

# ASSAM

Scale 1" = 48 Miles



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Political Boundaries	...	...	--- - - - - A
District Ditto	...	...	--- - - - -
Assam Valley Commissionership	...	...	[White Box]
Surma Valley & Hills Division Commissionership	...	...	[Green Box]
Manipur State	...	...	[Yellow Box]
Natural Divisions	...	...	[Thick Brown Line]

CENSUS OF INDIA, 1921.  
VOLUME III.

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ASSAM.

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PART I.—REPORT.

BY

G. T. LLOYD,

OF THE INDIAN CIVIL SERVICE,  
SUPERINTENDENT OF CENSUS OPERATIONS, ASSAM.



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## INTRODUCTION.

1. The Assam Census Report, which counts as Volume III in the series of provincial reports of India, has two parts—Part I, the report proper, and Part II, the Tables. These are printed in separate volumes, and in order to save the reader the trouble of constantly referring to the Tables Volume, and also to present the statistics in proportional instead of absolute form, a number of subsidiary tables is given in this (Report) volume. A third part, the Administrative Report, is also published, but this is purely for use at the next census and contains details of no general interest.

The plan of the present report differs little from that of the last census. Chapters I and II have been divided differently, but the subjects of the other chapters remain as before.

2. This, the sixth Census of Assam, was taken on the evening of the 18th March 1921. In 1872 Assam was included in Bengal; in 1911, it was censused as a part of the province of Eastern Bengal and Assam, but a separate report was written for Assam; in all the other decennial censuses, taken in 1881, 1891, 1901 and 1921, the province has been a separate unit.

3. A few additions have been made to the area censused in 1911. A tract of Konyak tribe territory in the north-east of the Naga Hills and some Khamti, Singpho, Abor, Mishmi and Naga villages to the north and east of the Sadiya Frontier Tract and the Lakhimpur district have been brought under census for the first time; and a small area with two villages has been transferred from Bengal to the Sylhet district.

An administrative change of importance has been the creation in 1912-14 of the two new districts, Sadiya and Balipara Frontier Tracts. The census of these tracts was taken only in the old settled parts transferred from the districts of Lakhimpur and Darrang, and in certain other parts regularly administered by the Political Officers. There is no defined outer boundary to these tracts, and no attempt was made to extend the census to the hills inhabited by tribes which are only under loose political control.

4. Detailed accounts of the arrangements, difficulties and expenditure have been given in the Administrative Report, published separately. The procedure has differed little from that of 1911. The following general summary is given to enable the reader to understand how the results have been arrived at and to judge of the reliance to be placed on the statistics.

There are fourteen districts and one State included in the province. These contain thirty-four subdivisions including those directly under district headquarters. As in previous censuses, every district was divided into blocks, each under an enumerator (almost always a local man), whose duty it was to make the entries in the 16 columns of the general schedule for every person in the block. There were over 47,000 such blocks, containing on an average 36 houses.

In the remoter parts of the hills, where long distances separate villages and literate men are scarce, the enumerators had to deal with much larger blocks. In the hill mauzas of the Garo Hills, for instance, the average rose as high as 177 houses. Tribal blocks in the Naga Hills were equal to circles and in some cases contained over 2,000 houses. In such cases the enumerator took several weeks to make his round.

Blocks were grouped into census circles of about 400 houses each; the circles were combined into charges each under a Charge Superintendent, whose charge usually embraced about 15 circles or 6,000 houses. Circles and charges were arranged generally to coincide with administrative units such as mauzas and thanas.

In each subdivision of a district, the Charge Superintendents were directly under the Subdivisional Census Officer, who was either the Subdivisional Officer himself or a gazetted officer of his staff.

In general control of the district was the District Officer; in Manipur, the President of the Darbar under the supervision of the Political Agent.

The Charge Superintendents and a number of the circle supervisors were officials of the Police, Revenue, and other Departments, and did the work as a rule in addition to their ordinary duties; the enumerators were almost all non-officials.

With the exception of a few paid men in hill tracts, the whole of the census staff in the districts worked without remuneration and more or less voluntarily.

The total number of census officers employed was nearly 50,000. Detailed instructions for these were laid down in codes and books, and in the winter of 1920-21 they were all trained in their duties by the next higher officials in the chain, ending with the Subdivisional Census Officers. In the course of my tours I attended meetings of the census officials in most subdivisions, explained procedure and discussed difficulties.

The diversity of questions to be answered in the schedules, the detailed instructions under each heading, the illiteracy of the people and the various caste, language and social disputes which arose made the task of training no easy one. The result achieved reflects the greatest credit, in most districts, on all who took part.

5. The census of Israel and Judah taken by Joab for King David occupied nine months and twenty days, and even then only the numbers of the people and of fighting men were placed on record. The Indian Census records many other diverse statistics and, with all its primitive methods, can certainly lay claim to greater speed than this in the actual counting and reporting, as the following notes will show.

Enumeration and provisional totals.

In October and November 1920, numbers were put on all houses by the enumerators. A house was defined as the dwelling place of a commensal family.

In January and February 1921, a preliminary enumeration was made. The entries were made usually on blank paper and were inspected and corrected where necessary by the supervisors and Charge Superintendents.

On the Census night, by which time the rough drafts had been copied into the schedules, the enumerators went round their blocks for the final enumeration, which consisted in reading over the entries at each house, striking out absentees, and entering up new arrivals.

In the greater part of the Hills, this final enumeration was impossible and the preliminary entries were used as final. This omission has little effect on the accuracy of the census, however. In many cases modifications for births, deaths and new arrivals were made on the reports of village headmen received close up to the final census date, and generally owing to the immobile nature of the hill people the *de jure* population statistics obtained by this method are quite accurate enough for all ordinary purposes.

Special arrangements were made for enumeration of travellers, troops, survey parties, wandering gangs, tea gardens, forest areas and mooring ghats. Night trains were halted at special stations and in mail trains and steamers a special running staff carried out the passengers' census *en route*. On the Brahmaputra and other great rivers patrol boats with special enumerators were stationed to catch travellers by boat.

On the morning after the census the enumerators of each circle assembled with their supervisors and circle totals were struck for occupied houses and for population by sex. These were sent at once to Charge Superintendents, who made summaries and despatched them to district or subdivisional headquarters. To get these summaries in as quickly and safely as possible all kinds of conveyance were pressed into service—horse, bicycle, motor car, train, steamer, boat, runner, elephant and the telegraph were all used in various places.

The preparation and checking of totals of the different units and their despatch in many instances for long distances over difficult country necessarily took some time; nevertheless all the district totals were made up and telegraphed to the Census Commissioner and the Provincial Superintendent by the 5th day after the census. These provisional totals were found to differ by less than 1 in a thousand from the final corrected totals prepared later in the tabulation offices. The honours for swiftness and accuracy fell to Sadiya Frontier Tract and Cachar. The former was the first and only district to telegraph its figures on the 20th March—less than 36 hours after the official time for ending the census; the total differed by only .02 per cent. from the final corrected total. The Cachar total which was wired on the morning of the 21st was the most accurate in the province, showing a difference of only 4 per hundred thousand on a population of over half a million.

6. After the despatch of provisional totals the schedules were sent to copying offices. Of these there were five, *viz.*, 2 central offices for the Assam and Surma Valleys at Gauhati and Sylhet and three at district headquarters for Manipur, Lushai Hills and the Khasi Hills.

Tabulation.

No mechanical processes of sorting or tabulation were introduced. As in 1901 and 1911, every person enumerated was allotted a slip showing by colour, printed symbols and copied entries all the particulars entered in the schedule against his name. The preparation of the slips took about three months with a staff of some 450 men; this stage would have been finished much more quickly but for a dearth of suitable copyists and consequent slow work in the Lushai Hills.

All the slips were sent to the two central offices for sorting. This process was finished in September, about six months after the census. Tickets showing particulars required for all the tables were prepared for the smaller units and groups by the sorters and these were entered up in compilation registers at the Gauhati Central office. Compilation of figures for all the important tables was finished by February 1922, when the Gauhati office was closed. Certain tables were left to be prepared in the head office at Shillong, notably the industrial (factory and cottage industry) tables for which special schedules had been issued, one or two of the occupational tables and the subsidiary tables for all the chapters of this volume.

Final checking and printing of the tables and report was done at Shillong also.

7. The cost of this census is necessarily much greater than those of previous years. The war of 1914-18 and other world causes combined to raise wages and prices. We had therefore to pay more to our copyists, sorters and compilers and more for our paper and printing than in former years. Further, for administrative reasons, I was detailed by Government for other duties away from my headquarters, for about 8 months in the years 1921 and 1922. This added the cost of retention of the Superintendent and his staff for a longer period than would otherwise have been necessary, and has delayed my report by several months.

Taking the actual cost of the first two years, and the estimated cost of the third year (certain printing accounts are not yet finally adjusted), the total extra cost to Government is Rs. 1,12,835. This gives a cost per thousand of the population of Rs. 14-1-11 against Rs. 7-1-0 in 1911 and Rs. 11-2-0 in 1901. Comparison with 1911 is hardly fair, as the greater part of the work for Assam was combined with that of Eastern Bengal and the cost per head is naturally lower the larger the population involved. Considering the rise in prices, the addition of two new districts and the expansion of certain of the tables, the cost compares not unfavourably with that of 1901.

8. We have not had at this census any such serious mishaps as those of 1911, which caused Mr. McSwiney to compare the course of census operations to that of true love. The printing and distribution of forms, in particular, went much more smoothly than was the case in 1911. Our chief trouble was delay caused by reflection of political and industrial disputes. It is true that the great apostle of non-co-operation decreed that the census should not be boycotted, and we had therefore very little trouble from that cause. But we had two or three strikes of the copyists in the central offices while railway strikes delayed receipt of completed slips at the sorting offices in some cases.

The attitude of the people, on the whole, was one of indifference. The novelty of the census had already worn off before the last census was taken, and by this time, many people find it a nuisance. As exceptions to this must be noted those who are striving for social or other advancement and saw in the census a chance of adding evidence to support their claims. This has been discussed in the caste and language chapters. The better educated people also generally took more interest and helped to make the record accurate. The army of supervisors and enumerators objected in many cases to work without pay. They were, of course, bound to do the work, under penalty provided in the Census Act, but it could not be expected that this form of lawful compulsory labour should be popular, especially when our budget in the first year was out so low that the census volunteers had usually to provide their own pens, ink and blank paper and material for house-numbering.

A few men were fined, and more were warned, for neglect or refusal of duty, but in the end the great majority of census officials did the work cheerfully and did it to the best of their ability. In Sibsagar, the Deputy Commissioner in course of his tours frequently asked the people if they would prefer a special tax to a little gratuitous labour, and was then met with ready acquiescence. Tea planters in some cases took an active interest and in others gave no help at all. The people of Sylhet made little objection. It would seem that their attitude to the census has changed since 1881, when an Indian gentleman of position (possibly not himself a native of the district) described them thus—"Feroocious as tigers, resentful as bears, obstinate as pigs, senseless as savages.....certainly a dangerous set of men to deal with.....Of a very

turbulent nature.”\* Certificates have been distributed to supervisors and enumerators in most cases over district officers' signatures, but I take this opportunity of rendering thanks to all those unpaid workers who helped to make the census a success.

9. There are still many people who ask what there can be new to write in a census report. It is true that in studies of the people, ethnographical, linguistic and so forth, we cannot be expected to add much of interest to what has been written in past census reports and in special publications. But we have at least wholly new sets of statistics to work on, and it can scarcely be denied that the latest statistics and the exposition of their meaning must be of value to administrators as well as to students, especially in a province with such diversities of climate, community and customs as are found in Assam. It has been laid down that at the present census attention is to be devoted more to the statistical aspect and changes in the last decade than to matters of academic or general interest.

While the old saying that anything can be proved by statistics is nonsense, there is no doubt that anything can be proved by a wrong use of statistics. Especially is there a danger in a census conducted by the primitive methods which we use that meticulous care in deduction may outrun the accuracy of the data. The data depend a good deal on the personality and intelligence of the enumerators and the subordinate staff in the abstraction offices, although inaccuracy is to a great extent eliminated by supervision and check. I have endeavoured to avoid this pitfall, but I cannot claim that all conclusions in the various parts of the report are correct; and this must be my apology for a somewhat frequent use of the words 'probably,' 'possibly,' 'suggested explanation' and so forth. For the same reason, I have considered that elaborate mathematical analyses would be generally out of place until we have some firmer data to go on in matters such as age, literacy and division of occupations.

10. As always, the brunt of the work, up to the actual census, fell on the District Officers and their Subdivisional Officers and Census Officers. I am indebted to them the more in view of the heavy extra industrial and economic enquiries which had to be made by them in connection with this census, in pursuance of the wishes of the Government of India.

Particular acknowledgments are due to Messrs. N. E. Parry, I.C.S., and T. P. M. O'Callaghan, I.P., for their arrangements in the Garo Hills and Sadiya Frontier Tract; to Lieutenant-Colonel Playfair, I.A., for his personal interest in settling language and caste disputes in Goalpara; to Mr. W. A. Cosgrave, I.C.S., for infusing life into the dry bones of the census at Lakhimpur. Mr. Cosgrave took charge of the district when the census arrangements were far behind those of all other districts, and assisted ably by his census officer, Mr. G. C. Bardoloi, Extra Assistant Commissioner, evolved order out of chaos in a few weeks.

Among district and subdivisional census officers, the greatest credit is due to Extra Assistant Commissioners Srijut Bhabataran Das of Nowgong, Babu Radha Ranjan Dhar of Habiganj, and Babu Rajani Kanta Rai Dastidar of Silchar. I have to thank Mr. K. Cantlie, Subdivisional Officer of North Lakhimpur, for his personal care in pursuit and elaboration of the economic and industrial questions.

The co-operation of all the municipalities was freely given; special mention must be made of the help received from the Chairmen of Nowgong and Jorhat Municipalities.

Acknowledgments are due to the Bengal Government for allowing the great mass of our forms, running into several millions, in several languages, to be printed at the Presidency Jail Press, and to the Press and Forms Manager, Bengal, for care and expedition in the work; to Mr. H. H. King, Superintendent of the Assam Secretariat Press, and to Babu D. C. Nandi, who acted for him during leave periods, for care and attention in the printing of our numerous codes and instructions, as well as of this Report and the Tables; and to Messrs. A. B. Smart and E. G. Hardinge of the Shillong Drawing office for advice and preparation of maps and diagrams. For a drawing from which diagram No. 11 in Chapter XII has been reproduced I have to thank Mr. D. K. Ronnick of the Survey of India.

\* See Report on the Census of Assam, 1881.



To the numerous gentlemen who have acted as honorary correspondents on social, industrial and religious matters, I tender my thanks. From their reports I have obtained much of the matter incorporated in several chapters of this report, but it is impossible to mention them all separately. Rai Bahadur Aghor Nath Adhikari of Silchar in particular has supplied me with a mass of interesting information and comment. He is a veteran of five censuses, having passed by successive stages from a boy carrying the paint-pot for the enumerator in 1881, to Charge Superintendent in 1911 and 1921.

I am obliged to Babu Sures Chandra Sen, Deputy Superintendent of the Gauhati Central office, for much valuable advice at the beginning of the operations, and later for his careful and unremitting work in preparation of the tables. My Head Clerk at Shillong, Babu Iswar Chandra Purkayastha, B.A., though new to census at first, has proved himself an able assistant; he has saved me much labour by his careful checking and supervision and has prepared the industrial and many of the Subsidiary Tables himself. Most of my staff at the head and central offices have worked hard and spared no pains: to them also I am indebted.

G. T. LLOYD,

SHILLONG,  
December 1922. }

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**APPENDICES.**

## APPENDIX A.

*Vital Statistics and Census figures.*

(See paragraph 28 and Subsidiary Table V of Chap. I.)

In the ten calendar years 1911—1920 the excess of births over deaths registered in the registration areas of the province was 60,346, while the increase in natural population as recorded at the census for the same areas was 417,154. The 10-year period covered by the census is slightly different from the calendar decade, but this makes little difference for purposes of approximate calculations.

At the last census the difference between the excess of births over deaths and the census natural increase was 348,000. This time it is even more (about 357,000) and the problem is to find where the error lies, or how much of it is due to inaccuracy in the record of vital statistics in the districts.

The natural population found by the census is the actual population less the excess of living immigrants over emigrants, *i.e.*, it is those born in Assam and enumerated in or out of the province. These figures are recorded only every ten years, but many immigrants come to the province between the two census dates and die here. Figures for these appear in neither census, nor do they come into the birth statistics. But they are recorded in the death registers, and therefore we find an unnaturally large number of deaths as compared with births, and consequent distortion of the figures for comparison with census statistics.

In any area suppose that  $D_n$  immigrants come in the year  $n$  and that the specific death rate is  $d_n$  for that area or group,  $d$  being a fraction of a thousand. For tea garden immigrants we have no exact death rate for the new arrivals in any one period, but we can take the general garden death rate as an approximation: in fact this will give us a lower number of deaths than should be calculated, as the new immigrants take some time to become acclimatized.

At the end of one year the number of the original batch of immigrants will be reduced by  $D_n \times d_n$ , *i.e.*, it will become  $D_n (1-d_n)$ . At the end of the year  $(n+1)$ , the second year, this number again will be reduced by  $d_{n+1}$  of itself, *i.e.*, the number remaining will be now  $D_n (1-d_n) (1-d_{n+1})$ .

Thus, after 10 years  $D_n$  will be reduced to  $D_n (1-d_n) (1-d_{n+1}) \dots (1-d_{n+9})$ .

Similarly, the immigrants who came in the second year of the decade,  $D_{n+1}$  will be reduced to  $D_{n+1} (1-d_{n+1}) (1-d_{n+2}) \dots (1-d_{n+9})$ .

The whole number of immigrants in the decade is  $D = D_n + D_{n+1} + D_{n+2} + \dots + D_{n+9}$ , and after the ten years this becomes  $D_{n+9} (1-d_{n+9}) + D_{n+8} (1-d_{n+8}) (1-d_{n+9}) + \dots + D_n (1-d_n) (1-d_{n+1}) \dots (1-d_{n+9})$ .

Now for the tea gardens we know from the annual immigrant labour returns the value of  $D_n$ ,  $D_{n+1}$ , etc., and  $d_n$ ,  $d_{n+1}$ , etc. Taking the year  $n$  to be 1911, summation of the above series—the calculations for which it would be tedious to reproduce—shows that the total number of new immigrants to the gardens in the decade, 768,671, is reduced by death to 644,648; *i.e.*, there are about 124,000 deaths in this class, who do not appear in the census returns and have never been recorded in the birth statistics of this province. The number is, of course, only an approximation, for some of the new coolies will have left the gardens after a year or two and become subject to a different death rate from the ones we have adopted.

On the other side of the balance, we have to note those who are born in Assam and registered in our vital statistics and who then leave the province and die outside it. The annual returns show 283,000 children as having left tea gardens in the ten years by transfer, desertion and discharge. Not all of these leave the province, however, and not all of them were born in Assam. If we guess the number born in Assam and going to their homes in other provinces as half of the total, or 120,000, we might take a quarter of that number, or 30,000 as the total number dying outside and not reported to us. This 30,000 tends still further to widen the gap between the census figures and the recorded vital statistics.

Next, there is an increase in the census recorded immigrants outside the tea gardens of 273,000. The great majority of these are in the plains districts subject to registration. Some are *ex-garden* coolies, but the majority are Eastern Bengal and Nepalese settlers and temporary or periodic visitors from adjoining provinces. Supposing that these came in equal numbers every year and were subjected to death rates equal on the average to the provincial rate, we should find that about 330,000 of these classes must have come altogether, and the total deaths among them would be about 104,000. Of these only the *ex-coolies* who came to the tea gardens and left within the decade should be excluded as already dealt with above. There will not be many of these, however, since most *ex-coolies* who take up land in the districts are old and not new men; these may be neglected, as balanced by the greater mortality of new garden coolies mentioned above and not taken into our calculation. There is also an indefinite but small number of people who came from areas within the province but not under registration and die within registration areas; these also will swell the death entries but have no corresponding birth entries.

In the result, we have 124,000 less 30,000 deaths among the new tea-garden immigrants and about 104,000 deaths among other immigrants for which there is no birth entry and no census entry either in the last or the present census year. Thus there should be on these calculations a difference of 104,000 between the vital statistics and the natural population increase recorded by the census. The actual difference (Subsidiary Table V of Chapter I) is some 357,000. The deficit of 153,000,

more or less, must be accounted for by inaccuracy in the record of the vital occurrences; it may certainly be less than this, if I have underestimated the mortality among new emigrants, for instance, or overestimated that among those who re-emigrated. But the deficit must certainly be large. The Department of Public Health has found on testing certain areas that from 2 to 10 per cent. of births and deaths are unregistered, and it is well known that births are more often omitted than deaths from the register. It is true that corrections are made by the testing agency, but the corrections are only a fraction of the total errors.

In the 10 years 1911-1920 there were recorded 1,952,760 births and 1,892,415 deaths in the area under consideration. We have only to suppose that 10 per cent. of births and 2 per cent. of deaths were omitted—an average of only about 6 per cent. of occurrences—and the difference is more than explained. For this would give 218,975 unrecorded births and 38,621 such deaths—difference 178,352, against the 159,000 to be accounted for.

The quantitative exposition I have given is of course open to question as the data are very poor, but it can scarcely be doubted that the great divergence of the census from the vital statistics is due to the two causes shown operating together, (1) deaths of outsiders who have come to the province in the inter-censal period and (2) unequal inaccuracy in the vital record by omission of births more often than deaths. In any case it is clear that, so long as heavy immigration continues, even if accuracy improves, the vital statistics cannot be used in Assam for any calculations of population in inter-censal years.

## APPENDIX B.

*Notes on certain frontier tribes.\**

I.—BY CAPTAIN G. A. NEVILL, I.P., POLITICAL OFFICER, BALIPARA FRONTIER TRACT.

*The Akas.*

*Divisions.*—Among the Akas there are two main clans (Kutsun, Kovtsun) and these contain several sub-clans. There are strictly neither exogamous nor endogamous divisions, but social grades exist and one sub-clan will not marry into another lower (socially) clan or sub-clan; an equal clan or a different tribe, e.g., Miri, will be chosen.

The Khowsow and the Jassesow are the two highest sub-clans and the chiefs are taken from them.

*The Khoas.*—Living amongst the Akas and like them in dress and features (but not in language) are a people called Niggiya or Khoas. They form a labouring class and work for the Akas, but they are in no sense slaves for they are paid for their work and they live in their own villages. There are four sub-clans of the Khoas.

*System of government.*—Though the Akas have a chief or headman for outside dealings their government is very democratic: each freeman has an equal vote and right of speech in the councils whatever his social position.

*Origin and customs.*—Their traditions ascribe an eastern origin to the tribe. There are no megalithic monuments. Stones are used for seats by the Akas. The houses are always built of wood roughly squared and sometimes rudely carved, but not with the more elaborate carving found among the Daffas.

Social status is shown among the Akas, as also among the Daffas, by the size of their houses and by the amount of jewellery worn.

*Natural phenomena—beliefs.*—The sun and moon are regarded as female and male gods respectively (e.g., Ane Dawin; Ato Polo). They are considered to have the power of peace and prosperity or the reverse, so they are propitiated with sacrifices. The marking on the moon is thought to be a big pendant worn by the god. Earthquakes are said to be caused by that very mischievous insect the mole cricket burrowing into the earth and telling the god called Phumbadege that all people on earth have died. The god shakes the earth to see if this is true: hence all the Akas shout 'we are all alive' when an earthquake is felt.

An eclipse is regarded as the result of a quarrel between a god named Tsipzibhu and the sun and moon. This god tries to eat up the sun and moon, and the phenomenon is regarded as very unlucky, portending war, disease or calamity.

*Disposal of the dead.*—The Akas bury their dead on the side, with the head to the north and the face to the west; the knees are bound to the chest and the hands placed just below the chin. The corpse is brought out from the side door—never from the main door. Rice beer, *dao* and personal articles are placed by the body. The grave is floored with planks and mats. It is then planked over and earth is put on. A dome of split bamboo with small cotton flags on the four sides is made to the north of the grave. A post with an arm is placed, and a basket of rice, meat, beer, etc., is hung on the arm and kept for ten days.

After death, people go under the earth and proceed westwards until they come to the place where the sun and moon set. Thence they ascend to heaven. But the souls of children dying soon after birth and of people dying unnatural deaths ascend direct to heaven without undergoing any pilgrimage under the earth.

*Physical traits.*—The Akas are a yellowish-brown race of decidedly Mongolian appearance. The skins of those who are habitually exposed to the sun are quite brown, but many of the women are a very pale yellow and often have a reddish tinge on their cheeks. They are very flat-faced or platyprosopic. The hair, which is straight and black, is worn knotted at the top of the head.

*Dress.*—The men's dress consists of a coarse cotton cloth pinned with small bamboo pins over the shoulder and worn round the body. This is bound with a *tamarband* round the waist, and forms a short skirt to just below the knees. A jacket reaching to the hips is worn over the cloth. Sometimes sleeves are worn, sometimes not—often the jacket is a mere blanket. On the head is worn a pill-box hat of split bamboo, and often a plume of cock's feathers or bamboo leaves. Cloth gaiters are always worn, to protect from the *dam-din* flies which abound in the hills.

Stuck in the belt or slung from the shoulder is always a *dao* or sword; the quiver is generally slung round the body and the bow carried either in the hand or slung across the back.

Strings of beads round the neck, and a satchel for betel, pipe, tobacco, steel and flint complete the equipment.

*Cultivation.*—Sowing of seeds is done by placing them separately in holes. The implements used are a small iron hoe and a *dao*.

*Musical instruments.*—A pipe with a double barrel is played by placing to the nostrils and blowing down it. There is also a single pipe of the penny-whistle type in use. Drums are of different sizes. On festive occasions, *mitkan* horns are used as trumpets.

*Weapons.*—Their weapons are the bow, the spear and a short sword. There are also a few old muzzle-loading guns on which they place great reliance.

\* The countries of several of the tribes mentioned in these appendices (H. C. D.) can be seen from the coloured map at the beginning of this volume. Their habitats are shown in detail in a map following the Introduction to Mr. Davis's book on the Lhotas.

*The Apa Tanangs.*

The Apa Tanangs or Ankas live in the valley of the Kal, a tributary of the Ranganadi. Their country is a very fertile flat valley, which is under irrigation. They are a prosperous and industrious people, very like Daslas in appearance but their language is different. Their villages are very large, consisting of more than 1,000 houses. (See Mr. Kerwood's report of 1911-12.)

*The Daslas.*

*Divisions and polity.*—The Daslas are hardly divided into clans but certain sections are given a general name, such as Togen, Sillung, etc. They are divided into many exogamous groups called Nyobu, e.g., Nytung, Tana, etc. They have no chiefs and no social precedence. The village is the governing unit, and every member of the community has equal rights. The oldest and richest man in the village is usually looked on as headman. Tradition places their origin in the east.

I am sure that the practice of occasional polyandry mentioned by Dalton \* never existed among the Daslas: in my experience of them I never heard of it, and a Dasla would look on the practice with disgust.

*Sun and moon—beliefs.*—The sun is regarded as a female and the moon as a male deity. The sun is the moon's wife. The Daslas claim to be descended from the sun and moon: they call the sun 'mother Sun' and the moon 'grandfather moon'. The moon's markings are regarded as a scar inflicted by the sun when she quarrelled with her husband and beat him severely.

Earthquakes are caused by the souls of the dead clearing the jungle on the road to their last abode under the earth. When an earthquake comes the Daslas say 'Listen, the earthquake is come,' and then all stand up on the spot where they are; if they remain sitting or lying someone will contract disease.

An eclipse is caused by the God Tammiu eating up the sun or moon, owing to a quarrel about the moon taking a path over the place where Tammiu was building his *chang*. It portends grievous trouble.

*Burial customs.*—Burial customs for those who die a natural death are similar to those of the Akas; but the hands are placed on the cheeks and the cloth round the body. The corpse is brought from the back door and placed on its side, with the head to the north and the face to the west. The rice beer, etc., hung in the basket on the arm of the post to the north of the grave are kept only two days for children and five days for adults.

For those who die an unnatural death, the customs are somewhat different, i.e., when death is due to a fall, or snake-bite or to being speared to death, etc. The hands are in this case placed below the chin, and the *dao* and knife carried in life are put in the hands. The body is put in the grave facing south. If the dead man has killed a tiger or a man, the body is buried with the head to the north, but a *dao* is put in the right hand, in the belief that the spirit of the tiger or the man will be afraid of the *dao* and so will not attack him.

In some sections, especially the Tugens, when a man has been killed by a tiger, the body is put in the grave in a sitting position but a hole is left and a few hairs of the head are drawn out and tied to a piece of the top part of a bamboo flexed from a distance, where it is posted for the purpose. Should the hairs give way and the bamboo stand up, it is a sign of trouble to the family; that is one more man of the family may be killed by a tiger some time after.

*Future life.*—The Daslas' beliefs as to a future state are similar to those of the Akas, but they believe that there are villages under the earth of people who die a natural death and villages in heaven of those who die an unnatural death and of children and the still-born.

*Physical type.*—The people are very well made and muscular, with a decidedly Mongolian cast of face. There is no hair on the men's faces. They (the men) have straight hair, which they wear drawn forward over the head and bound in a bunch over the forehead with yellow strings and long brass pins. The women plait their hair and bind the plaits round their heads in a very becoming fashion.

*Dress.*—The men wear a rough home-made cloth tied on the shoulders and wrapped round the body; round the waist they wear a number of plaited cane strings. Women have a short skirt, and a cloth round the upper part of the body; also many rings made of plaited cane round their bodies, and a belt of *mithan* skin five inches broad with several metal discs fixed on it. Bead necklaces are much worn by both sexes, yellow and blue being the chief colours.

*Implements and weapons.*—Their system of cultivation is similar to the Akas', but they use only the *dao* and a pointed bamboo and not the small iron hoe of the Akas.

They have no guns. The weapons are the bow and arrow (with aconite poison), a long spear and a long *dao* or sword. They wear cane helmets, more or less sword-proof, and a shield and body armour of *mithan* hide; sometimes also cane armlets as a guard against sword-cuts.

II.—By T. P. M. O'CALLAGHAN, I.P., POLITICAL OFFICER, SADIYA FRONTIER TRACT.

*The Khauntis.*

*Character and habits.*—The Khauntis settled in our area are a race degenerated from their state described in Dalton's time.† The villages are jungle-covered, and peopled by a laodaisical and opium-sodden people (although it is a question whether opium is a cause of the degeneration or whether the habit is an effect of the climate and surroundings and the mental paralysis induced by these peculiar local conditions).

\* Descriptive Ethnology of Bengal, 1872.

† Dalton, Descriptive Ethnology of Bengal, 1872.

It must be admitted, however, that they work hard in the fields in the rice-sowing and reaping seasons. The women work very hard. All traces of new land settlement have disappeared.

The chief weapon is the *dao*. They display fitful energy at times in village works of communal necessity and in elephant hunting, but do not live up to Dalton's description.

*Arts.*—The pursuance of arts is no longer in evidence. The working in silver described by Robinson (*Account of Assam*) is not to be found. There are no chiefs as described by him, and but few of those workers in metal. The only articles manufactured are pipes which are of very neat workmanship. They maintain their own schools in the "*bapuchangs*" (temples where the Khamti language—written—is taught by the '*bapus*' or priests). Some of the old men among them claim that the Daffas were their forerunners from Borkhamti, south and south-east of the Burma Divide—a point worth investigating.

#### *The Singphos.*

These also have degenerated from their condition in the time of their forefathers. There are only 12 or 14 small villages on the Noa Dihing river and up to the Dibrugarh boundary.

They are physically fine men but opium and climate have been their curse, and their condition is inferior even to that of the Khamtis. They have all more or less adopted Buddhism but also continue sacrifices to the spirits.

#### *The Mishmis [Chulikata (crophaired), and Bebejiya].*

*Character.—Blood feuds.*—These two tribes are still in a state where revenge is honourable and feuds are popular. Alternate killings are normal steps in a quarrel through generations. Dalton's description is rather hard on these people.\* Now that we know them better, we find that they are a very primitive people with ordinary human virtues and failings. They now live at general peace with everyone, particularly the Abors, whose best customers (for purchase of *mithun*) they are. The allegation against the chastity of their women is not true. They are, in common with all tribes of these parts, hospitable. Beer plays a great part in the scale of happiness. Their feud-murders are normal to people in that primitive state of development; but they will cease with their closer contact with civilisation opening new interests and broadening their outlook.

*Divisions.*—They are divided into septs or families rather than clans. They are numerically small tribes and are endogamous. When the septs were smaller, they had to marry out; now men take wives of the same sept if they are only distantly connected.

The tribes are animistic. They are polygamous, but only the rich among them can afford the luxury of more than one wife.

There are two classes, freemen and slaves, but the slavery stigma is not as lasting as among other tribes. Most of the work is done by the women and children helped by slaves.

*Headmen.*—Headmen are chosen to some extent by succession, but wealth and personality also count. They have no judicial or other powers, beyond initiating discussion and influencing it in matters of common interest. Within the sept, individuals punish an offender with their own hands. With another tribe or sept, any member will, as likely as not, punish any member or slave or connection. Thus feuds are everlasting. Punishments are (1) slaying, and (2) enslaving.

*Origins.*—The majority claim to have come from the north, *i.e.*, Tibet; but the Linghi, a large sept, say they came from the south. The truth is probably that they are the jetsam of immigration floods or were driven up or swept aside into the hills and mountains by other immigrants.

*Cultivation.*—They cultivate only by *jhuning*. A bamboo stake is the only implement used, and they do not sow broadcast, but place a few seeds in each hole.

*Use of stone.*—Stones are heaped up over graves, but there are no stone monuments. Stone is not used for buildings but for walls of byres.

*Houses.*—The houses are built on low *changs* and are divided into partitions with a passage down one side. A long house indicates wealth and position; clothes and weapons also by their superiority indicate wealth.

*Beliefs about sun and moon.*—Ideas about natural phenomena are very vague; there is no general tradition or folklore known, for instance, about the sun and moon. One story is that all the world is descended from one father and one mother, who had five children—(1) Assamese, (2) Chulikata and Bebejiya Mishmis, (3) Khamtis and Singphos, (4) Taruan Mishmis, and (5) a clan somewhere to the east (? China). Another story has it that the sun is the husband of the moon. They quarrelled and the wife, the moon, demanded a share of the sun's heat. The sun answered that he had to keep all his heat for his children, *i.e.*, men. He then threw his wife into a swamp or pool, and the moon's markings are the resulting mud on her face. The moon fears to come out by day and waits till the sun has gone down.

*Burial customs.*—The dead are buried in a grave about 3 feet deep, lined with grass and generally not far from the house. The corpse is put on a wooden couch, fully clothed and armed and with food, money, ornaments, etc. It is covered with planks in the form of a span or inverted V, and the whole is then covered with stones. The dead are said to go down into the earth.

*Physical type.*—The Chulikata and Bebejiya Mishmis are sallow in complexion on the whole, whereas the Taruan (D. race) and Miju Mishmis are reddish. The hair is straight and is cut square on the fore-head (hence the name *Chulikata*). At the back it is allowed to grow and is kept pinned up. The eyes are hazel-brown, Mongoloid but straight. The nose is flat, not thin, blunt but

not pronouncedly so. The aquiline noses often found among the Taroan are seldom seen in these tribes. In general physique they are squat, well built, sturdy and broad-shouldered; the head is square rather than long and narrow.

*Musical instruments* are (1) drums covered with lizard's skin, and (2) horns of buffalo; these are only used by medicine men. But the Jew's harp is known.

*Weapons*.—Their weapons are the longbow and the Tibetan cutting sword. Their arrows are poisoned with aconite. They wear cane helmets.

They look on the *huluk* as sacred, and it is *genna* to kill one: it is considered as half human.

Incest, that is, marriage or sexual connection within forbidden degrees, is described as 'conduct like the monkeys.'

#### *The Mishmis (Taroan and Miju).*

*Divisions and origin*.—These tribes are divided into endogamous groups and exogamous septa or families. Some of the Taroans claim that they were formerly the same people as the Chulikatas (and the claim is admitted by those tribes). They speak the same language and some of their customs are the same. Some of the points of difference are noted below:—

*Disposal of the dead*.—After a death, the body is waked for a day, for an unimportant person; but up to 3 days for an important person. It is then buried for 5 days and afterwards is taken up and burnt. A circular roofed stockade is built on the place where the body was burnt—usually about 10 or 20 yards from the house. Arms, clothing and utensils are hung up round the grave, and streamers on long bamboo poles are put round.

*Beliefs about future state*.—The ideas as to a future state are vague. The dead are said to go down into the earth. There are medicine men who speak with and do 'puja' to the spirits of evil; ordinary men know nothing of these.

*Physical types*.—In appearance the Taroans and Mijus are sturdy and sallowish. Their hair is straight and is not cut. The eyes are straight and blackish-brown. The nose is generally flat but not very broad; but there are many with regular aquiline noses and handsome features.

*Weapons*.—The weapon in use is the crossbow, and aconite poison is put on the arrows. They do not use cane helmets.

*Wives*.—Generally, when a man dies, his wives go to his heir, except the latter's mother, who goes to the next-of-kin among the male relatives (*cf.* Marco Polo's Tartars).

#### III.—By R. C. R. CUMMING, L.P., LATELY ASSISTANT POLITICAL OFFICER, PASSIGHAT, SADIYA FRONTIER TRACT.

#### *The Abors.*

*Habitat*.—The term Abor is applied, though erroneously, to those tribes living on the southern slopes of the outer range of the Himalayas, roughly between the Dibang and Subansiri rivers, and, within the hills, in the main valley of the Dihang, with the Yamne and Siyom valleys as offshoots.

*Names of tribes*.—The tribesmen use the names of their tribes, and the word Abor is unknown except among the more civilized. They also call themselves *adi-ami* (hillmen). 'Abor' is generally applied to the Padam, Minyong, Pasi, Galong and six other tribes. We are in contact with the first four of these. All of them have traditions showing that they came from the same place and are descended from the same stock, but the dialects of some differ.

*Exogamous divisions*.—All are divided into exogamous clans and particular care is taken to prevent intermarriage. Among the Padam the rule has been relaxed of late years owing to the size of the clans. Each clan is subdivided into smaller clans or families with endogamy strictly forbidden within them. Heavy penalties are exacted for any breach of the rules. The Pasi, Padam and Minyong frequently intermarry, but there is only one known case of the present day of a Galong marrying into one of the first three tribes.

*Polyandry*.—Polyandry is common among the Galong, and is not necessarily confined to the poor. For instance it is quite usual in this tribe for brothers to have sexual intercourse with each others' wives until they have given birth to their first children.

No instances, however, of this appear to have come to notice among the other tribes, not even among the Miris—unless the latter are Galong turned Miri, *i.e.*, Galongs who have descended to the plains and have either become absorbed into Miri villages or have, though living in separate villages, largely adopted Miri habits.

*Division into 'mipak' and 'misshing'*.—Among the Pasi, Padam and Minyong tribes there is no division into classes with a definite social order of precedence by clan; but every member is either 'mipak' or 'misshing,' *i.e.*, considered outcaste or not. 'Mipak' has nothing to do with exogamy. Certain persons and families, however, have been considered *mipak* for some generations, and sexual intercourse with them suffices to make the other party *mipak*, and so on. Brothers and sisters of a *mipak* are not *mipak* unless they have become so by heredity.

A *misshing* is free to marry a *mipak*, but this is not generally done, if the fact is known.

Among the Galongs the same divisions occur, but certain entire clans are *mipak* (the Galongs call it *miri*) and the division is more marked. The Galongs consider the other three tribes (Pasi, Padam and Minyong) *mipak*, and *vice versa*. All the tribes regard the Assamese, Miris, etc., as *mipak*. Slaves or serfs, where they exist, are also *mipak*.



*Headmen.*—There is no particular class or clan from which chiefs are entirely drawn. In fact, the practice of calling a particular man, headman, can be traced to British influence. Nowdays a tendency to keep the *gamship* in one family has arisen. He is chosen rather for his knowledge of tribal history and the procedure of the village than his possessions—though he would be a poor *gam* if he failed to attain these!

*Tribal government.*—Government is essentially democratic, especially among the Padam, Pasi and Minyong. There is a regular Council Chamber and all village matters are decided in it. The council has several recognised spokesmen, who lay down the law on the point at issue, and whose claim lies in ability to recapitulate tribal history further back than anyone else. This recapitulation of clan history is a feature of every *kebang* (village council); and it may be some days before the point at issue is touched on. Having given a decision (which seldom occurs), the *kebang* considers its duty done and does not think of enforcing the orders, knowing full well that there would be small chance of its being able to do so. Every villager does much as he pleases without troubling what the *kebang* may order. In certain affairs affecting the whole village, e.g., the site of new cultivation or the trapping of fish, the *kebang* decisions are usually upheld. The principle of British rule also is to make the *kebangs* decide petty tribal cases and enforce their decisions, but outside our influence the situation is as described above.

Among the Galongs a more feudal state exists. The headmen are more influential and their commands are generally obeyed. They have no *kebangs* or formal councils such as are found among the other tribes, and no council house in the village; nevertheless they do hold discussions, and the headmen are not all-powerful.

*Traditions of origin.*—In none of these tribes are there any traditions of origin which go back very far. All claim origin from one race or tribe settled at Kiling, in the Bomo-Janbo country. From Kiling, part of the tribe journeyed south across the Siyom river and occupied the hilly country between that river and the Subansiri and Brahmaputra: these are now known as Galongs. Others crossed the Dihang or settled on its banks or neighbourhood.

There are no traces of terraced cultivation, and the efforts of Government to introduce it have found no imitators. Land has been sufficient for *jhuming*, on the whole, though it is scarce up the Dihang.

*Houses and materials used.*—The materials used for housing are bamboo, thatching palms of different kinds and wood. The houses are built about 5 feet from the ground. Posts are not used, but numbers of pieces of wood, 4 or 5 at an angle resting on the surface, take the place of a post. The floors are of split bamboo (not interwoven) and walls are of rough planks. For the roofs, palm-thatch and wild plantain leaves are used. Stone is not used in building, nor are there any stone monuments. There is no restriction on the use of wood. In type of house, there is no distinction between individuals.

*Distinctions in dress.*—Some of the Padam, Pasi and Minyong Abors wear long red coats imported from Tibet. Among the Galongs such coats are worn as a sign of distinction, but the headmen sometimes affect greyish-white coats from the same source. The tribesmen are usually so poor that they cannot afford to buy these coats, so it is doubtful if they are specially reserved for headmen.

*Ideas on sun and moon.*—None of the tribes have any fixed ideas regarding the sun, moon and stars, though there are various fairy tales about them. The Padam, Pasi and Minyong make the sun male and the moon female, while the Galong consider them both as "objets d'art" and hence of neuter gender. The moon's markings are assumed to be the body of an animal living in it. There are no theories as to eclipses, save that the animal in the moon is put out for a time owing to the displeasure of the Almighty. Earthquakes are said to be caused by the movements of a large animal living in the waters under the earth.

*Burial customs.*—All the tribes bury their dead in much the same way, the Galongs digging graves a little deeper than the others.

A hole about 4×4×4 feet is dug (by the Galongs 6 feet deep), and logs are put on the floor. The corpse is laid with the head to the west so as to face the rising sun. The legs are doubled under themselves and the hands drawn under the chin—in fact the body is placed much as at birth. In one hand a small knife is placed, as an aid to getting food on the way to the spiritual home. A framework of logs is made diagonally across within the grave and leaves are placed on it, to prevent earth from falling on the body while the grave is filled in. A lean-to shelter is made at the top of the grave and under it a fire is kindled and maintained for a year (but for only five days in the case of the Galong). A gourd of rice beer is tied under the shelter and various garments of the deceased, together with any heads of *witban*, etc., killed by him and used to feast the community, are suspended on posts near by or under the shelter.

*Abode of the departed.*—The Padam, Pasi and Minyong believe that the spirits of the dead return generally to the land whence the race originally came: this is in the case of death from ordinary causes or illness. If the death be due to epidemic disease, such as cholera or influenza, the spirit departs to the west or south,—i.e., the direction opposite that in which the land of their fathers lies. But among the Galong it is supposed that after death the spirit becomes the slave of its own particular deity. None of these tribes believe in any transmigration into insects, birds or animals.

*Physical types.*—The Abors are short and stockily built, but their sturdiness varies as the country they live in. The Padam are slightly taller than the rest. The complexion is sallow, with straight eyes, usually black. The face is generally flat and the forehead broad. Women usually have tattoo marks on their faces.

The nose is upturned, with wide nostrils, but many boast almost aquiline noses. The hair is straight and is cut in a fringe evenly round the top of the head; but the Galong cut the fringe low down on the nape of the neck and on the forehead. Among the Padam, Pasi and Minyong, the

women and children all cut their hair like the men, but the Galong women grow their hair long, drawing it back along the sides of the head and leaving an even parting down the centre; it is drawn back so tightly that it often has the appearance of being painted on like that of a Dutch doll.

*Implements.*—There are no special agricultural implements among any of the tribes; everything is done with the *dao* and the axe. For sowing, four or five seeds are placed together in a hole with the aid of a pointed stick.

*Music.*—A crude form of bagpipes is common to all the tribes; this is the chief and practically the only form of musical instrument. A dry gourd takes the place of the wind-bag, and a special form of fine bamboo the chanter and pipes. There are three pipes besides the chanter, which is perforated and played with the fingers in the ordinary way. Another instrument found is a sort of Jew's harp of bamboo and fibre.

*Weapons.*—The chief weapons are the bow and arrow, the *dao*, and a long Tibetan sword. The sword is only carried in time of war.

For head dress and for protection against sword-cuts, hats of plaited cane are worn. These are worn a good deal also in time of peace, especially by those living further back in the hills. The Galong hat is of different shape, very often resembling an up-to-date bowler hat.

There is no history of head-hunting among these tribes. When enemies are killed in battle, the hands are occasionally cut off and hung up in the *mosup* or council-chamber; the head is never cut off.

Very little tribal fighting has occurred among these tribes, their motto being that the tongue is mightier than the sword.

Unlike their eastern neighbours, the Mishmis, killing their fellow-men has been and is still regarded as a serious offence: this forbearance, however, only applies to themselves.

#### *The Miris (of Sadiya Frontier Tract).*

*Origin and divisions.*—The Miris are mostly descended from the Abors living on the banks of the Dihang, Brahmaputra and Dibang. Their language is similar and their customs are very similar to those of the Abors, but Hinduism is rapidly changing those furthest away from the hill people. There are four big clans. Two of these descended from the hills not many generations ago, but many are escaped or driven out slaves of the Abors. The Chutia clan of Miris is supposed to have come up the Brahmaputra and mingled with the others. Probably, though, they came first from the hills and went on for a safe distance, returning afterwards upstream. Before the British occupation of the Abor country the Miris were traders and interpreters between the Abors and the British. There is no social division into classes.

These big clans are divided into smaller exogamous clans kept as distinct as possible, but of late years there has been much intermarrying and relationships have become involved.

The organization is democratic. When near the Abors, the Miris adhere to the Abor custom of *kebangs*.

*Appearance.*—They are of sallow complexion, similar to the Abors. Their features are the same, but the hair is either kept long and knotted at the back or is cut evenly round the head. The latter is the modern fashion. The women wear their hair long and drawn back straight, but without a parting. The physique is good on the whole. The eyes are as a rule black, the forehead broad and the nostrils wide; the face is flat and round.

*Weapons.*—For weapons they use the bow and arrow and have also a few old guns. There is a special long kind of arrow for shooting fish. All carry a *dao*. There is no trace of head-hunting among the Miris, and their weapons are carried for the chase only.

The beliefs of the Miris of the Sadiya tract about the sun and moon are similar to those of the Abors.

*Burial of the dead.*—The dead are buried, and the corpse is laid flat on the back, with the hands clasped under the chin and the legs out straight. A double lean-to logs is made over the body to stop earth falling on it, and another double lean-to over the top of the grave. When *bhakats* or village priests are buried the soil is not kept off them, but the grave is filled up in the ordinary way. No reason for this is known.

#### IV.—By G. C. BARDALEJI, EXTRA ASSISTANT COMMISSIONER.

#### *The Miris (of Lakhimpur District).*

*Divisions.*—There are really no exogamous clans, as, though there are clans not as a rule inter-marrying, yet run-away marriages are prevalent, and the parties are not ex-communicated. But, they may be grouped into two exogamous divisions composed of several clans:—1. The Chutia (Dole, Pegu, etc.); 2. Aingiya (Taoit, etc.), Mayangiya (Nara, etc.) and others.

The class-ship tie is much loosened, and social precedence undetermined, as all are now living peacefully under the Government. Every clan claims superiority to others. Probably the Dole and Pegu are first and then the Mayangiya and Dambukial.

*Headmen.*—Chiefs in a clan are chosen always from that clan, from the *gam*'s family or if necessary from his relatives on the male side. There is no special clan for supplying *gams* or headmen. The Miris have a social democratic organization, with the *gam* as president, but he cannot over-rule the combined wishes of the people. Originally each clan had one *gam*, even when living in different villages. Now each village has generally a *gam*.

*Tradition of origin.*—Their tradition places their origin at Abu-Killing, in Akahachola near Mamba, towards the north and beyond one range of mountains. All Miris are said to have come from there. The majority (now Hindus) say they are descendants of Rukshma Vira of the Mahabharat.

*Implements.*—For cultivation they use the ordinary plough and a hoe, the cultivation being all in plains land.

*Ideas of celestial bodies.*—The sun is a male and the moon a female deity. The stars and comets are deities, but their sex is not defined. Orion's belt is supposed to be a young man and the Pleiads a young girl; the young man is always chasing the young girl, whom he can never catch. The markings on the moon are said to be human excreta. There was a certain festival of the gods and a quarrel occurred between the moon and another deity; the latter threw some excreta and hit the moon, and the marks are even now visible.

*Disposal of the dead.*—The dead are buried, corpses of persons of position being put in a coffin or box, with new clothes on; for others only a piece of cloth or a mat is used. The corpse is put on a layer of wood; then another layer of wood is added and on top of this earth is placed. A mound four feet high is made over the grave. Formerly brass cups and cloths were put above the grave, but this practice has ceased.

*Life after death.*—After death, according to one set, the dead meet their parents and forefathers underground in the abode of the dead. Others believe in transmigration: the souls of the good are reborn as men and those of the bad as animals.

*Music.*—The musical instruments in use are the melon-banjo, the bamboo flute, drums and cymbals.

## APPENDIX C.

ON THE CONNECTION OF DIFFERENT NAGA AND OTHER TRIBES IN ASSAM,  
• THEIR ORIGINS AND CERTAIN CUSTOMS.

By J. H. HUTTON, C.L.E., I.O.S., DEPUTY COMMISSIONER NAGA HILLS, AND HONORARY DIRECTOR OF ETHNOGRAPHY, ASSAM.

*Naga-shabitat.*—A love for old sites has often been asserted of Naga tribes in contrast with the Kukis, Garos, Kacharis and others. But this is not true of all Nagas. It is marked only among the Angamis and even they count back to a migratory stage.

It is difficult, if not impossible, to give a test by which to distinguish a Naga tribe from other Assam and Burma non-Nagas. Naga is a useful word to denote the tribes living in the area bounded on the north-east by the Hukong Valley, on the north-west by the Brahmaputra Valley plains, on the south-west by the Cachar plains, on the east by the Chindwin and on the south by the Manipur Valley, which last is the contact point roughly with the Kukis (Thados, Lushais, etc.).

*Immigrations of the past.*—This area has received in the past at least three great waves of immigration:—

- (1) From Tibet and Nepal (Singphos, Akas, Garos and Kacharis).
- (2) From Southern China across the Irawadi Valley (the Tai races—Shans, Ahoms, Tamans, etc.).
- (3) From the south. This wave has hardly stopped yet, for Lushai-Kuki migration was still going on northward till 1918, when it was stopped from spreading into the unexplored area north of the Ti-Ho river by driving the newly-formed colonies back across the river, before the Kuki operations.

The *Lushai*, *Thado* and other *Kuki* tribes are probably another branch of the immigration from the north; but if so, they must have first gone south and then turned north again for they drove up from the south in front of them the old Kukis, and perhaps that very different race which became the predominating factor in the Angami Naga tribe and which has probably entered in a lesser degree into some of its neighbours.

The *Angamis* (or the ancestors of part of the present tribe) were undoubtedly located far to the south of the present Naga Hills.

Also we have (4) still another immigrant element in the Kol-Mon-Annam occupation, which certainly extended over a part of the present Naga area. The Bodo race itself seems to be connected with the Munda and Mon-Khmer families, and all were probably preceded by a Negrito race, such as the Andamanese are, which was partly expelled partly absorbed. Traces of all the above races are to be found in the culture and composition of the tribes now known as 'Nagas' collectively.

*Traditions of origin of Naga tribes.*—Naga traditions of origin indicate almost all points of the compass:—

- (a) The *Konyak* tribes ascribe their origin to the hills to the north and to migration from the plains in the west and north-west as well; though others with Singpho affinities say that they came from the north-east. One or two villages claim to have come from the south (the Ao country).
- (b) Some of the *Aos* like some of the *Lhotas* are said to have come from the plains to the north-west, but the majority claim an autochthonous origin at Chongliemdi.
- (c) The *Khoirao*s claim a western origin, from the plains of Assam.
- (d) The *Semas* say that they came from the south. A connection is traceable between them and the *Khoirao*s of Ngari, pointing to a western origin. These *Semas* of western origin connect with the *Kacharis*, *Garos*, *Lynnams* and *Bhois*. The *Kacharis*, while allowing Nagas, or certainly *Kachoha* Nagas, to eat and sleep in their porches, refuse to allow Kukis inside at all, holding that *Kacharis* and Nagas were originally descended from two brothers, whereas Kukis are complete aliens.
- (e) Others, for instance the *Kaljo-Kengyu* tribe, claim a northern origin.
- (f) The *Southern Sanglams* derive from the Chindwin Valley to the south-east, while the *Northern Sanglams* merely point to the south. The *Tamans* in the Chindwin Valley lived at one time in the hills to the east and then returned to the Valley leaving some of the tribe behind. These might be connected with the *Southern Sanglams*. In any case they trace their origin to southern China, and their descendants are still presumably represented among the Naga tribes.
- (g) The *Angamis* also afford indications of mixed origin. They came from the south-east, first from Tangkhul country to the south, but traces of terraced cultivation are found far to the south in the Lushai Hills and possibly they came from further south still. The *Angamis* regard a spirit in the sky as the ancestress of them all. Part of the tribe claim a southern and part a south-western origin.
- (h) The *Rangmas* say that their origin was in the south.

All the Naga tribes have legends of clans descended from indigenous women out of caves, or from wild men caught in the jungle, e.g., the Lhotas, the Phoms, and the Angamis of Kohima.

*Physical type: differences.*—Thus each tribe has traditions which cannot be reconciled with a homogeneous origin; and marked differences of type are traceable everywhere, even between individuals of the same tribe. The Angami are tall and well-proportioned, the Tongima and Momo sub-tribes having straight eyes and noses sometimes even aquiline. Their features are in any case far more regular than the Mongolian-looking Sema who tends to a flat nose and oblique eyes and a short squat figure. The Angamis are also distinguished by huge calves, for which no explanation is afforded by local conditions as compared with other tribes such as the Semas or the Changs. The big calf is also typical of the Kuki, who is otherwise, however, much more stocky in build.

In colour there is much variation and difference of altitude by no means accounts for all of it. There are generally three types—a straight-haired light brown, a wavy-haired brown and a crisp-haired dark brown, corresponding to Ratzel's division of the races of Indonesia. Generally the predominant colour is red and this is most popular, black and white being considered unbecoming, though black more so than white. In high altitudes even the tint of blood is seen and a blush can often be detected. The 'fair and sallow' type is found at all altitudes; it appears even more among the Aos and Konyaks than among Manipuris and Kukis. The children everywhere have rusty reddish hair turning black later. Rarer than the sallow is the dark brown and fuzzy-haired type suggesting the Negrito: specimens of this type are found occasionally in all tribes; but it is commonest in the north among Phoms, Aos and Konyaks and again in the south in some villages of Kachha Nagas in the North Cachar Hills, suggesting that the race which bequeathed it was pushed apart from the centre. Fuzzy hair is always held in derision.

Cephalic indices suggest a connection between Aos, Manipuris, Ahoms and perhaps some other sub-Himalayan tribes, due perhaps to the infusion of Tai blood.

*The dead.*—There are various methods of disposal of the dead; these are dealt with in a separate note.\*

*Weapons and implements.*—Some of the weapons and implements in use among Naga tribes are of marked northern type, and others are clearly connected with Indonesian forms like those of the Igorot of the Philippines; other patterns again show similarity to the Kol-Mon-Annam type. Of the northern type are the Kaboi dancing *dao* and another *dao* for real use. I have in my possession one of the latter kind which is like one figured as a Bhutanese weapon by Butler (Sketch of Assam, 1847). The obsolete Lhota *yanthang* is also of the northern type. Both these Naga *daos* are remarkable in that the iron haft projects beyond the hilt, as in the Garos' and Khasis' *daos*—probably to stick in the ground while sitting.

Spears with ornamental barbs resemble those of the Philippines, while some patterns of Angami spears resemble the Igorot spear. The stone hammer used by all Naga smiths is also found in the Philippines.

The Yachungr Naga hoe, obtained from a tribe almost isolated from regular intercourse with its neighbours, is just like a Khasi miniature sweet-potato hoe. S. E. Peal reported a squarer type of shouldered hoe among the Konyaks. Both types are like the Battak hoes from Sumatra and similar in shape to the obsidian blades of Easter Island.

*Bows.*—The crossbow is the weapon of the Singphos and has been adopted by the north-eastern Nagas; but it is not in general use, though the Lhotas know it. The longbow also is not the natural weapon of the Nagas: the Semas believe their ancestors used it, and the Angamis have learnt the use of the pellet bow. This is of interest as the bow is almost entirely absent in Borneo, Sumatra, Java and the Celebes. It is, however, possible that it has merely been discarded, as both the Angamis and Semas retain it as a toy.

*Indications of diverse origin.*—Diversity of origin of the Nagas is suggested by various other things. For instance, the reaping hook is used by most tribes, but the Semas use the band, like the Garos, Bhois and the Southern Bré of Burma; the Thado Kuki says he used to do so, but now used a sickle. Again, the Angamis have an elaborate system of terraced cultivation, and this is also practised in some Khoirao and Kachha Naga villages, but little among other tribes (among the Semas it has been introduced by Government deliberately). The terrace cultivators are the most frequent users of megalithic monuments. Wooden posts and Y-posts are used by Semas, Sangtams and a few others, while the Aos use round-topped posts. Some tribes build their houses on the ground, some on platforms.

Divisions within tribes vary, being sometimes dual, sometimes triple. Some are, nominally at any rate, exogamous. But the exogamous system is complicated by subdivision and adoption from group to group. Some groups have different words for mother and other terms of relationship.

The polity in the villages shows differences. Among the Semas the hereditary chiefs are feudal lords, as also among the Changs and Thado Kukis. But Ao and Tangkhul villages have bodies of elders representing the principal kindreds in the village, while the Angami, Kengma, Lhota, and (apparently) Sangtam villages have a system of extreme democracy. The Angamis, however, have hereditary priests from the family of the first founder of the village.

The belief among the tribes is universal that the souls of the dead become butterflies or insects. Again, in the future world the shades of the dead go on living just as in this world. Most say that the future world is underground and that the path to it is along a narrow mountain track guarded by a dangerous spirit, a belief frequently found in Melanesia. The Angamis believe that the best people live after death in the sky in company of the ancestors of all life. Others believe in sky spirits but do not locate the dead there. Among some, the Semas for example, it is believed that the good dead go east and the bad dead go west. In all tribes conflicting beliefs are held concurrently.

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Lycanthropy is practised by the Semas but not by the Angamis, though believed in by both. So in the Khasi Hills with the Lyngams and Khasis respectively.

In folk-lore, some stories are common to all tribes of Nagas and others are not.

In language there is a decided cleavage of certain groups. The north-eastern group seem to approach nearer to Bodo and Kuki than to the Central Naga tribal languages.

*Conclusion as to origin of Nagas.*—My conclusion is that no Naga tribe is of pure blood. The tribes are combined of elements due to immigration from at any rate three directions, north-east, north-west and southern, the people having been pushed up from the plains of Assam and Burma by pressure. We may speculate that at a certain stage a Negrito race, at a later an Austric race of Kol-Annam or Mon-Khmer type was in occupation, leaving traces in the implements and perhaps folk tales now found. Then came a definitely Bodo immigration from the north-west or west, and by this perhaps the Y-shaped posts, reaping by hand and indications of a matrilineal system have been left. There is, beyond dispute, a mixture of Tai blood from the east also. The immigration wave from the south is obvious enough, and possibly brought up elements of population from southern Burma wedged in among migrating tribes. The Angamis are probably related to the Igorot and possibly other Philippine tribes by blood or culture or both. Further, these southern immigrants perhaps already consisted of two parts, one settled and cultured, the other barbarous but warlike; and the Angamis may have inherited certain customs from both parts of the tide. On the other hand it is possible that they contain some Aryan element from the other side of India caught up among migrating tribes. Lewin ascribes such an origin to the Chakmas of the Chittagong Hill Tracts and Davis finds Aryan blood among the Lolos of Yunnan. The Angamis are quite as likely to have it as either of these.

## APPENDIX D.

## ON THE DISPOSAL OF THE DEAD AMONG NAGA TRIBES AND OTHERS.

By J. H. HUTTON, C.I.B., I.C.S.

(1) *Burning* is practised only by Hinduised Manipuris to the south and one section of the Singphos to the north-east, but traditions of tribes practising it are found among Aos and Changs.

(2) *Burial* is the practice of the Angami, Sema, Rengma, Lhota, Sangtam, Tangkhul and Kachha Nagas, and the Kukis. But such burial is not always absolute. Thus Kukis, when a great person has died, sometimes put the head after decomposition into a cleft on the side of a cliff. This custom is rare, but certainly exists or existed among the Thado Kukis. Some Konyaks still place the skulls of their dead in stone cysts.

The Yachungr and some Southern Sangtams bury the dead inside the house under a bed, and often disturb the grave and dig out the bones to make room for a new corpse.

The Tangkhuls and some Naked Rengmas build small houses over the graves, with little ladders leading to them for the ghosts to inhabit. The Lhotas, Sangtams and Semas build thatched roofs over graves, suggesting perhaps that they formerly exposed the bodies in miniature houses—just as Aos who have become Christians bury their dead but put thatched roofs over the graves.

(3) *Platform exposure* is the rule north of the tribes mentioned, the body being sometimes smoked first. The platform used is a bamboo shelf with a thatched roof.

The Phoms and Konyaks wrench the head off the body after decomposition, and then put it in a pot in a separate place or in a niche in the cliff. Both these tribes bring the heads into the house for a time and treat them with some ceremony.

The Changs both bury and expose their dead—indiscriminately.

(4) *Desiccation*.—This practice is followed by the Kalyo-Kengyu, or part of them. The dead are smoked in their houses for two months over a fire and then retained in a wooden coffin like a lidless box, with a mat to cover it, either inside or just outside the mat-wall, and under the eaves nearest the hearth.

At the next sowing, on the first day of the sowing *genno*, all those who have died since the last year are brought out and their withered bodies broken up, the bones being picked out and counted by a number of persons, male and female, slightly less for a woman than for a man. The bones are then put in an earthen pot at the back of the family granary and are not touched until they dissolve into dust or until the granary rot and falls on them. The broken bits of the body and the coffin, etc., are thrown into the jungle, preferably over a steep place, near the village.

(5) The disposal of the frontal bone by throwing it into running water is worth notice. The Kacharis burn their dead but save the frontal bone to throw into the Kopili, or some other stream. The Manipuris, Hindus as they are, keep the frontal bone to be thrown into the Ganges, but we may surmise that their custom has its origin, as that of the Kacharis doubtless has, in a special veneration for running water, and indicates a community of culture between the two tribes in their pre-Hindu state.

## APPENDIX E.

*Summary of notes on some cottage industries of Karimganj.*

(By K. C. PURKAYASTHA, M.A.)

## I.—HANDLOOM WEAVING.

1. Twenty years back this industry was on the decline in this district and very nearly dying. It received a tremendous stimulus as a result of the *swadeshi* movement of the partition days. While middle class youths lost time and money in trying to earn a living from the loom, the hereditary weavers, the Naths (Jugis), found a saviour in the weaving movement; and the war by inflating prices brought them prosperity.

**History.**  
 2. The demand for their output is mainly local and rural and therefore only for coarse cloth. The demand varies with the season. The busy season is winter—from mid-November to February—when cotton wrappers 3 yards  $\times$  1½ yds. or 6 yds.  $\times$  1½ yds. have a very strong market, while full sized *dhutis* 5 yds.  $\times$  44" are also actively sold. The slack season is roughly from April to September.

**Consumption.**  
 During the busy season the weekly sale at Narsingpur Hôt reaches Rs. 50,000 (on the testimony of export weavers); while during the slack season I calculated a total weekly sale of Rs. 5,000.

**Production.**  
 3. *Charka*-spun yarn has not found favour with the Naths on account of the tedious process necessary to prepare it for use in fly-shuttle looms. Manchester yarn is almost exclusively used. 12's and 14's are the counts chiefly woven; finer yarn is rather of an exception. Ignorance of methods of dyeing fast colours leaves the Naths at a disadvantage compared with Julas of the neighbouring Bengal districts of Tipperah and Noakhali. Fly-shuttle looms are made by local carpenters from local wood or with bamboo frame work, at cost ranging from Rs. 15 in the former case and Rs. 9 in the latter.

Like most cottage industries weaving is done in the intervals of cultivation, and the whole family participates. Usually one adult weaver will have two underworkers (locally called *jogalis*) and will turn out 10 pairs of 4½ yds. coarse *dhutis* per week, unless farm work happens to be specially heavy. He usually works in two shifts. The morning shift may continue till 11 A.M. He resumes work again in the afternoon at about 4 P.M. In the busy season he begins his first shift early and leaves off work late at night. During the off season or when agricultural work is heavy he stops weaving or reduces his hours.

**Distribution, purchase and sale.**  
 4. One interesting feature of this industry is that it is almost entirely on a cash basis; little business is done on credit. The Marwari merchants, who till now control the market and dictate prices, demand ready cash for their yarn. The weaver brings his cloth to the market, when middlemen purchase it from him for cash. The middleman (locally *paitar*) sells it to retailers for cash. This is perhaps the only industry in which there has so far been no serious grievance against the middlemen, who, by the way, are themselves Naths. But with oversupply—local supply exceeding the local demand—the middlemen will become a menace to the weavers. And at the time of writing signs are not wanting that the danger is not far ahead.

**Marts.**  
 5. The chief mart is Narsingpur. It is owned and managed by the Nath community for their own benefit and has 500 members on roll. It meets weekly on Thursdays from about 12 A.M. to 2 P.M. The sales range from Rs. 5,000 per week in the slack season to Rs. 50,000 per week during the busy months. I estimate that the total annual sale comes to about Rs. 6,00,000. The total sale of yarn at Karimganj is over 6,00,000 and my calculation is that when woven the market value of the cloth is roughly Rs. 9,00,000 for the whole subdivision.

**Prices and earnings.**  
 6. Prices at Narsingpur are quoted in terms of per 4 pairs (locally *hali*). At the time of my enquiry the mean quotation was Rs. 11 per *hali* for 9 cubit *dhutis* or nearly 5 annas per yard length.

At the time of my enquiry cost and profits to the weaver worked out as under:—

Revenue (per week).		Cost (per week).	
Rs.	a.	Rs.	a.
10 pairs of 4½ yds. <i>dhutis</i> at Rs. 11		2 bundles of yarn (12's and 14's)	
per <i>hali</i> (4 pairs)	...	at Rs. 10	...
	27 8	Dye	...
			20 0
			Nil
			20 0
		Net profit (per week)	7 8
			27 8

Hence monthly earnings of the family would be Rs. 30, provided they work average time for the whole month. As a matter of fact, full time is not put in, I have been told, except during the season. This profit can go up to Rs. 52 and more if they weave 40's or higher counts. But local demand for finer counts is limited and precarious, and producers are not able to take the risk of manufacturing for distant markets, for want of any form of modern organisation.



## II.—BAMBOO MATS.

1. This is an old local industry which has been growing in volume and value with increasing facilities for export and increasing demand. The industry is confined almost entirely to Namusudras, who undertake it as a subsidiary occupation to agriculture (but the position of the two occupations is becoming reversed owing to Namusudras losing their land).

## Uses and demand.

The demand for mats is both local and external. The local use of bamboo mats is chiefly for—

(1) temporary walls and sheds, etc.,

(2) roofing for country boats.

The external demand is besides the above for use also in—

(3) Jute godowns, (4) Brick fields, (5) Ships.

It is really the last three sources of demand that are responsible for the present growth and size of the industry.

The demand varies with the season. It is strongest from autumn to spring. Slackness sets in with the onset of the monsoon, and the market is weakest in July and August. In this period, the brick field demand has ceased and the jute godown demand has not yet begun. At the same time large supplies of forest bamboos have been brought down the rivers, tending to lower production costs and opening of water communication also renders local markets more accessible.

2. The average price per hundred pieces of bamboo mats obtained by makers is about Rs. 314. The average export price (at Karimganj) is believed to be Rs. 5 (if not higher). The total turn over per year is estimated to range from 50 lakhs to 75 lakhs of pieces. The estimated monthly output and income per family are :—

Number of working days per week.	Output per (bi-weekly) kat.	Output per week.	Output per month.	Net monthly income per family.
1	2	3	4	5
4 days ... ..	50 pieces	100	400	Rs. 4 to 5-8
Every day ... ..	100 "	200	800	8 to 11

This cottage industry too is worked on the family system, men doing the work of preparing the bamboo and women weaving them. They usually work for 2 days per *kat* or 4 days per week. Fingers are liable to be injured if work is continued from day to day. With ordinary speed Re. 1 to Re. 1-8 per week is the average income per family; while Rs. 2 to Rs. 2-12 represents the limit of the family's earnings. I take 3 able-bodied adults (men and women) to be the strength of the average family.

3. The distance that separates the mat-makers from the jute centres and from the Calcutta port on the one hand, and from the bamboo forests on the other; and, secondly, the volume of the trade and the want of any organisation of these cottage workers to handle so large a business, have afforded facilities for a distressingly long chain of middlemen to squeeze themselves into the arrangement.

First in order comes the purchase of raw materials. The extraction of bamboo from the forest is done as an annual business by a certain class of people. In most cases they prefer to sell their stock to wholesale purchasers who carry it to the principal marts and make a profit by reselling to local dealers, or the *paiyaddars* in certain cases. The mat-makers purchase their supplies of bamboo from either of these classes of people. The former generally sell for cash or short credit; while the latter prefer to advance bamboo, charge higher (than market) rates, and in the bargain bind the mat-maker to sell his output to him at lower (than market) rates. Obviously the producer stands to lose at both ends by the latter arrangement. Credit rates for bamboo are often as high as 25 per cent. above cash rates; and the difference is seldom less than 12½ per cent. The mat-maker rarely extracts his own bamboo from the forest. He takes the bamboo and prepares the mats. He has next to dispose of his output. There is the *paiyaddar* ready at his door to buy up the whole stock. He has either advanced him bamboo or, as more usually is the case, he has allowed him to overdraw a certain sum nominally free of interest against mats deposited, on condition, first, that he sells his entire output to him alone, and, secondly, that he should give him a pair of mats to the rupee above the market rates for cash sellers. For example if the rate for mats is Rs. 4 per hundred pieces or 12½ pairs per rupee, for those with a book account the rate would be 13½ pairs per rupee. It is obviously to the interest of the *paiyaddar* to tempt the producer to take an advance and sell at reduced rates. This is always done and advances are allowed to stand over from year to year. The *paiyaddar's* clients are his bondsmen and the client is, I am told, insulted and not unoften assaulted, if he is found selling to any other person. This is not only done in the case of a man who has himself taken an advance, possibly a decade or fifteen years ago, but also for advances taken by his father! After the *paiyaddars* come retail and wholesale merchants and Calcutta agents, before the consumers at the end of the chain are reached.

4. The system has completely demoralised the Namasudra mat-maker. The chain of unnecessary middlemen leaves him too small a margin even for mere animal existence and his only escape now from the operation of this heartless exploitation is through underhand sale. The problem is to eliminate the now useless *paiyaddar* and smaller merchants and to bring the matmakers into direct touch with the stevedores, brick fields, and jute centres, or at least with the exporting merchants of Karimganj. As regards the latter, the following table will show how far the producer will benefit by it :—

Price of mats purchased by Karimganj exporters.	Distribution of the sum of Rs. 100 (sale price).			
	To cost of materials.	Profit of producer.	Profit of <i>paiyaddar</i> .	Profit of smaller merchant.
1	2	3	4	5
Rs.	Rs.	Rs.	Rs. a.	Rs. a.
100	58 (58 per cent.)	21 (21 per cent.)	10 8 (10·5 per cent.)	10 8 (10·5 per cent.)

By eliminating these two uncalled-for middlemen by the simple process of organising co-operative sale societies, the income of the Namasudras could be doubled.

### III.—PATI.

*Pati*, also known as *sitalpati*, i.e., cool mat, is one of those old industries of which Sylhet is justly proud. A hundred years back, *sitalpati* made from ivory formed a regular article of manufacture in Sylhet. But the industry is now not merely decaying but actually dead, and the delicate art of making *patis* out of ivory is possibly lost too. I saw a specimen of ivory *patis* in 1906.

*Murta*\* cane *patis*, however, are now having an increasingly large volume of business. The present note is confined to *murta patis* only.

#### 1. Qualities and uses :—

(1) Ordinary qualities are used as—

(a) A covering for the bedstead.

(b) Something to place under the bed.

(c) A convenient "Camp chair" in villages to spread out when there are guests to receive.

(2) *Shap* or long *patis*—for ceremonial occasions, meetings and musical performances.

(3) *Sitalpati* (proper) :—

Very fine pieces are spread out on the bed during summer and form luxuriously cool coverings that easily induce sleep. They are real works of art, and good pieces 2½ yards × 1½ yards may command a price up to Rs. 100 each.

(4) Floor mats :—

European sojourners in the plains use it as a floor covering, for which purpose furnishers will cut up a long *patis* and weave the sides into perfectly whole joints with the appearance of one single *patis* exactly fitting the room.

#### 2. Direction of the demand—

Ordinary *patis* are strongly in demand all over Eastern and Northern Bengal. Calcutta is a brisk selling centre, while Burma is a paying market. Upper Assam is taking larger quantities every year. Mymensingh seems to be able to consume cheap *patis* almost in any quantity.

The demand might increase very greatly, if efficient organisation for pushing on sale existed. Here I foresee a wide field for co-operative sale societies.

#### 3.—Location of the industry—

The chief centres of the trade are :—

(1) Balaganj (for finer qualities).

(2) Daser Bazar (for medium qualities).

(3) Kaliganj (for coarse kinds).

\* *Maranta* or *Clinogyne dichotoma* (As. *patidol*).

At Daser Bazar this industry is the hereditary occupation of the Das (Mahishya) caste and is their subsidiary source of income next to agriculture. I have, however, been told of men of such castes as Dhobis, Naths, and Mali, and some Mahomedans as well pursuing the industry.

Half a dozen families depend entirely on this industry for their living. At Kaliganj it forms a subsidiary occupation of Mahomedan agriculturists.

4.—*Raw materials*—

*Pati* is made from *murta*, a plant of the reed family. Unlike reeds of the *khag* variety it has no joints. Like other reeds it grows on marshy and waterlogged areas and is found in abundance in choked up tanks and damp hill slopes. At Balaganj *murta* is cultivated by Mahomedans and appears to be a paying thing to grow. The roots are sown in April and the plants ripen in 2 years. It is a standing crop and will yield good *murta* for 10 to 12 years consecutively. The cultivation is not generally done in the open field; but the plants are arranged in a ring round the homestead land on the brink of the inevitable surrounding trench.

The wild variety is cheaper, but inferior in quality. Thick bushes grow slender canes of inferior quality. Daser Bazar and Kaliganj use the wild variety almost exclusively, while Balaganj has to grow it.

The yield per *kedar* (one-third acre) of land is said to total Rs. 40 per year. Twenty *halis* or 80 pieces of *murta* fetch anything from 4 annas to 10 annas according to the quality of the cane.

5.—*System of manufacture*—

The industry is worked on the cottage system. At Kaliganj women do the weaving while men prepare the cane. At Daser Bazar, co-operation from the women folk does not seem to be general; widows and indigent women however earn a living from its manufacture.

The *murta* is split like the ordinary cane. (a) For the brown variety, the prepared cane has only to be dried and then woven. At Kaliganj the cane is not even dried. The result is that when the cane gets dry the texture ceases to be close. (b) For the *white* variety, the cane after splitting is boiled and dried before it is woven. It will then present an ivory finish. To obtain a milky white appearance young canes are used and give better results, though they are less able to bear a strain and last less than more mature cane.

A full-sized *patis* is  $\frac{1}{2} \times 1\frac{1}{2}$  yards, smaller ones of various sizes are also made. A full length *shap* is  $8 \times 2$  yards.

6. A *patis* worth Rs. 2 in July would fetch only Rs. 1-3 in autumn; it would rise to Rs. 2 again in November, to Rs. 2-4 in January and Rs. 2-8 in March and return to Rs. 2 in May-June.

Prices and sales.

During the wet months *murta* is plentiful and cheaper, and transport easy; (agricultural) workers are comparatively free to devote their time to this subsidiary industry; and therefore though demand is keen prices remain at a very reasonable level. With the approach of autumn, the demand weakens, but supply continues to be large. Hence during September and October prices are the lowest. From November agriculture absorbs increasingly greater time of the workers and supply falls off more quickly than the demand, and therefore prices rise. During the dry winter months production is further restricted for yet another reason, *viz.*, that the cane becomes crisp and brittle—too dry for weaving. With spring the demand revives and the highest prices are realised in March-April, after which a return to normal conditions is quickly effected when the broadcast sowing of paddy is over in May.

The price fluctuations benefit chiefly the middlemen. The *patis* maker is poor and is unable to withhold his output from the market during the autumn slump, and has to offer his stock for sale to the middlemen for what can be had for them.

Daser Bazar near Barlekha (Assam-Bengal Railway) is chiefly a mart for *patis*, though other articles are also brought for sale. But there is no standing shop. In September 1921, when I visited the *hat*, the sale of *patis* opened  $\frac{1}{2}$  hour before sunset and was over in one hour and a half. The wholesale purchasers (*paikars*) sat down in rows and the makers or their agents brought their *patis* for sale. The purchasers pulled up the *patis* from the (maker's) bundle, unrolled it, rolled it up again—all in an incredibly short space of time—and offered a price. The maker next tried another man, and another and then another till it was sold. There were some stalls also of sellers, who were evidently middlemen. Though roughly 2,500 to 3,000 *patis* were offered for sale, very few were taken back unsold.

The average price appeared to be Rs. 1-3 to Rs. 1-4 for full and medium sized *patis*. This was lower than usual owing to the previous *hat* not meeting for foul weather and the absence of outside purchasers. Judging by the quantity marketed, the day's sale amounted to Rs. 2,500 to Rs. 3,500. This *hat* meets weekly (and not bi-weekly as is usual). Taking Rs. 2,500 to be the average value of weekly sale from April to September and Rs. 1,000 as the average weekly sale for the remaining six months, the annual sale calculated in terms of price paid to makers comes to Rs. 84,000; adding 20 per cent. as middlemen's margin, the export value of the annual turn over is Rs. 1,00,000 and odd.

Kaliganj market has the usual standing shops and *patis* is only one of the several things sold there. The system of sale is very much the same as at Daser Bazar. The number of purchasers was only half a dozen. There was no stall for sellers. The average price was Rs. 0-11-0 for sellers. The sale was over in an hour's time. The day's sale (in September) amounted to over Rs. 500. The *bazar* meets bi-weekly and I calculate the total export value of the trade to be Rs. 40,000. The total sale of *patis* in Kaliganj is thus nearly Rs. 1½ lakhs. This of course leaves out purchases privately made from makers.

7. The following is the calculation of earnings at Daser Bazar, where only men work. At Kaliganj, where families work, earnings are greater and the *pati* makers are comparatively prosperous:—

Number of workers.	Time required for—			Output per week.	Income per week.	Net monthly income.	Remarks.
	Procuring cane.	Preparing cane.	Weaving.				
1	2	3	4	5	6	7	8
1 adult	1 day	2 days	4 days	2 full <i>patis</i>	At Re. 1-4 each Rs. 2-8.	Rs. 10	Working full time.

*N.B.*—The calculations are for average workers only. Expert makers can earn more.

What profits the middlemen make, it is difficult to gauge without a study of the markets to which they export. They are mostly outside the province. It is, however, interesting to know that at Daser Bazar, middlemen purchase for outside merchants on a commission of 6½ per cent. Distant firms send representatives who purchase through these people. The middlemen purchasing on their risk and account are financed by certain local people who charge no interest, but in lieu thereof share 25 per cent. of the profits. At Daser Bazar, with the exception of one Mahomedan, all middlemen and their financiers are Das by caste. At Kaliganj the business is entirely controlled by Mahomedans.

#### IV.—FISHING NETS.

1. A large and brisk trade in fishing nets is carried on in Karimganj. The industry is familiar but too unobtrusive to attract public attention. The demand for nets comes from the fish-catching classes, *viz.*, the Mahimals among Mahomedans and among the Hindus, chiefly the Patnis.

Besides the local demand for nets, Cachar is a large buyer and consumes about Rs. 50,000 worth annually.

2. The chief centres of production are roughly two, Sheola-Bairagi Bazar centre and Jaldhup centre. Angarjar and Balinga, near Sheola, are the two largest net-producing villages.

The makers are almost exclusively Patnis by caste. The net makers may be classed under 3 heads:—

- (i) *Occasional workers.*—With the majority of men of this caste, it is a subsidiary occupation, the principal being agriculture, boat-plying and fish-catching being the second.
- (ii) *Half-time workers.*—Landless Patnis whose principal sources of income are (a) boat-plying, (b) net making and fishing.
- (iii) At Balinga and Angarjar, there are landless families whose sole occupation is net making and fishing.

Usually fishing nets are made only from hemp, much of which has to be imported, as the local supply is insufficient. But the spinning of hemp is difficult and there is a tendency to substitute mill-made cotton yarn both for its cheapness and the ease of its manufacture into nets. But cotton nets are much weaker and less durable. This year's rate for hemp is said to be Rs. 15 per maund.

According to their sizes, which are determined by the purpose for which they are meant, fishing nets are classed as follows:—(1) *Mahajāl* (great net) for fishing in big rivers. These are made to order only and may cost up to several hundred rupees; (2) *Jāl* (ordinary net) 7 yards × 7 yards. This is the size most in demand; (3) *Polain*, a triangular net from 2 to 3½ cubits long, for catching small fish.

The quality varies—

- (a) according to the strength of the string used (2- or 3- ply thread); and
- (b) according to the size of the intervening mesh (from 1 to 3 fingers' breadth).

3. Prices of nets, unlike the output of most cottage industries here, are subject to violent fluctuations. A slump caused by the sudden falling off in demand often reduces prices by as much as 50 per cent. This is possibly due largely to the market being entirely controlled by a small coterie of capitalist middlemen (also of the Patni caste).

The normal rise of prices occurs once in autumn (October and November) when the standing flood water begins to subside and there is a record catch of fish. The demand falls off gradually in winter and does not revive till the monsoon breaks in April. The difference in the level of prices between the 4 active months and the 8 slack months is accentuated by the poverty of the manufacturers and their consequent inability to withhold even temporarily the sale of the output. The selling price of ordinary nets of 7 × 7 yards varies from Rs. 4 to Rs. 25 according to thread and mesh. The monthly savings of a single man working half-time and getting his hemp spun for cash would be about Rs. 7-8. But in point of fact, the industry is worked on the family system. The women spin the hemp whilemen make the nets. Family profits therefore include profits of spinning as well as of weaving.

At the same time allowance has to be made for the fact that families which work full time are few; most work only half time, for fishing and boat plying are very common additional sources of income even when a man has no land to till. The estimated average income from net making of such a family making 25 nets in a year is from Rs. 106 to Rs. 144 annually. In this industry also the middlemen with a system of advances of cash or hemp and purchase of the nets in favourable terms, have a stronghold. They succeed in cutting down prices to the workers to such an extent as to cause from 20 to 50 per cent. difference, between the workers' receipt and the local bazar price. The total volume of the trade is estimated at 1 lakh annually.

#### V.—AGURU (*Agar*).

The word *aguru* properly means the *attar* distilled from the dark brown hardened resinous juice secreted in the wood of the tree *Aquilaria Agallocha* and it is also used to mean the fragrant wood itself. Although the *Din-i-Akbari* tells us that in Mogul times Sylhet used to grow forests of *aguru*, there is little found now in the district. The chief *agar* forests are in the Assam Valley and the Naga Hills, and discovery of the particular trees which happen to have developed the valuable secretion appears to be largely a matter of chance.

The raw material with adhering wood is brought to Sujanagar, Basnagar and three other villages near Dakshinbhag in Sylhet, for distillation by the skilled workers there. There is hardly any local demand. Most of the demand is from other parts of India, where it is used in religious ritual, and from China and Western Asia, for which market it is bought by Arab merchants in Calcutta.

The industry cannot strictly be called only a cottage industry, for there are only about 40 families who own distillery plants. Most of the business is in the hands of two exporting firms who have workshops in the two chief villages. These employ a large number of day labourers, and also give out work on contract to those who prefer to work at home. The day labourers get 6 annas a day and the others are paid at piece rates. With the great majority the industry is subsidiary to agriculture.

The business is entirely in the hands of Muhammadans. There are nearly 1,000 workers in addition to the families who have their own stills.

There is no fixed market rate, and the prices are fixed by haggling. The three products, manufactured *agar* wood, *attar* and the residue or dust, all have their values. First quality material may yield Rs. 3-8 per tola for *attar*, Rs. 15 a seer for manufactured *agar*, and Re. 1-8 per maund for dust. Profits are high, some estimates varying from 66 per cent. to 260 per cent. on working a maund of raw material, but want of capital hinders the smaller manufacturer. Usually he has to approach the exporting middleman, who only agrees to finance him on the usual conditions, *vis.*, that the entire output be sold to him, and that the seller accept lower rates.

APPENDIX F.

FAMILY BUDGETS.\*

1. Cultivator—Nowgong.

Village—Ghilsai, thana Jamunamukh, mauza Kampur.

(a) A family of seven members.—Three males, one being old, one boy of about 12 and one full grown man, two females of full grown age and two infant girls. The females do household work such as cooking, house keeping, etc. They do not help in the field work.

Annual income.		Expenditure.	
	Rs.		Rs.
Paddy grown and taken 100 maunds, value	300	Paddy consumed 16 maunds, price	168
Matikalai	36	Salt, oil, spices, etc.	36
Sale-proceeds of vegetables and poultry	60	Cloth	100
Fish caught and consumed	80	Fish	60
Cattle sold and hired out and milk sold	100	Fodder for cattle, etc.	36
Loan taken	50	Expenses for guests, birth and death, etc.	60
		Religious and medical expenses	36
Total	606	Price of milk	60
		Interest paid	5
		Land Revenue	20
		Total	581

Majority of the people are in this state of economic distress, only 5 per cent. of the villagers are in better condition but about 20 per cent. are in worse condition.

2. Cultivator—Lakhimpur.

Family—Ordinary Miri cultivator :—Village—Bhadia Chuk, Miri mahal—Thana, Dibrugarh.

Male adult	2
Female adult	2
Male child	3
Female child	1
Total	8

Annual income.			Expenditure.		
	Rs.	a. p.		Rs.	a. p.
Paddy and mustard	762	0 0	<b>A—Food.</b>		
Value of fish caught and consumed	50	0 0	Rice	365	0 0
Commission as Gum	25	0 0	Salt	5	0 0
Loan	30	0 0	Oil	13	0 0
			Spices	3	4 0
Total	867	0 0	Fish	50	0 0
			Pulse	2	0 0
			Tea	5	12 0
			<b>B.</b>		
			Betel-nut	11	8 0
			Kerosine oil	1	10 0
			Tobacco and molasses	9	12 0
			Clothes	33	0 0
			Country liquor	47	0 0
			<b>C.</b>		
			Festivals	80	0 0
			Depreciation in plough bullocks	5	0 0
			Purchase of implements	5	0 0
			Poll-tax	6	0 0
			Repayment of debt	30	0 0
			Interest	9	6 0
			Lent	20	0 0
			Total	702	4 0
			Balance in <i>dhan</i>	164	12 0
			Grand total	867	0 0

\* Remarks added in some of the budgets are opinions of the particular enquiring officers.

## 8: Cultivator—Sylhet.

Muhammadan of village Digband, Biswanath police station.

Family ... ..			1 male adult. 1 female adult. 8 male children. 8 female children.
Annual income.	Rs.	Item of expenses.	
Value of crops, etc. ...	252	<i>A—Food.</i>	
Wages as labourers ...	100	Rice ... ..	Rs. 288
Loan ... ..	150	Salt ... ..	5
Total ... ..	502	Oil ... ..	10
		Spices ... ..	5
		Fish ... ..	12
		Pulses ... ..	5
		Vegetables ... ..	3
		Milk and ghee ... ..	8
		<i>B—Other expenses.</i>	
		Betel-nut ... ..	5
		Kerosene oil ... ..	6
		Tobacco ... ..	8
		Clothes ... ..	20
		Household utensils ... ..	5
		Furniture ... ..	8
		<i>C—Miscellaneous.</i>	
		Land revenue and rent ... ..	20
		Local taxation ... ..	1
		Total ... ..	404

## 4. Cultivator—Khasi and Jaintia Hills.

(Five members) 1 adult male, 2 adult females, 1 girl and 1 boy.

Jowai subdivision.

Village Nongkhlich (Nongkhlich Doloiship).

Annual income.	Rs.	Items of expenditure.	
Value of paddy and other crops grown with vegetables, fruits and live-stock less value of seeds ... ..	311	<i>A—Food.</i>	
Total ... ..	311	Rice ... ..	Rs. a p. 160 0 0
<i>Remarks.</i>		Indian corn ... ..	15 0 0
3 workers, 2 dependants.		Sweet potatoes ... ..	4 0 0
Work for about 8 months in the year.		Salt ... ..	6 0 0
		Oil ... ..	5 12 0
		Spices ... ..	3 9 0
		Fish ... ..	12 0 0
		Vegetables ... ..	10 0 0
		<i>B—Other household expenses.</i>	
		Betel-nut ... ..	8 10 0
		Tobacco ... ..	2 14 0
		Clothes ... ..	25 0 0
		Household utensils ... ..	0 8 0
		Furniture ... ..	...
		Soap ... ..	1 0 0
		Matches ... ..	1 7 0
		<i>C—Miscellaneous.</i>	
		House repairs ... ..	7 0 0
		Medical expenses ... ..	2 0 0
		Domestic festivals and entertainments ( <i>pujas</i> included) ... ..	0 12 0
		Hire or purchase of raw materials and implements ... ..	10 0 0
		Land revenue, rent and house-tax ... ..	7 0 0
		Wages for field labour ... ..	10 0 0
		Total ... ..	292 8 0

## 5. Tea-garden coolie—Sibsagar (Jorhat).

## CINAMARA TEA ESTATE.

Family—1 male (Leboo Dhandasi-Telugu) adult, 1 female adult (working), 1 boy 6 years (non-working), 1 girl 4 years (non-working).

Works in tea-house for part of year, in garden for remainder.

Monthly income.	
	Rs. a. p.
Pay for man ...	9 8 0
Pay for wife ...	8 8 0
Value of paddy grown in his own land Rs. 20 for the whole year, i.e., Re. 1-10-0 per month ...	1 10 0
<b>Total ...</b>	<b>19 10 0</b>

This family is an average good tea-garden family. The family is a little above the average.

Monthly expenditure.	
	Rs. a. p.
Rice ...	8 8 0
Salt ...	0 2 0
Oil ...	0 7 0
Spices and small fish ...	0 10 0
Pulses ...	0 12 0
Vegetables ...	0 3 0
Sugar, etc. ...	0 4 0

Other household expenses.	
	Rs. a. p.
Betel-nut ...	0 5 0
Tobacco ...	0 12 0
Kerosene oil ...	0 3 0
Clothes ...	3 8 0
Liquor ...	2 0 0
Household utensil ...	0 3 0

C—Miscellaneous.	
	Rs. a. p.
Domestic festivals ...	0 8 0
Hire of cattle ...	0 2 0
Rent ...	0 4 0
<b>Total ...</b>	<b>18 11 0</b>

It is estimated that 20 per cent. of the families on the garden are above this standard, 30 per cent. of this standard and the remainder below.

## 6. Tea-garden coolies—Sylhet.

Caste—Oriya (South Sylhet).

Man, wife, sister (aged), old mother, child—2½ workers.

## Yearly Budget.

Receipts.	
	Rs. a. p.
Wages ...	204 12 0
Advance agreement ...	22 0 0
Bonus, monthly ...	9 0 0
House repairs ...	2 0 0
Medical ...	6 0 0
Bed bags ...	1 0 0
<b>Total ...</b>	<b>244 12 0</b>

Expenditure.	
	Rs. a. p.
Rice ...	104 0 0
Salt ...	3 4 0
Oil ...	3 4 0
Spices ...	1 10 0
Fish ...	1 10 0
Pulse ...	3 4 0
Vegetables ...	3 4 0
Milk ...	5 11 0
Gur ...	5 11 0
Kerosene ...	3 4 0
Tobacco ...	7 5 0
Liquor ...	52 0 0
House repairs ...	2 0 0
Medical ...	6 0 0
Festivities ...	2 0 0
Clothes ...	16 7 0
Bed bags ...	1 0 0
Utensils ...	2 0 0
<b>Total ...</b>	<b>228 10 0</b>



7. *Ex-garden coolie—North Lakhimpur.*

Village Sarigabari, near Silonibari Tea Estate—5 family members—2 men, 1 woman and 3 children.

Income (annual).			Expenditure (annual).		
	Rs.	a. p.		Rs.	a. p.
Rice ...	264	0 0	<b>A—Food.</b>		
Vegetables ...	10	0 0	Rice, 42 maunds at Rs. 4	168	0 0
Fruits ...	8	0 0	Salt 1½ score weekly (cattle included) ...	12	8 0
Milk ...	28	0 0	Oil ...	26	0 0
Wages from garden ...	178	12 0	Spices ...	13	0 0
			Pulses ...	19	8 0
			Vegetables ...	20	0 0
			Milk ...	23	0 0
			Gur ...	6	8 0
<b>Total</b> ...	<b>476</b>	<b>12 0</b>	<b>B—Other household expenses.</b>		
			Kerosene oil ...	7	5 0
			Tobacco and molasses ...	15	0 0
			Cloths ...	57	12 0
			Opium ...	65	0 0
			Liquor ...	1	0 0
			Household utensils ...	5	15 0
			<b>C—Miscellaneous.</b>		
			Domestic festivals ...	5	0 0
			Land revenue ...	9	0 0
			Local rate ...	0	9 0
			Repayment of debt ...	20	0 0
			Interest for 3 months ...	2	0 0
			<b>Total</b> ...	<b>476</b>	<b>12 0</b>

*Note.*—This is a good class of *ex-coolie* family. Woman plucks for about 3 months, 2 men earn 6 annas daily, working about half the week on the garden.

8. *Cultivator—Hand-loom worker—Cachar.*

Three workers and 4 dependants—working members engaged in work for about 250 days.

Thana Hailakandi village Nimaichandpur I—1 male adult, 3 female adults and 3 children.

Income.			Expenditure.		
	Rs.	a. p.		Rs.	a. p.
Value of cloth prepared and sold ...	40	0 0	Rice ...	170	0 0
Value of crops, etc. ...	200	0 0	Salt ...	2	8 0
Trade in bamboos, canes, etc. ...	70	0 0	Oil ...	9	0 0
			Spices ...	2	0 0
<b>Total</b> ...	<b>310</b>	<b>0 0</b>	Fish ...	8	0 0
			Pulses ...	4	0 0
			Tea, sugar, etc. ...	3	0 0
			Betel leaves and nuts ...	3	0 0
			Kerosene oil ...	7	0 0
			Tobacco ...	2	0 0
			Clothes ...	40	0 0
			Utensils ...	6	0 0
			House repairs ...	12	0 0
			Medical expenses ...	5	0 0
			Domestic festivals ...	3	0 0
			Land revenue ...	30	0 0
			Local taxation ...	0	9 0
			<b>Total</b> ...	<b>319</b>	<b>1 0</b>

9. *Cultivator-Fisherman—Cachar.*

Two workers and 3 dependants working members engaged for about 240 days.

Thana Hailakandi, village Nimaichandpur II—2 male adults and 3 children.

Income.	
	Rs.
Value of crops, etc.	160
Value of fish caught and sold	90
<b>Total</b>	<b>250</b>

Expenditure.	
	Rs. a.
Rice	130 0
Salt	2 0
Oil	9 0
Spices	6 4
Tea and molasses	1 4
Betel-nuts, etc.	9 0
Kerosene oil	7 0
Tobacco	4 8
Cloths	25 0
Utensils	10 0
House repairs	6 0
Domestic festival	5 0
Rent	32 0
Local taxation	0 9
<b>Total</b>	<b>247 9</b>

10. *Potter-Cultivator—Nowgong.*

Village Kumargaon, Manza Dergaon, P. S. Dergaon.

Potter family  
Period 1 year.

Male adult	3
Female	1
Male child	2
Female child	3
<b>Total</b>	<b>9</b>

Income.	
	Rs.
Value of crops grown, etc.—	
Rupit 12 bighas	240
Ahu land 4 bighas	50
Mustard 2 bighas	10
Pulse 1 bigha	6
Sale or hire of cattle	10
Money taken on loan	100
Pottery manufacture	60
<b>Total</b>	<b>476</b>

*N.B.*—The income of such a family depends to a considerable extent on the number of female adults, who work in pottery manufacture mainly. There is no family solely depending on pottery manufacture: every family has some cultivation as well.

Such families are 10 per cent., above this line 85 per cent., and below this line 5 per cent.

Expenditure.	
	Rs. a. p.
<i>A—Food.</i>	
Rice	300 0 0
Salt	5 0 0
Spices	2 0 0
Fish	10 0 0
Vegetables	3 0 0
Milk and ghee	6 0 0
Tea, sugar, gur, etc.	20 0 0
<i>B—Other household expenses.</i>	
Betel-nut	Nil.
Kerosene oil	4 0 0
Tobacco and molasses	6 0 0
Clothes	40 0 0
Opium, ganja, etc.	26 0 0
Utensils	Nil
<i>C—Miscellaneous.</i>	
House repair, etc.	5 0 0
Medical expenses	Nil
Festivals, etc.	50 0 0
Hire or purchase of boat	2 8 0
Raw material and implements	Nil
Land revenue	26 0 0
Repayment of debt (principal)	20 0 0
Interest on loans	20 0 0
Release of impounded cattle	6 0 0
Gift in marriage	5 0 0
<b>Total</b>	<b>556 8 0</b>

11. *Coal-miner—Lakhimpur.*

## MAKUM, MAUZA LEDO.

Family, coal miner : 2 male adults, 1 female adult, 1 male child, 1 female child.

Items of income.	Amount yearly. Rs.	Items of expenditure.	Amount yearly. Rs.
Income per annum (all adults working), wages, 2 males at average Rs. 30 per mensem.	720	<i>A—Food.</i>	
Wages, 1 female at Rs. 20 per mensem.	240	Rice 2½ maunds per month at Rs. 8 per maund = Rs. 20.	210
Yearly ...	960	Salt 4 seers per month ...	5
		Oil 2 " " " ...	30
		Spices at Rs. 1 per month ...	12
		Fish at Rs. 5 per month ...	60
		Pulses 10 seers per month ...	30
		Vegetables at Rs. 2 per month ...	24
		Milk and <i>ghos</i> at Rs. 10 per month.	120
		Tea, sugar, etc., at Rs. 2 per month.	24
		Live-stock, poultry, goats, pigeon, eggs, milch cow and calves at Rs. 2 per month.	24
		<i>B—Other household expenses.</i>	
		Betel-nut at Rs. 1 per month ...	12
		Kerosene oil at annas 12 per month.	9
		Tobacco and molasses at Rs. 2 per month.	24
		Clothes at Rs. 3 per month ...	36
		Liquor at Rs. 7 per month ...	84
		Household utensils at Rs. 1 per month.	12
		Furniture ...	Nil.
		<i>C—Miscellaneous.</i>	
		House repairs and materials ...	supplied by Company.
		Medical expenses ...	Ditto.
		Domestic festivals and entertainment ...	12
		Land revenue or rent ...	Nil.
		Local taxation ...	Nil.
		Repayment of debt... ..	Nil.
		Interest on loan ...	Nil.
		Any other expenses... ..	Nil.
		Approximate yearly expenditure...	758

It is very difficult to give any really reliable figures as the earnings and standard of living of the various classes of labour vary very much.

12. *Oil-well Worker—Lakhimpur.*

Village, mauza or thana Digboi (Margherita).

Family E, 1 male adult, 1 female adult, 1 male and 1 female child, 1 infant (male).

Number of workers ... 2 } Total 5 members.  
 Number of dependants ... 3 }

Items of income.	Rs.	Items of expenditure.	Rs.
Wages ...	276	<i>A—Food.</i>	
Money taken on loan ...	29	Rice (including flour, etc.) ...	186
Total ...	305	Salt ...	3
		Oil ...	12
		Spices ...	3
		Fish (refer to all classes who spend money in fish) ..	10
		Pulses ...	10
		Vegetables ...	3
		Milk and <i>ghos</i> ...	6
		Tea, sugar, etc. ...	10
		<i>B—Other household expenses.</i>	
		Kerosene oil ...	5
		Tobacco and molasses ...	4
		Clothes ...	25
		Liquor ...	8
		<i>C—Miscellaneous.</i>	
		Firewood ...	12
		Barbor ...	3
		Total ...	305

13. *Earth worker on roads—Goalpara.*

Thana—Bilasipara.

Number of members in the family.

Workers— { Male 1  
Female 1 } Dependants. Nil

Items of income.	Rs.	Items of expenditure.		
		A—Food.	B—Other household expenditure.	C—Miscellaneous.
Wages ... ..	225	Rice ... ..	96 0 0	
		Salt ... ..	3 0 0	
		Oil ... ..	8 4 0	
		Spices ... ..	1 8 0	
		Fish ... ..	6 0 0	
		Pulses ... ..	27 0 0	
		Vegetables ... ..	9 0 0	
		Milk and ghee ... ..	Nil.	
		Tea, sugar, etc. ... ..	3 0 0	
		Live-stock ... ..	1 8 0	
		Betel-nut ... ..	Nil.	
		Kerosene oil ... ..	5 4 0	
		Tobacco and molasses ... ..	3 0 0	
		Cloths ... ..	15 0 0	
		Opium, ganja or liquor ... ..	Nil.	
		Household utensils ... ..	1 0 0	
		House repair and materials ... ..	10 0 0	
		Domestic festivals and entertainment. ... ..	6 0 0	
		Purchase of implements ... ..	3 0 0	
		Land revenue or rent... ..	5 4 0	
		Local taxation... ..	0 6 0	
		Other expenses (Remittance to parents by M. O.) ... ..	20 4 0	
Total ... ..	225	Total ... ..	224 6 0	

There are no local earth workers. This budget refers to a pair of upcountry settlers who carry on their work throughout the year.

14. *General labourer—Khasi and Jaintia Hills (Shillong).*

Constitution of family—1 male adult worker.  
1 female " "  
1 female child (14 years) worker  
1 male child (6 years)—dependant.  
1 " " (4 " ) "  
1 " " (2 " ) "

Items of income—monthly.			Items of expenditure—monthly.		
	Rs.	a. p.	A—Food.	Rs.	a. p.
Wages, working for 20 days on the average, in a month—			Rice ... ..	18 0 0	
1 male adult at annas 12 per diem ... ..	15	0 0	Salt ... ..	0 4 0	
1 female adult at annas 6 per diem ... ..	7	8 0	Oil ... ..	0 1 0	
1 female child at annas 4 per diem ... ..	5	0 0	Spices ... ..	0 4 0	
Total income ... ..	27	8 0	Fish (dried and fresh) ... ..	2 0 0	
			Meat ... ..	1 8 0	
			Vegetables ... ..	1 0 0	
			Total ... ..	18 1 0	
			B—Other household expenses.		
			Betel-nut ... ..	3 0 0	
			Kerosine oil ... ..	0 8 0	
			Tobacco ... ..	0 6 0	
			Cloths ... ..	1 0 0	
			Opium, ganja and liquor ... ..	Nil.	
			Household utensils ... ..	0 3 0	
			Total ... ..	5 1 0	
			C—Miscellaneous.		
			House repairs and materials ... ..	Nil.	
			Medical expenses and pujas... ..	0 8 0	
			Purchase of implements ... ..	0 4 0	
			Other expenses (house-rent Re. 1, fuel Rs. 2-8, soap, etc., annas 8). ... ..	4 0 0	
			Total ... ..	4 12 0	
			Total expenditure ... ..	27 14 0	

15. *Middle-class family—South Sylhet.*

The family budgets have been made for one year on actual enquiries.  
Mubharir in Government service (Mubammadan)—Srimangal—

Family members	{	Adult male	...	...	...	1
		Adult female	...	...	...	1
		Young son	...	...	...	2
		Young daughter	...	...	...	1
Total					...	5

Income.	Rs.	a.	p.
Pay of Rs. 30 a month ...	860	0	0

This is a faithful account. The family is in want. It is an instance of strict economy.

Expenditure.		Rs.	a.	p.
<i>A—Food.</i>				
Rice	...	120	0	0
Salt 15 seers	...	1	14	0
Oil 12 seers	...	9	0	0
Spices	...	16	0	0
Fish	...	80	0	0
Pulses 30 seers	...	5	10	0
Vegetables	...	10	0	0
Milk	...	Nil.		
Sugar and tea	...	15	0	0
Total		206	8	0
<i>B—Other household expenses.</i>				
Betal-nut and pan	...	12	0	0
Kerosine oil 2 tins	...	7	0	0
Tobacco 24 seers	...	15	0	0
Cloths	...	48	0	0
Household utensils	...	4	0	0
Furniture	...	4	0	0
Total		90	0	0
<i>C—Miscellaneous.</i>				
House repairs	...	24	0	0
Medical expense	...	10	0	0
Festivals	...	2	0	0
Rent	...	2	4	0
Total		38	4	0
Total expenditure		334	12	0

16. *Middle-class family—Nowgong.*

Nowgong Town.—Sadr Police Station.

Clerk on pay of Rs. 68 per mensem.

Family—1 male adult, 1 female adult, 4 children, 2 nephews, 1 maid servant—9 members.

Items of income.		Items of expenditure.	
	Rs.	A.	
Annual salary	816	Rice	280 0
Value of crops grown with fruit	80	Salt	4 8
Value of cloth made at home	12	Oil	27 0
Cow's milk	16	Spices	13 0
Money taken on loan, including things purchased on credit	140	Fish	110 0
		Pulses	36 0
		Vegetables	36 0
		Milk and ghee	47 0
		Tea and sugar, etc.	70 0
		B.	
		Betal	12 0
		Kerosine	24 0
		Molasses	7 8
		Cloths	180 0
		Utensils	10 0
		Furniture	7 0
		C.	
		House repairs...	30 0
		Medical expenses	30 0
		Domestic festivals and entertainment	25 0
		Raw material	6 0
		Land revenue and municipal taxes	28 0
		Refund of debt	120 0
		Helping poor sister, subscription	30 0
		Total	1,133 0

The deficit is Rs. 93 (73+20). This state of affairs always continues.

## APPENDIX G.

*Estimate of production and average individual income at prices prevailing in 1921-22.\**

[Crops according to estimates of Agriculture Department.]

	Outturn (000's of maunds).	Average whole- sale price at chief marts.	Value of produce in lakhs of rupees.
1	2	3	4
Rice (husked) ... ..	54,443	Rs. a. p. 5 5 0 per maund.	28,92
Mustard ... ..	1,574	6 11 0 per maund.	1,05
Gur ... ..	867	9 0 0 per maund.	78
Jute ... ..	752	7 10 0	57
Other crops (cotton, sesamum, pulses, millets, roots, vegetables, fruits, etc.). Value estimated according to areas reported cultivated ... ..	...	...	5,23
Tea (value of exports 8,78 crores ; value to Assam taken at half this) ... ..	...	...	4,39
Coal, taken at annas 7 per maund <i>ex-mines</i> ...	8,441	...	37
Petroleum, taken at anna 1 per gallon of crude oil <i>ex-</i> wells ... ..	9.5 million gallons.	...	6
Fish, caught and sold or consumed, estimated value ...	...	...	40
Silk, cloth, limestone, forest products and small manufac- tures, estimated value ... ..	...	...	60
Total ... ..	...	...	Rs. 42,37 lakhs.
Population of Assam (excluding Manipur) ... ..	...	...	7,606,230
Average money value of annual income per head, 1921-22, nearly ...	...	...	Rs. 56
or per occupied house ... ..	...	...	„ 266

\* See Chapter XII, last paragraph. The calculation, which represents production value and not actual cash income to the average peasant, is only a rough approximation. Some items in the list have probably been much underestimated (e.g., fish and cloth); other items, such as live-stock profits, have been omitted.

No attempt has been made to estimate the shares of income taken by the trader, the money-lender and the rent-receiver on the one hand and the cultivator and wage-earner on the other.

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