number of holdings.	Cultivated area.	Holdings.	Cultivated area.	Number newly appointed during the year.	Number of those newly appointed who have not passed examination.	Number previously appointed who, though pointed to pass the survey examination, have not yet passed.				
								Rs.		Acres.		Acres.							
Thabwa		Danbura	5	5	5	19,684	8,486	1,21,315	8,095	34,456	8,095	16,897	1,781	...	...	...	...	...	
		Naruton	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Pantaw	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Wakim	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Nanbura	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Kyabura	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Pyawon	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Wundaw	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Dodaw	5	5	5	21,131	4,830	1,08,592	7,587	42,480	7,587	8,016	1,507	...	...	...	...	...	
		Total	40	40	40	3,818,176	78,320	10,31,097	65,574	112,189	9,382	19,633	1,643	4	2	...	...	...	
Bassein		Ngaupaw	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	Settled.
		Thigwin	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Kangyidaw	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Bassein	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Thabau	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Kyabaw	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Yegri	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Bassein town	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Thabau	4	4	4	10,561	4,068	43,664	1,838	14,706	1,838	5,747	258	...	...	...	...	...	
		Total	32	32	32	3,818,176	78,320	10,31,097	65,574	112,189	9,382	19,633	1,643	4	2	...	...	...	Unsettled.
Mendala		Zahn	7	7	7	3,857,417	68,318	9,00,501	68,597	75,260	7,259	73,147	1,261	1	11	...	...	...	(a) Includes five Ywathogis from Ngapataw circle.
		Henrada	7	7	7	3,857,417	68,318	9,00,501	68,597	75,260	7,259	73,147	1,261	1	11	...	...	...	
		Okpo	7	7	7	3,857,417	68,318	9,00,501	68,597	75,260	7,259	73,147	1,261	1	11	...	...	...	
		Lemythna	7	7	7	3,857,417	68,318	9,00,501	68,597	75,260	7,259	73,147	1,261	1	11	...	...	...	
		Kanaung	7	7	7	3,857,417	68,318	9,00,501	68,597	75,260	7,259	73,147	1,261	1	11	...	...	...	
		Nyauung	7	7	7	3,857,417	68,318	9,00,501	68,597	75,260	7,259	73,147	1,261	1	11	...	...	...	
		Kyauung	7	7	7	3,857,417	68,318	9,00,501	68,597	75,260	7,259	73,147	1,261	1	11	...	...	...	
		Total	51	51	51	1,37,3537	44,310	7,30,156	88,797	88,520	17,759	9,428	1,899	...	...	...	...	...	
		Mendala	13	13	13	5,80,080	30,420	47,032	24,511	60,249	33,215	3,171	1,748	...	...	...	...	...	
		Thayemyo	13	13	13	5,80,080	30,420	47,032	24,511	60,249	33,215	3,171	1,748	...	...	...	...	...	
Thayemyo		Mindon	8	8	8	1,37,3537	44,310	7,30,156	88,797	88,520	17,759	9,428	1,899	...	...	...	...	...	
		Kama	8	8	8	1,37,3537	44,310	7,30,156	88,797	88,520	17,759	9,428	1,899	...	...	...	...	...	
		Total	39	39	39	1,37,3537	44,310	7,30,156	88,797	88,520	17,759	9,428	1,899	...	...	...	...	...	
		Total	201	201	201	9,31,216	2,03,259	1,47,2,505	286,499	88,372	13,456	11,483	1,619	6	18	...	...	...	
		Total Irrawaddy Division	177	177	177	9,31,216	2,03,259	1,47,2,505	286,499	88,372	13,456	11,483	1,619	6	18	...	...	...	
			23	23	23	9,31,216	2,03,259	1,47,2,505	286,499	88,372	13,456	11,483	1,619	6	18	...	...	...	
			14	14	14	9,31,216	2,03,259	1,47,2,505	286,499	88,372	13,456	11,483	1,619	6	18	...	...	...	
			14	14	14	9,31,216	2,03,259	1,47,2,505	286,499	88,372	13,456	11,483	1,619	6	18	...	...	...	
			14	14	14	9,31,216	2,03,259	1,47,2,505	286,499	88,372	13,456	11,483	1,619	6	18	...	...	...	
			14	14	14	9,31,216	2,03,259	1,47,2,505	286,499	88,372	13,456	11,483	1,619	6	18	...	...	...	

\* Exclude the Upper Burma portion.





Form. No. 1.—Table showing for each Township Statistics of existing Circles for the year ending 31st March 1893—concluded.

Division.	District.	Township.	NUMBER OF			* AREA AND REVENUE.					AVERAGE PER IN- SPECTOR.			AVERAGE PER THUGYIS.		INSPEC- TORS.	THUGYIS.			Remarks.
			Number of circles.	Revenue Inspectors.	Thugyis.	Talkasys.	Area in acres.			Total assessment.	Number of holdings.	Cultivated area.	Holdings.	Cultivated area.	Holdings.		Number newly appoint- ed during the year.	Number of those newly appointed who have not passed exami- nation in surveying.	Number previously ap- pointed who, though required to pass the survey examination, have not yet passed.	
							Total area of district.	Cultivated.	Rs.											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
TANASSERIM—concluded.	Toungoo	Myoma	2	...	4	...	11,480	9,024	10,198	1,592	...	2,458	375	...	...	...	...	...	(a) Two thugyis from town in- cluded.	
		Zeyawadi	6	...	4	...	1,236,480	63,569	53,867	5,779	...	15,892	1,445	...	...	...	...	...	(b) One thugyi less on account of appointment of village head- men in Kaungyan circle to collect revenue.	
		Bonmadi	3	...	...	...	300,500	8,274	6,238	1,532	115,018	4,187	791	...	...	...	...	...	(c) Seventeen headmen appointed in place of a thugyi.	
		Thagaya	2	...	...	...	732,600	30,511	19,325	5,224	...	4,410	746	...	...	...	...	...	(d) One thugyi less on account of appointment of village head- men in Nibyu circle to collect revenue.	
		Kvatraungdaung	8	...	...	...	609,180	1,714	1,356	534	...	857	277	...	...	...	...	...	(e) Nineteen headmen appointed in place of a thugyi.	
		Kaon	4	...	...	...	807,030	1,486	913	740	...	504	385	...	...	...	...	...	(f) District surveyor.	
	Shwegyin	Total	25	1	23	...	4,096,560	115,018	91,497	15,351	115,018	15,351	5,001	669	...	...	3	...	(g) Increase of one circle and one thugyi on account of the Yado circle on the frontier coming under assessment.	
		Shwegyin	5	...	...	...	607,400	17,090	20,232	5,714	...	4,272	1,428	...	...	...	...	...		
	Salween	Total	20	1	14	...	3,473,250	283,041	3,482,100	31,984	223,041	31,984	20,074	2,455	...	...	...	...		
		Papan	6	1	6	...	2,073,440	16,011	13,920	7,737	16,011	7,737	2,818	1,289	...	...	...	...		
		Total Tanasserim Divi- sion.	227	7	158	...	19,817,600	1,035,517	15,094,281	178,463	150,728	15,495	5,014	942	...	...	5	26		
		GRAND TOTAL LOWER BURMA.	785	52	663	...	5,094,642	1,011,502	9,600,049	117,405	18,462	9,193	1,448	48	8	48	14	57		

APPENDICES.

XXXV.

FORM NO II A—Area and gross Demand on the Land on which Revenue was assessed.

Division.	District.	Description of land.	1951-52.			1952-53.			INCREASE OR DECREASE				PERCENTAGE OF INCREASE OR DECREASE.		
			Number of taungyas	Area	Gross demand	Number of taungyas	Area	Gross demand	Gross demand.	Number of taungyas	Area.	Gross demand	Number of taungyas	Area	Gross demand
ARAKAN	Akraab	Paddy land Taungya All other land	4	5	6		8		9	0	11	12	13	14	15
				Acres	P		Acres	Rc			Acres	Pc		Acres	Rc
			490	631 541	274 400 400	46	424 923	0704 050		308	11908 2361	813 17535	625	235 3119	099 1967
		Total	4920	91571	10204	4612	6048	12304594		308	10997	18650	625	186	177
ARAKAN	Northern Arakan	Paddy and Taungya All other land	5	6	7		8	9	10	11	12	13	14	15	16
				Acres	P		Acres	Rc			Acres	Pc		Acres	Rc
			500	4000	3735	4085	812	4086		351	702	351	500	940	940
		Total	500	4000	3735	4085	812	4086		351	702	351	500	940	940
ARAKAN	Kyaukpyn	Paddy land Taungya All other land	4	5	6		8	9	10	11	12	13	14	15	16
				Acres	P		Acres	Rc			Acres	Pc		Acres	Rc
			497	10054 961 945	144764 47 11664	433	101494 900 919	14582 4333 1731		62	890 144 51	1591 62 75	135	87 1715 53	110 135 055
		Total	497	11003	144764	433	110883	164120		62	890	1591	135	87	110
ARAKAN	Sandoway	Paddy land Taungya All other land	3	4	5		6	7	8	9	10	11	12	13	14
				Acres	P		Acres	Rc			Acres	Pc		Acres	Rc
			3043	4944 605 943	5035 01 1401	1575	41435 690 483	17541 352 171		352	981 704 4500	1591 352 6730	1157	242 1157 4849	322 1157 406
		Total	3043	5600	5035	1575	51100	17541		352	981	1591	1157	242	322
ARAKAN	Total	Paddy and Taungya All other land	16	17	18		19	20	21	22	23	24	25	26	27
				Acres	P		Acres	Rc			Acres	Pc		Acres	Rc
			1608	6409 507 56140	12501 05 11200	15	63432 690 11125	112712 1563 127050		333	10647 666 18085	4220 333 10880	204	155 104 1975	037 204 930
		Total Arakan division	1608	77019	12501	15	75273	127581		333	9604	15433	204	144	140

(a) Excluding Rs. 1,335, revenue collected after 31st March, which has intentionally been shown in Statement No 4

FORM NO. II-A.—Area and gross Demand on the Land on which Revenue was assessed—continued.

Division.	District.	Description of land.	1891-92				1892-93				INCREASE OR DECREASE				PERCENTAGE OF INCREASE OR DECREASE			
			Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
				Acres.	Rs.		Acres.	Rs.		Acres.	Rs.		Acres.	Rs.				
Rangoon	Town.	Taungya	...	1,134	2,334	...	1,103	2,288	...	31	66	...	373	284				
		All other land	...	2,932	8,507	...	2,880	8,636	...	48	129	...	1,169	152				
		Total	...	3,066	10,841	...	3,063	10,924	...	17	63	...	643	68				
			...	485,795	1,028,749	...	502,174	1,084,131	...	16,379	55,382	...	3,377	538				
Hanthawaddy.	Paddy-land	Taungya	...	42,344	96,903	...	43,297	1,04,264	...	5,953	7,361	...	14,065	7,660				
		All other land	...	528,139	1,128,052	...	550,471	1,188,395	...	22,332	61,743	...	4,233	537				
		Total	...	774,380	14,42,744	...	803,548	17,43,430	...	29,168	3,00,895	...	3,788	20,866				
			...	290	44,582	...	51,540	44,759	...	17,424	137	...	51,077	0,31				
Pegu	Paddy-land	Taungya	...	809,076	14,87,889	...	855,566	17,83,766	...	46,490	3,00,597	...	59,755	20,212				
		All other land	...	328,944	5,35,094	...	336,595	5,84,892	...	7,651	48,808	...	3,133	0,149				
		Total	...	1,138	44,299	...	24,575	45,798 (d)	...	138	1,589	...	43,58	45,64				
			...	355,909	5,81,509	...	363,816	6,32,592	...	8,397	51,083	...	2,734	3,59				
Tharawaddy.	Paddy-land	Taungya	...	271,112	2,51,538	...	271,789	2,50,984	...	323	7,506	...	612	3,02				
		All other land	...	4,315	9,081	...	893	10,915	...	3,422	2,834	...	79,30	20,90				
		Total	...	317,565	3,07,156	...	312,907	3,06,140	...	4,658	866	...	79,30	20,90				
			...	1,852,365	35,61,390	...	1,915,999	36,74,104	...	52,814	4,12,704	...	1,884	42,66				
Prome	Paddy-land	Taungya	...	13,442	10,386	...	15,017	10,915	...	3,617	2,834	...	31,07	20,90				
		All other land	...	34,033	46,537	...	26,081	36,241	...	7,952	10,906	...	21,57	22,18				
		Total	...	47,475	57,923	...	41,108	47,156	...	11,569	13,740	...	52,64	43,08				
			...	1,852,365	35,61,390	...	1,915,999	36,74,104	...	52,814	4,12,704	...	1,884	42,66				
Total	Paddy-land	Taungya	...	13,442	10,386	...	15,017	10,915	...	3,617	2,834	...	31,07	20,90				
		All other land	...	34,033	46,537	...	26,081	36,241	...	7,952	10,906	...	21,57	22,18				
		Total	...	47,475	57,923	...	41,108	47,156	...	11,569	13,740	...	52,64	43,08				
			...	1,852,365	35,61,390	...	1,915,999	36,74,104	...	52,814	4,12,704	...	1,884	42,66				
Total Pegu division	Paddy-land	Taungya	...	13,442	10,386	...	15,017	10,915	...	3,617	2,834	...	31,07	20,90				
		All other land	...	34,033	46,537	...	26,081	36,241	...	7,952	10,906	...	21,57	22,18				
		Total	...	47,475	57,923	...	41,108	47,156	...	11,569	13,740	...	52,64	43,08				
			...	1,852,365	35,61,390	...	1,915,999	36,74,104	...	52,814	4,12,704	...	1,884	42,66				

\* Includes Rs. 9,000, grant of Coco islands.

(3) In this a sum of Rs. 1,000 on account of royalty on bricks is included.

FORM NO. II-A.—Area and gross demand in the Lanna in which revenue was assessed—continued.

Division	District	Description of land.	1891-92			1892-93			INCREASE OR DECREASE.					PERCENTAGE OF INCREASE OR DECREASE.	
			Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	
IRRAWADDY.	Thongwa	Paddy-land Taungya All other land	4	5	6	7	8	9	10	11	12	13	14	15	
				Acres.	Rs.		Acres.	Rs.		Acres.	Rs.		Acres.	Rs.	
			...	527,371	11,70,420	...	680,467	14,80,065	...	122,396	3,10,536	...	23,10	26,53	
			...	55,440	1,20,592	...	59,376	1,40,132	...	2,830	13,443	...	501	4,061	
			...	584,311	12,97,121	...	739,843	16,21,097	...	125,226	3,23,979	...	21,43	24,98	
IRRAWADDY.	Bassien	Paddy-land Taungya All other land	1,186	653,423	8,99,293	1,032	681,331	9,24,132	...	31,009	56,839	...	510	605	
			...	4,305	1,177	...	27,813	64,210	...	31,093	85,029	...	545	643	
			...	47,541	63,342	...	27,813	64,210	...	31,093	85,029	...	545	643	
			...	655,339	9,34,332	1,032	681,331	9,24,132	...	31,009	56,839	...	510	605	
			...	373,815	6,15,024	1,133	379,970	6,44,210	...	7,003	13,376	...	1,90	2,18	
IRRAWADDY.	Henzala	Paddy-land Taungya All other land	1,036	373,815	6,15,024	1,133	379,970	6,44,210	...	7,003	13,376	...	1,90	2,18	
			...	33,633	71,423	...	53,014	1,12,125	...	1,014	1,125	...	0,96	1,38	
			...	402,945	7,08,998	1,133	436,406	7,56,356	...	37,434	41,333	...	6,97	5,82	
			...	70,120	50,013	1,201	74,430	67,617	...	4,101	10,704	...	5,82	18,81	
			...	38,654	50,977	...	22,166	18,617	...	5,82	601	...	3,73	3,73	
IRRAWADDY.	Thayethyo	Paddy-land Taungya All other land	1,2412	1,122,001	1,00,506	1,2031	1,10,418	1,10,621	...	2,573	4,113	...	2,09	3,86	
			...	70,120	50,013	1,201	74,430	67,617	...	4,101	10,704	...	5,82	18,81	
			...	38,654	50,977	...	22,166	18,617	...	5,82	601	...	3,73	3,73	
			...	1,577,263	27,32,569	14,176	1,755,576	34,72,865	...	166,551	3,05,455	...	10,56	14,48	
			...	20,256	31,995	...	20,256	31,995	...	904	707	...	3,90	3,21	
IRRAWADDY.	Total	Paddy-land Taungya All other land	14,628	1,755,576	34,72,865	14,176	1,984,519	4,35,916	...	17,266	31,153	...	11,90	10,66	
			...	1,577,263	27,32,569	14,176	1,755,576	34,72,865	...	166,551	3,05,455	...	10,56	14,48	
			...	20,256	31,995	...	20,256	31,995	...	904	707	...	3,90	3,21	
			...	145,057	2,02,484	...	162,323	3,15,652	...	17,266	31,153	...	11,90	10,66	
			...	1,755,576	34,72,865	14,176	1,984,519	4,35,916	...	17,266	31,153	...	11,90	10,66	
IRRAWADDY.	Total Irrawaddy division	Paddy-land Taungya All other land	14,628	1,755,576	34,72,865	14,176	1,984,519	4,35,916	...	17,266	31,153	...	11,90	10,66	
			...	1,577,263	27,32,569	14,176	1,755,576	34,72,865	...	166,551	3,05,455	...	10,56	14,48	
			...	20,256	31,995	...	20,256	31,995	...	904	707	...	3,90	3,21	
			...	145,057	2,02,484	...	162,323	3,15,652	...	17,266	31,153	...	11,90	10,66	
			...	1,755,576	34,72,865	14,176	1,984,519	4,35,916	...	17,266	31,153	...	11,90	10,66	



FORM No. II-A:—Area and gross Demand on the Land on which Revenue was assessed—concluded.

Division	District	Description of lands.	1891-92				1892-93				INCREASE OR DECREASE.				PERCENTAGE OF INCREASE OR DECREASE.			
			Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	Number of taungyas.	Area.	Gross demand.	
Amherst	3	Paddy-land Taungya All other land Total	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
				Acres.	Rs.		Acres.	Rs.		Acres.	Rs.		Acres.	Rs.		Acres.	Rs.	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tawoy	...	Paddy-land Taungya All other land Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mergui	...	Paddy-land Taungya All other land Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Toungay	...	Paddy-land Taungya All other land Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwegyin	...	Paddy-land Taungya All other land Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Salween	...	Paddy-land Taungya All other land Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	Paddy-land Taungya All other land Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL LOWER BURMA	...	Paddy-land Taungya All other land Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

## FORM NO. II-B.—Number of Fruit-trees separately assessed

Division.	District.	1891-92		1892-93		INCREASE OR DECREASE.		Percentage of increase or decrease (demand.)
		Number of trees.	Gross demand.	Number of trees.	Gross demand.	Number.	Gross demand.	
		3	4	5	6	7	8	
ARAKAN.			Rs.		Rs.		Rs.	
	Akyah ... ..	320	175	240	155	- 80	- 20	- 11'43
	Northern Arakan ... ..	...	...	...	...	...	...	...
	Kyaukpada ... ..	1,861	233	2,011	251	+ 150	+ 18	+ 7'7
	Sandoway ... ..	1,620	203	1,707	213	+ 87	+ 10	+ 4'9
	Total ... ..	3,801	611	3,958	619	+ 157	+ 8	+ 1'31
PEGU.	Rangoon Town ... ..	...	...	...	...	...	...	...
	Hanthawaddy ... ..	1,669	570	1,665	572	- 4	- 4	- '6
	Pegu ... ..	1,077	201	1,034	279	- 43	- 12	- 4'11
	Tharrawaddy ... ..	10,058	2,515	10,980	2,745	+ 922	+ 230	+ 9'1
	Prome ... ..	82,736	21,066	84,151	21,326	+ 1,415	+ 260	+ 1'2
	Total ... ..	95,540	24,448	97,830	24,922	+ 2,290	+ 474	+ 1'9
MAGWAY.	Thongwa ... ..	10,284	2,571	15,328	3,832	+ 5,044	+ 1,261	+ 49'0
	Bassain ... ..	3,943	1,029	4,596	1,167	+ 653	+ 138	+ 13'4
	Henzada ... ..	16,671	4,168	18,020	4,505	+ 1,349	+ 337	+ 8'05
	Thayctmyo ... ..	10,309	4,003	15,842	3,893	+ 5,533	+ 1,110	+ 12'75
	Total ... ..	41,207	17,771	53,786	13,397	+ 12,579	+ 3,626	+ 13'81
TENASSERIM.	Amherst ... ..	380	95	...	...	- 380	- 95	- 100
	Tavoy ... ..	...	...	...	...	...	...	...
	Mergui ... ..	...	...	...	...	...	...	...
	Tonungoo ... ..	3,504	865	5,491	863	+ 1,987	- 2	+ 0'21
	Shwegyin ... ..	91	23	124	31	+ 33	+ 8	+ 24'76
	Total ... ..	3,975	983	5,615	894	+ 1,640	- 89	+ 9'03
	GRAND TOTAL, LOWER BURMA ... ..	1,50,523	37,813	1,59,189	39,832	+ 8,666	+ 2,019	+ 3'34

FORM NO. III.—Return of Rainfall for the year ending the 31st December 1894 in inches and tenths thereof

Division.	Month.	AYYAR.					KANDY.				SARAWAK.
		Akshat town.	Mangalaw.	Ratbeddang.	Minbya.	Phitwa.	Kyankyp.	Kamsee.	Myed.	Ap.	
ANAKAM.	January	...	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...	...
Total for five months, January to May		...	...	...	...	...	...	...	...	...	...
Total for four months, June to September		...	...	...	...	...	...	...	...	...	...
Total for three months, October to December		...	...	...	...	...	...	...	...	...	...
Total		...	...	...	...	...	...	...	...	...	...

APPENDICES.

Division.	Month.	THARRAWADDY.						Prome.							
		Rangoon town.	Hantawaddy.	Pegu.	Kyauktan.	Tharrawaddy.	Cyabingauk.	Yegun.	Okpo.	Nigun.	Nattalin.	Tapun.	Prome.	Panungda.	Shwedaung.
Pegu.	January	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	February	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	March	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	April	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	May	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	June	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	July	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	August	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for five months, January to May		...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for four months, June to September		...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for three months, October to December		...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total		...	...	...	...	...	...	...	...	...	...	...	...	...	...

FORM NO. III.—Return of Rainfall for the year ending the 31st December 1892 in Inches and Tenths thereof—continued.

[illegible]



FORM NO. XI.—Return of Rainfall for the year ending the 31st December 1892 in Inches and Tenths thereof—concluded.

Division.	Month.	Amherst.			Tavoy.			Mergui.		Toungoo.	Shwepyithar.					Salween.
		Moylmein.	Thakin.	Tavoy.	Northern.	Western.	South-Eastern.	Mergui.	Mallwun.		Shwepyin.	Kyaukse.	Puntland.	Bilin.	Kyaukse.	
TAVOY.	January	...	...	...	...	...	...	0.01	0.16	...	...	...	...	...	...	...
	February	...	...	1.32	...	1.63	...	3.10	...	...	...	...	...	...	...	...
	March	...	...	5.02	9.40	5.74	2.54	2.37	4.96	...	0.90	...	1.70	1.27	...	...
	April	...	...	5.47	5.55	5.75	7.23	9.22	8.41	6.96	5.98	...	1.19	4.63	...	...
	May	...	...	26.99	22.79	23.40	34.34	25.89	22.84	5.11	15.58	...	15.90	20.70	...	...
	June	...	...	22.33	24.01	24.38	10.01	15.37	14.00	10.58	23.41	...	22.77	27.67	...	...
	July	...	...	46.42	33.63	36.66	51.71	25.81	21.37	13.36	32.60	...	28.98	49.42	...	...
	August	...	...	25.42	28.46	23.76	19.30	13.60	13.86	12.73	25.25	...	22.91	31.68	...	...
	September	...	...	34.35	36.44	36.30	37.89	30.01	24.82	12.52	19.78	...	20.18	28.72	...	...
	October	...	...	1.90	1.30	2.94	3.76	6.78	13.43	7.27	5.83	...	4.86	3.98	...	...
	November	...	...	4.24	1.73	2.51	2.23	3.08	7.10	1.42	1.58	...	0.98	2.74	...	...
	December	...	...	...	...	...	...	...	0.69	...	...	...	...	...	...	...
SALWEEN.	Total for five months, January to May	31.63	61.86	38.80	37.74	46.51	44.74	41.59	30.37	12.10	23.40	...	18.79	26.60	...	...
	Total for four months, June to September	134.61	186.81	136.32	143.54	141.10	127.82	84.79	74.05	64.54	131.04	...	94.84	137.50	...	...
	Total for three months, October to December	7.03	8.39	6.14	3.03	5.45	5.93	9.86	20.62	8.69	7.43	...	5.84	5.77	...	...
	Total	123.27	257.06	173.46	183.31	193.06	178.49	135.24	131.04	85.23	130.91	...	119.47	169.87	...	...

APPENDICES.

XIII.

## FORM A.—Showing Total Acreage, Classification of Areas, Irrigation, Crops, Current Fallows.

In this form are incorporated Forms A, B,

Presidency or province.		Aksh.	Northern Arakan.	Krakkya.	Sandaway.	Total Arakan.	Rangoon town.	Hanthawaddy.	Pegu.	Tharrawaddy.	Prone.	Total Pegu.	Tbongwa.
Total Acreage.		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1. Area according to Professional Survey	...	3,542,400	649,600	2,757,760	2,450,648	9,409,408	14,080	1,246,680	1,553,951	1,288,060	1,847,680	5,951,360	2,518,176
2. Deduct (a) Feudatory and tributary States	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Area for which no returns exist	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Net area by Professional Survey	...	3,542,400	649,600	2,757,760	2,450,648	9,409,408	14,080	1,246,680	1,553,951	1,288,060	1,847,680	5,951,360	2,518,176
4. Corresponding area in village papers	...	3,542,400	649,600	2,757,760	2,450,648	9,409,408	14,080	1,246,680	1,553,951	1,288,060	1,847,680	5,951,360	2,518,176
5. Forests	...	...	...	...	...	...	...	205,096	255,040	615,860	260,172	1,337,768	...
6. Not available for cultivation	...	66,887	429,592	2,301,065	2,300,731	6,170,685	12,212	218,312	414,018	253,280	970,181	1,894,040	1,045,110
7. Culturable waste other than fallow	...	1,627,473	209,236	241,506	11,193	2,450,011	483	257,708	37,113	15,000	203,445	603,809	1,303,584
8. Current fallow	...	37,236	...	1,720	2,505	21,400	...	36,323	20,641	13,751	23,541	104,256	6,060
9. Net area cropped during the year	...	553,814	10,172	119,620	55,214	738,820	1,385	520,161	815,522	361,060	300,341	2,007,478	759,513
10. Irrigated during the year from	...	...	...	...	...	...	...	...	...	...	...	...	...
(a) Government canals	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Private canals	...	...	...	...	...	...	...	...	...	...	...	...	...
(c) Tanks	...	...	...	...	...	...	...	...	...	...	...	...	...
(d) Wells	...	...	...	...	...	...	...	...	...	...	...	...	...
(e) Other sources	...	...	...	...	...	...	...	408	...	...	...	408	...
11. Total area irrigated	...	...	...	...	...	...	...	408	...	...	...	408	...
12. Crops irrigated	...	...	...	...	...	...	...	...	...	...	...	...	...
(a) Wheat	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Other cereals and pulses	...	...	...	...	...	...	...	...	...	...	...	...	...
(c) Miscellaneous food-crops	...	...	...	...	...	...	...	...	...	...	...	...	...
(d) Miscellaneous non-food-crops	...	...	...	...	...	...	...	408	...	...	...	408	...
English or vernacular names.													
Cereals and pulses	1. Rice	517,705	3,272	110,320	45,244	677,541	1,103	1492,751	801,604	331,810	254,670	1,881,037	710,785
	2. Wheat	...	...	...	...	...	...	...	...	...	...	...	...
	3. Barley	...	...	...	...	...	...	...	...	...	...	...	...
	4. Cholim or jawar (millet)	...	...	...	...	...	...	...	...	...	...	...	...
	5. Cumbu or kaur (millet)	...	...	...	...	...	...	...	...	...	...	...	...
	6. Kagi or mandua	...	...	...	...	...	...	...	...	...	...	...	...
	7. Maize	13	...	...	57	70	...	5	237	...	...	553	1,460
	8. Gram (pulse)	...	...	...	...	...	...	...	...	...	...	...	...
	9. Other food-grains including pulses	...	...	...	...	...	...	...	...	3,444	...	9,444	325
Oil-seeds	10. Linseed	...	...	...	...	...	...	...	...	...	...	...	...
	11. Til or gingelly	26	2,400	...	1,021	3,447	...	96	...	3,820	3,214	7,130	1,427
	12. Others	1,802	...	...	...	1,802	...	90	...	...	...	90	...
Sugar	13. Condiments and spices	...	...	...	250	270	...	...	...	...	...	...	...
	14. Sugarcane	201	...	802	1,025	2,128	...	400	...	380	117	903	127
Fibres	15. Others	...	...	...	...	...	...	...	...	...	...	...	...
	16. Cotton	3,715	2,500	...	242	6,457	...	...	...	400	1,050	2,440	...
Dyes	17. Jute	...	...	...	...	...	...	...	...	...	...	...	...
	18. Others	73	...	...	...	77	...	...	...	...	...	...	...
Drugs and narcotics	19. Indigo	...	...	51	...	51	...	...	...	...	...	...	...
	20. Others	...	...	...	...	...	...	...	...	...	...	...	...
	21. Opium	...	...	...	...	...	...	...	...	...	...	...	...
	22. Coffee	...	...	...	...	...	...	...	...	...	...	...	...
	23. Tea	...	...	...	...	...	...	...	...	...	...	...	...
	24. Tobacco	310	2,000	2,313	2,194	6,727	...	18	07	4,501	2,203	6,809	1,380
	25. Cinchona	...	...	...	...	...	...	...	...	...	...	...	...
Stock, &c.	26. Indian hemp	...	...	...	...	...	...	...	...	...	...	...	...
	27. Others	...	...	...	...	...	...	...	...	...	...	...	...
	28. Fodder crops	...	...	...	...	...	...	...	...	...	...	...	...
	29. Orchards and garden produce	10,408	...	5,420	...	2,828	282	26,293	12,334	11,334	...	50,243	...
	30. Miscellaneous (Food crops)	4,110	...	508	1,683	6,400	...	2,880	404	4,001	30,278	46,553	38,065
31. Total		553,814	10,172	119,620	55,214	738,820	1,385	520,161	815,522	361,060	300,341	2,007,478	759,513
32. Area cropped more than once.		...	...	...	...	...	...	...	...	...	...	...	...
33. (31-32) Net area cropped during the year.		553,814	10,172	119,620	55,214	738,820	1,385	520,161	815,522	361,060	300,341	2,007,478	759,513
Stock, &c.		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1. Bulls and bullocks	...	72,248	420	21,889	4,015	90,172	1,843	26,683	44,040	51,704	78,774	203,038	10,000
2. Cows	...	62,054	810	24,456	5,005	92,385	1,130	3,390	6,287	22,050	20,611	50,420	10,000
3. Male buffaloes	...	50,407	50	8,930	7,880	67,027	114	18,116	38,953	13,202	13,220	83,603	10,000
4. Cow buffaloes	...	40,652	40	12,108	8,923	61,923	371	8,913	10,891	11,186	9,004	40,302	10,000
5. Young stock (calves and buffalo calves)	...	111,422	141	41,094	13,142	165,709	781	12,860	18,060	16,032	16,827	64,880	10,000
6. Sheep	...	91	13	...	14	118	1,512	25	...	...	...	...	...
7. Goats	...	11,586	900	1,028	710	14,224	1,420	1,071	1,634	401	935	6,553	...
8. Horses and ponies	...	435	1	109	163	708	1,027	327	827	873	740	5,749	...
9. Mules and donkeys	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Camels	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Ploughs	...	70,218	...	18,538	17,058	105,808	60	17,441	34,093	30,400	37,533	170,577	...
12. Carts	...	4,452	...	448	543	5,443	205	11,453	16,456	28,750	27,831	88,200	...

\* Increase due to the transfer of Gwaletya circle from Bassein.

† Decrease due to the transfer of Gwaletya circle to Sandaway.