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# The Myth of the Amorphous Peasantry: A Northern Nigerian Case Study

by

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# THE MYTH OF THE AMORPHOUS PEASANTRY: A NORTHERN NIGERIAN CASE STUDY

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# THE MYTH OF THE AMORPHOUS PEASANTRY: A NORTHERN NIGERIAN CASE STUDY

ECONOMISTS, though not anthropologists, commonly take for granted that in very poor regions, such as savannah West Africa, poverty is roughly uniform as between farmers—that as it were, all farmers suffer, while some suffer a little more than others. This notion of the amorphous peasantry is so little discussed that it is difficult to identify the types of belief with which it is associated. Are social factors, such as "levelling mechanisms", thought to be crucial in inhibiting aggrandizement by individuals? Or is it just thought that where farming tools and techniques are simple, as they are in West Africa, no individual can hope to make any real progress in taming the forces of nature? Is it, perhaps, assumed that innate differences in the efficiency of individual farmers do not even exist? Is the common belief that a farmers's output is determined by the family manpower at his disposal, thought to imply that there is no variability in consumption per head when account is taken of the farmer's dependents? However all this may be, it is certain that economists seldom explicitly suppose that inequalities, as between farmers in any locality, may be so great as to be associated with different types of economic behaviour—witness the usual practice, at least among model-builders, of denoting all the farmers as deficient in the same factor, which is nearly always land or labour, for finance gets forgotten. It is certain, also, that the bewitching power of certain averages (such as average acreages) is associated with the belief that there is little variation around the mean.

Because this notion of the amorphous peasantry is so largely implicit, being reflected in the economist's whole approach, not in his explicit assumptions, it is impossible to indicate its expression by means of brief citations. But it is not difficult to provide instances, such as the following, of unproven assertions which conventionally go unchallenged because they fit in with prevailing views:

"The most important features of agriculture in Nigeria are its low technological level and the small scale of the majority of holdings." 1 "In the groundnut producing areas the average African family unit probably holds about four acres only, one of which is devoted to groundnut." 2

<sup>&</sup>lt;sup>1</sup> G. K. Helleiner: Peasant Agriculture, Government and Economic Growth in Nigeria (The Economic Growth Center, Yale University, Homewood, Illinois; 1966), p. 44.

<sup>&</sup>lt;sup>2</sup> Ibid., p. 107.

"The predominant mode of agricultural production in most of these (less developed) countries is one in which masses of small cultivators take care of, and give individual attention to, small plots of land, and this is likely to remain so for the foreseeable future."

The purpose of this article, which is a preliminary analysis<sup>2</sup> of data which I collected in 1967 in an Hausa village in Northern Nigeria, is briefly to present some rather detailed statistical ("grass-root") material bearing on this question of rural inequality, in the hope that this may help to bring discussion by economists, of this important subject, out into the open. I am seeking to demonstrate that there are circumstances in which "inequality" may be a more realistic assumption than "uniform poverty", in which case it is the economic relationship between the different sections of the rural population which requires examination, together with the different scarcities (or groups of scarcities) from which these various sections suffer.

Partly because of the built-in condescension and degree of rusticity attached to the word "peasant", especially in its new-found usage among urban West Africans,<sup>3</sup> I continue to employ the time-honoured word "farmer" in its stead. This is when writing about West Africans, for I certainly recognize the appropriateness of the word "peasant" in other continents and indeed the need for comparing African cultivators with those in Asia and Latin America who have been so well studied by anthropologists.

It is necessary to begin with some summarized background information about the village area to which this article relates.

### The Village Area

The village area, called Batagarawa, in which my research was conducted, is situated in the extreme north of Northern Nigeria, six miles south of Katsina city, near a minor road. Most of the population lives in a small compact "town" (gari in Hausa) with a population of about 1,160 in 1967, the remainder (about 230) in nearby dispersed houses, surrounded by farmland, some of which are clustered. This gari, which I am sometimes inclined to refer to as a "miniature city", has narrow clay-walled streets and many of the entrance huts of the "houses" (most of which consist of an open compound in which sleeping huts, granaries, and other amenities are set) are of the sophisticated rectangular type, familiar to all visitors to Kano. For practical purposes the population may be regarded as consisting almost entirely of Muslim Hausa. In the gari, though not in the dispersed houses, virtually all the women of child-bearing age are rigorously secluded in

<sup>&</sup>lt;sup>1</sup> J. C. H. Fei and Gustav Ranis: Development of the Labor Surplus Economy: Theory and Policy (The Economic Growth Center, Yale University, Homewood, Illinois: R. D. Irwin, 1964), pp. 60-61.

<sup>2</sup> My analysis is preliminary because the presentation of more detailed material relating to individual farmers which will be included in a forthcoming book is expected to be much more revealing than the four sets of averages here presented.

<sup>&</sup>lt;sup>3</sup> See Polly Hill: "A plea for Indigenous Economics: The West African Example", Economic Development and Cultural Change, Vol. 15, No. 1 (October 1966), p. 12.

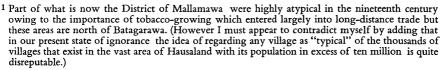
their houses and take no part in farming. Although polygyny is the ideal, 69 per cent of all married household heads have one wife. Divorce may be at the instigation of either party and is very common, so that many women have, successively, a number of husbands. Although Batagarawa is so close to the ancient city of Katsina, and is the seat of Mallamawa, District Head of the smallest of Katsina Emirate's 25 Districts, there is no reason to regard it as, for our purposes, an especially atypical Hausa village area1; it does not, for instance, have an unusually large number of religious malams, and there are only three Alhaji who have made the pilgrimage to Mecca. For over twenty years there has been a flourishing primary school in Batagarawa. There is no market. No one owns any motorized transport.

#### Continuous Cultivation

In a zone of variable depth (typically three-quarters to one-and-a-half miles) around the *gari*, which has an area of over two square miles, nearly 90 per cent of the farmed area consists of manured farms under continuous cultivation (known as *gonar karakara*), the remainder being unmanured or bush farms (known as *gonar daji*<sup>2</sup>). (The farmers also own over 200 other farms, most of them *gonar daji*, further from the *gari*, some as many as six miles away; they were much too dispersed for it to have been practicable

to map them.)

Although this general system of continuous cultivation of annual crops is common in Hausaland, and may be very old in some localities, it is very rare elsewhere in West Africa. In particular it does not exist in West Africa's other major groundnut exporting region, the "Groundnut Basin" of Senegal, even where population densities are high.<sup>3</sup> It is commonly assumed that systems of continuous cultivation are indicative of Malthusian land pressure, that farmers are obliged to follow such systems and do not do so from choice. Geographers see the critical density in Northern Nigeria in this connection as being something of the order of 150 to 200 persons per square mile.<sup>4</sup> But evidence is accumulating that, irrespective of the general density of population in the wider locality, continuous cultivation is the preferred system with farmers who live in towns or villages of more than a certain size and those who live in neighbouring dispersed homesteads may even imitate them. Certainly, there is in any locality a critical density such



<sup>&</sup>lt;sup>2</sup> To avoid pretentiousness, I am using Hausa nouns, such as *gona* (farm) in their singular forms throughout.

<sup>&</sup>lt;sup>3</sup> See Paul Pelissier: Les paysans du Senegal (Saint-Yrieix, Haute-Vienne, Imprimerie Fabregue, 1966).

<sup>&</sup>lt;sup>4</sup> See A. T. Grove: "Population Densities and Agriculture in Northern Nigeria", in Essays on Africa Population, ed. K. M. Barbour and R. M. Prothero (London: Routledge & Kegan Paul, 1961), p. 125.

that cultivation is *necessarily* on a continuous basis, but there is also apt to be a preference for such systems in circumstances where houses are sufficiently clustered as to prevent farmers from living in close association with their land.

In Batagarawa richer and poorer farmers alike have a preference for continuous cultivation, in the sense that nearly all farmers grow the bulk of their crops on gonar karakara. I would very roughly estimate that the acreage of gonar daji (bush farms) actually under cultivation in any farming season represents only about a fifth of the acreage of gonar karakara. This pattern of farming must represent conscious preference on the part of farmers since there is much uncultivated land, which may be freely appropriated, within two to four miles of the town (and beyond); there is even some within a half mile of the town.

#### Crops

Grains (chiefly millet and guinea corn) and groundnuts are the principal crops; subsidiary crops include cassava (manioc), cowpeas (a type of bean known as wake in Hausa), native (not commercial) tobacco, sweet potatoes, rice (which is grown to a small extent on the small area of swampy land), henna, guava, mango, tomato, okro and other small vegetables, as well as the important tree-crop—the locust bean. Neither yams, cocoyams, nor cotton are grown, as they are further south. Although inter-cropping (the growing of a number of crops, the growing seasons of which do not completely coincide, on the same land) is very common, there are some pure stands of groundnuts and grain. Except with groundnuts (and some of the minor crops), it is usual for some part, if not the whole, of the crop to be consumed by the "farming unit" (see below) which produced it; but as farm produce of all types is apt to be sold, there is in no sense a "subsistence sector". With groundnuts, on the other hand, the whole of the crop is often sold, most of it for export (through the Marketing Board), but some (a quite unknown proportion in Northern Nigeria generally) to those women who specialize in making groundnut oil.

#### Livestock

In September the population of small livestock (sheep and goats) was about equal to the human population, but it may vary considerably seasonally; these sturdy animals are a valuable source of manure as well as of meat, more than half of them being owned by women. Donkeys, of which there were about 80 in the gari, are used for transporting firewood, grains, groundnuts, manure, etc.; they are much hired, being of fundamental importance in an economy where women are seldom beasts of burden, as they so often are in the south. The number of cattle owned by residents in the area is probably less than a couple of hundred; while no pastoral Fulani are based on Batagarawa, many of them visit the area after the harvest, receiving payment in cash and/or kind from the farmers whose farms their herds manure.

#### Seasonality of Economic Life

In the southern forests of West Africa there are two farming seasons for certain foodstuffs, such as maize, but in the savannah there is but one rainy season, which tends to get shorter as proximity to the Sahara increases. In Batagarawa the rains usually last for no longer than four-and-a-half months (in 1967 for only three-and-a-half-months) and are ill-distributed; violent storms leading to much soil erosion and loss of manure. The farmers are much inconvenienced by variations in the date of the first rains, which came seven weeks later in 1967 than in 1966. Seasonal price variations, which affect all crops, are at least as pronounced as they are in the cities, which is what one would expect considering that most long-term crop storage is undertaken by farmers.

# The Concept of the "Farming Unit"

A farming unit consists of those men who work together on a set of farms (a holding) together with their dependents. In Batagarawa most farming units consist essentially of simple families, with or without unmarried sons. But if a son continues to work on the farms with his father after marriage, then he is in gandu1 with his father. In Batagarawa few sons, other than those who migrate, actually leave gandu, yet only about a quarter of all farming units consist of gandu, the low proportion being partly explained by the high mortality of middle-aged men. The institution of "brothers gandu" (under which a group of brothers work the gandu farms together under the authority of the senior of them) exists, but is very rare: most gandu groups break on the death of the father, the farms being then divided among the sons. In return for the work the son puts in on the gandu farms, he receives grain and/or cooked food from his father, who is also responsible for paying his tax and assisting him in other ways. Many sons in gandu own farms of their own, over which they have complete control, and some of them are substantial farmers in their own right. Many gandu may be thought of as lapsing during the dry season, when sons are expected to fend for themselves. Sons in gandu may or may not live in the same house as their father; if they do, they sometimes have a separatelyfenced section.

# Inheritance of Farms

Farms are usually divided between a farmer's resident sons on his death, this is a practical way which does not involve, as it is sometimes said to do, the Muslim (alkali's) court of law. (A non-resident son may return to claim a portion, if he wishes.) Our farm-maps show that very little attempt is

<sup>1</sup> A word which relates to the gandu farms as well as to the group which works them. Apart from M. G. Smith's *The Economy of Hausa Communities of Zaria* (H.M.SO, Colonial Office, Colonial Research Studies No. 16, 1955), which is *the* source for all interested in Hausa rural economies there is litle mention of gandu in the literature. I wish to express my gratitude to Professor Smith for much help given in correspondence after my first research tour in Hausaland in 1966.

made to divide the farms equally between the brothers and that if a holding consists of several small farms, there is unlikely to be any actual farm-division. Bush-farms (gonar-daji) were formerly seldom inherited, but sometimes they are nowadays. Daughters with surviving brothers sometimes inherit farms, but as they often immediately sell them to their brothers, this cannot be seen from the farm-maps.

#### Transactions in Farmland

Most transactions (especially in manured farms, gonar karakara) involve the purchase of farms; the pledging of farms is now rare and most farm-renting involves gonar daji.¹ Farm-selling is very common indeed, especially between close kin (fathers and sons, as well as brothers) and entails little, if any, formality. In practice, in this part of Katsina Emirate, as well as in many other parts of Hausaland, both chiefs and farmers behave as though individuals own their farms (in all possible senses of the word "own") and the insistence of lawyers and administrators that in Northern Nigeria all land is owned by the Government, individuals merely enjoying the usufruct thereof, is bound to mislead any anthropologist or economist who takes the implications literally; in Batagarawa the last effective remnant of chiefly control over the farms of the citizenry was abolished some years ago, when migrating farmers were no longer required to pass their farms to the chief on their departure, but were free to sell them. Most farm sales are best thought of as sales of "improved" (i.e. manured) land.

#### Manure

Local types of manure consist mainly of household sweepings (which include the droppings of small livestock), composted material, cattle dung and, to a small extent, of human excreta which, like all other types of manure, has a commercial value, being handled by latrine-diggers. The usage of imported fertilizers has been increasing very rapidly indeed in the last few years, and the main problem of the immediate future is likely to be lack of supplies.

# Occupations other than Farming

Most men, and virtually all women, have some economic activity other than farming and this is never organized on a gandu basis, which is one reason why sons are quite often better-off than their fathers with whom they are in gandu. With men, this work may be pursued all the year round or during the dry season only. In Batagarawa one of the most important non-farming occupations is that of trading in grains and groundnuts.

<sup>&</sup>lt;sup>1</sup> It should, perhaps, be emphasized that no representativeness is claimed for Batagarawa on this, as on many other, detailed matters. (One difficulty in studying a common type of renting known as *aro* is that, as it is usually short-term, it does not involve the demarcation of farm boundaries, so that rented areas which are portions of farms cannot be distinguished on air-photographs.)

Resident farmer-traders bring in nearly all the grains "imported" by the village from elsewhere, the vendors usually being their secluded womenfolk, who sell inside their compounds. Other important economic activities include firewood collection and sale, building and earth collecting, smithing, tailoring, butchering, rope, mat and thatchmaking, etc. There is only one (inactive) weaver and only two dyers. In some parts of Hausaland many of the younger men migrate to work elsewhere during the dry season, a practice known as *cin rani* (literally "eating the dry season"); but *cin rani* is not very common in Batagarawa, even though work in neighbouring Katsina is classified as such. The non-farming occupation may or may not yield more income than farming. Some large-scale farmers derive little income from other sources.

#### Farm Labourers

Most farm labourers are employed by the day at a wage, for about five to six hours' work, which varies between about 2s. and 3s. 6d., including millet porridge on the farm. Nearly all the labourers are themselves farmers, or sons of farmers, the only exceptions being a few landless men who, themselves or their fathers, have sold all their farms, and a few who prefer working for others rather than on their own farms. At all times during the farming season the supply of labour at prevailing wage rates exceeds the demand; it is never difficult for a farmer with money to recruit the labour he needs and Batagarawa men often look elsewhere for work. That dependence on daily-paid farm labour involve no risk, is shown by the example of one particularly well-organized household of twenty people, including three men, none of whom work seriously on their holding of over twenty acres.

These preliminaries over, I now turn to the central question of "rural inequality". I hope that readers will hold their disappointment for a while, when I admit that I was not able to conduct a conventional survey of household income and expenditure between May and October 1967 when I lived in Batagarawa. Although I very much wish that I had been able to measure household food consumption during the weeks preceding the early millet harvest when many people are "hungry", I am sure that a survey conducted throughout the year<sup>2</sup> by field-workers, would have been neither accurate nor meaningful enough to justify the trouble involved.

And nothing short of a *complete* survey would have sufficed. I will touch on a few of the practical reasons for this. Because seasonal price fluctuations

<sup>&</sup>lt;sup>1</sup> In reference to the never-ceasing debate about the incidence of disguise unemployment (a concept which, to the present writer, has never seemed to have much practical value), it should be noted that idleness is not the usual alternative to farm-labouring: apart from the possible alternative of working on his own farm, there are many other renumerative occupations, such as collecting firewood for sale, which may be followed by the potential labourer.

<sup>&</sup>lt;sup>2</sup> Given the acute seasonality of economic life in the village, any worthwhile survey would have had to have extended over a year; and as so much of the trade in basic foodstuffs is conducted by women in their secluded courtyards, which no man may enter, the field-workers would have had to have been Hausa-speaking women.

are so strong, one cannot estimate a farming unit's income on the basis of its crop-production, unless one knows the detailed timing of its sales and consumption. As a "poor" man may be defined as one who is obliged to sell cheap and buy dear, a better-off man as someone who actually achieves the universal ambition of buying cheap and selling dear (thus it is conventional for better-off farmers to buy grain at harvest-time when it is cheap, irrespective of whether they have sufficient for their requirements) any application of average prices to all alike would erroneously even out the inequality which exists. Then there is the fact, which has already been mentioned, that gandu groups are apt to break up their component households during the dry season, so that each would have to be studied separately. And how would one estimate the income earned by those who migrate during the dry season?

Furthermore, there is so much institutionalized shame (and reticence) in Hausaland; for instance, farmers are usually ashamed of admitting to being grain sellers (from their own production) and the granary is a private place and so much insincerity on the fundamental matter of credit (which primes and oils the wheels of the economic mechanism as universally in Hausaland, as elsewhere in West Africa, though less effectively and at higher cost, owing to the Muslim pretence that interest-taking is prohibited) that my experience has persuaded me that certain information is best obtained indirectly from well-informed third parties, with whom, over a period, one has built up a relationship of mutual trust. I did not find the ordinary farmer unforthcoming, indeed I was amazed by the warmth of the welcome he extended when he unexpectedly found us mapping his farms or counting the members of his household; but I would not expect him to discuss his indebtedness to his wife, something which a well-informed third party might be prepared to do. One of my particular assistants was social commentator of real genius, a middle-aged Batagarawa farmer, whose like I do not expect to meet again.

A farming unit's annual income, however computed, is only one aspect of its standard of living. Another aspect, which the Hausa farmer himself regards as of supreme importance, is the capacity so to organize one's affairs that one's household suffers the minimum hardship during the later stages of the farming season. In accordance with this approach, the "poor" may be defined as those who suffer seriously during the pre-harvest weeks, the better-off as those who stay on an even keel at that time, or who are even in a position to help others. There is not necessarily a close correlation between annual income and the ability to withstand hardship during the pre-harvest months.

I shall now briefly describe the procedure adopted in my central experiment which was an attempt to measure the extent to which the population of Batagarawa was actually suffering hunger during the weeks before the millet harvest.

On the basis of the opinions of four very well-informed Batagarawa citizens, each of whom was interviewed independently during September

1967, just before the millet harvest, each farming unit was assigned to one of four groups defined as follows: Group 1 consisted of units which were so far from suffering that they were in a position to render help to others, by gift or loan; in Group 2 were those farming units which were not short of basic foodstuffs, either because they still had stocks or because they had cash with which to buy them; in Group 3 were the units the members of which were known to be suffering seasonal hardship over food consumption; and Group 4 (which was a hiving-off from Group 3) consisted of those who were suffering very severely, often because they were considered so "hopeless" that no one would lend to them. Informants were asked to take account of such factors as the size of grain stocks, the length of time farming units had been living on bought grain, assistance rendered to heads of farming units by their wives or sons, present income from sources such as labour employment or firewood selling and so forth. It was constantly emphasized that we were not attempting to grade farming units according to "how rich" they were, but according to their circumstances at that moment in time: thus a man who spent extravagantly at harvest and had to beg for food the following September, might fall in Group 4, whatever his standard meanwhile. The opinions of each informant were compared and a meeting was held to discuss, and finally to eliminate the discrepancies.<sup>1</sup>

Although the degree of correspondence between the judgements of each informant coupled with their enthusiasm over the whole procedure, encouraged the hope that this unorthodox procedure might not be entirely disreputable, little significance would have been attached to the classification had it not been that independent inquiries made of three well-known farm labourers, one of whom often recruited other labourers, revealed that scarcely any of the heads of farming units in Groups 1 or 2 (or for that matter their sons) were accustomed to work as labourers, although half of those in Group 3 and two-thirds of those in Group 4 did so. Correspondingly, a large proportion of the units in Groups 1 and 2 were accustomed to employing farm labourers, there being very little employment by those in Groups 3 and 4.

So far so good, but might it not have been that those who undertook the original classification were unconsciously biased on this matter of labour employment, regarding a farmer who worked as a labourer as by definition a Group 3 or 4 man? Older men, in particular, are often ashamed to admit that they work on the farms of others; our informants were only too well aware that it is usually poverty that drives them to do this.

This doubt about circularity was resolved by an informant who volunteered that he knew which households in the *gari* sold manure (compound sweepings) and which did not. It was found that most of the farming units in

<sup>&</sup>lt;sup>1</sup> At this stage, but not before or later, some account was taken of the knowledge which my assistant and I had of the affairs of many of the farming units. I wish to express my great gratitude to my assistant, Mr M. S. Nuhu, a student at Ahmadu Bello University and a native of Batagarawa, for the extremely valuable help he gave me throughout the vacations of 1966 and 1967.

Group 4 were accustomed to sell manure and that only two of those in Groups I and 2 did so. As the matter of whether a man was a manure-seller could surely not have been lurking as a criterion in the back of our original classifiers' minds, it began to appear that the farmers in Group 4 were those who usually live from hand to mouth, being chronically short of finance. These farmers are by no means all short of land, as the farm acreages which have since been computed show; for many of them their manure represents their life-blood and yet they are selling it.

So it seemed worthwhile to compute the figures in the following Table, most of them being based on the farm acreages. Whether or not our informants had been successful in sorting out the farming units on the basis of "suffering" in September, which is all that they had been asked to do, the Table shows that they certainly did succeed in distinguishing the better-off from the worse-off. Only an analysis of individual cases, which is now in progress, could show whether the association between a farmer's standard of living, as measured by various statistical indicators based on farm acreages, is so closely related to the estimated degree of suffering in the pre-harvest months, that our subjective procedure of enquiring about such suffering could have been dispensed with.

Before turning to a brief commentary on the Table, one further point must be mentioned. It is regrettable that no figures relating to groundnut production are included in the Table, the relevance of which would have been second only to the farm acreages. Groundnuts are a prestige crop, necessarily grown on a considerable scale by every considerable farmer. I was obliged to leave Batagarawa before the completion of the groundnut harvest, but even had I not been and could have obtained reliable figures of physical output, accurate valuation of this output would have presented insuperable difficulties.<sup>2</sup>

However, my faith in the general usefulness of the classification is now such that I would be surprised if there were any farmers in Groups 1 and 2 who did not retain from their harvest a large part of the groundnuts they will require as seed in 1968, and as much surprised if there are more than a few members of Groups 3 and 4 who will not have to buy, beg for, or borrow most of their groundnut seed at the 1968 planting, having meanwhile sold the lot.<sup>3</sup>

<sup>1</sup> The annual tax (which in 1966 was assessed at the rate of between about £1 and £2. 10s. on all males aged sixteen and over, with exemptions for the old or sick and with slightly higher rates for a few "very rich" men) is conventionally paid from the proceeds from selling groundnuts. Nearly everyone aspires to grow some groundnuts (which are commonly interplanted with guinea corn), but seeds represent a higher proportion of the harvest than they do with grains, and are commonly not retained by the poorer farmer (See footnote 3 below.)

<sup>&</sup>lt;sup>2</sup> Groundnuts which are stored for six months or more, being then sold as seed or for local manufacture of oil, may double in price. Then, many of those who lack seed are obliged to borrow it at planting time in return for the promise to pay, perhaps, double the quantity at harvest, so that part of their output should be valued at half the prevailing price.

<sup>&</sup>lt;sup>3</sup> There is evidence that, throughout the main groundnut-growing area of Hausaland, a substantial proportion of farmers is obliged to buy or borrow some or all of their seed.

#### **BATAGARAWA**

#### Characteristics of Farming Units According to Groupa

1. No. of farming units .			Group 1	Group 2	Group 3	Group 4	Total*
3. Weighted population	ı.	No. of farming units.	17	43	73	32	165
4. Total mapped acreage       344       346       295       93       1,078         5. Mapped acreage per farming unit of weighted population       20.0       8.0       4.0       3.0       6.5         7. No. of working males       62       87       129       50       328         8. Acreage per working male       5.5       4.0       2.3       1.9       3.3         9. No. of mapped farms       101 (74)       157 (133)       173 (150)       55 (46)       486 (403)         10. Average farm acreage       3.4 (3.9)       2.2 (2.4)       1.7 (1.8)       1.7 (1.8)       2.2 (2.4)         11. Average No. of mapped farms per farming unit       5.9 (4.4)       3.6 (3.2)       2.4 (2.1)       1.7 (1.4)       2.9 (2.4)         12. Estimated % of mapped farm acreage inherited % of mapped farm acreage inherited % of mapped farm acreage bought %       31%       23%       10%       3%       20%         13. Estimated % of mapped farm acreage bought %       31%       23%       10%       3%       20%         14. No. of heads farming units who work as farm labourers —       -       2       37       22       61         15. No. of farming units which employ farm labourers       15       34       13       -       62         16. No. of farm	2.	of which gandu	11	II	18	4	44
Mapped acreage per farming unit   20.0   8.0   4.0   3.0   6.5	3.	Weighted population	174	256	360	141	931
6. Mapped acreage per unit of weighted population 2.0 1.4 0.8 0.6 1.2 7. No. of working males 62 87 129 50 328 8. Acreage per working male 5.5 4.0 2.3 1.9 3.3 9. No. of mapped farms 101 (74) 157 (133) 173 (150) 55 (46) 486 (403) 10. Average farm acreage 3.4 (3.9) 2.2 (2.4) 1.7 (1.8) 1.7 (1.8) 2.2 (2.4) 11. Average No. of mapped farms per farming unit 5.9 (4.4) 3.6 (3.2) 2.4 (2.1) 1.7 (1.4) 2.9 (2.4) 12. Estimated % of mapped farm acreage inherited 40% 60% 60% 67% 68% 57% 13. Estimated % of mapped farm acreage bought 50 31% 23% 10% 33% 20% 14. No. of heads farming units who work as farm labourers— 5.2 37 22 61 15. No. of farming units which employ farm labourers 15 34 13 - 62 16. No. of farming units which employ farm labourers 15 34 13 - 62 17. No. of bundles of early millet harvested 2,209 1,681 1,681 1,523 2,85 5,698 m 18. Bundles of early millet per unit of weighted population 15.1 1 6.9 1 4.4 2 2 3 6 1 10 10 10 10 10 10 10 10 10 10 10 10 1	4.	Total mapped acreage	344	346	295	93	1,078
weighted population         2.0         1.4         0.8         0.6         1.2           7. No. of working males         62         87         129         50         328           8. Acreage per working male         5.5         4.0         2.3         1.9         3.3           9. No. of mapped farms         101 (74)         157 (133)         17 (1.8)         1.7 (1.8)         2.2 (2.4)           10. Average farm acreage         3.4 (3.9)         2.2 (2.4)         1.7 (1.8)         1.7 (1.8)         2.2 (2.4)           11. Average No. of mapped farms per farming unit         5.9 (4.4)         3.6 (3.2)         2.4 (2.1)         1.7 (1.4)         2.9 (2.4)           12. Estimated % of mapped farm acreage inherited acreage inherited %         46%         60%         67%         68%         57%           13. Estimated % of mapped farm acreage bought %         31%         23%         10%         3%         20%           14. No. of heads farming units who work as farm labourers —         1.5         34         13         -         62           15. No. of farming units which employ farm labourers —         1.5         34         13         -         62           16. No. of farming units which employ farm labourers —         1.5         1.681i         1,523j         <	5.		20.0	8.0	4.0	3.0	6.5
8. Acreage per working male 9. No. of mapped farms 101 (74) 157 (133) 173 (150) 55 (46) 486 (403) 10. Average farm acreage 3.4 (3.9) 2.2 (2.4) 1.7 (1.8) 1.7 (1.8) 2.2 (2.4) 11. Average No. of mapped farms per farming unit 5.9 (4.4) 3.6 (3.2) 2.4 (2.1) 1.7 (1.4) 2.9 (2.4) 12. Estimated % of mapped farm acreage inherited 46% 66% 66% 67% 68% 57% 13. Estimated % of mapped farm acreage bought 57% 14. No. of heads farming units who work as farm labourers 5.5 (3.4) 1.5 (3.2) 2.4 (2.1) 1.7 (1.4) 2.9 (2.4) 15. No. of farming units which employ farm labourers 5.5 (3.4) 1.3 5.6 (3.2) 2.4 (2.1) 1.7 (1.4) 2.9 (2.4) 16. No. of farming units which employ farm labourers 5.5 (3.4) 1.3 5.8 (3.4) 2.2 (3.4) 1.3 5.8 (3.4) 2.3 (3.4) 2.2 (3.4) 1.7 (1.4) 2.9 (2.4) 17. No. of bandles of early millet harvested 2.209 1.681 1.523 2.8 (5.698 1.8) 2.209 1.681 1.523 2.8 (6.1 1.8) 2.3 (6.1 1.9) 2.3 (6.1	6.		2.0	1.4	0.8	0.6	1.2
9. No. of mapped farms	7.	No. of working males	62	87	129	50	328
10. Average farm acreage 3.4 (3.9) 2.2 (2.4) 1.7 (1.8) 1.7 (1.8) 2.2 (2.4)  11. Average No. of mapped farms per farming unit 5.9 (4.4) 3.6 (3.2) 2.4 (2.1) 1.7 (1.4) 2.9 (2.4)  12. Estimated % of mapped farm acreage inherited 46 46% 60% 67% 68% 57%  13. Estimated % of mapped farm acreage bought 5 31% 23% 10% 3% 20%  14. No. of heads farming units who work as farm labourers 5 2 37 22 61  15. No. of farming units which employ farm labourers 15 34 13 5 62  16. No. of farming units which sell farm manure 5 2 2 37 22 61  17. No. of bundles of early millet harvested 2,209h 1,681i 1,523j 285k 5,698m  18. Bundles of early millet per unit of weighted population 15.1h 6.9i 4.4j 2.3k 6.1m  19. No. of notable kwarami (traders) 7 9 3 5 19  20. No. of notable cattle owners 4 2 7 6 60  21. No. of notable tobacco growers 4 2 1 7 70  22. No. of notable plough-owners 8 1 1 1 7 70  23. No. of owners of groundnut decorticators 9 5 3 7 7 8 8  24. No. of small livestock owned per farming unit (gari only): 5 3 0.4 2.1 1.8 0.4 2.1 1.7 (1.8) 1.7 (1.4) 2.9 (2.4) 1.7 (1.4) 2.9 (2.4) 1.7 (1.4) 2.9 (2.4) 1.7 (1.4) 2.9 (2.4) 1.7 (1.4) 2.9 (2.4) 1.7 (1.4) 2.9 (2.4) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.4) 2.9 (2.4) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.8) 1.7 (1.4) 1.7	8.	Acreage per working male	5.5	4.0	2.3	1.9	3.3
11. Average No. of mapped farms per farming unit  12. Estimated % of mapped farm acreage inherited	9.	No. of mapped farms	101 (74)	157 (133)	173 (150)	55 (46)	486 (403)
12. Estimated % of mapped farm acreage inherited	10.	Average farm acreage	3.4 (3.9)	2.2 (2.4)	1.7 (1.8)	1.7 (1.8)	2.2 (2.4)
acreage inherited 46% 60% 67% 68% 57%  13. Estimated % of mapped farm	II.		5.9 (4.4)	3.6 (3.2)	2.4 (2.1)	1.7 (1.4)	2.9 (2.4)
13. Estimated % of mapped farm	12.						
acreage bought b 31% 23% 10% 3% 20%  14. No. of heads farming units who work as farm labourers— — 2 37 22 61  15. No. of farming units which employ farm labourers — 15 34 13 — 62  16. No. of farming units which sell farm manure — c 2d 26e 20f 48g  17. No. of bundles of early millet harvested — 2,209h 1,681i 1,523j 285k 5,698m  18. Bundles of early millet per unit of weighted population — 15.1h 6.9i 4.4j 2.3k 6.1m  19. No. of notable kwarami (traders) 7 9 3 — 19  20. No. of notable cattle owners 4 2 — — 6n  21. No. of notable tobacco growers 4 2 1 — 7n  22. No. of notable plough-owners 8 1 1 1 — 10n  23. No. of owners of groundnut decorticators 9 5 3 — — 8n  24. No. of small livestock owned per farming unit (gari only): — sheep 6.7 2.8 1.8 0.4 2.1 — goats 8.6 7.7 5.4 3.4 5.8		acreage inherited <sup>b</sup>	46%	60%	67%	68%	57%
14. No. of heads farming units who work as farm labourers—       -       2       37       22       61         15. No. of farming units which employ farm labourers       15       34       13       -       62         16. No. of farming units which sell farm manure       -c       2d       26e       20f       48g         17. No. of bundles of early millet harvested       2,209h       1,681i       1,523j       285k       5,698m         18. Bundles of early millet per unit of weighted population       15.1h       6.9i       4.4j       2.3k       6.1m         19. No. of notable kwarami (traders)       7       9       3       -       19         20. No. of notable cattle owners       4       2       -       -       6n         21. No. of notable tobacco growers       4       2       1       -       7n         22. No. of notable plough-ownersP       8       1       1       -       10n         23. No. of owners of groundnut decorticatorsP       5       3       -       -       8n         24. No. of small livestock owned per farming unit (gari only):	13.						
work as farm labourers— — 2 37 22 61  15. No. of farming units which employ farm labourers    16. No. of farming units which sell farm manure    17. No. of bundles of early millet harvested    18. Bundles of early millet per unit of weighted population    19. No. of notable kwarami (traders)    19. No. of notable cattle owners    19. No. of notable cattle owners    10. No. of notable tobacco growers    11. No. of notable plough-owners    12. No. of owners of groundnut decorticators    13. No. of small livestock owned per farming unit (gari only):    14. No. of small livestock owned per farming unit (gari only):    15. In    16. No. of farming units which employ and a sign of the properties    15. In    16. No. of small livestock owned per farming unit (gari only):    16. No. of small livestock owned per farming unit (gari only):    18. Bundles of early millet per unit    20. No. of small livestock owned per farming unit (gari only):    21. No. of small livestock owned per farming unit (gari only):    22. No. of small livestock owned per farming unit (gari only):    23. No. of small livestock owned per farming unit (gari only):    24. No. of small livestock owned per farming unit (gari only):    25. Solve    26. Ozde    28. Ozde    28. Ozde    28. Ozde    28. Ozde    28. Ozde    28. Ozde    29. Ozde    29. Ozde    29. Ozde    29. Ozde    20.		acreage bought <sup>b</sup>	31%	23%	10%	3%	20%
employ farm labourers  15 34 13 - 62  16. No. of farming units which sell farm manure	14.		_	2	37	22	61
farm manure         -c         2d         26e         20f         48g           17. No. of bundles of early millet harvested         2,209h         1,681i         1,523j         285k         5,698m           18. Bundles of early millet per unit of weighted population         15.1h         6.9i         4.4j         2.3k         6.1m           19. No. of notable kwarami (traders)         7         9         3         -         19           20. No. of notable cattle owners         4         2         -         -         6 <sup>11</sup> 21. No. of notable tobacco growers         4         2         1         -         7 <sup>1</sup> 22. No. of notable plough-ownersP         8         1         1         -         10 <sup>n</sup> 23. No. of owners of groundnut decorticatorsP         5         3         -         -         8 <sup>n</sup> 24. No. of small livestock owned per farming unit (gari only):	15.		15	34	13	_	62
17. No. of bundles of early millet     harvested	16.	No. of farming units which sell					
harvested 2,209h 1,681i 1,523j 285k 5,698m  18. Bundles of early millet per unit of weighted population 15.1h 6.9i 4.4j 2.3k 6.1m  19. No. of notable kwarami (traders) 7 9 3 - 19  20. No. of notable cattle owners 4 2 6 <sup>11</sup> 21. No. of notable tobacco growers 4 2 1 - 7 <sup>11</sup> 22. No. of notable plough-ownersP 8 1 1 - 10 <sup>11</sup> 23. No. of owners of groundnut decorticatorsP 5 3 - 8 <sup>11</sup> 24. No. of small livestock owned per farming unit (gari only):  — sheep 6.7 2.8 1.8 0.4 2.1  — goats 8.6 7.7 5.4 3.4 5.8		farm manure	_c	$_2$ d	26 <sup>e</sup>	20 <sup>t</sup>	$_{48}$ g
18. Bundles of early millet per unit of weighted population  15.1h 6.9i 4.4j 2.3k 6.1m  19. No. of notable kwarami (traders) 7 9 3 - 19 20. No. of notable cattle owners 4 2	17.	No. of bundles of early millet	_				
of weighted population  15.1h 6.9i 4.4j 2.3k 6.1m  19. No. of notable kwarami (traders) 7 9 3 - 19 20. No. of notable cattle owners 4 2		harvested	2,209 <sup>h</sup>	1,681 <sup>1</sup>	1,523 <sup>j</sup>	285k	5,698 <sup>m</sup>
19. No. of notable kwarami (traders)  7 9 3 - 19  20. No. of notable cattle owners  4 2 6 <sup>11</sup> 21. No. of notable tobacco growers  4 2 1 - 7 <sup>11</sup> 22. No. of notable plough-owners  8 1 1 1 - 10 <sup>11</sup> 23. No. of owners of groundnut decorticators  5 3 8 <sup>11</sup> 24. No. of small livestock owned per farming unit (gari only):  - sheep - goats  6.7 2.8 1.8 0.4 2.1 - goats	18.	Bundles of early millet per unit					
19. No. of notable kwarami (traders)  7 9 3 - 19  20. No. of notable cattle owners  4 2 6 <sup>11</sup> 21. No. of notable tobacco growers  4 2 1 - 7 <sup>11</sup> 22. No. of notable plough-owners  8 1 1 1 - 10 <sup>11</sup> 23. No. of owners of groundnut decorticators  5 3 8 <sup>11</sup> 24. No. of small livestock owned per farming unit (gari only):  - sheep - goats  6.7 2.8 1.8 0.4 2.1  - goats		of weighted population	15.1 <sup>h</sup>	6.9 <sup>1</sup>	4.4 <sup>j</sup>	2.3 <sup>K</sup>	$6.1^{\mathbf{m}}$
21. No. of notable tobacco growers 4 2 1 - 7 <sup>11</sup> 22. No. of notable plough-owners P 8 1 1 1 - 10 <sup>11</sup> 23. No. of owners of groundnut decorticators P 5 3 8 <sup>11</sup> 24. No. of small livestock owned per farming unit (gari only):  — sheep 6.7 2.8 1.8 0.4 2.1  — goats 8.6 7.7 5.4 3.4 5.8	19.	No. of notable kwarami (traders)		9	3	-	-
22. No. of notable plough–ownersP       8       I       I       -       10 <sup>n</sup> 23. No. of owners of groundnut decorticatorsP       5       3       -       -       8 <sup>n</sup> 24. No. of small livestock owned per farming unit (gari only):       -       sheep       6.7       2.8       I.8       0.4       2.1         -       goats       8.6       7.7       5.4       3.4       5.8	20.	No. of notable cattle owners	4	2	-	-	-
23. No. of owners of groundnut  decorticators p  24. No. of small livestock owned per farming unit (gari only):  - sheep	21.	No. of notable tobacco growers	4	2	1	-	$7^{\rm n}$
decorticators	22.	No. of notable plough-owners <sup>p</sup>	8	I	I	-	10 <sup>n</sup>
24. No. of small livestock owned per farming unit (gari only):  - sheep 6.7 2.8 1.8 0.4 2.1  - goats 8.6 7.7 5.4 3.4 5.8	23.	No. of owners of groundnut					
farming unit (gari only):  sheep 6.7 2.8 1.8 0.4 2.1  goats 8.6 7.7 5.4 3.4 5.8		decorticatorsp	5	3	-	-	$8^{n}$
— goats 8.6 7.7 5.4 3.4 5.8	24.	No. of small livestock owned per farming unit (gari only):					
		sheep	•	2.8	1.8	0.4	
donkeys 12 11 04 02 06		e					•
1.5 1.1 0.4 0.2 0.0		— donkeys	1.3	1.1	0.4	0.2	0.6

<sup>\*</sup> Most of the population, but not quite all, is included in this Table. Among those excluded were the "Chiefs" (see Note 1), individuals on their own (such as young school teachers), certain retired people and servants without dependents, and a few others who own no farms.

<sup>&</sup>lt;sup>a</sup> For brief definitions of Groups 1, 2, 3 and 4 see p. 247 above.

b These percentages are all likely to be somewhat underestimated. (See Notes 12 and 13 and footnote 2 on p. 255.)

<sup>&</sup>lt;sup>c</sup> Out of 11 units only.

d Out of 35 units only.

e Out of 62 units.

f Out of 28 units only.

g Out of 136 units only.

h 15 farming units only.

<sup>&</sup>lt;sup>i</sup> 41 farming units only.

j 68 farming units only.

k 29 farming units only.

m Out of 153 farming units.

<sup>&</sup>lt;sup>n</sup> The total would be higher were the "Chiefs" not excluded. See Note 1.

P The figures are not quite complete.

#### 1. Farming unit

For the definition of "farming unit" see p. 243. Four farming units are entirely excluded from the Table, these being those headed by the District Head, the District Head's eldest son, the Village Head and the District Scribe; the reasons for excluding them are both that most of their farms lie outside the mapped area and that no members of the households concerned do more than a little farming.

#### 2. Gandu

For the definition of gandu see p. 243. Many sons in gandu own farms of their own which they cultivate in their free time and which may or may not have been given to them by their fathers; these individually-owned farms are included in the acreage owned by the farming unit as a whole, even though the proceeds are for the son, and his family, only. If a farming unit is not a gandu group, then it basically consists of a simple family, with or without unmarried sons who assist with the farming; some simple family units include a small number of other dependents, such as widowed mothers.

#### 3. Weighted population

The population was counted, by house, in September 1967. In computing the weighted population of each unit, children were counted as "half-adults", all school children, unmarried girls and infants were included in the definition "children".

# 4. Mapped acreage

The farms lying in an area of about two square miles around Batagarawa were mapped using an enlargement (on the scale of about 1 in 12,000) of an air photograph (dated March 1966) which had kindly been lent by the Survey Department, Kaduna; although the farm boundaries, which are mostly low grass ridges, are clearly visible on this photograph, it was, of course, necessary to walk around each farm and to discuss ownership details on the ground. Farm boundaries within the marshland (fadama), which is only a small proportion of the acreage, could not be seen on the photograph, so that the farms there could not be mapped and are omitted from the Table. The town of Batagarawa does not lie in the centre of the farmlands owned by its people and account was taken of this in deciding what area to map. It was not practicable to map farms outside this area as they are widely dispersed; most of them are gonar daji (see p. 244), whereas most of those in the mapped area are gonar karakara. The acreages owned by sons and brothers in gandu (see note 2) are included in the totals for farming units. Farms owned by women are not, however, included, since women are not working members of farming units; 55 such farms were mapped and there were other boundaryless areas owned by women within the men's farms which could not be mapped. Given the small scale of our map, great accuracy is not claimed for the acreage figures; all that is claimed is that they are sufficiently accurate for present purposes.

#### 7. Number of working males

Unless disabled by ill health or old age, nearly all adult males and youths (excluding schoolboys) do some farm-work; but as a man may also have other work during the farming season, the number of working males in a farming unit may only be a rough measure of its effective strength. As most farming is done in the morning, when during term-time schools are in session six days weekly, the contribution of schoolboys is very slight.

### 9. Number of mapped farms

(N.B.: The figures in brackets are total numbers excluding the farms owned, individually, by those in *gandu*.) Two or more contiguous plots owned by the same farmer are regarded as "one farm", no account being taken of the different means by which the various portions of such a farm may have been acquired. However, if a farm owned by a son in *gandu* is contiguous with one owned by his father (as is often the case, fathers being apt to give sons portions of farms), these are regarded as two farms owned by members of the farming unit, which is one reason why the bracketed figures are shown.

# 10. Average (mapped) farm acreage

(N.B.: The figures in brackets are averages excluding the farms owned, individually, by those in *gandu*; see note 9.)

# 11. Average number of mapped farms per farming unit

(N.B.: The figures in brackets are averages excluding the farms owned, individually, by those in *gandu*; see note 9.)

# 12. Estimated percentage of (mapped) farm acreage which had been inherited

These estimates are based on information obtained as to the means by which each farm had been acquired by its present owner. (This information also covered successive changes in past ownership, much of it going back thirty years or more.) The percentage of the total acreage which had been inherited by the present owner is partly estimated, some farms being consolidations of a number of portions of which some had been inherited. As such "composite farms" are more commonly owned by Group 1 than other farmers, there is a larger element of estimation in the Group 1 percentages, both for bought as well as for

inherited farms, but both percentages for all Groups are on the low side. "Inherited" means inherited in the male line, the rare cases of inheritance in the female line being excluded. It should be noted that a farm given by a father (who has since died) to his son in his lifetime is here regarded as "inherited", it being quite impracticable to distinguish such *inter vivos* gifts from straight inheritance following a death; some of the farms here regarded as inherited may have been bought by sons from fathers (see note 13), such transactions being quite common. The practical meaning of "inheritance" is, therefore, "acquired from a father, now deceased, by virtue of being a son".

#### 13. Estimated percentage of farm acreage which had been bought

(See, also, note 12.) Farms bought by sons from their fathers, as well as purchases involving siblings, are not included here: this means that if an inherited farm is sold by one brother to another, it is regarded as having been inherited by the latter.

14 & 15. Numbers who work as, or employ, farm labourers (See p. 245.)

16. Number of farming units which sell manure

(See pp. 247-8.) It is to be noted that these figures relate to the sale of compound sweepings by farming units in the *gari* only.

### 17 & 18. Number of bundles of early millet (gero) harvested

Immediately following the early millet (gero) harvest, heads of households (including sons in gandu) were asked to report the number of bundles of millet they had harvested from all their farms, the willingness with which they gave the information suggesting that it was fairly accurate. (Most farmers also grow some dauro or maiwa, another variety of millet which is harvested later and which grows well on gonar daji.) The size of a bundle of millet is rather variable, but if, following other writers, the average weight of threshed grain in a bundle is put at 30 lb., then the average value of bundle, at the time of harvest, was about 9s.

19. Number of notable traders in grains and groundnuts (Kwarami)

(See pp. 244-5.) Two of the *kwarami* in each of Groups 1 and 2 are sons the heads of the farming units.

20. Number of notable cattle owners

The figures exclude those who own plough-oxen only.

21. Number of notable tobacco growers

(See p. 242.)

23. Number of owners of mechanical groundnut decorticators (sarkinaiki) (See p. 242.)

#### 24. Number of small livestock owned per farming unit

(See p. 242.) The figures relate to the *gari* only. Any sheep or goats which were lodged in other villages by their owners are excluded; at the time the count was made all owners of small livestock were obliged to keep them inside their compounds, except when conducted out for grazing.

#### COMMENTARY ON THE TABLE

In terms of averages all the indicators suggest that farming units in Group 1 are "better off" than those in Group 2, which are in turn better off than those in Group 3, which are better off than those in Group 4 which is surely remarkable considering that the original classification was made on the basis of no figures at all. Thus, the average mapped acreages per farming unit (row 5) are respectively 20.0, 8.0, 4.0 and 3.0 acres for the four Groups, the corresponding acreages per unit of weighted population (row 6) being 2.0, 1.4, 0.8 and 0.6. Then, average mapped acreages per working male (row 8) fall progressively from 5.5 for Group 1 to 1.9 for Group 4. Interestingly, average farm size (row 10) falls progressively from 3.4 acres for Group 1 to 1.7 acres for Group 4; the average number of farms per farming unit (row 11) also falls from 5.9 for Group 1 to 1.7 for Group 4. The estimated percentage of farm acreage which was bought by the present owner (row 13) falls from about one-third in Group 1, to about a fifth in Group 2, to about a tenth in Group 3, to a negligible proportion in Group 4. Those in Group 1 produce over six times as much early millet per head of weighted population (row 18) as those in Group 4. Finally, rows 19 to 24 show that nearly all the notable grain sellers, the kwarami, the cattle owners, the tobacco growers and the owners of ploughs and mechanical groundnut decorticators fall in Groups I & 2.

# The number who are hungry before harvest

The members of about two-thirds of all farming units were regarded by our informants as "suffering hunger" in the weeks preceeding the millet harvest, being in Group 3 & 4 (see row 1). However, as the average size of farming unit falls as one moves from Group 1 to Group 2 and so on progressively, not much more than a half of the weighted population is in Groups 3 & 4 (see row 3). Although the millet harvest was unusually late in 1967, so that hunger may have been greater than usual, it is to be noted that many farmers were reported to have been subsisting on bought grain for many months.

#### Are gandu units more efficient?

The Table shows that as many as eleven out of seventeen of all the farming units in Group I are organized as gandu. Gandu being a later stage of a two-generational family's developmental cycle, in comparing the incidence of gandu as between Groups, it is necessary to take account of age. It is estimated (age data not shown in the Table) that there are seventeen heads of farming units in Groups I and 2 who are aged 50 and over, sixteen of whom are gandu heads; the corresponding figures for Group 3 and 4 are 26 aged 50 and over of whom thirteen are gandu heads. These statistics certainly suggest that there is some tendency for gandu units to be more efficient than other farming units.

Rather few sons break gandu and remain resident in Batagarawa; there are altogether 61 married sons who are in gandu with their fathers and twelve married sons who have left gandu, six of the latter being the sons of two fathers only. In the whole village area, with its population of about 1,400, there are only two fathers in the position that none of their resident sons are in gandu with them.

# The unequal distribution of the mapped acreage

About a third of the total mapped acreage is owned by the seventeen farming units in Group 1; another third by the 43 units in Group 2; and the remaining third by the 105 farming units in Groups 3 & 4 (row 5). Figures not given in the table show that the eleven farming units with holdings of over twenty (mapped) acres own a total of 280 mapped acres (nine of these units are in Group 1, two in Group 2); and that the 52 farming units with holdings of under three mapped acres own a total of 80 mapped acres (four of these units are in Group 2, 30 in Group 3 and eighteen in Group 4).

# Mapped acreage per unit of weighted population

It is commonly assumed that in Northern Nigeria an ordinary population of mixed ages requires about 1 lb. of threshed grain per head per day. It is, also, commonly assumed that the average yield of millet and guinea corn per acre is of the order of 500 to 600 lb. 1 Making no allowance for interplanting of the two grains (which is not common in Batagarawa), such average yields would mean that about two-thirds of an acre per head of weighted population would be required for self-sufficiency in grain. 2 The farming units in Group 1 have an average of 2.0 mapped acres per unit of weighted population (row 6): the detailed figures show that all of them have sufficient land to enable them to be self-sufficient in grain (if other factors

<sup>1</sup> See, for instance, Agricultural Development in Nigeria 1965–1980, an FAO Report, 1966. (But the variation round the mean is bound to be so great as to render the mean itself almost meaningless even if, from the technical aspect, it were a statistically reliable figure, which is very dubious.)

<sup>2</sup> It should, of course, be remembered that other crops, such as groundnuts and cowpeas, would also be likely to be planted on the grain-acreage.

permit) and the same is true of nearly all farming units in Group 2. But there are many farmers in Groups 3 and 4 whose mapped acreage is altogether inadequate for self-sufficiency; they should not, however, all be regarded as "short of land" as some have sufficient land when account is taken of their unmapped *gonar daji*, of their preference for buying grain with income derived from other activities, or of their inability (for financial or other reasons) to farm on any scale.

#### The acreage per working male

In regions like Northern Nigeria, the relative standards of living of farmers in any locality are commonly thought to be largely determined by the size of their family labour forces, though whether the absolute size, or the size in relation to the number of non-farming dependents, is often not made clear. It is, therefore, interesting to find that the average number of dependents supported per working male is almost the same for all Groups, being 1.5 or 1.6 units of weighted population. So, in this sense, Group I farming units do not have more family manpower at their disposal than other farming units. But the manpower that they have works a much larger mapped acreage<sup>1</sup> (row 8) and the gap in productivity is even greater than the acreage figures suggest, owing to the greater fertility of the farms resulting from the application of more manure. There is, of course, also the matter of labour employment. As, unfortunately, I lack statistics on the extent to which the manpower in Groups 3 and 4 is in fact working on the farms of Groups I and 2, I can do no more than insist that farm labour employment is not on a scale to cause an evening out of acreages per man-day.2 The farmers in 1/2 Groups I and 2 rely more on the ox-plough than do other farmers. Relevant to this discussion is the example of the man who is generally esteemed as the "best farmer" in Batagarawa: no labourers are employed on the total holding of his gandu group, which exceeds 50 acres, and the acreage per working man is 5.6.

# Larger farms owned by the better-off

It is interesting to find (see row 10) that the farms (as distinct from the holdings) owned by the better-off farmers are larger than the average. This is partly to be explained by the practice of consolidating farms by purchasing neighbouring plots (see note 12 on the Table) which is much more common among richer farmers; Malthusians who insist on the inevitability, especially under partible inheritance systems of a declining farm size over time, should at least take note of this compensating process. Another explanation is the ability of better-off farmers to make larger clearings when a farm is first established.

<sup>&</sup>lt;sup>1</sup> The fact that the average farmer in Group 1 owns more and larger unmapped farms than other farmers, increases the discrepancy.

<sup>&</sup>lt;sup>2</sup> Such an evening out would necessitate (for instance) half of all the working males in Groups 3 and 4 working for somewhat more than half of their time on the farms of Groups 1 and 2, and I am sure that employment is not offered on such a scale.

# Average number of farms per farming unit

The better-off farmers own more farms (see row 11) as well as larger farms.

### The importance of inherited farms

The percentages in row 12 (also see the notes) show that Group I farmers inherited a lower proportion of their acreage than other farmers. But inherited acreages per head of the weighted population were higher for Groups I and 2 (0.8 acres) than for Groups 3 and 4 (0.5 acres). However, if it were possible to take account of farms which had been inherited by Group 3 and 4 farmers but later been sold by them, it might be found that Group I and 2 farmers, who seldom sell farms, had not originally inherited greater acreages; an analysis of individual cases, which will be undertaken, will throw further light on this matter.

### The importance of bought farms

(See the notes on row 13 and also p. 14.) It is estimated that about a fifth of the mapped acreage was bought, from non-kin, by the present owner, a proportion which varies between about a third and a fifth for Groups 1 and 2 respectively, and a tenth and a negligible proportion for Groups 3 and 4. Farmers with money prefer to acquire new farms by purchase if possible.<sup>1</sup>

# Other means of acquiring farms

In the mapped area only about 4 per cent of the acreage is recorded as rented but see p. 7 and footnote 1. The proportion of the mapped acreage which was cleared from bush by the present farm-owner is very roughly estimated at a tenth.

# Bundles or early millet (gero) harvested

(Rows 17 and 18, see notes; see also p. 14.) If the average person consumes about half of the grain he requires in the form of millet porridge<sup>2</sup> (the *fura* which provides the normal midday meal), then about eight bundles of millet is required annually per head of the weighted population. Even assuming he produces no *dauro* (the other main variety of millet), the average farmer in Group 1, with an estimated fifteen bundles of *gero* per head of weighted population, is clearly self-sufficient in millet, though he may still buy it when it is cheap and sell when it is dear. The detailed figures show an interesting difference between Groups 3 and 4: whereas at least a fifth of the farming units in Group 3 could be self-sufficient in *gero* if they produce no

<sup>&</sup>lt;sup>1</sup> The Table shows only about 77 per cent of the total acreage as having been either inherited or bought, in fact this percentage is somewhat higher, it having been impossible to make any estimates on percentage bought, etc., for a few large farms which are consolidations of portions acquired in a variety of different ways.

<sup>&</sup>lt;sup>2</sup> This is an enormous assumption; but at least the evidence is, for Northern Nigeria generally, that millet and guinea corn crops are about equal.

dauro, none of those in Group 4 are in this position. (After leaving Batagarawa I learned that the 1967 millet harvest was considered the best for ten years.)

The traders in grains and groundnuts, the kwaranii (Row 19)

I think that in most years the village area is a considerable "importer", though not necessarily a net importer, of guinea corn and millet and Batagarawa farmers, known in this capacity as kwarami, are responsible for bringing in most of the "imported" grain, though a few consumers themselves travel to neighbouring markets to buy bags of grain, there is little travelling to buy smaller quantities, which may be obtained just as cheaply from the kwarami. These kwarami buy directly from farmers, both in nearby rural periodic markets (seldom in Katsina city, where prices are higher) and also from farm houses: that they need finance for this work, few farmers being prepared to sell on credit, became only too evident in September 1967 when temporary grain shortages developed in the gari as many of the kwarani had stopped buying owing to lack of cash. It is unusual for a kwarami to store produce for any length of time, though some of them persuade farmers in surplus-producing villages to do so on their behalf. The kwarami is typically an ambitious, hard-working younger man, the most active of them usually being in Group 2.

#### Tobacco growers

There is an association between cattle-ownership and tobacco growing, as tobacco requires a great deal of cattle manure.

# Plough-ownership (Row 22)

The Batagarawa farmers own about fifteen imported ploughs (some owners own more than one), together with their draught oxen, most of which have been obtained through the Native Authority with the help of an official loan. Official statistics for the 25 Districts of Katsina Emirate suggest that it is possible that the farmers of Mallamawa District, of which Batagarawa is the capital, own more ploughs per head of population than any of the other Districts. As ploughs are widely hired-out by their owners, and as the loose sandy soil from which all stumps, etc. have been long ago removed, is ideal for quick ploughing, the importance of ploughs is much greater than these figures might suggest, indeed the transformation of a featureless agricultural waste into a neatly furrowed farmscape a few days after the first rains, was mainly due to the plough, which is used for a number of farming operations, though not for the first or second weedings. The

<sup>&</sup>lt;sup>1</sup> The figures are not quoted as they are apparently based on the assumption that ploughs never fall into disrepair.

<sup>&</sup>lt;sup>2</sup> Despite the fact that this is, or was, technically illegal, being considered usurous by the Native Authority. Actually, few plough-owners could afford to maintain the oxen and repay the loan unless they hired their ploughs out, for their holdings are not large enough.

speedy plough can contribute much to the exact timing of farm operations which is so important in a region with such short rains. In late September 1967, it was possible for a ten-acre field of millet to be finally harvested one day, ploughed the next and planted with tobacco seedlings on the third day, just in time for the last of the rain.

### Mechanical groundnut decorticators (Row 23)

There were said to be twenty mechanical decorticators, but some of them were out of repair. As with the plough, they are supplied by the Native Authority on the basis of cash loans to be repaid over a period. To such a degree does this hand-operated machine speed up the work of groundnut shelling, that it is always known as *sarkin aiki* (literally "chief of work"). Any farmer can get his groundnuts shelled by paying the standard fees to the owner of the machine and its operator, who each usually get 6d. a bag of unshelled nuts, an additional 4d. a bag being payable if a woman is employed for winnowing.

# The ownership of small livestock (Row 24)

The inequality of ownership, according to the Group classification, is much more marked for men than for women, thus women whose husbands are in Groups 1 and 3 own respectively averages of 4.2 and 3.6 goats per farming unit, the corresponding averages for men being 4.5 and 1.8. This certainly reflects the economic independence of women and possibly, in some instances, their resolve to hold onto their savings almost to the bitter end, just because their husbands are so poverty-stricken. In this connection, it is worth noting that women often claim to be less improvident than men: in Batagarawa the type of savings group known as adashi¹ is run by women only.

# Unmapped farms

The 486 mapped farms owned by the members of the 165 farming units include most of the *gonar karakara* owned by these farmers, and some of the *gonar daji*; but most of the *gonar daji* are situated outside the mapped area. Heads of farming units, and their sons in *gandu*, were asked how many unmapped farms they owned and the total may be of the order of 210, though it is not certain that some of the farms then in fallow were not forgotten by informants. The average number of unmapped farms per farming unit was found to fall progressively from 2.0 for Group 1, to 1.3, 1.2 and 1.1 for Groups 2, 3 and 4 respectively. If the average size of unmapped farm is regarded as invariable for the four Groups, then the average unmapped acreage per head of weighted population is about the same for each

<sup>1</sup> This is the type of savings group found in many countries in the world under which weekly (or monthly) contributions are made by all members, one of whom receives the whole fund (less expenses) each week (or month). See Shirley Arley Ardener: "The Comparative Study of Rotating Credit Associations", The Journal of the Royal Anthropological Institute, Vol. 94, Part 2 (1964).

farming unit (and does not show a progressive change from Group I to Group 4 like all the figures in the Table): this average would stand at about half an acre for all Groups, assuming the average unmapped farm to have an area of two acres. But just as the mapped farms of the Group I farmers are larger than the average, so all the evidence suggests that the same is true of the unmapped farms, and to a more marked degree. It is quite likely that had it been possible to map all farms, the gap between the "rich" and the "poor" would appear even greater than it does on the basis of the tabular material.

I go into this matter in such detail as I think that one of the most crucial problems relates to the failure of many of the poorest farmers to establish more bush farms. It was a question which haunted me on my first visits to Batagarawa in 1966 and one which I felt I could not satisfactorily answer after my residence there in 1967. Within half a mile of the centre of the gari there was much unused land, in an area which had hitherto been reserved as a grazing ground. Why was there not a rush to appropriate portions of this conveniently situated land? Why, in particular, did those who appeared to be desperately short of land not clear farms there, or a little further west where there is much vacant land near the road?

So far as the very poor farmer is concerned, I can still only answer this question in terms of conventional cliches, cliches which would surely ordinarily be thought to apply to the poor of "urban" populations only. I see the older of these farmers (somewhat over half of all the household heads in Group 3 and 4 are estimated to be aged 40 and over) as caught up in a vicious circle of poverty, which compels them to eke out their living from day to day and which saps their power to take the long-term decisions proper to a farmer. Such farmers find it difficult to raise their living-standards by clearing additional land in the dry-season, for during the farming season their granaries are apt to be empty so that they are obliged to devote themselves to earning a daily living, and have little time to work on their own farms. As the better-off farmers are the first to condemn the poorer farmers as "lazy", "hopeless", "untrustworthy", "neglectful of wife and children", it is difficult to get reliable information from third parties. And the roots of poverty are seldom understood by those who suffer most.

There are estimated to be altogether seventeen farming units whose heads are under 30 years old: twelve of these are in Group 3 and three are in Group 4, leaving only two in Group 2. Clearly the early death of fathers is an important cause of poverty in Batagarawa. Fortunately, though, many of the "young-poor" are likely to become more prosperous as their sons grow up and start helping them on their farms and as their expenses associated with marriage and child-birth diminish.

<sup>&</sup>lt;sup>1</sup> The term "urban" is in urgent need of re-definition in West Africa, and especially in Hausaland, where it is often loosely applied to cities only.

I realize that some readers are likely to conclude that the "inequality" that exists in Batagarawa has its roots in non-farming occupations—supposing that if the inhabitants were "normal peasants", pursuing farming only, then there would have been no chance of any of them emerging from the morass. To this I would reply that most farmers in West Africa generally, not only in Hausaland, have non-farming occupations, which is perhaps another reason why they should not be designated as peasants. Taking account of my findings in three areas of dispersed settlement some miles away from Batagarawa as well as of other data, I think it possible that inequality of farm-holdings is apt to be more (not less) pronounced in fully rural surroundings than it is in a gari.

As will be evident enough to readers, I have not here been concerned to analyse the causes of inequality in Batagarawa, but merely to present statistical evidence of its existence. However, I wish to conclude with one observation in this connection. In an authoritarian Muslim society like Hausaland, with its aristocratic ruling class and administrative élite; with its living memories of slavery; with its traditional ideas regarding the relative prestige of different occupations—in such a society it is only too easy to assume, despite the existence of affluent merchants in the cities, that the status and standard of living of the individual farmer necessarily reflects the position of his forebears. I suggest that, on the contrary, historico-political factors should be regarded as having created the sort of rural society in which differences in the intelligence and efficiency of individual farmers could account for much of the economic inequality. Such differences are marked in Batagarawa and give much hope for the future: the better-off farmers would be only too ready to respond to greater outside efforts to raise their standard of living and their symbiotic relationship with the worse-off is such that they too would benefit.

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