

D. ECONOMY

Although the Parakuyo are not at present pure pastoralists in the strict sense of the word, their principal mode of production is still pastoralism. Livestock, especially cattle, provides the basis of the economy, and there is a tendency to accumulate wealth by increasing the number of cattle. Although the investment rate in cattle is comparatively high, they are required almost totally for the subsistence of the society.¹ Taking only the basic daily food, milk, into consideration, at the present production level the relatively large herds are a necessity. It has been contended that the tendency to accumulate large herds derives from an unspecified 'mystical value' attached to cattle, where the economic use of cattle is of a secondary importance (Herskovits 1926:255-59). In recent studies this view has been challenged, and emphasis has been placed on the subsistence role and economic use of livestock (Schneider 1957; 1974a:259-61).

21. SUBSISTENCE AND RATIONALITY

In societies like that of the Parakuyo, livestock has clearly a subsistence role providing the basic means of livelihood, but domestic animals and their products serve simultaneously as media of exchange between individuals and groups thus creating, perpetuating, and reinforcing social relations. The fact that cattle and sheep and their products are essential in rituals does not justify the conclusion that the use of animals is irrational or uneconomic. The use of livestock by the Parakuyo, from their own viewpoint, is as rational and economic as of the modern beef industry. Practically all parts of the animal are used either for nutrition or for ritual purposes, which are also rational in reinforcing the people's faith in secured continuity of the social existence. Cases where an animal or plants are burnt as a sacrifice are extremely few and invariably emergency cases among the Maasai (Kimirei 1973:61-62; Lotegeluaki 1970: 81-83). I did not record such cases in the research area. The nutritional



Picture 7. Cattle form the basis of the subsistence economy. They are a vulnerable asset because of the danger of theft and many kinds of diseases. A man rich today may be poor tomorrow.

Picture 8. Goats and sheep are raised for food and sale. Chickens are the property of women. Eggs are sold and the chickens themselves are needed for curing by non-Parakuyo medical experts.



use of meat and the ritual use of animals are not disconnected things. Both of these needs are met in a coordinated and rational way.

22. LIVESTOCK HOLDINGS AND SALES IN THE LUGOBA AREA

Statistics concerning livestock holdings and market sales in the Lugoba Ward area will provide a quantitative base for the discussion of Parakuyo economy. A number of precautions have to be taken as to the accuracy of these statistics, because they are biased in several ways. First of all, there is a livestock census from the years 1966, 1969, 1973, 1978, and a sample of 23 households from 1977. Because of shortage of space I have to limit myself to points directly relevant to this investigation. Furthermore, to make the statistics even roughly comparable, I shall reduce all of them to the level of the least differentiated table, that of 1966. Thus we get a table showing the development of total livestock possessions in the Lugoba area between the years 1966 - 1978 (Table 6).²

Table 6. Parakuyo livestock holdings in the Lugoba area in 1966 - 1978.

	1966	1969	1973	1978
Cattle	10 505	16 374	16 321	9 508
Sheep	867	?	1 086	667
Goats	935	?	1 476	984

The number of Parakuyo livestock owners ranged between 51 in 1969 and 66 in 1978 showing a steady increase over time. Correspondingly, the absolute Parakuyo population increased from about 285 in 1974 to 318 (152 males/166 females) in 1978 (Mustafa et al. 1980:73). The population statistics show more distinctly the general increase of the population than the exact statistical numbers. For example, the sex ratio in various age groups in the 1978 National Population Census (Table 1) shows, that a significant number of men 15-44 years of age and girls 5-14 years of age have been left out of the count. Therefore, any attempt to calculate the exact ratio of cattle holdings per capita is doomed to fail. In the years 1969 and 1973 it was probably over

50, but it decreased to less than 30 by 1978, if the livestock census gives even roughly correct figures. I suspect that the 1978 census and still more the sample census of 1977 are biased in the same direction; numbers are too low. Mustafa et al. recognize this bias in the pilot census (1977) conducted by themselves suggesting, that it may be caused by some cattle being grazed far away from home and having escaped counting. It appears that the 1978 survey also gives too low figures, although the reason is unknown. The absolute drop of cattle by 41,7 % from 1973, while the population increase was over 10 %, sounds too high to be true. Destocking by means of market sales³ explains only a part of the decrease, particularly when a considerable amount of cash obtained through cattle sales was recirculated through buying cattle from other areas, such as the Central Region and reselling them in areas with meat shortages, such as Morogoro, Daressalaam, Tanga etc. (Rigby 1980:71), and probably also in Lugoba. Still it is true that the overall number of cattle has been in decrease in 1973 - 1978. This is due to increased destocking through livestock markets and the spread of tsetse-fly epidemics, which was to lead to an almost total deserting of the pastoralist Mindu Tulieni village (Hurskainen 1983: 21-24).

Despite the grave statistical deficiencies, one significant observation can be made from the livestock statistics of 1969 and 1973. In this period one structurally important category, the members of Enkidong sub-clan, had increased their cattle holdings considerably (by 62 %) while half of the 15 livestock owners⁴ had fewer cattle in 1973 than in 1969. The members of the Enkidong sub-clan represent in the sample only one fifth of the total population, but still they owned 45 % of the cattle.⁵

Although the modern veterinary services with dips and inoculations have since the beginning of the 1970's been within the reach of the villagers, the unreliability of these services due to shortages of medicine, water etc. has retained the position of the traditional medical experts.

On the other hand, the statistics of 1978 indicate that the members

of the Enkidong sub-clan had not improved their economic position since 1973; in fact they had lost more cattle than the main group. Most of this has to be accounted for by the tsetse-fly epidemics, which destroyed the cattle particularly in the area, where members of the Enkidong sub-clan lived.⁶

23. ROLE OF AGRICULTURAL PRODUCTS

Despite significant cattle holdings the Parakuyo have traded for grain for a considerable time (Beidelman 1960), and they also cultivate in increasing amounts. It is crucial to note, however, that although a substantial part of food is composed of agricultural products (maize, rice, cassava, onions, tomatoes etc.), the agriculture itself is regarded as a business of the non-Maasai (Ilmeek, sing. Olmeeki), while they regard themselves as expert pastoralists. This view of a primarily cultural order is reflected in several ways. Agricultural products, plants, and activities connected with it are not applied in cultural symbolism. Also the actual agricultural activities, particularly hoeing, planting and weeding are carried out by the Bantu neighbours, and the payments are increasingly made in cash.

The food varieties the Parakuyo subsist on, are conceptually divided into two categories according to culturally defined principles: the traditionally valued foods (milk, blood, meat, fat, honey etc.) and the subsidiary foods which are based on agriculture. The different values given to these two groups of food are not based on differences in nutritive values; the evaluation is based on cultural and group identity. In their opinion, the pastoralists should ideally subsist on pastoral products and other such products (e.g. honey) the production of which does not involve ground breaking. Because of this cultural evaluation, ritual consumption is based on the pastoralist nutrients. Consequently, some warriors verbally associated field (enkurma) with vomiting (agur-ruma).⁷ Therefore, photographing maize pounding on a Parakuyo compound was disliked, because "it is the work of non-Parakuyo" (era enkias oo 'lmeek)⁸.

It has to be emphasized that agriculture and its products are not devalued by the Parakuyo. The attitudes are based on the historically and culturally rooted division of labour, where each group has its own expertise. Both pastoral and agricultural people are needed in the appropriation of nature with varying soil qualities. It is the cultural and inter-group division of labour which is applied in this particular case.

24. CONFLICTING INTERESTS

The Parakuyo are in a position common with other pastoralists where their interests are not fully appreciated by the government authorities. Perhaps the requirements of pastoral life in respect to water, dry season grazing land, pasture for immature animals (oloilili), curing cattle diseases etc. are not fully known to non-pastoralists. The local court disputes of earlier (Beidelman 1961b:544-47) and later times (UTAf 1976/07/36-45) and particularly the seminar discussions on the problems of pastoralists in 1977 illustrate this point. The discussions show that disputes arise not only with the local peasants, and in some areas such as Chamakweza not even primarily with them, but with government cattle ranches and agricultural estates (Mustafa et al. 1979:145ff.).

The competition for grazing land and water resources is accelerated during dry seasons, when both are in short supply. What the Parakuyo have repeatedly urged is the clear demarcation of boundaries between agriculturalists and pastoralists. Although this has been attempted in the villagization program since 1976, the areas allocated for pastoralists have as a rule been too small and dry to feed the livestock the year round. The Mindu Tulieni village is probably better off than e.g. Chamakweza (Mustafa et al. 1979:107ff.), where the area allocated for pastoralists is clearly too small.

But also the Mindu Tulieni village has suffered from misplanning and inadequate implementation of the plans. The tight spacing of kraals⁹ has led to accelerated land erosion, when grass has diminished around the compounds. It has also made it impossible to feed the immature

animals in close quarters. The problem of land tenure was also important during the time of villagization. The agriculturalist village of Makombe was said to be in the area reserved for the Mindu Tulieni village, and discussions were going on among the Parakuyo as to the proceedings to move them away.¹⁰ In 1976, the villagers of Makombe had plans to acquire registration for their village and thus access to the fertile lands of the adjacent riverbed, part of which was already cultivated by the agriculturalists of Kinsagu unauthorized village. There were also Mindu Tulieni pastoralists living around and between these agricultural villages claiming a part of the area for themselves (see Map 4, p. 14). The situation was anything but settled with each party trying to secure rights to the same land.

In 1982 and 1983 the situation was still largely the same. The pastoralists who had been forced to leave the village due to tsetse infestation, were urged by the District Office to move back immediately. The pastoralists refused to return, until, in addition to tsetse eradication, also the agriculturalists of Makombe and Kinsagu were moved away from the area allocated to pastoralism.¹¹

In principle the pastoralists agree that the pastoral areas should be clearly separated from the cultivated areas, and that sufficient land and water should be allocated for pastoralists to make temporal movements unnecessary. The ecological conditions allow, however, seldom clear-cut natural demarcations. The fertile stretches of land suitable for cultivation are often in river beds, and the same rivers are necessary water resources for pastoralists.

The unsettled situation has continued ever since, and the pastoralists have had to search for dry season grazing lands outside the lands allocated for the Mindu Tulieni village (see Map 5, p. 15).¹² Some have constructed temporary kraals outside the village, while others have moved to areas with cattle feed irrespective of the area allocated. This is done, however, out of a necessity to survive in a situation, where a fertile part of the area allocated to pastoralists is in fact occupied by non-pastoralists.

25. USE OF PRODUCTS

I have stated that the Parakuyo produce primarily pastoral products and secondarily a few agricultural products. But what are they actually producing for? The immediate answer is: for subsistence. The crucial point here is, however, the kind of subsistence they feel ideal. Linked with this question is the need of exchange on external markets, i.e. the need of cash.

From the economical viewpoint it is of interest to know, whether the people produce pastoral products in order to consume by themselves or to exchange for other goods and forward the products to external markets. The Parakuyo are clearly of the former type, and therefore the dependence on the external markets is not central in their subsistence economy. Let us look at the use of the main products.

Milk

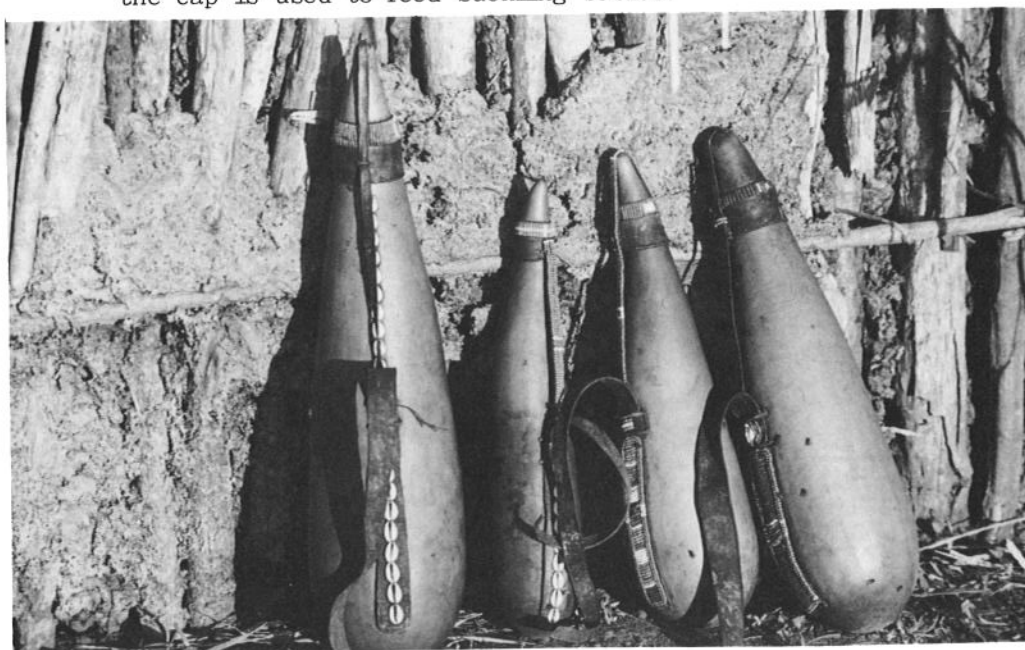
Milk is undeniably a product of primary subsistence value in the society. Because milk production per cow is very low, and the calves suckle during the first months, a considerable number of cattle are needed to provide milk for the family.¹³ Although during the time of maximum Milk production there may be overproduction in families with large herds, shortage of milk is a recurrent phenomenon in most families during the time when cows are freshening.

Milk is consumed usually fresh, and boiling milk in normal conditions has been sanctioned by custom. There are households, however, where boiling of milk has been started as a result of health instruction, but these are still exceptions. Milk in different stages is called by appropriate names. Immediately after milking it is called *kule naitokitok*, and a couple of hours thereafter still *kule nairowa* (lit. 'hot milk'). After being stored in a calabash for about 12 hours it is *kule nairobi* ('cold milk'). Thereafter it starts coagulating, and after 40 hours from milking it is *kule naisames*. After an additional 40 hours it is called *kule naotok*.



Picture 9. Milking is women's work at dawn and dusk.

Picture 10. Various sizes of calabashes are used for different purposes. The big one, emala, is for storing milk. The next one, enkoti, is used for milking. Extreme right is an olupukuri, a container where milk is poured after being milked into an enkoti. The olodou (not in the picture) is a small gourd for giving small children milk, and the elodou enkulukuliet with a small hole in the cap is used to feed suckling babies.



Esaji is milk stored for preparing milk fat. Churned butter is called eng'orno naibor ('white butter'). Often milk fat is boiled for hours until it is liquid eng'orno naiyera ('boiled butter').

In addition to nourishment, milk is also used as medicine. Eng'orno is used, often together with medicine obtained from the osokonoi-tree (*Warburgia ugandensis*), for curing stomach troubles and fever.¹⁴ Eng'orno is also given to a person suffering of chest pains. It is thought that after being unable to eat for some time the stomach turns 'dry', and milk fat is needed to 'soften' the digestive organs. It is also brought to patients in the Lugoba Health Centre.

Milk fat is used also in rituals for anointing body and softening skin garments.¹⁵ It has multiple symbolic usages in rites of consecration and in ritual head shaving. Therefore, milk is more than mere food. It is a central means in ensuring the well-being of the society through ritual activities. Nourishment and ritual symbolization are two distinct usages of milk. In situations where milk is in ritual use, a symbol, it is not consumed by people, because eating 'meat and milk into the same stomach' would bring the reproductive system of cattle into disorder.¹⁶

Blood

The blood extracted from live cattle has traditionally been the substitute for milk in times of famine. At present its use has been restricted almost exclusively to rituals.¹⁷ For example, the initiates are given fresh blood to drink soon after operation. Blood is extracted from the right side jugular vein of a healthy cow by shooting an arrow into it (Photo 37). The use of agricultural products has decreased effectively the need of blood as emergency food.

Blood as nourishment is, however, very highly valued, and all blood in connection with slaughtering is collected for consumption. It is not boiled, but it can be mixed with fresh milk. It is thought that blood gives strength, and therefore it is never spilled down. Particularly

warriors are encouraged to consume blood in connection with killing animals in *olpul* rituals. Because it is the task of warriors to kill animals for food in several rituals, it is their privilege to drink a lot of blood. Objectively, the role of blood as a nutrient is minimal in the total food intake. From the cultural viewpoint, however, its role is more central, because it is thought to contain ingredients which increase blood and strength.

Meat

Meat is the third form of using livestock in nourishment. It is often claimed that the pastoralists are generally reluctant to kill livestock for the sake of food only, and that they slaughter only in ritual occasions.¹⁸ While this is largely true also in the case of the Parakuyo, the issue deserves some elaboration. In order to give a more accurate picture of the situation, I shall attempt an inventory of occasions where ritual killing is involved.

First, there is the ritual killing of domestic animals connected with important transitions and crises in a person's life-cycle. Group transitions are excluded from this category, and only those rituals are included which involve ritual killing for each individual. Table 7 shows those contexts.

Second, there are periodically occurring age-set rituals where allocations of animals for ritual killing are made communally. Such are: the opening of the initiation period by *oloiboni kitok*, the promotion ritual of warriors into a senior status (*eunoto*), the closing of the initiation period (*enkirragata o'laji*, *edanyata o'loirien*), warriors' graduation ritual (*olng'eher*), abolishing *enturu*-prohibitions (*eerrata enturu*) etc.

Third, many kinds of occasional situations of crisis may call for a ritual involving the killing of an animal. Such a situation may develop, for example, when it is felt that infant mortality exceeds the normal, or when barrenness of women or cattle is excessive, or when draught threatens the livestock.¹⁹

Table 7. Life crisis rituals where ritual killing is involved.

CONTEXT OF RITUAL KILLING	SEX OF THE PERSON CONCERNED	
	Male	Female
Strengthening pregnant woman (olkiteng le 'ntomoni, olker le 'ntomoni)		ox or sheep
Immediately after birth		sheep
A week after birth for strengthening the mother		ox or sheep
For opening the set of initiation rites (olkiteng le 'ntomono)	ox	ox
Preparing food and drink for the initiate	sheep (min. three)	sheep (min. two)
Food for guests in initiation rituals	ox (or more)	ox (or more)
Marking sufficient transfer of bridewealth (olkiteng le 'nkutuk'aji)		ox
For young warriors to acquire strength and courage (olpul)	several oxen	
Ritual of status passage prior to the first child's initiation (olkiteng lo 'lbaak) (erikoto o 'lkerra)	ox	sheep
Burial	ox	ox

In all these cases fertility is threatened and the reproduction and continuity of the society is endangered. A threat concerning the whole society requires group action. Therefore, rituals aimed at resolving these dilemmas are generally communal events, where the ritual animals are contributed by the group concerned. It must also be noted that while normally the ritual animals are male, in rituals ensuring fertility they are commonly female, often pregnant ones.²⁰

Finally, arrival of an honourable and rare guest may cause the killing of an animal (often a goat), as also individual cases of illness, suspected witchcraft etc. These cases are not, however, economically very significant and they occur irregularly.

By summing up the above, the frequency of ritual killing may be assessed. Life-cycle rituals require six to ten oxen and a few sheep for each individual. If we combine with this the participation in communal rituals and occasional personal crisis rituals we can estimate, that about 10 oxen and a little fewer minor animals are killed for ritual purposes per individual during one's life time. It means one animal killed every third year for each person, if the mean age of death of adults is estimated at 60 years. In a family of 12 persons it means killing an animal once in three months. This rate of killing is very modest in a society subsisting primarily on livestock.

In this context it is important to note that non-ritual killing of animals is rare, and it is restricted primarily to cases already mentioned: to acquiring food for honoured guests. On the other hand, during times of livestock disease epidemics, such as the trypanosomiasis from 1977 onwards and the East Coast Fever in 1982 - 1983 (Hurskainen 1983:19), sick animals are normally killed and eaten before they die themselves. The killing rate in such conditions may be multiplied compared with the normal.

There are at least three reasons for the rarity of non-ritual killing.

(1) The killing and consumption of meat always involves far more than mere physical nourishment. In the analysis of sharing the meat, we can see, that the division of various portions of an animal symbolizes and communicates social distinctions and values to all members of the society. Consumption of meat is essentially a social affair. (2) Consumption of easily spoiled meat is practical in groups of several people, and this calls for institutionalized social relations, where the principles of reciprocity are observed. A gift lays a moral obligation to make a counter transfer of the gift. (3) The third reason for the rarity of non-ritual killing is the high frequency of livestock death through diseases, epidemics, drought etc. The people, except those under certain

ritual taboos, frequently eat the meat of these animals, and only those in a marginal ritual state should avoid eating meat of animals that have died of natural causes.²¹ There are periods, e.g. the years 1971-1973 and 1974-1975, when the amount of naturally dead animals is manifold compared with the rate of killing and selling through markets.²² Non-ritual killing is not needed, because cattle dying themselves provide meat, sometimes abundantly.²³

On the other hand, it is regarded necessary to accumulate stock holdings in good years to ensure survival during times of hardships. The sick animals are removed by death and otherwise weak and old animals through auctions, and the strongest part of the herd is left for regeneration.

26. LIVESTOCK MARKETING

Cattle sales through marketing started effectively after the market place of Lugoba was opened in 1955. Before this, occasional cattle sales had become increasingly common, but attempts to reduce the number of unproductive steers had met resistance.²⁴ During the first year of market operation (1956), more cattle were sold (1 917) than in 1976 (1 295) and 1977 (1 088). The interest to sell was probably caused by the novelty of the market, and the sales slowed down to some extent later. There are reasonably accurate figures on cattle sales in 1976-1977, and for nine months in 1978. The numbers are made roughly comparable in Table 8 by adding 33 1/2 % to the statistics of 1978.

Table 8. Cattle sales in Lugoba market 1976 - 78.

YEAR	NUMBER	AVERAGE PRICE	TOTAL PRICE
1976	1.295	556.60	720.766
1977	1.088	749.55	815.523
1978	2.600	890.30	2.314.780
TOTAL	4.983	Tshs 772.85	Tshs 3.851.069

Source: Msoga Division Livestock Development Office; Mustafa et al. 1980:82-84.

These statistics show that the rather moderate sales of 1976 and 1977 were followed by a boom in 1978, when the sales more than doubled. Despite the strongly increased supply in the Lugoba market the prices continued to increase, by 35 % in 1977 when supply was modest and 18.8 % in 1978. The sharp rise in sales may be due to the government call for an annual destocking of 10 % (Mustafa et al.1979:25), and the spreading tsetse-fly epidemics. Instead of losing the infested cattle they sold them and used the money for replacing stocks by animals bought from the Dodoma area.

Table 9. Livestock holdings and sales in the Lugoba area in 1978.

	LIVESTOCK HOLDINGS	LIVESTOCK SALES	SOLD OF THE HERD DURING THE YEAR
Cattle	9.508	2.600	27.3 %
Sheep	667	35	5.2 %
Goats	984	507	51.5 %
TOTAL	11.159	3.142	28.2 %

Table 9 shows the total livestock holdings in the Lugoba area in 1978 and the sales during the same year. Approximately one fourth of the cattle holdings and half of the goats were sold at the Lugoba market during a year, which is really a very high percentage and means a considerable drop in holdings. This confirms what was said above of the reasons for destocking. The very small percentage of sheep sold (5,2 %) is not an exception. They are seldom brought to the market, because they are commonly needed in various rituals and therefore circulated within the society.²⁵

In order to present data on the types of cattle sold I have chosen the statistics of August - September 1976 on sales in Lugoba and Chamakweza. The distribution is shown in Tables 10 and 11 (p. 100).

Table 10. Cattle sold at Lugoba livestock market,
August - September 1976.

	TYPE	SALES (Tshs)	NUMBER	AVERAGE PRICE
Aug. 1976	Ox	25.585	44	581.-
	Castrated bull	1.170	2	585.-
	Cow	24.030	47	511.-
	Bullock	1.235	4	309.-
	TOTAL	52.020	97	536.-
Sept. 1976	Ox	15.075	24	628.-
	Castrated bull	8.405	10	841.-
	Cow	24.210	46	526.-
	Bullock	3.245	89	572.-
	TOTAL	50.935	89	572.-

Table 11. Cattle sold in Chamakweza,
August - September 1976.

	TYPE	SALES (Tshs)	NUMBER	AVERAGE PRICE
Aug. 1976	Ox	15.915	27	589.-
	Castrated bull	9.485	14	678.-
	Cow	43.185	91	474.-
	Bullock	6.150	21	228.-
	TOTAL	74.829	153	489.-
Sept. 1976	Ox	14.700	23	639.15
	Castrated bull	4.635	5	927.-
	Cow	19.420	34	571.20
	Bullock	4.645	13	357.30
	TOTAL	43.400	75	578.65

Source: Lugoba Veterinary Office Statistics.

It can be seen that the number of cows sold is in fact higher than of male cattle. This would seem to be contrary to expectations that females are kept at home because of their production and reproduction capacity and not brought to market. Part of the explanation lies in the fact that most rituals require the killing of male animals, for ritual purposes as well as for nutrition. This reduces the number of male animals in markets. Cattle who have lost their reproductive capacity are useless and therefore channelled to the external market. The average prices of various types of cattle indicate that the price is regulated principally by the value of the animal in meat production: steers are most expensive and bullocks cheapest. The price is formed by the estimated weight of the animal, and its age is less significant.

It can also be noted that heifers were totally absent. These valuable animals are the main items in bridewealth transactions and are seldom brought to the market.

The animals sold in markets are principally bought to meet the consumption request of Kisarawe, Bagamoyo, Daressalaam and Ngerengere. It means that the market serves the external market and not the internal circulation of livestock within the society.

NOTES to Chapter D

- 1 By subsistence I mean here the satisfaction of the basic needs, such as food, clothing, housing, health etc., not only food needed for the nutrition of people.
- 2 This summary is based on the Livestock Census of the Lugoba Ward in 1966; Ndagala 1974:189; The Masai Settlement Scheme, March 1969; Hesabu ya Mifugo ya Wilaya ya Bagamoyo, 1973; and the Parakuyo Livestock Census in the Lugoba Ward, 1978.
- 3 The number of the cattle sold in 1976 was 1 295, 1 088 in 1977, and 1 950 in 1978. Source: Msoga Division Livestock Development Office, Lugoba.
- 4 This was the number of livestock owners who could be identified in both censuses with certainty.

- 5 This observation is still more noteworthy when we remember that the male lineage of this particular sub-clan can be traced back to Mtango, a Mbuguan medicine man in the latter half of the 19th century. The significance of assumed medical skills is proved by the fact that a non-Parakuyo medical practitioner and his descendants are allowed to substitute for the existing medical experts and to accumulate wealth by means of receiving cattle as a reward against their services.
- 6 For example, the wealthiest cattle owner with 1980 cattle in 1973 had been deprived to 266 cattle as early as 1978 with the effect that he soon had to move away from the village together with the majority of villagers; UTAF 1982/19.1./59.
- 7 There is a phonetic affinity between the words *agurruma* (to vomit), and *enkurma* (the field).
- 8 UTAF 1976/08/3.
- 9 The ideal spacing between kraals would be, as it was suggested and implemented in Kambala, Mvomero, one to two miles; UTAF 1976/09/40. In Mindu Tulieni it is only a fraction of this.
- 10 For more details on the local policy-making in regard with the Makombe area, see UTAF 1976/07/36-41; UTAF 1976/05/1-4; 7-9; Sitari 1983:42-43.
- 11 UTAF 1982/14.1./17; UTAF 1983/4.2./21, 27.
- 12 In fact, in 1978 there were four cattle owners having more than one kraal, while in 1973 only one Parakuyo elder had two kraals; Mustafa et al. 1979:9.
- 13 In a sample of 18 cows, the mean yield of milk per cow was 1 100 g a day; Haapa 1983:79.
- 14 UTA 1982/17.1./A4.
- 15 UTAF 1976/08/23.
- 16 This prohibition is apparently rather common among East African pastoralists, and several authors have reported of it, e.g. Herskovits 1928:516; Schneider 1957:289; Murdock 1959:335.
- 17 The Parakuyo consume increasingly grains, vegetables, and fruit, and this has diminished the need to use blood for nutrition. In rituals, such as *emurata*, *erikoto o'lkerra*, *olkiteng lo'lbaak* etc. the blood of killed animals is consumed, and in initiation rituals (*emurata*) blood is also extracted from live cattle.
- 18 See e.g. Herskovits 1928:255 ff; Schneider 1957:279, 282, 288-91; 1974a:259.
- 19 UTA 1976/97/1-3
- 20 UTAF 1976/08/1, 16, 20. Among the Parakuyo, I did not observe ritual killing of any female animal. In the Pastoral Maasai and Arusha border area, southeast of Arusha town, I observed a rain ritual, where a female pregnant sheep was offered and its stomach was used to carry and sprinkle medicine to the area where rain was wanted; UTAF 1976/03/87.

- 21 A principal condition for ritual purity is that the animal has not died itself. Restrictions do not concern only eating meat, but also drinking milk and using the hide of such an animal. Exceptions to the rules are possible, however, but they involve ritual cleansing. A pregnant woman may, for example, drink the milk of a cow with a disease known as olkulluk (footh-and-mouth disease) after having aquired a charm containing blood, milk and a piece of goat skin; UTaf 1976/03/48-49.
- 22 I was told by a young man apparently envying the wealth of the richest cattle owner in the area that during the years 1973-1975 he had lost at least 600 cattle through a disease altogether unknown to them; UTaf 1976/09/18-19. In 1982 I learned that this man had been forced to leave the village area because of increasing cattle deaths and move close to Chalinze with less than 300 cattle; UTaf 1982/19.1./59.
- 23 The diseases caused by the tsetse fly had increased in the Mindu Tulieni village area by 1982 to the extent that more than half of the pastoralists had moved away because of cattle deaths. In the beginning of 1983 I learned that a tick-borne disease, probably East Cost Fever, had forced many cattle owners to move again in search of more healthy grazing ground. Some herds, for example on the eastern side of Lugoba, had almost been destroyed by the plague; UTaf 1983/3.2./25. Some sent the main bulk of the cattle as far as beyond Miono in the north; UTA 1983/5.2./3-4.
- 24 Bagamoyo District Annual Report 1942, 1945.
- 25 Sheep are needed for a mother after giving birth, for initiation rituals to provide nourishment and means of symbolization to the initiate, in erikoto o'lkerra ritual etc. Goats are not vested with similar ritual value, and therefore they are sold for obtaining cash.