

**THE ECONOMIC-ORGANIZATIONAL BALANCES
OF THE DOMESTIC UNIT IN A TRADITIONAL
PEASANT SOCIETY**

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Introduction. The present research is based on data collected in the field, in the territory of the Niger Valley, in the State of Sokoto, Nigeria. The area studied, some 140 km. long and 15-20 wide, extends from the frontiers of the Republics of Niger and Benin to where the right bank of the river meets the border of the State of Sokoto, just upriver from the Kainji basin. This area has remained markedly isolated and traditionally orientated due *inter alia* to the decline in Trans-Saharan trade, the distance from the new economic centres, the difficulties in communications and the intractability of the ecological environment. Situated at latitude 11° - 11°2/3 North, this Sub-Saharan territory is characterized by a rainy summer of limited duration (approximately 4 months) and a prolonged hot dry season covering the rest of the year. The scarce rainfall (800-1,200 mm. per year) contributes to the great aridity of the soil for most of the year and to the poor vegetation, consisting of sparse and mainly dry savannah. The Valley consists of a strip of flat, low-lying land with higher ground rising at its margins, and an altitude between some 130 and 250 m. above sea level. The lower-lying land (*fadama*) retains the rainwater and the alluvial water of the Niger for longer periods and presents better opportunities for agriculture than the upland (*tudu*). Overall, however, agriculture, due to the area's climatic and environmental conditions, is a typically seasonal activity and thus necessarily concentrated on cereal crops, which can be conserved and consumed during the unproductive season. The modes of this cyclical agriculture activity and the related consumption require, in turn, the presence of a settled production group, represented by the domestic unit. The local population, mainly distributed in small and medium-sized villages, has an average density of 22.6 inhabitants per sq. km., but reaches a density of 56 inhabitants per sq. km. in the Valley itself. The demographic data, collected in the field, indicate a very high birth-rate of 61.7/1,000, a mortality rate of 26.7/1,000 (infant mortality 170.8/1,000), with a rate of increase equivalent to 35/1,000, and a life expectancy at birth of 38.5 years. The majority of the population consists of minors and consequently the *dependence index* (i.e. the ratio between economically dependent and economically independent population) is unfavourable, with a value of 1.0. The resident population belongs to several ethnic groups, with a prevalence of Hausa and Fulani: Hausa culture and language, however, act as factors of homogenization, as also does the Islamic religion, which has become progressively imposed over the traditional rites. Also inseparably bound up with the Islamic religion is the traditional political organization with central authority,

based on a system of Emirates, which survives along with a wider, "modern" political system. The economic-social organization is that of a traditional-archaic peasant society, with the land controlled by the community, according to African custom. The family structure presents characteristics of patrilocality, patrilinearity, patriarchy, and a marked practice of polygamy (some 40% of men over the age of 50 are polygamous).

Aspects of production.

The presentation of the quantitative data on which this study is based is mainly aimed at identifying the economic and organizational characteristics of this society and the overall equilibria of the model of development and integration of which this society is but one example.

The presentation of the quantitative data in themselves would not make much sense without the support of a series of qualitative elements which form the frame of reference of the economic and social organization, and which constitute both the means for the formulations of interpretative hypotheses and the premise for the choice of the quantitative variables. All this is perceptible in the preliminary problem of identifying the *unit* to be taken into examination as the mainstay of the economic-social organization. In this society, an analysis focusing on the production of the individual as a independent unit would make little sense; for it is in fact clear that the unit on which the culturally recognised functions and roles of production, distribution and consumption are based is the domestic unit and not the individual unit. In analysing production we must therefore concentrate on the domestic unit, as the fundamental economic-organizational structure. Reference must also be made, subordinately, to the village community, as a structure affected by the economic and social relations between the domestic units.

The present analysis is based on a sample survey of 216 domestic units, comprising a population of 2,260 persons. These units belong to six different villages in three different Districts.¹ They have been selected so as to take account of the differences that may exist between villages of small, medium and large size, between those more, and those less isolated, and other differences - consequential in kind - relating mainly to the opportunities for performing non-agricultural activities, and the possible use of ploughs and tractors in farming. The units in question are as follows:

- a) 72 units, i.e. the whole population of a medium-sized, old and historically important settlement, reachable by river but only with considerable difficulty by land, and characterized by the limited presence of handicraft and commercial activities and by the more traditional forms of agriculture.
- b) 89 units, belonging to 8 different sections of a large-scale settlement of decided historical importance and still today the District capital, reachable with difficulty by land but more easily by river, and characterized by thriving handicraft and commercial activities, and by traditional type agriculture, though with the utilization of farm machines in some cases.

c) 11 units, i.e. the whole population, of a settlement of very limited size, easily reachable both by river and land, and dedicated exclusively to agriculture, with the widespread utilization of ploughs drawn by oxen.

d) 13 units, i.e. the entire population, of a settlement of very limited size, easily reachable by land, close to a major, commercially developed settlement, and characterized by agricultural activity of traditional type and complementary handicraft and commercial activities.

e) 10 units, belonging to one section of a major, commercially important settlement, with a well developed market, good connections (the best in the area) ensured by privately owned vehicles, and characterized by agricultural activities, frequently boosted by the use of the plough, and well developed stock-farming, with the possession in some cases of scores of livestock.

f) 21 units, i.e. the whole population, of a settlement of very limited size, situated a few kilometres from the previous one, and characterized by agricultural activities of traditional type.

The data referring to these domestic units were collected through direct interviews in 1985, and refer to the economic production of the previous year. However, since differences fairly frequently occur from one year to another, if these differences were not marginal, averages were produced by correlation with the data for 1982 and 1983, so as to provide as realistic a picture of the situation as possible.

The data collected by the survey refer to the economic activities of the domestic units taken singly. This aspect needs some clarification. Statistically, the most common domestic unit is the nuclear family, who occupy a *compound* - i.e. a fenced-off enclosure - in an independent way. But a feature of primary importance in the economic-social organization is that, as long as the father is alive, his sons and their families as a rule reside with him in the same compound, cultivate the same land together, live off their communal produce, in a form of co-operation known as *gandu*. The phenomenon of the domestic unit consisting of a patrilineal *extended family* concerns nearly 44% of the sample and, due to the greater numerical size of extended families, nearly 68% of the population. Where an extended family exists, we have considered it as one domestic unit and treated its production as the undifferentiated production of the nuclear families by which it is composed. We have treated it, in other words, as if it were a single nuclear family. This is not in fact wholly exact, since the concept of communal production and consumption refers mainly to the agricultural activities, while handicrafts or trade and even (usually) stock-farming are activities to the benefit first of all of the individual and his nuclear family alone. However, an attempt to separate the non-communal activities from the global production, would not only have been extremely difficult to carry out within the extended family, but it would also have been contrary to the general trend towards internal co-operation and the basic fact that communal agricultural activities (which account for 82% of the value of median production), dwarf every more "individualistic" aspect of production. Another point which must

be stressed, is that the data collected in terms of domestic unit are presented as averaged quantities and values of production *by adult male* (i.e. active worker) and *by component* (i.e. mouths to feed) in the various domestic units. As a consequence, it is not possible to identify the effective contribution to production of the various components of the same domestic unit (however, to do this would have little sense in this economy, as it has been underlined above).

This method does not permit, in particular, the specific contribution made by women to be quantitatively identified. Women make only a limited contribution to the fundamental agriculture activities - due to their involvement in domestic activities and to a considerable diffusion of the Muslim custom of secluding women (*kulle*), which affects 30-70% of the married women in the various settlements.² Nevertheless, they usually thresh and pound corn and they are completely in charge of the internal activities, such as the preparation of food and the care of the compound. And, if they are not in *kulle*, they fetch wood and carry water. These activities, however, are not quantified here, since they do not give rise to the production of goods or to remunerated services. Furthermore, the data collected as a rule do not take account of any possible (and usually modest) handicraft or commercial activities performed by women, which traditionally mainly involve the preparation and sale of sweets and other cooked food.³ Yet it has to be said that the data relating to these possible activities are unavailable even in the case of the male heads of families - since they are strictly personal matters - and are in any event very difficult to obtain directly from the persons concerned, due to the condition of substantial isolation of women. Other data relating to the economic activities of men have also proved hard to come by: more particularly, it has not been possible to take account of the activities aimed at the production of some minor services and goods utilized directly within the domestic unit, e.g. use of manure produced by the unit's own cattle, transport of the unit's own goods, construction and repair of the unit's compound, and manufacture of goods for domestic use (mats, calabashes, etc.).

Having pointed out the existence of these limitations and inexactitudes implicit in our evidence, we can now consider the first essential data relating to the number of the components of the compounds and to the number of adult males (tables 1-2): it is on these that the economic activities of the domestic units considered in our survey principally rest.

Table 1. Domestic units (compounds), according to the number of components.

Category	Relative Freq.(pct)	Cum. Freq.(pct)
1 Component	.5	.5
2 Components	2.3	2.8
3-4 Components	10.6	13.4
5-6 Components	19.9	33.3
7-8 Components	15.7	49.1
9-10 Components	16.7	65.7
11-12 Components	7.4	73.1
13-14 Components	5.6	78.7
15-16 Components	5.6	84.3
17-18 Components	3.7	88.0
19-20 Components	3.7	91.7
21-22 Components	.9	92.6
23-24 Components	1.9	94.4
25-26 Components	2.3	96.8
27 Components and over	3.2	100.0
	100.0	
	MEAN 10.4	MEDIAN 8.6

Table 2. Domestic units (compounds), according to the number of adult males.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
1 Adult Male	26.9	26.9
2 Adult Males	25.0	51.9
3 Adult Males	21.8	73.6
4 Adult Males	11.1	84.7
5 Adult Males	6.9	91.7
6 Adult Males	.9	92.6
7 Adult Males	3.7	96.3
8 Adult Males	1.9	98.1
10 Adult Males	.5	98.6
11 Adult Males	.5	99.1
12 Adult Males	.5	99.5
13 Adult Males and over	.5	100.0
	100.0	
	MEAN 2.8	MEDIAN 2.4

In surveying the number of working hands per family unit, it was considered that the best method was to accept the evaluation that the head of the compound himself made of the quality of *active adult male* regarding the men of his own compound: in this way we ended up by including among the active adult males adolescents of 14-15 years, who are capable of making a very significant contribution to production, and elderly men, whose contribution to production naturally decreases as they grow older, but who are seldom effectively non-productive. The result is a ratio between *active adult males* and *compound components* of 1/3.6, which is slightly more favourable than the theoretical ratio of *circa* 1/4 deducible from the statistical data of the *dependence index*, but which seems more correct in real terms and is in any case not significantly dissimilar.

Apart from this, the significant fact of the average size of the domestic unit should be noted. Reflecting the realities of polygamy and the extended family, this reveals a mean number

of components not only far higher than that of the average European family in past centuries, but also significantly high for African societies themselves.⁴

The substantial differences revealed between compounds regarding the number of components and of adult males (e.g., in approximately 27% of cases there is one adult male in the domestic unit and in another 27% there are four or more adult males), make any comparative analysis between compounds in terms of overall production of negligible value. Moreover, because we are faced with a clear case of subsistence economy, it would seem essential to focus the analysis on the productive capacities per adult male and on the produce per component: *working hands* and *mouths to feed* constitute in effect the essential parameters of reference against which the economic production of this traditional society must realistically be set.

On the other hand, the need for reference to these essential parameters must in no way make us succumb to the error of considering the production of the domestic unit as the mere sum of the variables on the individualistic basis. This is an error of interpretation which represents a particularly insidious trap for outsiders coming from an economy in which the activity of production is a substantially individual fact and in which the function of economic production is no longer an integral part of the organization of the family nucleus. In this traditional society, the parameters of *working hands* and *mouths to feed* must actually be considered as *dynamic dimensions* of the domestic unit, i.e. of the structure that controls the mechanisms of economic-social interaction. To relate the production data in terms of working hands and mouths to feed to the organizational framework of the domestic unit of production in which they are functionally situated, it may thus be useful to bear in mind the dimensions of a typical compound, with 8-10 components (more precisely, a mean of 10.4 and a more significant median of 8.6), being able to count on a work force of 2-3 adult males (mean 2.9, median 2.4).

With these preliminary remarks in view, we can now proceed to an examination of the production of the 216 compounds comprised by the sample, using the parameters already indicated. Since we are dealing with a society organized in terms of an agricultural economy, we will begin with a consideration of the data relating to agricultural production; more particularly, the data relating to the production of sorghum (*guinea corn*) and millet, which constitute the main produce in two essential respects: first, they are in fact the most important produce in terms of weight and value of the harvest; and second, they form the produce on which the diet of the local population is almost exclusively based, and around which the *subsistence economy* revolves. The data relating to the production of sorghum and millet are here presented cumulatively. This is firstly because they equally fulfil the function of providing food for the local population. Secondly, because their prices on the local markets are very similar. And thirdly because they both contribute in an extraordinarily well-balanced way to the overall production of these cereals, sorghum constituting 49.8% and millet 50.2% of the total. Moreover, this virtual

identity in the overall percentages is in turn the result of an almost invariably equivalent production of both types of cereals by the various domestic units, which seem to prefer this balanced division of production as a way of protecting themselves against the risks incurred by the cultivation of one fundamental crop alone.

Apart from the cumulative production of sorghum and millet, the data relating to the other four most important forms of agricultural produce were also collected: namely, rice, beans, groundnuts and maize. Yet, the contribution of these four crops to the local economy is, even if lumped together, decidedly of secondary importance in comparison with that of the staple crops.

The data relating to the quantity of production of these crops are always expressed here in kilograms, so as to make the data homogeneous and facilitate their comprehension; but the local units of measurement are different and vary according to product. In fact, the quantification of production for the purpose of this survey was carried out by using the local units of measurement and subsequently converting them into kilograms. The operation is more complex than it might appear⁵ and undoubtedly presents some margin of error. In spite of the approximate character of the local system of measurement, it is significant to note that the locally determined weights of produce are substantially similar to those calculated in other areas of the Sokoto territory and more generally in the Hausa region.⁶ A parallel approach was adopted in the evaluation of the produce obtained through other forms of cultivation.⁷

The problem of the monetary valuation of the local produce, moreover, presented considerable difficulties. Yet, this monetary valuation could not be avoided, because the local economy, though substantially geared to subsistence, is characterized by trading activities which are by no means of negligible importance, and facilitated by the normal use of currency itself as the means of payment. Moreover, an overall valuation of the production of goods and services of this society could not be carried out without recourse to a monetary measurement capable of summarizing the various data on production in a homogeneous way. This holds true despite the fact that the quantitative aspects relating to the monetary values of production must in any case be reinterpreted in the qualitative context of an economic-social organization geared to self-maintenance, as is the domestic unit of production. As the monetary unit, the Nigerian national currency, the *naira*, was used.⁸

On this basis, the values indicated in tables 3-15 were calculated.

Table 3. Weight of production of sorghum and millet per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 Kg.	.9	.9
1-500 Kg.	.5	1.4

501-1,000 Kg.	6.5	7.9
1,001-1,500 Kg.	7.9	15.7
1,501-2,000 Kg.	18.1	33.8
2,001-2,500 Kg.	13.4	47.2
2,501-3,000 Kg.	13.9	61.1
3,001-3,500 Kg.	7.4	68.5
3,501-4,000 Kg.	8.3	76.9
4,001-5,000 Kg.	9.7	86.6
5,001-6,000 Kg.	5.1	91.7
6,001-7,000 Kg.	2.8	94.4
7,001-8,000 Kg.	2.8	97.2
8,001 Kg. and over	2.8	100.0
	100.0	
	MEAN 3,244	MEDIAN 2,600

Table 4. Value of production of sorghum and millet per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	.9	.9
1-200 N	2.3	3.2
201-300 N	7.4	10.6
301-400 N	6.0	16.7
401-500 N	17.1	33.8
501-600 N	12.0	45.8
601-700 N	10.2	56.0
701-800 N	8.3	64.4
801-900 N	6.5	70.8
901-1,000 N	6.0	76.9
1,001-1,200 N	6.0	82.9
1,201-1,500 N	8.8	91.7
1,501-2,000 N	5.6	97.2
2,001-3,000 N	1.4	98.6
3,001-5,000 N	1.4	100.0
	100.0	
	MEAN 811	MEDIAN 650

Table 5. Weight of production of sorghum and millet per component in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 Kg.	.9	.9
1-200 Kg.	2.3	3.2
201-300 Kg.	4.6	7.9
301-400 Kg.	9.7	17.6
401-500 Kg.	12.0	29.6
501-600 Kg.	10.2	39.8
601-700 Kg.	9.7	49.5
701-800 Kg.	9.7	59.3
801-1,000 Kg.	12.0	71.3
1,001-1,250 Kg.	8.8	80.1
1,251-1,500 Kg.	8.3	88.4
1,501-2,000 Kg.	6.5	94.9
2,001-3,000 Kg.	3.7	98.6
3,001 Kg. and over	1.4	100.0
	100.0	
	MEAN 916	MEDIAN 714

Table 6. Value of production of sorghum and millet per component in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	.9	.9
1-50 N	2.3	3.2
51-75 N	4.6	7.9
76-100 N	9.7	17.6
101-125 N	12.0	29.6
126-150 N	10.2	39.8
151-175 N	9.7	49.5
176-200 N	9.7	59.3
201-250 N	12.0	71.3
251-300 N	6.9	78.2
301-350 N	6.5	84.7
351-400 N	4.6	89.4
401-500 N	5.6	94.9
501-750 N	3.7	98.6
751-1,000 N	.9	99.5
1,001 N and over	.5	100.0
	MEAN 228	MEDIAN 178

Table 7. Weight of production of rice per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 Kg.	74.5	74.5
1-100 Kg.	9.7	84.3
101-200 Kg.	7.4	91.7
201-400 Kg.	3.7	95.4
401-1,000 Kg.	2.3	97.7
1,001 Kg. and over	2.3	100.0
	MEAN 153	MEDIAN 0

Table 8. Weight of production of beans per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 Kg.	21.3	21.3
1-50 Kg.	29.2	50.5
51-100 Kg.	31.9	82.4
101-200 Kg.	13.9	96.3
201-300 Kg.	2.3	98.6
301 Kg. and over	1.4	100.0
	MEAN 75	MEDIAN 50

Table 9. Weight of production of groundnuts per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 Kg.	14.8	14.8
1-50 Kg.	12.5	27.3
51-100 Kg.	14.4	41.7
101-200 Kg.	18.1	59.7
201-300 Kg.	15.3	75.0

301-400 Kg.	6.5	81.5
401-600 Kg.	6.9	88.4
601-1,000 Kg.	6.0	94.0
1,001-2,000 Kg.	4.6	99.1
2,001 Kg. and over	.9	100.0
	100.0	
	MEAN 283	MEDIAN 150

Table 10. Weight of production of maize per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 Kg.	64.4	64.4
1-50 Kg.	8.3	72.7
51-100 Kg.	12.5	85.2
101-200 Kg.	7.4	92.6
201-500 Kg.	5.1	97.7
501-1,000 Kg.	1.4	99.1
1,001 Kg. and over	.9	100.0
	100.0	
	MEAN 79	MEDIAN 0

Table 11. Overall weight of secondary farm produce (rice, beans, groundnuts, maize) per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 Kg.	2.8	2.8
1- 50 Kg.	3.2	6.0
51-100 Kg.	10.6	16.7
101-150 Kg.	8.3	25.0
151-200 Kg.	7.9	32.9
201-250 Kg.	9.3	42.1
251-300 Kg.	7.9	50.0
301-400 Kg.	10.6	60.6
401-500 Kg.	7.4	68.1
501-600 Kg.	8.3	76.4
601-800 Kg.	5.6	81.9
801-1,000 Kg.	6.5	88.4
1,001-1,500 Kg.	4.6	93.1
1,501-2,000 Kg.	3.7	96.8
2,001 Kg. and over	3.2	100.0
	100.0	
	MEAN 592	MEDIAN 300

Table 12. Overall value of secondary farm produce per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	2.8	2.8
1-25 N	5.1	.9
26-50 N	14.8	2.7
51-75 N	13.4	6.1
76-100 N	12.5	8.6
101-125 N	9.3	7.9
126-175 N	10.6	8.5
176-225 N	9.7	8.2
226-300 N	8.8	7.0

301-500 N	7.4	4.4
501-800 N	2.8	7.2
801-1,250 N	1.9	99.1
1,251 N and over	.9	100.0
	MEAN 196	MEDIAN 104

Table 13. Overall value of secondary farm produce per component in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	2.8	2.8
1-10 N	10.6	13.4
11-20 N	4.1	37.5
21-30 N	14.8	52.3
31-40 N	13.0	65.3
41-50 N	9.3	74.5
51-75 N	11.1	85.6
76-100 N	5.6	91.2
101-150 N	4.6	95.8
151-250 N	3.2	99.1
251 N and over	.9	100.0
	MEAN 54	MEDIAN 29

Table 14. Total value of farm produce per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	.9	.9
1-200 N	.9	1.9
201-300 N	4.6	6.5
301-400 N	5.1	11.6
401-500 N	6.9	18.5
501-600 N	14.4	32.9
601-700 N	9.3	42.1
701-800 N	6.0	48.1
801-900 N	11.6	59.7
901-1,000 N	6.5	66.2
1,001-1,200 N	10.2	76.4
1,201-1,500 N	8.8	85.2
1,501-2,000 N	6.9	92.1
2,001-3,000 N	6.5	98.6
3,001-5,000 N	.5	99.1
5,001 N and over	.9	100.0
	MEAN 1,007	MEDIAN 807

Table 15. Total value of farm produce per component in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	.9	.9
1-50 N	.5	1.4
51-75 N	1.9	3.2
76-100 N	7.9	11.1
101-125 N	7.4	18.5
126-150 N	8.3	26.9

151-175 N	10.6	37.5
176-200 N	7.4	44.9
201-250 N	14.4	59.3
251-300 N	8.8	68.1
301-350 N	8.3	76.4
351-400 N	7.9	84.3
401- 500 N	6.9	91.2
501-750 N	6.0	97.2
751-1,000 N	1.9	99.1
1,001 N and over	.9	100.0
	100.0	
	MEAN 284	MEDIAN 218

The data presented require elucidation as regards the conditions of which the production levels themselves are in some way the consequence. The first fact that needs to be pointed out relates to the produce obtained per unit of cultivated area. The calculation could not be based on the statements of the farmers themselves, since it was rapidly ascertained that their idea of the areas they had put under cultivation was very vague. Hence the only precise valuation was that relating to the produce obtained. But this situation should be no cause for surprise, since we are dealing with a society with an economy geared to subsistence and hence to food produced: an economy in which as a consequence the concept of area owned does not have much sense. Measurements in the field of the areas of land used by a small sample of the domestic units showed that the normal values for the fundamental production of sorghum and millet approximate to the very modest figure of 800 kg. of clean produce per hectare. The variations to these normal values, however, can be considerable. On the more arid plots of upland the figure can drop below 500 kg. per ha., while, conversely, some of the more fertile land in the lower-lying areas may provide a yield rising to 1,200 kg. per ha. To this produce should also be added the quantities of secondary farm produce cultivated on the same land, together with sorghum and millet: as is normally the case for beans and is also not infrequently the case for groundnuts. Yet, as the above tables make clear, these quantities of secondary farm produce are decidedly small.

If the average productivity per unit of cultivated area is shown to be modest, it also has to be recognised that the areas cultivated do not seem particularly extensive in size. Taking into consideration the area cultivated by a "normal" adult male, we can indicate an approximate figure of 2.5-3.5 ha.. This figure broadly corresponds with those registered in fairly recent times in other areas of the State of Sokoto.⁹ Even more remarkable, however, is the fact that the extent of the area cultivated by an adult male, and the productivity per unit of cultivated area, do not significantly differ from the figures ascertained in the Hausa region at the end of the 1930s and even as far back as 1917.¹⁰ This seems to indicate that the level of development of the productive forces, in the absolutely priority field of agriculture, is essentially in line with the most traditional values of this peasant society. The figures indicated here relating to the "normal" area cultivated

by an adult male, refer to the domestic units in which the organization of agricultural activities conforms to the customary traditional model. In accordance with this, farm work is performed directly by the adult males of the domestic unit, with the help of young adolescents and the organizational support of the domestic unit as a whole. The fundamental operation of the preparation of the ground is performed manually, with the use of the traditional hoe.

To this main utilization of the internal energies, one should add the recourse for the more laborious work - such as preparing the ground, weeding and harvesting - to the traditional system of reciprocal collaboration within the village community, called *gayya*. All the domestic units use this system of collaboration: for the mass constituted by the domestic units of the commoners, the input supplied by this collaboration closely revolves round the median figure, which is 21% of the total amount of work needed in agriculture; the remaining 79% being the work supplied by the components of the domestic unit.¹¹

The burden of farm work, therefore, essentially falls on the adult males of the domestic unit directly concerned, and secondly on the community collaboration. Any possible recourse on an occasional basis to paid farm labourers for the more demanding agricultural operations does not substantially alter this picture. It was ascertained that 1/3 of the compounds occasionally have recourse to paid labourers: but their contribution is only a modest 15% of the total farm work.¹²

These considerations however apply only to the "normal" domestic units. Indeed, a particular case of *gayya* is the one in favour of domestic units struck by disease or other accidents: in this case, the aspect of *reciprocity* is dwarfed by that of unilateral support, and the community collaboration can assume a more substantial role in terms of labour inputs. On the other hand, the families belonging to the traditional élite mainly rely, for their agricultural activities, on a wide range of cliental relations and consequently on an input in terms of *gayya* which is by far more substantial than the common one and which therefore reverses the prior position usually held by the internal energies.

Except for these peculiar cases, the produce obtained is a variable dependent mainly on the *internal labour force* of the domestic unit, and presents variations dependent on the input of men's physical energy. In broad terms, the production of sorghum and millet within the domestic unit fluctuates between 1,500 and 3,000 kg. of clean produce per annum per adult male. These quantities of produce are those to which roughly half of the domestic units in our sample significantly approximate, as is shown by the relevant tables. Approximately a further 10% of the domestic units have to make do with quantities of produce per adult male lower than these figures.

Better production results than these are, however, achievable by those domestic units capable of channelling higher than average physical energies into farm work, of organizing more effectively the collaboration of the other components of the family group, and of having recourse

to other factors, such as the more substantial use of supplementary manpower and, not least, the exploitation of more productive land, on which the same quantity of work yields larger quantities of produce. Compounds thus exist in which a happy combination of the factors we have just described enable results to be achieved in terms of production of the order of 4,000-5,000 kg. per adult male and in some cases still higher yields, even within a technico-organizational framework that follows the traditional scheme. Results of this order must undoubtedly be considered notable within the context of the ecological and technological conditions which characterize this society.

However, levels of production higher than those here indicated as standard are more easily achievable with the aid of technico-organizational equipment different from the traditional modes. An important discriminant in this regard is represented by the use of the plough drawn by oxen. While in the great majority of the compounds the heavy work of preparing the ground is conducted manually, by hoe, the use of the plough has been developed in recent times in a limited number of compounds. This improves productivity, because it reduces the input of human physical energies per unit of cultivated area, and thus constitutes an incentive for enlarging, albeit slightly, the area under cultivation.¹³ In the 216 compounds examined, the utilization of oxen for drawing ploughs of plain but modern type was identified in some 16% of cases (even if in many of these, the utilization of the plough was just complementary to that of the hoe). In these compounds, the production of sorghum and millet per adult male was on average 4,200 kg. per annum, a figure significantly higher than the standard levels. However, it should not be assumed that the greater production in these compounds was determined merely by the use of the plough. Indeed, it would be more correct to presume that these domestic units were already characterized by a better situation in terms of other conditions, such as the ownership of oxen suitable for ploughing (ownership of a certain number of cattle is in itself the result of better economic conditions), or alternatively the necessary capital either for buying a plough or for paying others to plough: conditions attributable to a more general picture characterized by greater productivity and prosperity which would seem to be more the premise than the consequence of the use of a technically more advanced means of cultivation as the plough.

The pre-existence of this general picture of greater productivity and prosperity is, in any case, utterly beyond doubt in the case of the few domestic units in the sample that make use of modern ploughs drawn by tractors. The use of this equipment is normally complementary to more traditional methods, partly because of the crippling effects of maintenance problems. However, it was with the use of such ploughs that the highest production ratios per adult male were in fact obtained. A small number of the domestic units comprised by the sample, equivalent to 5%, are able, with the use of these modern farm implements, to produce an average of 8,200 kg. of sorghum and millet per adult male (equivalent to 2.5 times the general mean and 3.1 times the median). They also produce an amount of secondary crops that is significantly higher than the

median. Yet the general economic conditions of these few domestic units are in any case, even from other points of view, very different from the bulk of the other units. The mean non-agricultural income per adult male of this productive élite (a mean, however, that encompasses considerable differences between these few privileged units), is 1,150 naira, i.e. 3.5 times the general mean value. Other unquantifiable aspects also differentiate this small group from the rest. In fact, these more productive domestic units also comprise those that represent the traditional élite: four of the eleven units in question belong to District heads and their close kinsmen. A further four belong to important merchants. These domestic units can rely on a different organizational background: as regards the traditional élite, on a wide and effective community collaboration; as regards the merchants, on the possibility of building up a network of cliental relations and secondly on that of employing paid labourers in a more extensive way. Also from an educational point of view, very sharp differences distinguish them from the rest. Seven of the eleven units comprise persons who have not only received Koranic instruction, but who are also able to speak English. Moreover, two of the heads of family, belonging to the traditional élite, have received a modern, secondary-school education, something quite unusual in this society; and one of them performs the role of School Inspector.

From an economic, social and cultural viewpoint, the objective conditions of this minority are such as to make them a well-differentiated category of production in the fundamental agriculture sector.

This situation is reflected only in part on that of stock-farming, of which tables 16-17 provide a summary.

Table 16. Value of the annual natural increase of livestock per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	7.9	7.9
1-10 N	7.9	15.7
11-20 N	12.0	27.8
21-30 N	19.4	47.2
31-40 N	15.3	62.5
41-50 N	13.9	76.4
51-75 N	13.0	89.4
76-100 N	4.2	93.5
101-150 N	4.2	97.7
151-200 N	1.4	99.1
201 N and over	.9	100.0
	MEAN 42	MEDIAN 33

Table 17. Value of the annual natural increase of livestock per component in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	8.3	8.3
1-5 N	22.7	31.0
6-10 N	31.0	62.0
11-15 N	19.9	81.9
16-20 N	4.6	86.6
21-25 N	4.2	90.7
26-30 N	4.2	94.9
31-40 N	3.2	98.1
41-50 N	1.4	99.5
51 N and over	.5	100.0
	100.0	
	MEAN 11	MEDIAN 8

The value of the annual natural increase of livestock has been calculated solely on the basis of the annual mean growth by reproduction of the number of animals farmed and thus does not take into account the growth in value of animals which may be acquired when young and re-sold when fully-grown. The value of the milk produced has also been excluded from the calculation, because its effective value is negligible for the economy of the domestic units,¹⁴ except for those of the Fulani nomads, who sell milk on the local markets.

The calculation of the added value, on the basis of the annual natural increase of livestock, is thus approximate by default. Nevertheless it is close to the effective income produced annually by stock-farming. It takes account only of the livestock owned by the permanently settled population, and not that owned by nomads in the area, who indeed live by cattle-farming but whose presence in the territory is of a wholly temporary and contingent nature.¹⁵

As may be gauged from the above tables, the value of the annual increase of livestock is of secondary importance in comparison with the production of sorghum and millet and, more generally, with agricultural production as a whole. The median value of the annual natural increase of livestock in fact only amounts to 33 naira per adult male, vis-à-vis 807 naira for agricultural production as a whole (of which 650 for the production of sorghum and millet alone). On the other hand, the ownership of livestock represents a form of "natural" investment for the domestic unit, and one towards which its monetary surplus is channelled: hence the value of the annual increase simply represents the "interest" produced by this form of investment, whereas the value of the livestock reared constitutes something far more considerable. In the case of a "standard" domestic unit that owns 5-6 sheep and goats, and an ox, the overall value of the livestock constitutes an important investment and (since the livestock reared is essentially for sale) a fundamental product *of trade* in this society substantially geared to products *of use*.

Another significant fact that emerges from the data relating to stock-farming concerns the distribution of livestock ownership in the various domestic units.¹⁶ Despite the fact that stock-farming is aimed essentially at trade and thus not at direct use within the domestic unit, there is no particularly significant concentration of livestock ownership. Those domestic units that do not own even one sheep or goat amount to only *circa* 8%. At the same time, roughly 3/4 of all the

domestic units derive an income from stock-farming that fluctuates between 11 and 75 naira per adult male per annum, with extremes therefore not very differentiated for this type of "investment" activity. But even the domestic units with a higher socio-economic level, which can therefore invest greater sums in stock-farming, are not, in this respect, clearly differentiated from the rest. The small group of domestic units that use tractors for agricultural production derive an average of only 78 naira per adult male per annum from stock-farming. Similarly, the domestic units that use an oxen-drawn plough, and thus have also a practical use for cattle, derive only 65 naira per adult male from stock-rearing as a whole. Besides, we are clearly not dealing with non-nomadic domestic units that have made stock-rearing their principal activity. For in none of the domestic units comprised by the sample does stock-farming show even a slight tendency to threaten the commanding position of agriculture in their overall economy. Even the maximum figures relating to stock-farming income are very significant in this regard (in spite of some residual doubt about their possible under-evaluation): less than 1% of the domestic units comprised by the sample derived more than 200 naira per adult man per annum from stock-farming, and in no case did the figure rise above 300 naira.

Yet, if stock-farming income grows only in a limited way with the growth of the economic level of the domestic units, it is rather surprising that this source of revenue also exist among those domestic units situated at the lowest level of this subsistence economy. In fact, the group of domestic units that produce no more than 1,000 kg. of sorghum and millet per adult male - and are thus below the subsistence threshold - derive an average of 21 naira from stock-farming: a modest figure, but one with which it is possible to purchase, for example, approximately 100 kg. of cereals.

In sum, stock-farming seems to represent, even for the poorest families, a means of procuring small but significant sums of money with which it is possible to give rise to those limited albeit necessary trading activities even within an economy centred on the production of goods destined for direct use. But stock-farming never becomes, not even among the domestic units of the highest socio-economic level, an activity that can modify the general picture characterized by the predominance of agriculture and by direct use of production.

A situation in some respects similar is presented by the other economic activities, i.e. those different from agriculture and stock-farming. It needs to be stressed, in this regard, that the characteristic predominance of agriculture in this traditional society does not automatically lead to the reduction of economic activities to farming alone. On the contrary, the substantially subsistence character of this economy provides the domestic units with the impetus not only to devote themselves to the fundamental agricultural activities on which their very survival depends, but also to other activities of secondary type. These latter in fact enable them to obtain other goods and services directly, without the need to have recourse to trading one part of their

agricultural produce of which - once their internal needs have been satisfied - there is more likely, in any case, to be a shortage than a surplus. At the same time, the possibility of trading the products of these secondary activities in the wider community enables the domestic units to amass a cash reserve - difficult to derive from agricultural production - with which to purchase those goods and services which are produced outside, but which at least partly the domestic units in question must have recourse to, in spite of their tendency to self-sufficiency. In practice, these secondary activities are a form of employment on an individual basis, of limited economic importance, by means of which many people try to earn the necessary money to purchase from time to time foodstuffs and consumer goods which are not produced by the domestic unit itself. These secondary economic activities, besides, find a considerable "organizational" incentive in the fact that the ecological factors make the predominant economic activity, i.e. agriculture, seasonal in nature, and thus leave much time for the pursuit of other quite different activities. But, above all, these secondary activities are encouraged by the limited amount of the required investments. The relative labour is first of all *unpaid labour*, since it is the direct labour of the craftsman or trader and at the most of other members of his family. Tools are in general very simple and very cheap - the use of machines of any type being non-traditional in this organization¹⁷ - and consequently do not need substantial investments (with some few exceptions, in particular that of *pick-ups* used by transporters). Raw materials are either cheap or obtained on credit. And even trading is usually based on very limited investments in goods; besides, the latter are not rarely obtained on credit.

The sum of these facts in some sense explains the apparent contradiction of the diffusion of non-agricultural activities within a society substantially organized around agriculture. It helps to explain why approximately 20% of the adult males are involved in some economic activities of handicraft type, while a further 16% of adult males perform, at least occasionally, some trading activities, though these are normally modest in scale. To these figures we should also add those persons who engage in other activities of even less economic importance, generally of seasonally strictly limited type (or at any rate with more limited inputs of personal energies), such as hunting, fishing¹⁸ or performing as musicians. The data relating to the sample of 216 domestic units are undoubtedly only approximate for non-agricultural activities of this type, since it can be taken for granted that these activities were not reported by the compound-heads, during the interviews conducted as part of this survey, when their importance for the domestic budget would have appeared insignificant. In spite of this, it was ascertained that in just under half of the domestic units in question, someone was significantly engaged in activities other than those of agriculture (and stock-farming). A tendency was also established for the involvement of other members of the family in the same activity: a tendency that seems logical enough in an economic

organization revolving round domestic units of production and in a society based on the oral transmission of culture, including handicraft or other techniques.

Table 18. Value of production of economic activities other than agriculture and stock-farming per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	56.5	56.5
1-100 N	12.0	68.5
101-200 N	8.3	76.9
201-300 N	4.6	81.5
301-600 N	5.6	87.0
601-1,000 N	6.0	93.1
1,001-1,500 N	2.8	95.8
1,501-2,500 N	2.3	98.1
2,501 N and over	1.9	100.0
	MEAN 321	MEDIAN 0

Table 19. Value of production of economic activities other than agriculture and stock-farming per component in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
0 naira (N)	56.5	56.5
1-25 N	9.7	66.2
26-50 N	10.2	76.4
51-100 N	8.3	84.7
101-200 N	6.5	91.2
201-400 N	5.6	96.8
401-600 N	1.4	98.1
601 N and over	1.9	100.0
	MEAN 67	MEDIAN 0

The figures show considerable differentiation as regards the economic yield of these handicraft, commercial and service activities. It should be noted, on the other hand, that this differentiation in proceeds is in turn the result of a differentiation of the activities themselves. The sample of the family units taken into consideration here seems to be a good mirror of the multiplicity of the activities performed in this society. In this microcosm of the sample we find persons engaged in "simple", "pre-farming" pursuits, such as hunting, fishing and gathering wood. Then there is the long list of traditional craftsmen: weavers of straw mats, carvers of calabash, tanners, leather-workers, weavers, blacksmiths, tailors, carpenters, builders, butchers, millers, and bakers. But there is also a non-traditional type of craftsman: mechanics who repair motor-bikes and pick-up vehicles. In addition there are barbers, launderers, and musicians for festivities and ceremonial occasions. And there are also those who work as part-time labourers.

Then there is a whole range of shopkeepers and tradesmen, some of them specialized in a particular product such as kola nuts, clothing, sugar-cane, poultry or bigger animals; many who simultaneously sell various articles of everyday use; and intermediaries who intervene in the market to negotiate an agreement between customer and trader. At a higher level than all these, are a couple of merchants-contractors-businessmen. Then there are a few owners of pick-up vehicles who do business transporting everything that can be transported: people, merchandise and animals, more often together than separately. There are also a limited number of individuals who receive a Government salary: some minor civil servants and secretaries of the District heads and a couple of schoolmasters. Lastly, there are the traditional Koranic teachers: a minority of them receive a salary from the public authorities, while the majority have to support themselves on the spontaneous offerings of their pupils' families and, more generally, of the more affluent families.

Given this very wide range of activities, the differentiation of their economic returns appears largely inevitable. It is possible, however, to indicate approximately levels or trends of income for the various types of activity. At a decidedly low level of remuneration are those who perform activities based on the "exploitation" of the resources of the land, be they vegetable or animal: gatherers of wood, fishermen and hunters normally earn no more than 200-300 naira per annum per adult male. At an equivalent level can be placed other persons who perform activities based in part on the utilization of natural resources, such as the weavers of straw mats and the carvers of calabash. The traditional weavers of fabrics can also be placed at this level of earnings. Tanners, leather-workers, blacksmiths, tailors, carpenters and builders earn on average higher incomes, though these vary between a minimum of around 100 naira to a maximum of 1,000 naira per year. Butchers, millers and barbers can also be placed at a level of comparatively higher earnings, while those employed in the service sector, such as barbers, launderers and musicians normally earn fairly low incomes, of the order of 200-300 naira per year. Farm labourers can be placed around the same level, with earnings of marked homogeneity.

In contrast, the category of shopkeepers and traders is the most difficult to place in terms of income, because of the heterogeneity of their earnings. This heterogeneity is shown by the fact that the median level of income within this large group (500 naira per annum) is very different from the mean level (1,788 naira). In effect, the median level is that around which a large part of the small traders can be placed: those who throng the local markets and who strive to sell their few and humble goods on tiny stalls. The poorer of these small traders have to make do with even lower earnings, about 200-300 naira per year. Traders with a more substantial business earn figures of the order of 1,000-2,000 naira per year. And at a even higher level than these is the very restricted group of important traders (0.6% of the adult males, in some 2 domestic units out of 100, located exclusively in the larger settlements), who are engaged mainly in wholesale and

who earn 10,000 naira or more per year: predominant in this small group would seem to be the traders engaged more particularly in the sale of cattle; others are involved in a variety of commercial transactions, according to opportunity, and sell their goods to local stand-keepers.

At a decidedly high level of income can also be placed those few individuals who practice what is probably the most "modern" trade for this society, that of transporter with pick-up vehicles: they succeed in earning approximately 10,000 naira per year.

The schoolmasters have an income of 2,000-2,400 naira per year. The few other civil servants can be placed at equivalent levels. Lastly, those Koranic teachers who receive an income from the public authorities earn roughly 1,000 naira; the others limit themselves to receiving offerings in kind for a far lower value, of the order of 200-300 naira per year.

The wide range of these various non-agricultural activities, and the corollary emphasized here of the diversity of the earnings derived from them, should not make us overlook some more general facts relating to the importance and role of non-agricultural activities within the local economy. Although there is at least one person engaged in handicrafts or services in just under half of all the domestic units, nevertheless the exercise of these activities does not dislodge the priority of agriculture in the economy of this society. In fact, only in 16.6% of the domestic units does the value of the income derived from handicrafts and services exceed 50% of the total of the value of agricultural production. And within this 16.6%, only in 9.7% of cases does it exceed the entire figure of the value of agricultural production. And finally only in 5.0% of case does it amount to twice or more the value of agricultural production.

It may be useful to point out that in this small group of domestic units with a budget based mainly on non-agricultural activities, the economic source is almost always commercial activity, with the exceptions represented in the sample by the activities of transporter with pick-up, of miller with rudimentary motorized mill, and of schoolmaster. Yet, the domestic units of this small group are *also* engaged in agriculture and almost invariably succeed in being self-sufficient in the production of sorghum and millet, with the exceptions of those compounds in which there are only 1-2 adult men, who are clearly unable to distribute their working energies in such a way as to effectively handle not only a non-agricultural activity that provides appreciable - and hence presumably demanding - financial returns, but also the usual agricultural activities. It should also be noted that these domestic units, aimed mainly at commercial activities and services, generally belong to the higher-income bracket. There are one or two exceptions. For example, the compound in which the schoolmaster is head even receives assistance in kind; the family in question has many non-adult members, and has difficulty in providing for its own subsistence. However, none of this small number of domestic units with a budget based on non-agricultural activities belongs to the traditional élite. The families who belong to the latter

continue to derive their income mainly from agricultural activities, confirming the traditional priority of agriculture.

All the statistical data so far presented are summarized in the values of the total production of the domestic units comprised by the sample, as set out in tables 20-21.

Table 20. Value of total production (goods and services) per adult male in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
1-200 naira (N)	.5	.5
201-300 N	.9	1.4
301-400 N	5.1	6.5
401-500 N	5.1	11.6
501-600 N	9.7	21.3
601-700 N	6.5	27.8
701-800 N	8.3	36.1
801-900 N	7.4	43.5
901-1,000 N	7.4	50.9
1,001-1,200 N	13.4	64.4
1,201-1,500 N	11.6	75.9
1,501-2,000 N	9.3	85.2
2,001-3,000 N	8.3	93.5
3,001-5,000 N	3.7	97.2
5,001 N and over	2.8	100.0
	100.0	
	MEAN 1,371	MEDIAN 985

Table 21. Value of total production (goods and services) per component in the various domestic units.

Category	Relative Freq. (pct)	Cum. Freq. (pct)
1-50 naira (N)	.9	.9
51-75 N	.9	1.9
76-100 N	.9	2.8
101-125 N	5.1	7.9
126-150 N	7.9	15.7
151-175 N	5.1	20.8
176-200 N	9.3	30.1
201-250 N	11.6	41.7
251-300 N	14.4	56.0
301-350 N	9.3	65.3
351-400 N	11.1	76.4
401-500 N	9.3	85.6
501-750 N	7.9	93.5
751-1,000 N	3.2	96.8
1,001 N and over	3.2	100.0
	100.0	
	MEAN 363	MEDIAN 275

The distribution of the values of total production in the various domestic units can further be analysed by means of the *Gini concentration ratio*.

$$\begin{aligned} & \textit{Gini concentration ratio} \\ & \textit{for the mean value of total production} \\ & \textit{per component in the various domestic units} \\ & = 0.38. \end{aligned}$$

Balances

On the basis of the data of the sample of compounds so far presented, it is possible to propose some evaluation about the economic balances of this society. First of all, the centrality and predominance of agricultural production vis-à-vis all the other goods and services produced needs to be stressed. The median value of agricultural production represents 82% of the value of the total production of an adult man, therefore usually relegating every other form of production to a decidedly secondary position, in terms of the overall budget of the domestic unit. In turn, the proceeds of stock-farming - although an activity that has its roots in the economic traditions of this Sub-Saharan belt - contributes to the gross product of the domestic units only in a very limited way: namely (in median values), to an amount equivalent to 3.3% of the value of the total annual production of an adult man. Thirdly, the production of goods and services through activities other than agriculture and stock-farming covers only the remaining *circa* 15% in value. This centrality and predominance of agricultural production is not a fact limited to the median values of distribution. As has already been emphasized, the value of the product of handicraft and services activities only assumes priority in a very restricted number of domestic units.

All this confirms the essentially agricultural nature of this society, in which non-agricultural activities, though widespread and diversified, play a subordinate role in the framework of the gross product of the domestic units, based substantially on the direct utilization and not on the transformation of natural resources.¹⁹

With this predominance of agriculture must be associated the archaic technology used in agricultural production. The persistence of this technology is in fact an essential element of the organizational background in which the predominance of agriculture has its roots. The fact that agricultural activities are essentially based on the utilization of the population's physical energies needs to be stressed. The tools and utensils used - first and foremost, the hoe - are merely an extension of the human body, and their use continues to depend directly on the input of physical energy. The spread of more sophisticated farming implements capable of breaking this close dependence between productivity and the input of physical energy is decidedly limited. We have seen, in particular, that the use of draught-animal for ploughing (which is a first step in this

direction) is still restricted to a tiny minority of domestic units, while the utilization of tractors for farm-work, and more particularly for ploughing, is even more limited and discontinuous. Moreover, the archaic character of the local technology is not limited solely to the tools of the main productive activity, for it is also common to the tools used in the other secondary forms of production. As instances, we may cite the various handicraft activities, performed normally with the use of rudimentary tools; or the mode of transport, which is still based largely on the physical capacities of human beings and on the utilization of beasts of burden; it should be noted in this respect that wheeled transport of any kind has hitherto not been used, and hence the pick-up vehicles of foreign provenance, that are now beginning to spread in the area, are a replacement not of the cart, but of man and beasts of burden as means of transport.²⁰

Concurrently, the system of differentiation in working activities has reached a very limited level of specialization. We have seen that the domestic units in which non-agricultural activities clearly predominate over farming, as source of income, only amount to 5.0%. It is even more significant to note that practically all the domestic units consider it necessary to perform the traditional activities of cultivating the land, before concerning themselves with anything else. In the whole sample, only 0.9% of the domestic units do not engage in agriculture: the two domestic units in question can each count on one adult male alone, neither of whom is in a condition to work in the fields (in the one case because he is seriously ill with leprosy, in the other because he is also in poor health). The non-specialization of the domestic units corresponds, moreover, with the non-specialization of their individual members: in the sense that, though they include persons capable of performing *specific* activities of non-agricultural type, there is almost no one who engages in these activities in a *specialistic*, i.e. exclusive, way. What we are dealing with in substance is the performance of activities complementary to the practically universal pursuit of agriculture. The system of the differentiation of working activities is thus based prevalently on the usual criteria of a substantially "simple" society. In other words those of *age* and *gender*, with the attribution to women, broadly speaking, of tasks relating mainly to the rearing of offspring and the running of "internal" domestic activities; and the attribution to children and old people of less strenuous activities (and in particular the attribution to the old of the task of counselling, representation and the transmission of culture).

The picture so far painted is not comprehensible, however, without an analysis of the use of the produce obtained and more generally, of the internal economic balances, with reference to the fundamental problem of the levels of subsistence. To tackle this question in a clearer way, we can take as our model the economic balances realized by what can be considered a *standard* domestic unit: i.e. the domestic unit with a median level of production per component. This domestic unit will thus have a production of sorghum and millet per component (i.e. per *mouth to feed*) per annum of *circa* 700 kg. - as may be ascertained from the tables presented above - plus a

secondary production worth approximately 40 naira, which is equivalent in value to a further *circa* 160 kg. of sorghum and millet.

From this apparently rather large overall agricultural production, the standard domestic unit must, however, subtract a quantity equivalent to the value of what needs to be spent to achieve it. We can distinguish the following types of expenditures for agricultural production, on the basis of an analysis of a limited number of domestic units whose characteristics of production are close to the median ones (table 22).

Table 22. Costs of agricultural production in relation to its total value.

- non-monetary costs: seeds, equivalent to *circa* 2% of the overall production;
- monetary costs: total value equivalent to 10.5% of the value of total production, of which:

- Farm equipment	=	18%
- Fertilizers and manure	=	4%
- Transport for produce	=	9%
- Commission on the sale of produce	=	12%
- Labour*	=	47%
- Unspecified costs	=	10%

* (comprising any cost for hired labour, for the hire of an ox-drawn plough and expenses for *gayya*).

As may be noted, the monetary costs represent only a limited percentage of the total value of agricultural production. But this is in perfect accordance with the organizational framework of a traditional society, with its low technological level and predomination of human physical energy as production factor. It is significant, in this regard, that the relatively highest expenditure among the monetary costs is that for farm labourers. At the same time this expenditure appears minimal as a percentage of the overall value of agricultural production.²¹

The calculation of associated costs, monetary and non-monetary, does not, however, exhaust the sum of the deductions that need to be made from the agricultural production in order to ascertain the amount of it available for direct consumption. The domestic unit is in fact faced by the need to cover other necessary, or at any rate almost unavoidable, expenditures. The reckoning of these presents many difficulties. In fact, while the local population has a clear knowledge about its own production and income, its knowledge of the various expenses, conversely, is as a rule vague - as indeed is also the case in the more accounting-oriented Western society - except for the daily consumption of grain and for any heavy expenses for ceremonies. As a consequence, the indications presented here are somewhat approximative. The main expenses, in decreasing order of importance, are anyway for the median domestic unit: the purchase of foodstuff to enrich the nutritionally poor and monotonous daily diet and so diversify

it with some meat and fish, salt, spices and palm-oil (almost 1/7 of the total value of production is significantly channelled towards the purchase of these goods);²² the purchase of clothing and sandals (*circa* 1/20); the costs of constructing or repairing the compound and the purchase of household articles, including the costs for building granaries to store crops, the costs of mud and straw huts and fencing, as well as the costs of mats, beds, cooking pots and household utensils (*circa* 1/20); the purchase of traditional stimulants, e.g. kola nuts (*circa* 2%); and the payment of taxes (*circa* 2%). We should also probably include among the necessary or almost unavoidable expenses those of social-ceremonial type which form an integral part of the time honoured traditions of this society: in other words, the fundamental expenditures involved for marriage and birth and, more generally, expenditures for the purchase of livestock, kola nuts and various gifts for feasts and other social occasions (towards these expenditures about 1/20 of the total value of production is channelled).

The proceeds of non-agricultural activities are not enough to cover these costs. While it is true that these non-agricultural activities are aimed at supplementing the domestic unit's budget and enabling it to cover these costs, it is also true that the revenue they produce is insufficient to this end. Thus, the profits from stock-farming, though present in almost all the domestic units, remain, as we have seen, very low. Handicraft and service activities are pursued in less than half the domestic units, and in any case their proceeds are normally limited.

As a result of this situation, the need arises to allocate a further portion of the agricultural produce for sale. (It may be noted, parenthetically, that this produce is easy to sell given the demand for food products in the urban areas of the northern region and, more generally, throughout Nigeria).²³

What normally happens, at these intermediate levels of production, is that all, or almost all, the secondary agricultural produce (i.e. rice, beans, groundnuts, maize, equivalent to 18.8% of the median value of the total agricultural production) are destined for the market. Apart from secondary agricultural produce, a small part of the harvest of sorghum and millet may, if necessary, be placed on the market. However, this is something that the domestic units in question try to avoid. The quantity of sorghum and millet sold on the market by these intermediate-level families may, in any case, be estimated on average at 10% of the produce obtained. Domestic units at the higher productive level will sell not only all, or almost all, their secondary agricultural produce, but also a more than proportionately growing portion of their harvest of sorghum and millet. Conversely, the domestic units at a lower productive level will limit themselves to the sale of their secondary agricultural produce (and whatever proceeds they may receive from non-agricultural activities), while at the same time being obliged to sell none, or virtually none, of their principal harvest, indeed being obliged not infrequently to have recourse to the traditional *zakat*, that is, the charitable aid given free of charge to domestic units

suffering difficult economic conditions (and first and foremost to the families of the impoverished Koranic teachers) through the coordination of the leaders of the local community. The portion of the harvest allocated to this traditional non-commercial distribution by the domestic units at the intermediate economic level can be estimated at a tenth of their main agricultural production: a percentage, moreover, that is in accordance with the religious prescriptions.

The breakdown of the utilization of overall agricultural produce by the domestic units at the median economic level is as shown in table 23.

Table 23. Utilization of agricultural produce.

1) Seeds:	<i>circa</i> 2% of the harvest
2) Free distribution:	<i>circa</i> 8% of the harvest
3) Commercialization:	<i>circa</i> 30% of the harvest
4) Domestic consumption:	<i>circa</i> 60% of the harvest ²⁴

What remains available for domestic consumption, once the above percentages have been deducted, is a moderate quantity of food: *circa* 500 kg. of sorghum and millet per component per year, using the productive parameters of these intermediate-level domestic units. This quantity of sorghum and millet, available for each component, however moderate should not be totally consumed. The possibility of famine, or the unexpected diminution in the domestic unit's workforce (due to illness or accident) prompts the need - in a society in which insurance or other forms of social security do not exist, apart from the traditional *zakat* - for the domestic unit to try to store a quantity of food greater than is strictly necessary for its normal consumption, and to maintain a surplus stock of cereals as an insurance against any unforeseen events. For people are well aware that a good stock of cereals, surplus to requirements (even more than the ownership of domestic animals), is equivalent, in terms of a guarantee for the future, to a bank account in a market economy.

Hence, the quantity of the harvest effectively consumable must be reduced still further and becomes at this point not very dissimilar from the mean levels of consumption registered among this population. Local eating habits are based on a diet that is very low in protein and very monotonous, since it essentially consists of sorghum and millet. It is supplemented with spices, and only in a very limited way with meat and fish, which are not a normal constituent of the everyday diet. Vegetables and fruit also play a very limited role in people's eating habits.

While this diet of sorghum and millet is nutritionally poor and monotonous, it is directly sustained by the production of the domestic unit itself. In these units of intermediate economic level, the sorghum and millet consumed are substantially the fruit of domestic production.

Overall, it may be estimated that 4/5 of the value of the consumed food is based on home-grown produce, while the rest comes from purchased foodstuffs, especially meat, fish, milk, salt, spices and condiments. Significantly, the consumed meat is bought on the market, in order to avoid any loss of the capital represented by cattle.

Since this diet of cereals has a low nutritional value, the quantities of food normally consumed are, in compensation, relatively high in terms of weight. Table 24, based on a small sample of domestic units, shows the mean quantities of cereals daily consumed *per capita* (without distinction of age and gender).²⁵

Table 24. Mean daily per capita consumption of cereals in 21 domestic units (in increasing order).

Domestic unit	n. 1	=	0.48 Kg.
Domestic unit	n. 2	=	0.55 Kg.
Domestic unit	n. 3	=	0.64 Kg.
Domestic unit	n. 4	=	0.65 Kg.
Domestic unit	n. 5	=	0.66 Kg.
Domestic unit	n. 6	=	0.68 Kg.
Domestic unit	n. 7	=	0.73 Kg.
Domestic unit	n. 8	=	0.77 Kg.
Domestic unit	n. 9	=	0.80 Kg.
Domestic unit	n. 10	=	0.82 Kg.
Domestic unit	n. 11	=	0.85 Kg.
Domestic unit	n. 12	=	0.88 Kg.
Domestic unit	n. 13	=	0.88 Kg.
Domestic unit	n. 14	=	0.91 Kg.
Domestic unit	n. 15	=	0.91 Kg.
Domestic unit	n. 16	=	1.10 Kg.
Domestic unit	n. 17	=	1.10 Kg.
Domestic unit	n. 18	=	1.10 Kg.
Domestic unit	n. 19	=	1.10 Kg.
Domestic unit	n. 20	=	1.10 Kg.
Domestic unit	n. 21	=	1.19 Kg.
MEAN	0.85 Kg.	MEDIAN	0.85 KG.

These quantities, however, are often inadequate to the actual needs. The colonial administration estimated the minimum daily ration of cereals at 2.2 lb. (998 gm.) *per capita*:²⁶ a level that only slightly less than 1/3 of the sampled domestic units reach. Leaving out of consideration these abstract calculations, the low nutritional value of this diet raises anyway *manifest* problems as regards feeding the domestic units at the lower productive level: as can be seen by, in particular, the well-nigh ubiquitous presence of the characteristic symptoms of poor nutrition (swollen bellies, muscular hypotrophy, skin ulcers)²⁷ among children, which emphasize the inadequacies of a diet that is poor more in terms of quality than quantity.

From the more general viewpoint of the balance between food production and consumption, the index of *per capita* daily consumption points to the low degree of *surplus*

production. This index registers an annual mean consumption of over 310 kg. of cereals per person: a quantity which, on close inspection, does not permit any considerable surplus vis-à-vis the median quantities of production per component, once all the unavoidable deductions have been made.

This scarcity of surplus, even for the intermediate-level domestic units, is indirectly confirmed by the procedures adopted by the local people in implementing the *zakat*. From an analysis of the balance between food production and consumption by the domestic units in the sample, it emerges that almost all the domestic units with a production of cereals lower than 400 kg. *per capita* per year receive a further allocation of cereals in the form of charity from the domestic units at the middle-to-upper level - unless, that is, they can count on substantial earnings from thriving handicraft or commercial activities, something that rarely occurs at these (lower) productive levels.

This shows that the level of 400 kg. of cereals *per capita* may be considered as the *threshold of self-sustaining* in real terms, though this level is approximately twice the minimum quantity of cereals used for the *per capita* feeding of the poor domestic units. The inference to be drawn from this provides confirmation of the fact that to ascertain the domestic units' minimum levels of self-sustaining - and subordinately the existence of any surplus production - reference needs to be made not just to the minimum quantities of food necessary for survival, but also the inevitable deductions that need to be made from the total produce obtained: all this naturally raises the level of the threshold of self-sustaining.

One consequence of the greatest importance is that a very large segment of the domestic units is faced by serious problems in striking the right balance between production and consumption, or is at any rate characterized by a lack of production surplus. From the tables already presented it can be seen that just under a fifth of the domestic units belong to the segment characterized by a production of sorghum and millet not higher than 400 kg. per component. They cannot count on any surplus production, and in all probability they will have to rely on the generosity of the domestic units at the middle-to-upper level to attain the right balance as regards the necessary food for subsistence. At the same time the situation regarding the immediately higher production level is only marginally better, and only permits a problematic balance to be reached between production and consumption, without practically any surplus production. The conclusion can thus be drawn that for the production segment of up to 600 kg. of cereals per component, and hence for 40% of the domestic units, the balance between production and consumption, even on the most optimistic hypothesis, remains a difficult one, and often this balance fails to be reached.

We have seen, on the other hand, that, even for the domestic units at the median level, production, though quantitatively significant, does not permit any appreciable surplus. At this

level, greater production is aimed in the first place at providing the group with a more abundant diet (which constitutes an objective rooted in the culture of the poor economy), and secondly at ensuring greater security by the provision of larger stocks (an equally well-rooted objective). Concurrently with these utilizations, any surplus will be channelled first of all towards the practice of the *zakat*, which is a religious duty for the Muslim and a deeply rooted social obligation: a practice that enables those who perform this kind of charity not only to win merit in God's eyes, but more especially to acquire a higher social status, which would be difficult to achieve in this economy by other means. More than half of the domestic units, and hence all those at the middle-to-upper economic level, contribute to the operation of this traditional system of redistribution. To this are usually added direct alms and the gift of already-cooked food to poor neighbours, travellers and visitors.

These preferential utilizations that absorb, at least in part, the greater share of the available supplies of the fundamental production of sorghum and millet, explain in some way an attitude that is widespread to a remarkable degree among the domestic units: namely, their reluctance to sell the sorghum and millet they produce. This reluctance is even present in those units with surplus production. In fact, the general tendency is to store the harvested sorghum and millet, and to sell as little as possible of this produce, unless the surplus is substantial. On the basis of the considerations set out above on the balance between production and consumption, it may be maintained that the achievement of this substantial surplus only occurs in those domestic units with a production of sorghum and millet higher than 1,250 kg. per component: in other words, only in 20% of the cases considered.

Yet, even in this restricted segment of domestic units with a significant surplus of sorghum and millet, the utilization of growing production - due not only to economic reasons but also to cultural influence - tends to follow the peculiar model constituted by the conduct of the traditional local élite. Growth in production leads first to a growth in food consumption and food stocks, and concurrently to an increase in the portion of agricultural production given to the poor. Then, growing percentages of production will be employed to purchase better-quality food (meat, fish, etc.), more numerous and expensive clothes, more kola nuts, and more food and gifts for traditional ceremonies. The substantial costs of new marriages will be met, and animals, notably cattle, bought for stock-farming. Where the available surplus permits it, to all these costs will be added the expenditures for a larger and more solidly built compound, still bigger expenses for new marriages and ceremonies, and growing expenses for gifts in kind and in money destined to increase the social importance of the person and his family, through the creation of a series of bonds of dependence as part of the patron-client system. These social expenses, in particular, grow more than proportionally with the growth of the wealth.

In this framework, the *direct* major investments in production remain anyway at a very low level and are usually limited to any additional costs for the utilization of any extra farm labourers, for the purchase of livestock, and the utilization of relatively larger sums in any commercial activity. The narrowness of the investments in production is, besides, accompanied by scarce opportunities of credit. In fact, it is possible to get interest-free loans within one's own family; and it is possible to have recourse to *adashi*, a custom by which a group of persons commit themselves to periodically pay a small amount of money in order to have the possibility of getting the entire sum in case of need. Beyond this, it is possible to borrow some small amount of money within the community: these loans usually provide for high interests, constituted however by a fixed amount of money. On the all, the economic incidence of these loans at interest is limited. They are first of all opposed by the Islamic culture, which does not recognize loans at interest; on the other hand, these loans are used to meet emergency situations (e.g. ceremonial expenses), and are not as a rule channelled towards investments in production.

On the point of the direction of production utilization, some further clarification is anyway necessary. As already emphasized, the presence of trading cannot be ignored in this economy, and table 25 summarizes its comparative incidence.

Table 25. Distribution of overall economic production (goods and services) according to the forms of utilization (exchange or consumption) per domestic unit at the median level.

Mode of Production	A	B	C
Agriculture (value 82%)	c. 24	c. 7	c. 51
Stock farming (value 3.3%)	c. 3	-	-
Other activities (value 14.7% calculated as remainder)	c. 15	-	-
Total (value 100%)	c. 42	c. 7	c. 51

Legend

A = % value of goods & services used for trade (monetary income)

B = % value of goods distributed as charity

C = % value of goods directly consumed

As may be seen from this table, although the value of trade is not insignificant, the incidence of the value of the production consumed on the total value of production, in other words the *index of subsistence*, still reaches a level of approximately 50%. If we add to this figure that of the goods donated as charity (whose utilization is more assimilable to that of the goods consumed than to that of the goods traded in the market), an index of subsistence equivalent to 58% is reached. These figures for the index are not only decidedly high in

themselves, but even higher - albeit only fractionally - than those registered in a less remote area of the Hausa territory in the early 1950s.²⁸ This only reinforces one's impression of the traditionalism, and stability in time, of the situation that these values reflect.

Apart from the statistical findings, this situation is in substance characterized by the fact that, in the economic and social organization at the local level, the fundamental agricultural production is essentially geared to the satisfaction of the domestic unit's own need to support itself and to the establishment of stocks aimed at defending it against the danger of unforeseen setbacks in the production cycle, e.g. adverse climatic or seasonal facts, famine, and the illness or death which may strike its members.²⁹ By the same token, internal consumption (in particular food consumption which constitutes its most significant aspect) is mainly based on the domestic unit's own production. We are thus dealing with a *subsistence economy*, revolving round the close interaction between direct production and internal consumption.

A further fact is worth emphasizing: namely, that the centrality of the objective of subsistence, in the framework of the domestic unit's economic activities, is matched by a parallel tendency to the self-sufficiency in the village community, or rather within the group of village communities which constitute a local market area. The local communities produce cereals, beans, groundnuts, meat and fish; their craftsmen produce hides, leather articles, hoes and other farm implements, traditional containers, mats, woodwork, traditional fabrics; barbers, masons, tailors, butchers, and bakers are perfectly capable of satisfying local demand. At the level of food, the local communities are in credit, because they live on their own production and, what is more, export cereals, groundnuts, live animals and smoked fish beyond the confines of the valley. Food imports are limited and mainly consist of salt and palm-oil. As regards the non-agricultural products, such as hides, leatherwork, mats and containers, woodwork, hoes and similar ironwork, the local production seems able to meet at least a considerable part of the local demand; in compensation, other goods are imported, including stimulants such as kola nuts and cigarettes, machine-made fabrics (which have overwhelmed traditional fabrics), iron (obtained from scraps, in substitution of that made traditionally), "luxury" items such as soap, matches, enamelled metal containers, oil-lamps, fuel and, naturally, the few motor-vehicles and farm machines and all the other "modern" products introduced into the area in more recent times. Overall, however, the local economy, in its balance of subsistence, does not (and in its present state could not) depend on any imported product, with the probable exception of salt and kola nuts.

All this reinforces the picture of a subsistence economy, which has already been pointed out as a characteristic of the domestic units. This characteristic is more one of tendency than a uniform reality, in view of the appreciable incidence of trade. However, even the significance of this latter fact must be reconsidered in relation to certain characteristics of the system of trade or exchange in this society. If we identify *trade* - according to the criteria of modern Western

society - as a mechanism for the transfer of goods and services within a market structure aimed at the maximization of the economic profit, we have to recognise that this model is here superimposed by other models of *exchange*,³⁰ involving both factors of production and utilization of produce itself.

A first model is that of a *social exchange of contributory-reinforcing type*. As regards the factors of production, this model is first of all represented, at the inter-familial level, by the collaboration which farmers organize during the major agricultural operations: this collaboration - either in the usual reciprocal form or in the more *one-way* form of a support to the weakest domestic units and to the local élite - maintains the quality of a contributory-reinforcing exchange. At the pure intra-familial level, a fundamental mode of contributory-reinforcing exchange is represented by the *free* labour supplied by the components of the domestic unit of production. This contribution is obviously aimed at the efficient functioning of the domestic unit. As regards produce utilization, there are the forms of exchange connected with various ceremonies, in particular with marriage ceremonies: here the fundamental marriage payments, the gifts to the bride, the offering of kola nuts and the distribution of food represent not the price of something, nor a form of reciprocity, but a mechanism of social reinforcement that is simultaneously intra-familial and inter-familial in character and that contributes to the marriage links that are necessary for the constitution of the domestic unit of production.

A second model is that of a *social exchange of redistributive type*. As regards the factors of production, this model is first of all represented, outside the domestic unit's boundaries, by the free allotment of communal land to the community members, which is customarily managed by the traditional rulers: this distribution evidently affects an essential aspect of the economic organization. As regards the produce utilization, this model is represented, at the inter-familial level, by the traditional practice of transferring goods in the form of charity from prosperous families to the less well-to-do. As we have seen, the redistribution of a part of the harvest and, to a lesser degree, gifts of cooked food, are traditional practices - based on a religious obligation - which involves almost all the population, whether as donors or beneficiaries, and is by no means of negligible importance from the viewpoint of the value of goods transferred. This redistributive social exchange is not characterized solely by unilateral transfer: the donors can expect to obtain not only greater social prestige, but also eventual recognition - variously expressed at the social level - by the beneficiaries themselves. The presence of elements of imperfect bilateralism does not, however, make the redistributive model assimilable to that of reciprocal type; the model actually expresses the aim of strengthening the social links between the domestic unit and the village community. The redistribution model is also expressed, at the intra-familial level, in the fundamental aspect of the distribution of food among old people, children, women and adults of the extended domestic unit; a distribution which does not normally imply reciprocity,³¹ but

which is more properly aimed at the reinforcement of internal solidarity and, in general terms, at the perpetuation of the domestic unit.

Both models of social exchange, irrespective of their degree of reciprocity, are characterized by an absence of monetary calculation of the economic effort vis-à-vis the goal,³² typical of modern economic exchange. Indeed, the models described here are aimed in a directly contrary direction to trade in the modern sense, insofar as they tend to channel goods and services either to intra-familial or to inter-familial utilization of mainly *social* character.

Moreover, even the trading activities on the market themselves which ought in theory to be determined by the concept of the maximum *economic advantage*, on the basis of the mechanisms of supply and demand, are in reality influenced to some extent by other considerations: haggling on the market takes place in a dimension of social time which is "relaxed" and thus anti-economic; agreement on the price and on the modes of exchange tend to be influenced by the social position of the contracting parties, their reciprocal relations and expectations; agreement is reached through a gradual rapprochement between the positions of buyer and seller by means of more or less ritual arguments, which concur to determine or consolidate the social relations between the parties,³³ and which give a *social value* to the price, to the detriment of the principle of supply and demand.

From all these characteristics, it may be deduced that the *introverted* character of the utilization of production is accompanied by the presence of particular mechanisms of exchange, of mainly social value, and of both inter-familial and intra-familial type, regarding factors of production and utilization of produce, which indirectly stress the priority of the *self-reinforcement* or the *communal reinforcement* of the traditional units of production.

The centrality of the domestic unit of production is thus further underlined: it is the structure that basically *organizes* and *reproduces* the fundamental factor of the human physical energies, and that gears the modes of the utilization of production and the mechanisms of "social" exchange to the advantage of its own balances.

A further point that needs to be elucidated in this context concerns the organizational modes of the domestic unit in relations to its production results, and in particular the *economic sense* of the extended family. The data furnished by the sample permit a series of evaluations about the interdependence between these aspects to be made. In the first place, the data show that the various values of the production of the domestic unit are as a whole closely correlated with the number of *working hands* at its disposal. The number of adult males per domestic unit is in fact positively correlated to the weight of sorghum and millet produced in the domestic unit (coefficient of correlation: 0.66), to the value of secondary agricultural production (0.52), to the value of the natural increase in livestock (0.57), to the value of the total production of goods and services (0.59) and, to a lesser degree, to the value of the activities other than agriculture and

stock-farming (0.39). A series of parallel correlations between the number of components of the domestic unit and the same values shows an appreciable degree of interdependence, even though this is - as is to be expected - not so marked: with a coefficient respectively of 0.45, 0.31, 0.45, 0.39 and 0.31.

The regressions between the above-mentioned variables would necessarily demonstrate, due to the positiveness of the correlations, that each increase in the number of adult men and also of components of the domestic unit is matched by a positive increase in all the values of production of the domestic unit as a whole.

A further series of regressions between the independent variable consisting of the *number of adult men* and the dependent variables consisting of the *values of production per adult man* enables us to gain a more meaningful idea of the situation and in particular it allows us to ascertain that the increase in production is *more than proportional*. In fact, each increase in the number of adult men is matched by a positive mean increase in the values of production *per adult man*: i.e., in the weight of sorghum and millet (+248 kg.), in the value of secondary agricultural production (+84 naira), and in the value of the total production of goods and services (+127 naira), while no significant variations are registered for the value of the annual increase of livestock and the value of handicraft and commercial activities per adult male. Concurrently, each increase in the number of components is matched by a more modest increase in the production values *per component* in the same cases (+21 kg., +8 naira, +16 naira), as well as insignificant variations in the others.

From these data the inference can, we believe, be drawn to show the existence of opportunities for better economic organization in the domestic unit of more extended size, in which theoretically the possibility exists for a more flexible and differentiated management of the fundamental factor of "human physical energies": a factor whose centrality is further underlined by these data. The economic advantages of a relatively larger size for the domestic unit regard - not casually - the traditional priority pursuit of agriculture, while they are apparently of little significance as regards other economic activities, which are organized on a different basis. On the whole, the fact that it is possible to show that the amount of production *per adult man* and *per component* increases with the size of the domestic unit is highly significant, because it denies the common notion that the large, traditional peasant family is in itself rather an inefficient, lackadaisical economic structure. The possibility should, however, be mentioned that these data may be influenced (though in a subordinate way) by the greater opportunities for numerically extending the domestic unit through marriage policy available to the same family nuclei that can already count on greater production, and hence on a higher economic level. But this phenomenon, which certainly occurs, appears to be first of all the cultural reflection of the

widespread perception of the above economic-organizational advantages of a larger domestic unit.

A further aspect that needs to be elucidated, in view of its significant implications, is that of the relation between the fundamental production of sorghum and millet and the production of other goods and services. In attempting to investigate this relation, we can start out with the hypothesis that, in a subsistence economy revolving round the domestic unit as the structure best adapted to organizing and reproducing the physical energies on which production is based, the performance and developing of the various activities, both agricultural and non-agricultural, are in any case subordinated to the production of the fundamental goods on which the very subsistence of the domestic unit, and its functional organization, is based. Since the production on which subsistence is based in this society is sorghum and millet, it may be expected that with an increase in this production, the other goods produced will also increase: and this, not only due to the dependence of the production of sorghum and millet on the overall production capabilities of the domestic unit, but also due to a utilization of the internal energies in a more differentiated way (and hence more to the benefit of other forms of production), once the production strictly for subsistence has been guaranteed. In effect, the weight of the production of sorghum and millet per component is strongly correlated in a positive way with the secondary agricultural production per component (0.75), and with the total production, of which it forms part (0.84). It is also correlated positively with the value of the natural increase in livestock (0.30), and with the value of non-agricultural activities (0.18).

The above considerations would thus seem to indicate not only that the domestic unit succeeds in finding a better economic balance in terms of its organization of production where it can call on the services of a higher number of adult males and components in general, but also that, simultaneously, the production of the various goods and services grow where there is a higher availability of products traditionally used for domestic consumption. All this seems to conflict, at least partially, with the thesis, repeatedly asserted,³⁴ that the domestic units of traditional societies limit their productive efforts to just what is necessary to satisfy their fundamental needs. In an attempt to verify this thesis empirically by testing it against the economy of the society of the Niger valley, we examined the correlation between the *working-hands/mouths-to-feed ratio* (adult males/components ratio), and the various *indices of production per adult male*, to see whether in those cases in which the working-hands/mouths-to-feed ratio is particularly negative for the maintenance of the subsistence economy, the adult men make a greater effort by producing proportionately more, and vice versa. In fact, the coefficients produced by the correlations were all negative for the various aspects of production, in spite of the fact that an unfavourable working-hands/mouths-to-feed ratio tends particularly to afflict the smaller domestic units, in which the problem of the functional organization of the internal

energies in itself shows structural handicaps; the negative values of the correlations, however, are significantly very limited.³⁵

Overall, it seems the deduction may be made that, under the impetus of an unfavourable working-hands/mouths-to-feed ratio, the domestic units, even those of reduced size, may proportionately produce a little more, by making an additional effort - in all probability a considerable one, since the heat, the environmental conditions, the shortness of the agricultural season, the poor diet, the wide presence of disease render the energy costs of the agricultural tasks extremely taxing.³⁶ But a higher output of subsistence goods by no means provides a disincentive for the production of other goods and services. At the same time, it remains clear that the larger domestic units function more effectively from an organizational and productive point of view. All this denies, therefore, the notion that a traditional extended family is a structure which works just to reach mere subsistence and stops as soon as it achieves this goal.

The organizational and productive functioning of the domestic units also seems linked to the data for the concentration of the production values: the *Gini index* shows a concentration of the production values in the various domestic units which can be considered substantially modest, given that here the index of distribution takes account of the effective prosperity of the population, which does not have any significant economic sources other than those considered.³⁷ The index has at any rate a low, but not very low, value: there are, traditionally, poor families and rich families, but - since slavery or the substantial accumulation of property do not exist - the disparity between them is normally limited in scale. In fact, what disparity there is, is still based today mainly on the functioning of the domestic unit, in other words on the extent, organization and reproduction of the fundamental factor of the human physical energies, and on the reinforcement of these elements through an inter-familial exchange of prevalently social type. Partial exceptions are based on the prestige of the families of the traditional élite - which enables them to depend on much greater collaboration in agricultural activities - and/or on other opportunities for accumulation, though these are always limited. The picture which emerges is that of a substantially homogeneous society from the viewpoint of the economic background, even though this situation presents some changes, due to the effect of exogenous factors, such as the introduction of tractors.³⁸

The data and the observations presented here delineate as a whole some essential characteristics of the economic-organizational balances peculiar to this society, and at the same time identify a development model typical of traditional peasant societies in Africa. The overall economic pattern is that characteristic of an archaic traditional society, belonging to the largely prevalent *agricultural* sub-type (relatively more complex than other sub-types such as those of *hunting and fishing*, *stock-farming* and *food-gathering*); with a technological level which comprises the use of metals for utensils (but not of the cart or similar wheeled transport), and

which continues in any case to revolve around the utilization of human physical energies, and only secondarily those of animals, in production;³⁹ and, at the level of the differentiation of working activities, with many complementary activities, but substantially without specialization; and with a fundamental tendency to attribute roles according to age and gender.

Within this framework, a first essential characteristic of the internal dynamics consist of the closed circle of conditions that reciprocally influence each other with mechanisms of cause and effect. Two intermediate elements of this closed circle are the adverse nature of the environment and the absence of mechanized technology. These elements are interlinked by a chain of other conditions, and more precisely by the seasonal nature of farming, the subsistence level of agricultural production, the obligation of fundamental agricultural activities on everyone, the impossibility of channelling sufficient energies towards other forms of specialization - in the sense of full-time activities not directly aimed at food production, which seem necessary to the *internal* development of more sophisticated technological levels - and the lack *a fortiori* of any real division of labour. These conditions find in turn a balance in the presence of a structure - the domestic unit - able to respond to the demands implicit in them, by means of an optimal organization of the labour factor, in the sense of human physical energies, and a widespread social support of this factor through intra- and inter-familial mechanisms.

A second essential characteristic is represented by the dependence of the production factors on specific social structures, in particular on the domestic unit and the village community. In general terms, it may be affirmed that the production groups are not separate and specialized associations,⁴⁰ but on the contrary form an integral part of the structures of the domestic unit and the community. The individual only participates in the production process through his participation in the far wider system of social interaction; economic organization is "cemented" in social organization,⁴¹ and forms an integral part of the overall functioning of the basic social structures.

Apart from these general considerations, the data presented in this paper seem to permit some further considerations: in particular, the fact that the two fundamental social structures, the domestic unit and (subordinately) the village community, *rationaly monopolize* the essential production factors, absorbing them into their system of economic-social interaction. If we take the fundamental *labour* factor, we can observe that it is logically absorbed by first of all the domestic unit: within this one, given the situation of *abundant* land, of an *extensive* method of cultivation, and of a *free* contribution of labour from the components of the familial unit, it is possible to employ efficiently the internal energies, first of all by extensively utilising the free labour, until its marginal product is zero (while *paid* labour is only profitable until its marginal product is greater than its cost). This picture is supported, in particular, by the evidence that the presence of more workers active within the domestic unit improves its organizational capacity

and more than proportionately increases production, while at the same time a higher level of production of subsistence goods is reflected by a growth of secondary production and other goods and services. As regards the *land* factor, it in turn only finds any real utilization in close dependence on the labour factor, and hence on the capacities of the domestic unit as the structure that manages the labour factor.⁴² As a logical result of this absorption, and of this dependent relation, these factors cannot find any "autonomous" placing on the market; they are not in substance commercialized within an autonomous economic circuit, based on supply and demand. The land factor remains in any case inalienable in this type of society⁴³ and is managed through the family and the community. At the same time, the labour factor is only marketable in a limited form and to a limited degree (and significantly, the Hausa culture looks with scarce favour at the selling of one's labour). The absence of a market of production factors (and the lack of mechanized technology) thus significantly conditions the production process and profoundly differentiates the economic system of this traditional society from that of modern market economies.

But, this functional perspective of an optimized organization of the internal energies, of extension of them and of perpetuation of the family structure as domestic unit of production, inevitably determines a dependence on an appropriate *marriage policy*. A marriage policy *ad hoc* (through, e.g., polygamy, precocious marriages, numerous offspring, etc.), constitutes the necessary means to the management of the economic-productive fortunes of the domestic unit, and in general terms, to the achievement of the overall balances of this organization. But marriage policy can only be carried out in the social context of the village community; and this reinforces the importance of social interaction in the village community, as a necessary background for the organization of the domestic unit of production.

Moreover, it is only in social interaction with the village community that the domestic unit can reinforce its production functions and ensure its survival in the event of their *défaillances*. In fact, it is the village community that provides the opportunity for the significant collaboration in the most important agricultural operations, and thus supports and reinforces the production functions of the domestic unit, by acting on the labour factor. At the same time, it is through the community and the free redistribution of a part of the production by the "rich" to the "poor" domestic units, that the achievement of a balance is guaranteed even to those weaker domestic units in which there is a deficit in production and hence a threat to survival. It should be noted, in this regard, that traditional African societies are normally unfamiliar with special institutions to provide a shield against illness and poverty, and that therefore this free redistribution of produce from the "rich" to the "poor" plays a far from secondary role.

In short, it is precisely this three-fold function of social interaction that gives the village community a substantial role within the frame of the economic organization and, among other

things, allows it to absorb part of the labour potentiality through the system of community collaboration, justifies the use of cash income for the exchange of gifts, and ultimately legitimizes the community's management of the land factor (in the sense of *communal land*) and its redistribution according to principles of equity.

A third characteristic of these economic-organizational balances consists of a limited and secondary "commercialization" of the production obtained. On the local markets, however lively and colourful they are, trading activities are nonetheless of secondary importance for the domestic unit's budget, because most of its produce is consumed internally and, as a corollary, its consumption is based in large part on what it itself directly produces. Indeed, the mechanisms of trade, however varied, mainly concern activities of secondary importance (stock-farming, handicrafts, services) vis-à-vis the fundamental activities in terms both of production and consumption. The seller does not therefore acquire from the market most of what he needs for his own survival; and the buyer does not sell most of his goods and services. This situation is *inter alia* significant with a view to grasping the tendency - typical of the population of these societies⁴⁴ - to perform more than one economic activity. The diffusion of these "other" activities, far from being a token of their importance, is on the contrary a characteristic connected with their organizational and investment limitedness and with the subsistence economy background. Moreover, it should be noted that these trading activities on the market, though influenced by supply and demand, only have a subordinate repercussion on economic choices and the deployment of the production factors,⁴⁵ since neither the production factors of land and labor, nor the subsistence production of the domestic unit, depend on market supply and demand. All this permits, furthermore, the presence of *social values* in trading activities on the market, and these in turn reduce the rigidity of the interplay of supply and demand.

This introduces a fourth and final characteristic, which consists of the modes of utilization of production in an economic perspective alternative to placement on the market and to investments. In effect, the limited but not negligible production surpluses find little utilization in the perspective of trade on the market, savings and investment, which is handicapped by the conditions for the development of the modes of production. Even in the restricted segment of domestic units with a significant surplus of production, the inclination to earmark surplus for productive investments is limited (even though it is hardly possible to identify exactly *how much*) by the general economic and organizational framework: the reinforcement of trading activity and the development of a progressive spiral of *greater trade - greater production - greater trade* is curbed or impeded by various fundamental facts, and in particular: the traditionally low technological level of this society - only too recently and marginally changed by the introduction of new technologies, such as the tractor - in the light of which the marketing of surpluses with a view to making bigger investments in machinery and equipment has little sense; the lack of scope

for having recourse to the more substantial use of paid labour, since the whole adult population is directly employed in the cultivation of their *own* plot of land, and hence employment as hired farm labourers is a secondary and limited activity, which does not represent a realistic objective for bigger investments; and the consequent unfoundedness of the hypothesis of investments in larger areas of land, given, apart from any other reason, the scarce value of the land factor *per se* in the framework of the prevailing production system.⁴⁶

In addition, the possibility of any tendency to the reinforcement of investments in non-agricultural activities remains in large part unrealistic. Investment in stock-farming, however well-rooted animal husbandry may be in the livelihood of these people, can hardly be said to hold out encouraging prospects of profits - as may also be gauged from the relevant tables - given the negative factors at the environmental level, and the inevitable antagonism between the pursuit of agriculture and a free expansion of stock-farming. Neither do investments in handicraft activities have much sense, in view of the low technological level and hence the absolute priority of human physical energies. Greater investment chances may be opened up in the commercial field, due to the stronger connection in commercial activities between capital injection and economic development; but even in commerce precise limitations exist: notably those relating to the net predomination of an economy of direct consumption, which concur to stifle demand and hence to curb any further development of commercial activities.⁴⁷

It is essential to note, however, not just that the removal of the production factors and subsistence production from the market and the general unfavourable conditions determine the restrictedness of the utilization of production towards investments, but, more specially, that the utilization of production reflects more widely the social organization that expresses it. Within this organization, the foundation of economic activities consists not in a *right over things*, but in a *right over persons*, in the sense of organizational management of the physical energies factor and reproduction of it within the domestic unit. The fundamental accumulation will not be that of savings with a view to investments in production factors, in conventional economic terms, but the *accumulation of potentials for manual labour*, first of all by means of the mechanisms, peculiar to the domestic unit, of organization of its internal energies, support of them through the community collaboration, extension and perpetuation of itself as domestic production unit. Going a step further, also on the basis of the data and observations presented above, it may be said that the goods produced tend to be re-channelled towards the two social structures which control the production factors - i.e. the domestic unit and the village community - by being fed in reverse through the mechanisms of interaction which produced them. The channelling of goods towards the domestic unit is aimed at ensuring - through the redistribution of production among the unit's members - its subsistence and future survival, as the basic productive and organizational structure. The channelling of goods towards the village community, in turn, is fed in reverse

through the inter-familial relationships significant either directly or indirectly for the production and economic-social balances of the domestic unit. Through such social mechanisms as marriage payments, ceremonial expenditures, and the free redistribution of production to the weaker domestic units, the inter-familial relationships functional for marriage policy and the reproduction of the labour factor, community cooperation and the primitive "Welfare State" of support for the weaker members of society, are confirmed and reinforced, with a concomitant overall increase in social solidarity.

In the light of these aspects of social exchange, the sense of the placing of production surplus becomes more easily comprehensible. The utilization of these surpluses should not be seen so much in terms of a purely economic-quantitative context (or even in terms merely of structural limits to their utilization according to conventional economic criteria), as in terms of their wider function within the socio-organizational system. What in fact appear as production surpluses in the context of the strictly economic-quantitative requirements of the production units are, for the most part, no longer such if considered in relation to their socio-organizational and reproductive needs. The domestic unit's productive capacities are in fact linked to the utilization of "production surpluses" in a social sense. The "production surpluses" will thus be transformed only in a very limited way into investments in strict economic terms, precisely because they are not, for the most part, really surpluses at all: in other words, the domestic unit itself absorbs them as a means of perpetuating its socio-economic organization and its reproduction through the reproduction of the human elements that compose it.

The modes in which "surpluses" are utilized are thus linked with those of the distribution of production and, more widely, with the functioning of the socio-economic system as a whole. They are expressed as part of an economic philosophy very far removed from the rationalization of the *maximization of the economic profit*, typical of the classic market economy. They are geared, on the contrary, to the *social optimization of the economy*; they operate, in other words, in a perspective of the more efficient functioning of the fundamental social structures by which the economic functions are in turn sustained. And this social optimization is one whose far-reaching and profound rationality cannot be denied.

This model based on social optimization, however, should not be perceived as a static one - notwithstanding its long roots in the tradition of the socio-economic organization - or as a rigid one, which prevents any variance. Actually, in this as in other traditional societies, the new opportunities of the present market, together with the evolution of other aspects, such as the increase of population, the introduction, though limited, of new technical means, have determined, at least partly, a new perception in terms of possibility of the commercialization of production. In particular, the "external" demand for goods, that has reached even this area, has very probably modified the importance of the production for cash. The cultivation of crops

utilized mainly for the market exchange cannot but affect the weight of the subsistence production within the global economic system. But it would be a mistake to deduce from this a transformation of the socio-economic organization. In fact, the increased importance of the economic exchange has not only failed to change the fundamentality of the self-sustaining perspective in the local economy - as above underlined - but also, what is more important, the social organization of the economy: the latter continues to depend on the organization, support and perpetuation of the domestic unit of production and on its wider social relationships. This means that the traditional social organization has not lost its grip on the economy. For instance, the income realized through the new economic opportunities is directed along the usual channels of "social" utilization, rather than at investments in "individualistic" economic enterprises. An indirect confirmation of this tendency can be found, at the level of quantifiable data, in the social habits of the traders, the category which has probably got the biggest benefits from the new economic opportunities and is at the same time relatively less dependent upon the traditional domestic organization. The average size of their domestic unit (17.5 components) is in fact decidedly higher than the general average (10.4) and, among the most affluent ones, reach a more than double size (22.1), showing the resistance and attraction exerted by the traditional organizational model.

But this channelling of income towards social utilization is not such that it completely prohibits alternative utilizations. The examples of the selling of part of production, the investments e.g. in ploughs and even in pick-ups, constitute alternative forms of utilization which coexist - though subordinately - with the underlying trend represented by the channelling of production in a social perspective. The socio-economic system of this society, though revolving around the organization of the domestic unit of production, does not prevent the parallel presence of a evolution affecting even some important aspects of the utilization of the domestic unit's production. A development towards higher levels of commercialization (and material production) does not necessarily imply, however, the upsetting of the aspects of social organization which are at the basis of the economic activities.⁴⁸

On these grounds, it seems possible to think that a system characterized by absorption of production factors within the social structures of production and by re-channelling production in a social perspective, can maintain its own identity of social optimization, allowing at the same time the introduction of partial innovative aspects in terms of production and commercialization, and realizing therefore a condition of *changes within continuity*. On the other hand, other innovative aspects very likely stop not just in the face of merely "economic" limits of the production system, but also in the face of the fact that the benefits offered by these innovative aspects do not necessarily imply the possibility of a global re-balance as favourable as traditional balances not threatened by serious internal breaks.

Notes:

¹ Illo, Bahindi and Kaoje.

² A cultural reflection of the domestic-reproductive commitment of women is that they are not obliged to assist their husbands in farm work: see M. Adamu, *The Hausa Factor in West African History*, Zaria & Ibadan, 1978, p. 7.

³ These economic activities seem to be in this rural context less economically remarkable than it has been pointed out as regards less remote areas of Hausaland: cf. P. Hill, "Two Types of West African (Hausa) House Trade" in C. Meillassoux (ed.), *The Development of Indigenous Trade and Markets in West Africa*, London, 1971; E. Schildkrout, "Dependence and Autonomy: the Economic Activities of Secluded Hausa Women in Kano", in C. Opong, *Female and Male in West Africa*, London, 1983. On the other hand, M.G. Smith has estimated the cash income of married women in the Zaria area at less than 1/5 of the men's income: "Exchange and Marketing Among the Hausa", in P. Bohannan, G. Dalton (eds), *Markets in Africa*, Evanston, Ill., 1962, p. 325.

⁴ During the last three centuries the mean European family has never consisted of more than 4.75 components (and now consists of *circa* 3), while the African family is tending to decrease rapidly from traditional levels of 6-7 components. (See further W.J. Goode, *World Revolution and Family Patterns*, New York, 1963).

⁵ As regards the fundamental production of sorghum and millet, the calculations are based on the number of bundles (in Hausa, *dame*), which is the gross unit of measurement used by the families themselves to calculate the weight of their own production. In the case of sorghum and millet, these bundles respectively weigh on average *circa* 25 and 30 kg.. From each of these bundles, an average of 17-18 *mudu* are obtained (the *mudu* is the bowl with which winnowed or clean cereals are sold retail on the market), each of which is equivalent to approximately 1.2 kg. of sorghum and millet. The clean produce obtained from every bundle thus weighs *circa* 20-22 kg.. The figures in kg. presented in the following tables refer to the estimated weight of this clean produce.

⁶ See W. Roder, *The Irrigation Farmers of the Kainji Lake Region*, F.A.O., Rome, 1970, p. 47 ff.; D.W. Norman *et al.*, *A Socio-Economic Survey of Three Villages in the Sokoto Close-Settled Zone*, Zaria, 1976; M.G. Smith, *The Economy of Hausa Communities of Zaria*, H.M.S.O., London, 1955, p. 120 ff.

⁷ In the case of rice, beans, groundnuts and maize, the unit of measurement of the sack (*buhu*) was used: this is equivalent to *circa* 100 kg. of unhulled rice, 100-120 kg. of beans, 50-60 kg. of groundnuts (gross produce), and 100 kg. of maize (gross produce).

⁸ Its effective value poses in itself a problem. At the end of the 1970s, during the years of the oil boom, the Nigerian currency was quoted at an official exchange of *circa* 1.5 U.S. dollars, and its high effective value was also shown by the fact that even on the local black market one naira was being offered for one dollar, and hence at a quotation not all that different from the official one. But already by the early 1980s, the progressive difficulties of the Nigerian balance of foreign trade, due to the oil glut, determined a decline in value of the national currency. In 1985, on the black market the rate was approximately 4 naira to the dollar. But at the official level the federal Government maintained the quotation of the naira close to the values it had enjoyed during the years of the oil boom, thus controlling the prices both of imported and local products. The latter, however, have traditionally been subject to fluctuations which may be considerable. Since the market in question is "local", the prices reflect the variations in production from one year to the next, and these

variations in turn depend on rainfall and climatic conditions in general. There are also fluctuations in price according to the season of the year. To overcome the *impasse* posed by these variations, the monetary valuation of production has been made on the basis of the mean prices registered in the area between the end of the 1970s and the early 1980s. These mean prices were as follows: 4.0-5.5 naira for a bundle of millet or sorghum; 30-40 naira for a sack of rice; 40-50 naira for a sack of beans; 15-20 naira for a sack of groundnuts; and 30-40 naira for a sack of maize.

⁹ D.W. Norman *et al.*, *A Socio-Economic Survey of Three Villages in the Sokoto Close-Settled Zone*, cit., p. 19-27.

¹⁰ Cf. D. Forde, R. Scott, *The Native Economies of Nigeria*, London, 1946, p. 122 ff.; M.V. Backhouse, *Reassessment Report on the Dan District of Gumel Emirate*, Lagos, 1932.

¹¹ This calculation is based on the measurement of the work input in terms of *man-days* which are necessary for the various operations.

¹² Within the domestic units that use paid labourers, the input constituted by *gayya* and internal energies respectively amounts to 18% and 67% of the total input. For a comparison, D.W. Norman *et al.*, *A Socio-Economic Survey of Three Villages in the Sokoto Close-Settled Zone*, cit., p. 42 ff.

¹³ The advantages in terms of production of the use of plough seem anyway to be rather limited in this ecological context, as noted by A.G. Hopkins, *An Economic History of West Africa*, London, 1973, p. 36-37.

¹⁴ The quantity of milk produced is very small, due to the environmental conditions. And it is not used for the manufacture of long-conservation products. Calculations of the relative values are made in Sokoto-Rima River Basin Development Authority, *Niger Valley in Sokoto State*, Impresit Bakolori (Il Nuovo Castoro), Rome, 1980, vol. 5, p. 69-71.

¹⁵ To calculate the added value of stock-farming activities, reference was made to a mean annual natural increase equivalent to 1/10 for cattle and 1/3 for sheep and goats. The value of an ox fluctuates between 100 and 400 naira according to age and quality; that of a sheep between 30 and 40 naira; and that of a goat between 15 and 20. Bulls and rams can fetch higher prices.

¹⁶ As regards the livestock of major importance, its distribution can be summarized in percentage terms as follows: only 2.8% of the domestic units have more than 10 cattle; 38% have 1-2 cattle; and 42% have no cattle at all. The general mean is 1.9 and the median 0.84 per compound.

¹⁷ As underlined by M. Adamu, *The Hausa Factor in West African History*, cit., p. 11.

¹⁸ For some villagers, who live on the banks of the Niger river, fishing can be of economic importance. They can smoke fish and sell it on the local markets. But even for them this activity remains a decidedly minor activity in comparison with agriculture.

¹⁹ Cf. R. Redfield, *The Primitive World and its Transformations*, Ithaca, New York, 1953.

²⁰ It should be noted, in any event, that the utilization of carts and draught animals has serious drawbacks in this environmental framework: cf. A.G. Hopkins, *An Economic History of West Africa*, cit., p. 73-75.

²¹ As, more generally, the contribution of farm labourers is decidedly secondary in comparison with the input of physical energy made by the components of the domestic unit themselves and by the system of community collaboration.

²² Cf. M.G. Smith, "Exchange and Marketing Among the Hausa", cit., p. 332, *The Economy of Hausa Communities of Zaria*, cit., p. 165-168; D. Forde, R. Scott, *The Native Economies of Nigeria*, cit., p. 155-164.

²³ As is emphasized in the Sokoto-Rima River Basin Development Authority, *Niger Valley in Sokoto State*, cit. p. 52.

²⁴ D. Forde, analysing at the end of the 1930s the agric. production of an area near Kano, found an average rate of commercialization equal to something more than 1/3 of the value of the total production. A similar rate was calculated for another rural area near Sokoto. The percentage of sorghum and millet sold was only 5%, sold produce being mainly made up of cash-crops, especially of ground-nuts. D. Forde, R. Scott, *The Native Economies of Nigeria*, cit., p. 129-154.

²⁵ The values in kg. have been calculated, as usual, on the basis of the local unit of measurement, the *mudu*.

²⁶ R.W. Shenton, *The Development of Capitalism in Northern Nigeria*, Toronto and Buffalo, 1986, p. 129.

²⁷ About these symptoms, S. Pampiglione, *Manuale di formazione di base per l'operatore sanitario in Africa*, Milan, Dipartimento per la Cooperazione allo Sviluppo Min. Affari Esteri/Istituto Italo-Africano, 1984.

²⁸ G.M. Smith, *The Economy of Hausa Communities of Zaria*, cit., Chapter 7.

²⁹ The particular exposure of the domestic unit to these dangers, and their sometimes catastrophic implications, is pointed out by C. Meillassoux, *Femmes, greniers & capitaux*, Paris, 1975, Chapter 2.

³⁰ The importance of different modes of the circulation of goods in pre-modern societies is underlined by K. Polanyi, C.M. Arensberg, H.W. Pearsons (eds), *Trade and Market in the Early Empires*, Glencoe, Ill., 1957, who derive inspiration from M. Mauss, "Essai sur le don", *Année sociologique*, 1925.

³¹ M. Sahlins has remarked on the lack of obligation of restitution (or at least its non-definition), for this type of exchange: "On the Sociology of Primitive Exchange", in *Stone Age Economics*, Chicago, 1972.

³² M. Weber, *Economy and Society*, New York, 1968 (1st ed. 1922), 1, II, 9-10.

³³ P. Bohannon and G. Dalton analyse the "pollution" of the dynamics of supply and demand by mechanisms with a higher social value based on aspects of reciprocity and redistribution: *Markets in Africa*, cit., p. 1-18.

³⁴ Cf. A.V. Chayanov, *The Theory of Peasant Economy*, Irwin, Ill., 1966 (1st ed. 1925); B. Kerblay, "Chayanov and the Theory of Peasant Economies", in T. Shanin (ed.), *Peasants and Peasant Societies*, Harmondsworth, 1988; M. Sahlins, *Stone Age Economics*, cit.. What has been said here, however, substantially confirms the *centripetal* perspective of traditional peasant societies, hinging on the internal aspects of labour and consumption, and being therefore intrinsically anti-capitalistic, as already remarked by Chayanov.

³⁵ Weight of sorghum and millet per adult male -0.22; value of secondary agricultural production -0.41; value of the annual increase of livestock -0.05; value of the production of other economic activities -0.03; and total value of production -0.17.

³⁶ Cf. P.G. Phillips, "The Metabolic Cost of Common West African Agricultural Activities", *Journal of Tropical Medicine and Hygiene*, 1954, no. 57.

³⁷ It may be noted, by contrast, that, as far as the "developed" countries are concerned, the value of the shares and bonds possessed, on which the wealth of the more affluent classes is normally based, is not, for example, calculated in the indices of the distribution of income.

³⁸ This substantial homogeneity, especially in terms of the area of land cultivated per adult man, in the Hausa region, has been underlined by J. Goody, "Bridewealth and Dowry in Africa and Eurasia", in J. Goody & S.J. Tambiah, *Bridewealth and Dowry*, Cambridge, 1973, p. 23-24. In a less remote and much more populated area of Hausaland, P. Hill found differences that are still not big: P. Hill, *Rural Hausa*, Cambridge, 1975, Chapter V.

³⁹ The picture presented here can be compared with that described by Lewis Mumford with regard to the so-called *anthropotechnic age* (in which a characteristic feature is the widespread use of slave labour): *Technics and Civilization*, New York, 1934. In the society we are dealing with here, it is worth recalling that the use of slaves was an essential economic fact until the abolition of slavery under British Rule at the beginning of the Twentieth century.

⁴⁰ For restatements of this view, see R.M. MacIver, *Society, its Structure and Change*, New York, 1933, p. 9 ff.; S.F. Nadel, *A Black Byzantium. The Kingdom of Nupe in Nigeria*, London, 1942, p. XI; G. Dalton, "Traditional Production in Primitive African Economy", *The Quarterly Journal of Economics*, 1962, vol. LXXVI.

⁴¹ K. Polanyi, "The Economy as Instituted Process", in K. Polanyi *et al.* (eds), *Trade and Market in the Early Empires*, cit..

⁴² It does not represent, therefore, a significant factor of production: cf. K. Marx, *Grundrisse der Kritik der politischen Ökonomie*, 1857-1858, III, II.

⁴³ Cf. P. Bohannon, "Africa's Land", *The Centennial Review*, 1960, vol. IV.

⁴⁴ See, for example, M.J. Herskovits, *Economic Anthropology*, New York, 1952, p. 113.

⁴⁵ Cf. G. Dalton, "Traditional Production in Primitive African Economy", cit..

⁴⁶ J. Goody underlines the limited weight of the land factor within this type of economy: *Production and Reproduction. A Comparative Study of the Domestic Domain*, Cambridge, 1976, Chapter 7.

⁴⁷ The limitations in question relate to the *vicious circle of demand* which is added to the *vicious circle of supply*: R. Nurkse, *Problems of Capital Formation in Underdeveloped Countries*, Oxford, 1958, especially Chapter 1. These limitations posed by the vicious circles of supply and demand should be considered, however, not as rigid and autonomous determinants, but as particular aspects having value only as part of the wider socio-economic context outlined here.

⁴⁸ This possibility is also supported, e.g., by the survey of T.S. Epstein, *Economic Development and Social Change in South India*, Manchester, 1962; in the same perspective, N. Long, *An Introduction to the Sociology of Rural Development*, London, 1977, Chapter 2.