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**MINISTRY OF PLANNING, STATISTICS AND ECONOMIC ANALYSIS**

**VOLUME 5**

**ANIMAL HUSBANDRY AND MIGRATION**

**ATACCRA**

**SOCIO-ECONOMIC PROJECT FOR THE  
DEVELOPMENT  
OF  
ONCHO-FREE AREAS**

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VOLUME 5

ATACORA

ANIMAL HUSBANDRY AND TRANSHUMANCE

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## VOLUME 5

### ATACORA

#### ANIMAL HUSBANDRY AND TRANSHUMANCE

Although the two northern provinces reveal a powerful potential for beef cattle ranching, this activity has until now been limited and under-exploited because of certain restrictions of a socio-economic and socio-cultural nature. These include: the way the PEULH guard itinerant herds causing low yields; beef cattle owners consider animal husbandry a source of prestige and a manner of saving; the problem of water and pasturage which forces the animal herds to keep moving; and, finally, restrictions of a pathological nature with breeds that offer little resistance to trypanosomiasis.

The beef cattle population has been estimated at 196,000 head for ATACORA (systematic vaccination data for the year 1981) and at 483,000 head for BORGOU (Sonagri 1979). The cattle population is almost entirely confined to the PEULH who raise their own animals and those of others according to traditional methods, based on transhumance (herd movement) during the dry season. The PEULH, who inhabit all West African countries, are essentially nomads and herd keepers. They specialize in animal husbandry and they have a mastery of all factors involved in itinerant beef cattle raising. They are familiar with the cattle areas and condition of the pasture land, the permanent and temporary watering points, and the diseases which they treat with traditional remedies.

This study on animal husbandry and migration is a result of two separate investigations: a first investigation was conducted among the herders and about 60 among them were interviewed for both provinces. The second investigation was conducted among households owning one or more animals. The first portion of this report presents a study on the herders and the second a study conducted among the households.

### I. HERDERS

The PEULHS begin to learn animal herding at a very young age: more than half of the sample studied report having begun to herd animals before the age of 14 years, as we can see in the following table. This raises certain problems in the PEULH villages where the parents prefer to send the young boys to watch the herds rather than attend classes in school.

AGE AT WHICH HERDER STARTS JOB OF HERDING

AGE	F.A.	F.C. %	F.R. %
less than 15 yrs	14	51	51
15 - 20 yrs	4	14	65
20 - 30 yrs	3	10	75
over 30 yrs	7	25	100
TOTAL	28	100	

The PEULH as a general rule have a winter camp which is set up where they grow some cereal crops. Thus, 95% of the sample investigated report engaging in some agriculture on small plots

of land. During the dry season, they leave the camp with the herd in search of pasture land and watering points. While the men do almost all the herding, the women sell milk and cheese.

A. Description of Herd

Among the various breeds that make up the cattle population of Benin, two are predominant in the north: the Borgou breed, which represents 61% of the sample, and the Somba breed, which represents 36% of the sample. The Zebu and other breeds account for only 3% of the total.

BREED	ADULT		YOUNG		OLD		TOTAL	
	F.A.	F.R.	F.A.	F.R.	F.A.	F.R.	F.A	F.R.
BORGOU	666	63	267	50	279	71	1212	61
SOMBA	354	34	254	48	105	27	713	36
ZEBU	7		1		3		11	1
MISC.	31	3	7	2	8	2	46	2
TOTAL	1058	100	529	100	395	100	1982	100

Comparing the beef cattle by age, it appears that 55% of the Borgou breed and 50% of the Somba breed are adults (more than 3 years) whereas 23% of the Borgou and 15% of the Somba are less than 1 year old.

DESCRIPTION OF HERD: ANALYSIS BY BREED

BREED	ADULT		YOUNG		OLD		TOTAL	
	F.A.	F.R.	F.A.	F.R.	F.A.	F.R.	F.A.	F.R.
BORGOU	666	55	267	22	279	23	1212	100
SOMBA	354	50	254	36	105	15	713	100
ZEBU	7	63	1	9	3	28	11	100
MISC.	31	67	7	15	8	18	46	100
<b>TOTAL</b>	<b>1058</b>		<b>529</b>		<b>395</b>		<b>1982</b>	

In four breeds considered, more than 50% of the cattle population are adult animals.

In the sample studied, the average size of a herd is 71 head of which almost half (30 head) belong to the herder himself. His proportion has probably been underestimated because the PEULH are rather reticent when it comes to revealing the number of head belonging to them. They are afraid that disclosing the exact number of their animals will only arouse the jealousy of others. It would seem therefore that the study by Sonagri (Borgou Rural Development Project, 1979, Annex) is rather close to the real situation when it states: "The PEULH would seem to be the owners of a little more than half of all of the herd". The other animals belong to many owners, some among whom may only have a single cow while others might have about 30. The average number of cattle per owner in the sample is 12.5. As a general rule, the owners entrust their animals to the herders for an unlimited period of time and they take them back only when they have money problems or to handle certain ceremonies; only 10% of the herders asserted that the animals

were entrusted to them for a period of time varying between 3 and 5 years. All the others keep their animals for an unlimited period of time. According to the herders, the reasons the owners entrust their herds to them is that they "are at all times considered to be specialists in animal husbandry and herding; animal husbandry is the business of the PEULH" (50% of the herders interviewed); 35% replied that the peasant, the BARIBA in particular, cannot concern themselves with livestock, either because they do not have time or "because they are scared to do the job". Another reason mentioned is that "the peasants entrust their herds to them because they do not want to let the others know how rich they are; this is a secret between the peasant and the PEULH".

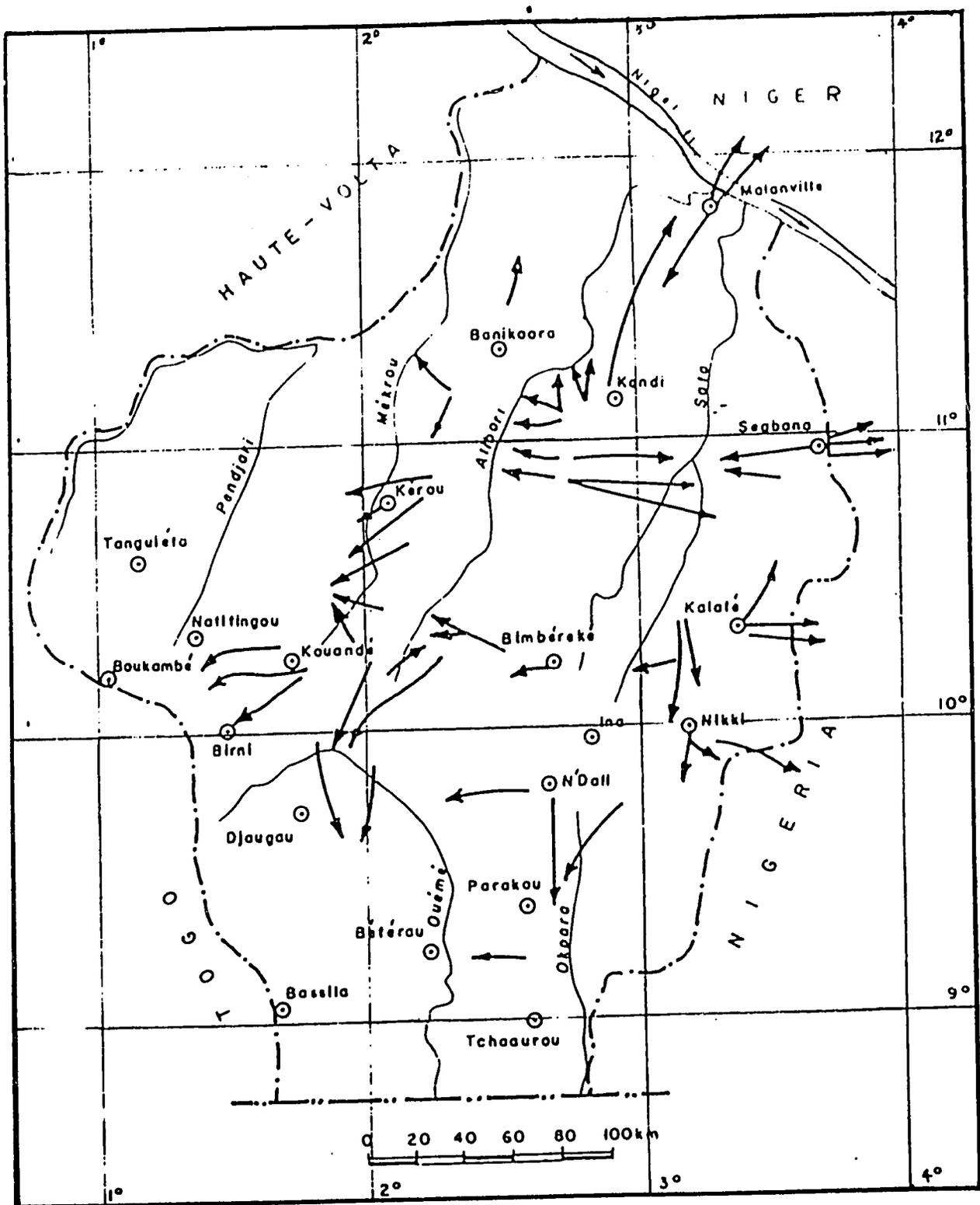
#### B. Remuneration for the PEULH

Although the cattle herders are not paid as such to watch the cows of the others, there are certain forms of remuneration which vary according to the zones involved. Some keep a calf every 3 - 5 years, while others keep one calf out of every three. In all cases they can freely use the milk which is the main element in their diet. When all of the milk produced is not consumed by the members of the household, it is made into cheese and sold. With that money, the women buy condiments and food. The milk yield is minimal and, on the average, a cow gives half a liter of milk per day. This low output is confirmed by the data from the Sonagri study (1979) which states: "The annual volume of milk available, per gestating cow, after nursing the calf, was estimated at 150 liters". Other herders in addition get salt or a small amount of money (500 - 1,000 F) when the owner sells one of his animals. Finally, some complain that they are not getting anything at all, especially when the cow does not produce and they then ask the owner to come and pick up his animals.

### C. Transhumance (Herd Migration)

Traditional pastoral animal husbandry is heavily influenced by the particular climatic conditions prevailing in the northern part of BENIN. There two different seasons are found: the rainy season, which begins around April - May and extends until August, followed by the dry season. Natural fodder reserves, such as pasture, are usually exhausted by November and the numerous watering points are dry. To ensure the survival of the herds, the PEULH then start the migration in search of pasture land and permanent watering points. The transhumance leads to major watering points along the border with NIGER and NIGERIA, as well as certain interior points, such as along the Alibori river (see map). In our sample, 19% of those who are involved in migration leave for a duration of 3 months; 29% leave 4 months and 52% for more than 4 months. During that movement, 79% of the herders strip the branches off of the trees to supplement the meager fodder ration of the herds. In certain zones, they must pay passage tolls and pastorage fees, but this practice is not widespread. The herders each year usually follow the same route. It is important to note that, in our sample, 89% of the herders asserted that they would remain in place with their herds if there were fodder and if there were permanent watering points because migration creates many problems for them. These include the diseases which decimate the livestock, lack of water and fodder which weaken the herd, losses caused in the fields of the farmers who then demand money and mistreat the herd, and finally the fatigue of the animals and the drovers. In the sample considered, out of a total of 1,918 animals 201 died during the last migration (about 10%). To that figure should be added the animals that are lost or stolen. This may be a cause of conflict with the owners who may demand that they be reimbursed or who may withdraw their other animals from the herd.

# LIVESTOCK MIGRATION MOVEMENT IN THE NORTH OF BENIN



Source: Projet PNUD / FAO / BEN / 72 / 015

#### D. Herd Care

Although 43% of the herdsmen questioned maintained that they made sure that their herds were seen by a veterinarian each year, (before and after return from migration), this percentage is questionable by virtue of the lack of veterinary services to cover each of the provinces. Among those who did not get a veterinarian to inspect their herd, 50% believed that this was unnecessary; 30% did not because there was no veterinarian in the region; 10% because they lack money and the others because they know that "the veterinarian would only say that there are no products" (medicines).

When an animal becomes sick, the PEULH take care of it native style. If the animal does not improve, he informs the owner who then himself calls the veterinarian (80% of the cases). In other cases, the owner has the animal slaughtered for sale. This is also done when treatment does not produce good results. Most herders believe that the cost of veterinarian medications is much too high when they can be found and that it is useless to call the veterinarian. This is why they prefer to use traditional remedies.

As a general rule, the owners visit their herds but the frequency varies greatly. Some come each month (however not during the migration period) while others come twice a year and the majority come only once, upon return from migration. Drivers do not like to have the owners come too often as they interpret this as a lack of confidence in them. Finally, certain owners come only when the herder informs them that an animal is sick or when they have a problem, and when they must sell an animal.

Cattle feed comes mostly from pasture, supplemented after the harvest by sorghum and cornstalks. The only supplementary inputs purchased for the animals is salt; 91% of the herdsmen interviewed were aware of the mineral deficiencies.

## II. HERD OWNERS

The agricultural-economic study, in the section on livestock and animal husbandry management, mentions that 34.9% of the households surveyed in ATACORA own beef cattle with an average of 6.5 heads for each and 2.3 for all of the households surveyed. This percentage is very small but it must be remembered that the population in the north is not involved in animal husbandry for economic reasons but rather for reasons of prestige and savings and that a herd is also perceived as a sign of wealth.

### A. Meaning of Herd

Table 7 shows that having a herd is most important as a sign of wealth (37.6%), an honor (32.9%), an asset (15.1%), or investment, a source of savings which one can use in case of need. For all of the ethnic groups analyzed in this survey (BARIBA, DJOUGOU, PEULH, and OTAMMARI), prestige is first, except for the DJOUGOU, where wealth is the primary significance of the herd. There is no relationship between the significance assigned to the herd and the age of the household head (Table 8), the school education of the household head (Table 9), the household size (Table 10), nor the primary activity of the household head (Table 11).

B. Herding

The main reason owners entrust their herds to a herder is to make work easier for themselves (61.2%). The PEULH take over from there and the owner need not worry about it any longer. The second reason is that the various population groups believe that this is the job of the PEULH (19%) and 3.3% do so on the basis of tradition (Table 12). All ethnic groups that entrust their herds to the PEULH do so primarily to make their tasks easier. It is thus not surprising that there is no relationship between the reasons for entrusting one's herd to a herder and the age of the household head (Table 13), the household head's school education (Table 14), or the household head's primary activity (Table 13). The choice of the herder in 25% of the cases is based on the recommendation of relatives or friends (Table 16); 25% of the responses fall in the category of "miscellaneous". The DJOUGOU select their herders on recommendation of relatives and friends (43.8%), as shown in the following table:

NATIONALITY	RECRUITMENT ON RECOMMENDATION OF RELATIVES OR FRIENDS
DJOUYOU	43.8%
PEULH	25.0%
OTAMMARI	21.4%
BARIBA	15.4%

Regardless of the manner of recruitment, the owners entrust their herds to the same herder for several years: 50% entrust

them for more than 3 years (Table 17), the average being 4.6 years. It is only in the District of BOUKOUMBE that the animals are entrusted for a short time, an average of 2.4 years. There is no relationship between the number of years for which the herder takes care of the herd and the age of the household head (Table 18) or the primary activity of the household head (Table 19). That depends on the owner's satisfaction with the services provided by the herder. If the animals get sick or if some of them are lost, then it is probable that the owner will look for another herder.

It is interesting to note that the owners consider the herdsman as a friend (32.7%) and/or a specialist (32.7%); see Table 20. In the owner's eyes, they are often both because they do not tell anyone to whom the animals belong. Among the ethnic groups, it is the BARIBA who consider them to be friends (94.7%), while the DJOUGOU consider them to be specialists (57.1%). The OTAMMARI consider them foreigners (38.2%). The District breakdown reflects this tendency precisely. In COBLY, MATERI, and BOUKOUMBE, they are most often considered to be foreigners while at KOUANDE and KEROU they are considered friends; in RURAL DJOUGOU, they are considered specialists. There is no relationship between the way in which the herder is considered and the age of the household head (Table 21) or the household head's primary activity (Table 22). The most decisive factor is membership in one or the other ethnic group.

Table 23 shows that 85.7% of the owners are satisfied with the service provided by their herdsman. This percentage is over 90% for all the ethnic groups, with the exception of the OTAMMARI where only 73.5% declare that they are satisfied. This is due to the personality of the OTAMMARI who are distrustful of others and who often have the impression that the PEULH steal from them. There is a significant relationship

( $r = .14$ ) between the age of the household heads and satisfaction with the services provided by the herders (Table 24). The older the household heads are, the more do they declare that they are satisfied. There is no relationship with the household heads' primary activity. The main reasons for dissatisfaction are either that the herder did not deal with them in a correct manner (39.1%) or that the owners consider the herders to be thieves (30.4%). It is above all the OTAMMARI who judge their attitude to be incorrect (42.1%). It is thus not surprising that the animals are entrusted to the same herder for the least span of time in the District of BOUKOUMBE.

The manner of payment for herdsmen varies from one region to the next and according to the owners. In ATACORA, the most common manner of payment consists of foodstuffs, such as sorghum or millet (48.3%). Many give nothing (17.7%), that is to say, the PEULH only gets the milk from the cows if they produce (17.7%). In very few cases do they pay money (9.5%) or give one calf every 3 to 5 years (7.5%) (Table 26). Giving a calf is the most common manner of payment among the BARIBA (41.2%) whereas the OTAMMARI and DJOUGOU give food (71.1% and 28.6%, respectively). There is no relationship between the manner of payment for the herder and the household head's primary activity (Table 27).

Although they entrust their herds to a PEULH, the owners do not lose total interest in the herd; 26.7% visit their herds at least once a week (Table 28); 26.8% visit them once a month and 45.1% visit them only once a year, often upon return from migration. The DJOUGOU come least often to see their animals: 76.3% do so only once a year, while 66.6% of the OTAMMARI visit their animals at least once a month. Tables 29 and 30 show that there is no relationship between the periodicity of herd visits and the household head's age and primary activity.

### C. Transhumance

Transhumance (migration) is a pastoral practice which is in keeping with the environment's requirements: to ensure the survival of the herds during the dry season, the herdsman leaves in search of pasturage and watering points, but in certain districts, there is practically no migration. In all of ATACORA, only 25% of the herds leave on migration (Table 31); migration is to be found mostly among the herds of the BARIBA (89.5%) and the PEULH (83.3%) in the Districts of KEROU and KOUANDE. There is practically no migration for the herds of the OTAMMARI (97%) and the DJOUGOU (87.2%). In BOUKOUMBE, only 5.9% of the households having a herd let their animals go on migration. Overall, the population groups involved know the route taken by the PEULH (83.3%); this route is essentially the same from one year to the next (Table 32). It is interesting to note that 97.3% of the households believe that their animals are in good condition on return from migration (Table 33) and that applies regardless of the owner's ethnic group. It is thus not surprising that, among the households whose herds migrate, 55.6% think that they should let them leave, even if there are watering points very close, except for the OTAMMARI, who are against the idea to the extent of 75% (Table 34).

### D. Herd Care

Only 21.3% of the owners say that they do not have their herds inspected by a veterinarian; 29.9% do not do so among the OTAMMARI against 7.5% among the DJOUGOU, as shown in the following table.

NATIONALITY	ANIMALS EXAMINED BY A VETERINARIAN AT LEAST ONCE A YEAR
DJOUYOU	92.5%
BARIBA	88.9%
PEULH	84.2%
OTANMARI	70.4%

It should be noted that it is not the PEULH who most often make sure that their animals are examined by a veterinarian because, being the "animal husbandry specialists", they have a certain number of native remedies which they apply in case of need. Only when their remedies are ineffective do they call in a veterinarian. There is no relationship between the fact that they have their animals examined by a veterinarian and the age (Table 36), the school education (Table 37), or the primary activity of the household head (Table 38).

When an animal becomes sick, 47.3% of the owners call the veterinarian (Table 39) and 17.2% immediately call the butcher, 12.4% sell the sick animal and 10.2% ask the PEULH to care for the animals with his own native remedies. Regarding ethnic groups, it is the BARIBA who most frequently call the veterinarian (68.4%) whereas the DJOUYOU call the butcher (35%). There is no relationship between the action taken when an animal becomes sick and the age (Table 40) or the activity (Table 42) of the household head; on the other hand, there is a significant relationship ( $r = -.80$ ) with the household head's school education: the more educated he is, the more he tends to call upon the veterinarian.

Ownership of a herd is a source of prestige and a method of saving; it is therefore very important to have a herd, as revealed in Table 48. Indeed, Table 43 shows that 54.1% of the owners sell their animals when they have money problems and 7.6% do so to take care of the costs of ceremonies. However, 13% declare that they have never sold an animal; their herd is essentially a source of prestige and the larger the herd, the more prestige they derive from it. Furthermore, 10.2% sell an animal either when it is sick or when it is too old and 6.5% sell an animal to pay their taxes. But for all ethnic groups money problems most often motivates the sale of an animal.

Tables 44, 45, and 46 indicate no relationship between the reason for selling an animal and the age, school education, and primary activity of the household head.

According to the owners, the factors that most hinder the development of animal husbandry are: diseases (43.3%), water shortage (11.8%) and fodder (11.8%) (Table 47). All owners want to increase their herds, 28.8% believe it is a necessity, 26.9% believe it is a good source of income, and 23.7% think it constitutes wealth (Table 52). The major reasons given by each of the ethnic groups are as follows:

NATIONALITY	REASON FOR INCREASING HERD	PERCENTAGE
BARIBA	Wealth	46.7
DJOUGOU	Income Source	29.0
PEULH	Necessity	40.9
OTAMMARI	Necessity	29.5

There is no relationship between the reasons given for increasing the herd and the age (Table 53), the level of education (Table 54), and the primary activity of the household head (Table 55).

Most owners (77.8%) do not buy inputs for their animals except salt (16.8%) (Table 51). The PEULH purchase salt (52.6%), as they are aware of their animals' deficiency in minerals.