

## CHAPTER 3

### AGRICULTURE AND ANIMAL HUSBANDRY

#### 3. 1. AGRICULTURE

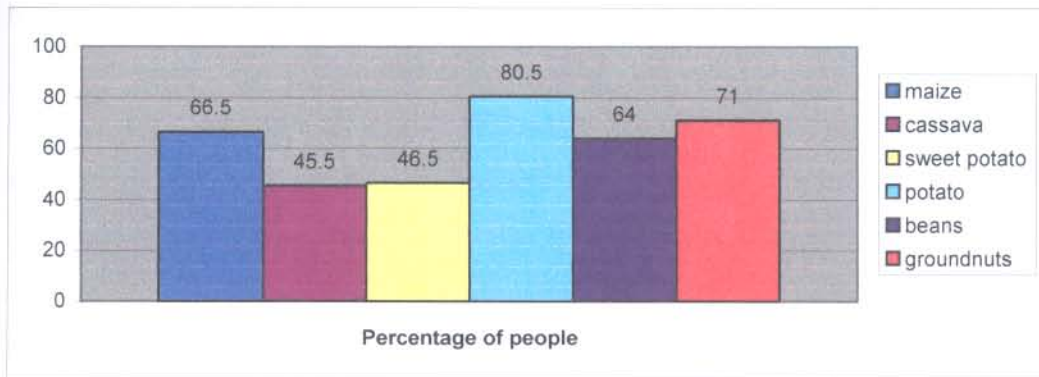
##### 3. 1. 1. Methods of cultivation

The biggest part of the diets of people in Matutuine is made up of crops that they grow themselves. They do not, however, live solely on these crops; they also have to buy additional foodstuffs, catch fish, hunt wild animals and collect wild fruit to supplement their diets.

Nevertheless, cultivated crops are the most important source of food in the area. A total of 93.5% of respondents said that they have their own cultivated lands (*P-macamba/ T- masimo/ Z- insimu*). Even people who are permanently employed, and thus have an alternative source of income, grow crops for personal consumption.

Crops are not grown for consumption alone, but also for commercial purposes. A total of 19% of people in the research area sell the crops that they plant. Thus only a small percentage of people grow crops for commercial purposes. Most people hardly grow enough foodstuffs to meet their own needs. This is evident from the fact that most people purchase additional foodstuffs to eat (see Figure 2). As can be seen from Figure 2, most people buy maize, potatoes, beans and groundnuts. A large percentage of people also purchase cassava and sweet potatoes. It is especially significant that such a large percentage of people need to buy maize and cassava, which are without a doubt the staple foods of the people in the area.

Thus, although 93.5% of people grow their own crops, they are also heavily dependent on food that they purchase to survive. This can be attributed to the fact that people do not or can not grow enough crops, due to labour shortages, harsh weather conditions, low soil fertility and crop damage caused by wild animals.

**Figure 2: Percentage of people who purchase crops.**

In addition, the soil throughout the area is not ideally suited to agriculture. Since a large part of the research area features nutrient-poor, drought-susceptible sand (Cunningham & Davies 1996:479), it is easy to see why people are not able to grow enough crops for their own consumption. In areas like Ponta Malongane and Ponta do Ouro, where people live close to each other and close to holiday resorts, they are unable to open up large areas of land for cultivation. These sandy areas, close to the beach, are definitely also not very fertile soils.

It is not only near the coastline where people cannot open large areas for agriculture. The agricultural fields throughout the area are relatively small. Agricultural labour is primarily the occupation of women. The fields can therefore only be as big as the area which a single woman can cultivate. The average *insimu* is 20 yards long and 5 yards wide. The average number of cultivated fields per household is two. In other words, most families have an area approximately 40 yards long and 10 yards wide in which they can plant their crops.

Moreover, the farming implements used in the research area are very rudimentary. A flat iron plate is attached to a piece of wood with a diameter of approximately 10 centimetres and about a metre long to construct a hoe. Women use the hoe to till the land after it has been cleared by men. Two different methods for clearing land were observed in the area. The one method is to clear all the trees and large plants from a specific area using a tractor, or simply a bush-knife. After this had been done, the women use their hoes to dig a trench all around the specific area. The ground dug up

is thrown on top of whatever grass or small plants there still are in the area that had been cleared. This means that the *insimu* is elevated above ground level.

All this work is done with a hoe. When they are asked why they do not use shovels with which they will be able to complete the work much more quickly, the women answered that only men can use shovels. A shovel can, of course, carry a much larger amount of ground at a time, but more strength is necessary to use it. By contrast, a hoe takes a lot longer since the loads it can handle are much smaller, but it is work that requires stamina and not work that requires a lot of strength; therefore it is more suited to women, who have to do the work.

According to spokespersons, small grasses and plants that have been covered with the ground from the trenches will increase the fertility of the soil. Although spokespersons did not actually say so, there can be no doubt that the trenches, approximately a metre wide and a metre deep, also serve to drain the water from cultivated fields. They will also help to keep out wild animals that may be afraid to cross such trenches.

The second horticulture technique which is employed is known as swidden, slash-and-burn or shifting cultivation. This method has been practised for a long time in Southern Mozambique. In 1575 a Portuguese explorer, Manuel de Mesquita, named the area *Terra dos Fumos* (Land of Smoke) because of the many fires lit by the Tsonga people practising their traditional slash-and-burn shifting agricultural system (Mountain 1990:12). In this system, a piece of land is cleared by cutting down any large trees and slashing away the undergrowth. After the remaining tangle of grass and weeds have dried, it is set on fire. The ash from the vegetation provides a natural fertilizer for the soil. Farmers harvest their crops at different times so that there are always crops growing in the fields. Between the planting and harvesting of crops, relatively little effort is needed from the farmer, except for weeding and protecting crops from wild animals. After several years the nutrients in the soil become depleted and weeds start to dominate again. The plot is then abandoned and a new plot is cleared for cultivation (Hicks & Gwyne 1996:133).

### 3. 1. 2. Crops cultivated

The most important crops planted in the research area are (in order of the extent to which they are cultivated) cassava, maize, beans, sweet potatoes, sugarcane, groundnuts, peanuts, bananas, cabbage, lettuce and onions.

**Cassava** (*Manihot esculenta*) is a staple food in many tropical countries where potatoes and cereals do not grow easily. Common names by which it is known throughout the world include *mandioca*, manioc, *yucca*, tapioca plant and *sagu* (Langenheim & Thimann 1982:354). People in the research area call cassava *mandioc* or *ntjumbulu*. In Zulu it is called *umdumbula* (Doke *et al.* 1996:64).

Cassava was introduced to West Africa from South America during the seventeenth and eighteenth centuries (Langenheim & Thimann 1982:354). Cassava spread eastwards and westwards from West Africa and only reached Southern Africa a few hundred years ago (Van Wyk & Gericke 2000:90). According to spokespersons, cassava was introduced to Southern Mozambique from Nyassa Province (see Map 4).

Cassava is a staple food in many developing countries for a number of reasons. Firstly, it grows well in depleted soils, areas where rainforests have been stripped or in savannah areas that have persistently been burned (Langenheim & Thimann 1982:354). The crops thus provide food security in times of drought and are considered to be a famine food (Van Wyk & Gericke 2000:90).

Secondly, the roots are easy to plant, harvest and store (Langenheim & Thimann 1982:354). At the beginning of the rainy season, cassava seed cuttings are planted. The roots can be harvested within a year (Van Wyk & Gericke 2000:90). According to spokespersons, cassava is planted in the Matutuine District during the month of June. The following year, at the same time, all the cassava which has not been harvested throughout the year, as the need arose, is harvested and a new crop will be planted. This operation takes the entire month of June to complete (also see Els 1996:179).

Cassava is usually planted and harvested by hand. Small stem cuttings are inserted into holes in the ground. After a period of eight months, the roots can already be harvested, but an optimal yield of good quality roots takes approximately twice as long. If all the roots are not dug up, new stems will grow from the roots left in the ground (Langenheim & Thimann 1982:355).

The third reason why cassava is an ideal crop is that cassava can be planted at various periods during the year, ensuring a year-round crop yield (Langenheim & Thimann 1982:354). This, as was indicated above, was not found to be the case in Matutuine. In tropical areas, where there is a constant rainfall throughout the year, it is probably easier to plant cassava throughout the year, but no systems of irrigation were observed in the research area. If elementary irrigation systems can be developed, then people in Matutuine can make use of cassava's potential to grow throughout the year.

Fourthly, the calorie per acre yield of cassava is unmatched (starch yield per acre is up to 20 tons on fresh roots more than any other crop with minimum labour). Fifthly, cassava is an ideal crop because is not subject to many diseases (Langenheim & Thimann 1982:354).

The main drawback of cassava is that it consists mainly of starch, with only 1% protein and 1% fat. The leaves contain 30% protein, but are not favoured as human food. The tuber does, however, contain calcium and Vitamins B and C (Langenheim & Thimann 1982:354). Although the leaves are not a preferred food, they are sometimes mixed with nuts and eaten in a dish called *mutapa* (Van Wyk & Gericke 2000:90).

Cassava is prepared in various ways. The most common way observed was simply to boil the peeled roots in water until they are soft, in the same way that potatoes are cooked. The roots are then eaten as a side dish or on their own. Cassava is also taken with tea during the day as a bread substitute and is sometimes eaten raw. A favourite cassava dish prepared in the research area is called *xigvinha*. The roots are cut into small pieces and boiled with beans. When the mixture becomes soft, it is mashed and stirred to make porridge.

In some parts of Africa, the boiled root is pounded into a thick paste called 'fufu'. The Amazonian Indians ferment juices extracted from cassava to create alcoholic beverages. This alcoholic beverage is also used as a meat sauce in 'West Indian pepper pot' (Langenheim & Thimann 1982:355). None of these uses were observed in the research area.

**Maize** (*Zea Mays*), called *mavele* in Tsonga (Ceunod 1991:264) and *ummbila* in Zulu (Doke *et al.* 1996:496), was the only cereal cultivated of the New World (Americas) (Forde 1966:430). It is believed that it was introduced to Southern Africa by early explorers and that it has been under cultivation there since 1500 AD (Van Wyk & Gericke 2000:90). Maize is an important staple food world-wide, second only to wheat in importance as a staple crop (Harlan 1992:52, 72). Maize is similar to other cereals in energy value, but due to lower levels of essential amino acids, it is less nutritious (Van Wyk & Gericke 2000:16).

In Maputaland maize is planted mainly during October, November and December, although the temperature in the area is generally warm enough for plant growth throughout the year. Maize can thus be planted at any time during the year, although a yield reduction occurs when growing conditions are sub-optimal. In other words, a smaller cob is harvested when maize is planted outside of the warmer spring and summer months (Taylor 1988: 470).

People in the research area plant various types of **beans**, which they call *tinyawa*. The types planted include *Phaseolus lunatus* and *Phaseolus vulgaris* (Els 1996:181). In the research area beans are planted in December and January. The common bean (*Phaseolus vulgaris*) is widely cultivated throughout Southern Africa and is an important food source in rural areas (Van Wyk & Gericke 2000:22). Beans are important sources of folic acid, which is essential for the normal maturation of red blood cells. Fruit and root vegetables, which form a major part of the diet of people in the area, are poor sources of this essential vitamin. Beans are also a rich source of protein (Mahan & Arlin 1992:78, 95). The leaves and pods are eaten as green vegetables, or the dry seeds (beans) are harvested for consumption (Van Wyk & Gericke 2000:22; Els 1996:181).

The **sweet potato** (*Ipomea batatas*) is undoubtedly a plant of American origin, since no wild species are known anywhere else (Forde 1966:413). It is called *ubhatata* or *batata doce* by the people in the research area. It is known in Zulu as *ubhatata* or *umhlaza* (Doke *et al.* 1996:486). It is widely cultivated throughout the area and can be harvested throughout the year. It is a perennial crop (living for several years), which is treated as an annual (Taylor 1988:470). Sweet potatoes contain high levels of Vitamins B and C, and are also rich in Vitamin A. In some parts of Southern and Eastern Africa it is used as a cure for diabetes (Rood 1994:39). Although it is mostly the tuber that is cooked and eaten, the leaves (*matsimbo*) can also be used as a vegetable (Junod 1962b:13).

**Sugarcane** (*Saccharum officinale*) is called *umoba* in Zulu (Doke *et al.* 1996:506) and is known throughout the research area as *moba*. It originates from New Guinea and was introduced to Africa and Madagascar between 400 and 600 AD (Van Wyk & Gericke 2000:112). Spokespersons indicated that both young and old people eat sugarcane. Local people in Maputaland plant sugarcane throughout the year in the swamp areas. Sugarcane is therefore available all year round and forms an important nutritional supplement. Cane sugar is an extremely rich source of carbohydrates. Pure cane sugar is made up of 99.5% carbohydrates. Most of the energy that the body needs is consumed in the form of carbohydrates (Mahan & Arlin 1992:42; see also Els 1996:177 and Junod 1962b:14).

**Groundnuts** (*Vigna subterranean*), also known as *jugo* beans, are indigenous to Africa and are widely cultivated throughout the tropical parts of the continent (Van Wyk & Gericke 2000:28). People in the research area call it *tindluwu*, and it is known in Zulu as *intongomane* or *indlubu* (Doke *et al.* 1996:205). In Maputaland groundnuts are planted in January and February and again from July to September (Taylor 1988: 477). The actual importance of the groundnut as a food source is its ability to grow in conditions of extreme drought and in poor soils (Van Wyk & Gericke 2000:28). Groundnuts are however susceptible to many pests and diseases (Taylor 1988: 469). In the past, *tindluwu* were subject to various taboos amongst the Ronga-speaking people. The beans could not be planted in the same garden patch with other crops and the patch in which they were planted had to be separated from other patches by a fence of thorns. Although men could plant the beans, they were not allowed to enter

the fields once the beans had started to grow (Junod 1962b:12). According to spokespersons, these taboos are no longer practised in the research area.

Although **bananas** (*Musa sapientum*) are seen as a fruit rather than a food crop, it is important to note that this was the only fruit mentioned by respondents when asked which crops they grow. Therefore it must be viewed as an important food supplement for the people who live in the research area. It has traditionally been taboo amongst Ronga-speaking people to plant foreign trees like bananas and oranges (Junod 1962b:29), but there can be no doubt of the importance of these foods in the research area nowadays (see 4.2.2).

Bananas are a rich source of Vitamin B6. Other valuable sources of Vitamin B6, which are essential for normal growth, include yeast, pork, glandular meats, milk and oatmeal. Research proved that none of these foodstuffs are consumed in large quantities by people in the study area. Fortunately, the banana is such a rich source of this vitamin that only three medium bananas provide the recommended daily intake for an adult male. Bananas are also rich in biotin, which helps with the removal of carbon dioxide from the body (Mahan & Arlin 1992:92, 99).

Bananas are tolerant of a wide range of soil pH, including acid soils and are mainly grown in the swamp areas of Maputaland. The extreme popularity of the banana in Maputaland can be attributed to the fact that they grow easily and maintenance is low. The fruit is harvested during most of the year and the yields are high (Taylor 1988:470).

**Tomatoes** (*Lycopersicum esculentum*) have traditionally been widely grown throughout the area, especially as a commercial crop (Junod 1962b:14). Nowadays tomatoes are still widely grown, particularly for sale on the markets.

### 3. 1. 2. 1. Discussion

Cassava and maize are the two crops most commonly planted throughout the research area. Of the 200 respondents, 74% said that they plant cassava and 72% said that they plant maize. However, cassava can be seen in virtually every single *insimu*



throughout the area, while maize was not observed as often. It is therefore interesting to note that more people (67.5%) said that maize was the most important crop, than people (62.5%) who said that cassava was the most important crop. It was learned from interviews with Tembe people who live in Northern KwaZulu-Natal that there is a tendency amongst them to look down on cassava as a foodstuff. According to spokespersons, only poor people eat cassava. Although it would be a speculative conclusion, the fact that cassava is seen as a foodstuff of poor people may explain why people in Matutuine said that they planted more maize (with its higher status) than cassava, although observation indicated that cassava was by far the major food crop.

Respondents to the questionnaire survey were also almost evenly divided between maize and cassava when asked which crop gives the most reliable harvest. Of the 200 respondents, 55% said cassava gives the most reliable harvest, while 54.5% said that maize gives the most reliable harvest. Respondents were allowed to indicate more than one crop to be the most important. Observation and qualitative research clearly illustrated that cassava was by far the most important crop in the area. It is therefore interesting to note that Felgate wrote in 1962, '[C]assava was by all accounts grown in fair quantities in the past; but today only a few people grow the crop' (Felgate 1982:53). It is, however, important to note that although Felgate (1982) did research amongst the Ronga-speaking people who live in Southern Mozambique, the main part of his research was conducted amongst the Tembe who live in Northern KwaZulu-Natal. His comment can therefore not be accepted as totally true for the people who stay in Matutuine, in fact, most spokespersons indicated that cassava has always been the major foodstuff in the area.

There can be no doubt that cassava is the most important crop in Mozambique. It is estimated that 5, 337, 000 metric tons of cassava were produced in Mozambique in 1997. The second most important crop, maize, yielded a comparative harvest of only 1, 042, 000 metric tons (*Africa south of the Sahara* 2000:762).

Besides maize and cassava, the only other crops indicated by respondents to be important sources of food or to provide reliable harvests were sweet potatoes

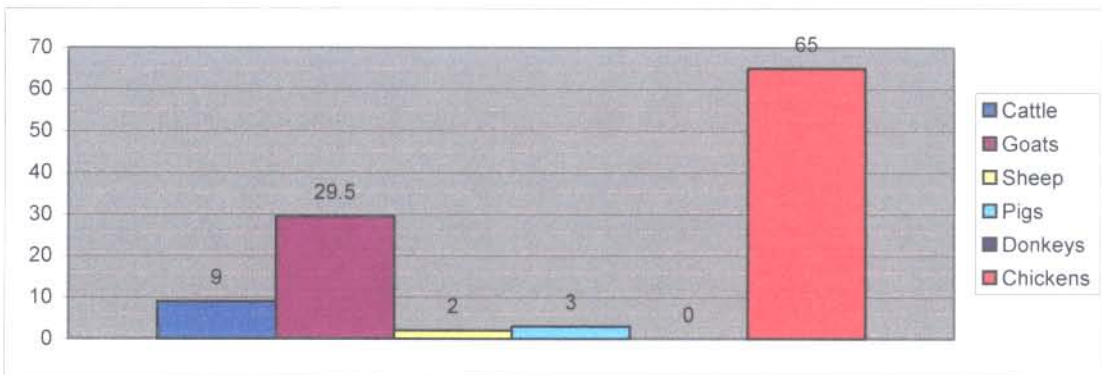
(indicated by 20% of respondents), beans (indicated by 19.5% of respondents) and sugarcane (indicated by 14% of respondents).

There can thus be no doubt that cassava and maize are the most important crops due to their value as staple foods. In terms of their market value, De Boer and Baquete (1998:211) found that sugar cane, tomatoes, onions, bananas and melons are the most important crops in the research area.

### 3. 2. ANIMAL HUSBANDRY

Few people in the research area keep livestock or other domestic animals (see Figure 3). Although most people own chickens and a large percentage of people own goats, very few other animals are owned. The main reason for this is that people just do not have the money to purchase said animals

**Figure 3: Percentage of people who own domestic animals.**



#### 3. 2. 1. Cattle

The Nguni invasions into Southern Mozambique and the tribute paid in cattle to the Zulu kings (see 2.2.3) largely depleted the research area of cattle. There have never been large numbers of cattle in the area since then, and disasters like the Texas Fever of 1910 destroyed nearly all the herds in the Maputo region (Junod 1962b:46).

Cattle (*P- bovinos/T- tihomu/Z- izinkomo*) are still not common at all in the research area. Only 9% of the 200 respondents to the questionnaire owned cattle. In the area

between the Futi River and the sea and between the Maputo Elephant Reserve and the South African border, there are fewer than 200 head of cattle. In Catuane, more people own cattle than anywhere else in the study area. In fact, 78% of the respondents who indicated that they own cattle lived in the Catuane-Xuxa-area. This area lies west of the Maputo River, just north of the Ndumo Game Reserve (3 km) in South Africa (see Map 2). The extremely low figure of people who own cattle east of the Maputo River corresponds with the figure of 3% of cattle owners in the area surrounding the Maputo Elephant Reserve recorded by De Boer and Baquete (1998:211).

When respondents were asked why they do not keep cattle, most (68.5%) said it was because they do not have money to buy cattle. Some (13%) indicated that their cattle had been killed during the Civil War. Only one person said that he does not want to own cattle. These statistics show that people want cattle, they just do not have the means to buy these animals. These particular facts and reasons for not owning cattle were also repeatedly stated during the qualitative phases of the research.

Research was also done as to the reasons people keep cattle. Most (55%) said they keep cattle for meat and to plough with, while 45% said they keep cattle for milk. Respondents also value cattle because they see it as an investment for the future. In this regard, 39% of respondents said they keep cattle for their family's well-being, and 22% said they keep cattle as a source of money (see Sansom 1974:149-152). Besides these reasons, one respondent also said that he keeps cattle as a symbol of his status.

Despite the fact that so few people own cattle, 96% of respondents said that they eat beef. However, they do not do so frequently. In Table 6, the frequency with which the local people of Matutuine consume beef, as indicated by respondents to the questionnaire survey, is depicted. The fact that the majority of people eat beef only once a year confirms that the people in the research area are very poor and do not have money to buy beef. The fact that so few people in the research area own cattle will naturally also mean that people seldom eat beef because there is a very limited supply.

**Table 6: Frequency with which beef is eaten in the research area**

Every day	2.5% of respondents
Once a week	12.5% of respondents
Once a month	19.5% of respondents
Once every six months	16.5% of respondents
Once a year	54.5% of respondents

Since so few people own cattle, only 3% of the respondents said that they slaughter their own stock for food, while the clear majority (91.5%) indicated that they buy beef when they want to eat it. Some people (8%) get the meat free from their friends and/or family.

Thus, at least for the past 100 years, cattle have not been prominent in the research area. Despite this low figure, 186 (93%) of respondents said that cattle are beautiful.

Motivations given for this value judgment is that cattle help people by providing food, milk and helping to cultivate fields. Cattle are furthermore valued as a source of money (similar to a savings account). Some people (13%) also said that cattle are beautiful because cattle can be used for *lobolo*. Cattle are also seen as status symbols.

Cattle are thus still highly valued and this value is directly related to the utilisation advantages of these animals. This corresponds with the findings of Els (1996:419) amongst Tsonga people in South Africa. Els (1996:419) found that Tsonga people view cattle as being the closest animals to humans because of the value of these animals. Humans are dependent on cattle for wealth and status, and even though cattle may be in short supply in the research area, these values are still attached to cattle.

Among the Tsonga, cattle are thus valued because they have utilisation values for humans. This differs markedly from the values attached to cattle by the Zulu. To the Zulu cattle 'are more than beasts of burden which provide life-giving milk and meat: surrounded by cattle, a Zulu man is proud and wealthy, his spiritual and mental well-

being secured' (De la Harpe *et al.* 1998:58; also see Berglund 1975:110). Cattle play a larger role in Zulu culture, where higher values than mere utilisation values are attached to them.

A very small percentage of people (6%) said that cattle are not beautiful. Most of the respondents who were of this opinion said that they do not have cattle, so they do not have any opinion about whether cattle are beautiful, dangerous or bad. This confirms the argument presented above, that, since these animals are absent in the lives of these people, they do not attach value to them, because they are irrelevant in the lives of these people.

### 3. 2. 2. Goats

Goats (P- *cabritos*/T- *mbuti*/Z- *izimbuzi*) have traditionally been very common throughout the research area and although very few people own cattle, most own goats (Junod 1962b:49). Goats are a lot more prominent in the area than cattle, but nowadays it is by no means common for people to own goats. Only 29.5% of respondents indicated that they own goats. The respondent with the biggest herd owns 133 goats, while a large number of respondents only own one goat.

As is the case with cattle, most people (52.5%) who do not own any goats indicated that it was due to a lack of money. Besides this reason, 12% of respondents said that their goats had died. Not a single respondent said that he/she did not keep goats because he/she did not want them. Qualitative research indicated that goats are very highly valued, and the only reason why more people do not own goats is because these people are too poor to buy goats.

The most prominent reason given for keeping goats was that goats are a source of food; 61% of respondents who own goats indicated that they keep goats for their meat. Like cattle, goats are also seen as an investment; 42% of goat owners said they kept goats for wealth and money. Related to this reason, 30% of respondents said they keep goats for a better future. One person also said that he keeps goats to *phahla* (venerate the spirits of the ancestors).

Most people (95%) still eat goats' meat and do so more frequently than is the case with beef. In Table 7, the frequency with which the local people in Matutuine consume goats' meat, as indicated by respondents to the questionnaire survey, is depicted. Although the largest percentage of people only eat goats' meat once a year, a substantial number of the respondents to the questionnaire indicated that they eat this type of meat on a monthly basis. Since more people in the research area own goats than cattle the supply of goats' meat is much higher than the supply of beef. Spokespersons indicated that goats' meat is also a lot cheaper than beef and hence more affordable for the people in Matutuine.

**Table 7: Frequency with which goats' meat is eaten in the research area**

Every day	0.5% of respondents
Once a week	8% of respondents
Once a month	25.5% of respondents
Once every six months	27.5% of respondents
Once a year	31% of respondents

Most respondents (78.5%) said they buy the meat, 12.5% said that they slaughter their own animals, while 19.5% of people said that they get the meat from friends and family for free. From this information it can be deduced that if many people did not get goats' meat for free, they would not be able to eat it at all. Thus, although 95% of people eat goats' meat, a lot of them are reliant on other people in order to obtain this meat.

The majority of people (93.5%) feel that goats are beautiful animals. Again, as with cattle, there is a correlation between the findings presented here and those of Els (1996:229) amongst Tsonga people in South Africa. People value goats because they have some utilisation value. In traditional religion too, people still value goats as sacrificial animals. Thus, even though not everyone owns goats, the values traditionally attached to these animals are still honoured.

Goats have traditionally played a much larger role in the religious lives of the Tsonga-speaking people than cattle. If one compares the values attached to cattle, to those attached to goats, it is clear that the higher (spiritual) values that the Tsonga-speaking peoples do not attach to cattle because cattle is seldom present on their land are instead attached to goats. Goats are often reserved for religious usage. According to Junod (1962b:50), this usage is partly due to the fact that Tsonga-speaking people have reared goats for a much longer time than they have reared any other domestic animals.

The small percentage of people (5%) who felt that goats were not beautiful complained that goats eat their crops and are difficult to control. As with cattle, some people also said that they have no opinion whether goats are beautiful or bad, because they do not own any goats. This response is yet another indication of the poverty in the area.

### 3. 2. 3. Sheep

Sheep (P- *ovelhas*/ T- *tinyimpfu*/ Z- *izimvu*) have historically not been common in the research area (Junod 1962b:50). The situation has not changed much. Only two respondents (1%) indicated that they own sheep. No sheep were seen anywhere inside the research area during the course of the study. The respondent with the most sheep indicated that he owns five sheep. The two people who own sheep said that they keep them as a source of income.

As with cattle and goats, most (79%) of the respondents said they do not own sheep because they do not have the money to buy them, while 2.5% said they have the money but they cannot find sheep to purchase. In addition to these reasons, 7% of the respondents said they had never attempted to keep sheep and one respondent said that there are no sheep in the area.

Despite there being so few sheep in the area, most people (78.5%) said that they eat mutton. Most of them, however, said that they eat it only about once every year. In Table 8 the frequency with which mutton is consumed in the research area is set out.

Most people buy the mutton. Some (12.5%) indicated that they get it free from friends and family.

**Table 8: Frequency with which mutton is eaten in the research area**

Every day	5% of respondents
Once a week	6% of respondents
Once a month	11% of respondents
Once every six months	14% of respondents
Once a year	59% of respondents

### 3. 2. 4. Pigs

When Junod (1962b:51) conducted his research at the beginning of the twentieth century he found that the pig was a relative newcomer to the area and that the name given to this animal, *inguluve*, actually means ‘wild pig’ or ‘bushpig’. He discovered that only a small percentage of people owned pigs and that there were only one or two pigs in every village.

If anything, the number of pigs in the area has dwindled since. Only three (1.5%) respondents indicated that they own pigs. They all said that they owned the pigs as a potential source of food. Of the remaining respondents, 62.5% indicated that they do not have pigs because they do not have money to buy any, while 5% of respondents said that there were no pigs in the area and two respondents said that the pigs they had, died during the Civil War.

Of the 200 respondents, 87% indicated that they eat pork. As is the case with beef, goats’ meat and mutton, the people in Matutaine eat pork only very infrequently. The frequency with which the local people of Matutaine consume pork, as indicated by respondents to the questionnaire survey, is set out in Table 9. As can be clearly seen from Table 9, the majority of people eat pork only once a year. This is indicative of two things: firstly, the fact that there are very few pigs in the research area, and, secondly, the fact that people do not have money to buy pork on a regular basis.



**Table 9: The frequency with which pork is eaten in the research area**

Every day	5% of respondents
Every week	11% of respondents
Once a month	17% of respondents
Once every six months	23% of respondents
Once a year	45% of respondents

The majority of respondents (78.5%) indicated that they bought pork, whereas 12.5% of respondents rely on friends or family to give them the meat free. Interestingly, none of the respondents who owned pigs indicated that they slaughtered them for meat.

The large percentage of people who say that they eat pork despite the absence of pigs in the area is probably best explained by the fact, discussed above, that people use the same term for both wild and domestic pigs. Bushpigs are regularly hunted for their meat throughout the area (see 4.1.3). It could thus be argued that most people do not distinguish between bushpigs and domestic pigs, because the domestic pig is not well known in the area.

People's value judgments on pigs should therefore be examined in this light. Most people (77.5%) think that pigs are beautiful animals. They supported this motion by saying that pigs can help people by providing food and money. In other words, pigs are beautiful because they can benefit people.

People who said that pigs were not beautiful said that pigs are too difficult to farm with and that pigs destroy their crops. As will be discussed in more detail in Chapter 4, bushpigs are responsible for much of the crop damage in the study area.

### 3. 2. 5. Donkeys

None of the respondents said that they kept donkeys (P- *burros*/ T- *timbhongolo*/ Z- *izimbongolo*). The vast majority of people (62%) said that they would like to own

donkeys, but that they just do not have money to buy them. People also indicated that there are no donkeys for sale in the area. So, as is the case with sheep, although people would like to own these animals, there are none in the area and, even if there were, people would not be able to afford them. Very few people said that they do not want to own donkeys – those few who did argued that, if you cannot eat donkey meat there is no sense in keeping donkeys.

The fact that no one in the research area owns donkeys is hardly surprising when one looks at the statistics and realises that there are only 20 000 donkeys in the entire Mozambique, compared to 1 290 000 head of cattle (*Africa South of the Sahara* 2000:762).

It is evident that people want to own donkeys (and cattle, goats and sheep), but simply do not have the necessary means to buy them. The worth of donkeys as traction animals and as beasts of burden is well understood by the majority of the people in the research area with whom qualitative interviews were conducted.

The majority of the respondents (68.5%) felt that donkeys are beautiful animals. Only a very small minority of people felt that donkeys were bad or dangerous animals. Those who felt that donkeys are beautiful animals mainly stressed the fact that donkeys can be used as a means of transport and to carry loads. As with cattle and goats, the utilisation value of the animals is stressed: if the animals are useful to people, they are beautiful.

### 3. 2. 6. Chickens

Chickens (P- *galinhas*/ T- *tihuku*/ Z- *izinkuku*) have traditionally been the most common of all livestock in the area (Junod 1962b:51). Today, chickens are still the single most owned domestic animal in the research area - 65% of respondents indicated that they own chickens. This percentage is more than twice the figure of 32% found by De Boer and Baquete (1998:211) amongst people who stay close to the Maputo Elephant Reserve. The respondent with the most chickens indicated that he owns 306 chickens. Most respondents (69%) keep chickens as a supply of meat. They also keep chickens 'for money' (32%), and 'for the future' (25%). Only 2% of

respondents indicated that they kept chickens for their eggs. Tsonga-speaking people do not value chickens for their eggs. They would much rather allow the eggs to hatch so that the true delicacy, the meat, can be utilised (Junod 1962b:51). Some people (6% of respondents) said that they use chickens to *phahla* (to revere their ancestors). It is interesting that Junod (1962b:51-52) does not mention religious usage of this animal. One can only speculate that the absence of goats, the animals traditionally used for ritual purposes, has forced people to use chickens to *phahla*.

Of the respondents who do not keep chickens, most (29%) said that they do not have money to buy chickens, while some (5.5%) indicated that their chickens had died. The importance of chickens as a source of nourishment is illustrated by the fact that 99% of respondents said that they ate chickens. Unlike beef, pork, goats' meat and mutton, chicken is eaten very frequently. Table 10 sets out the frequency with which the local people of Matutuine consume chicken (as was indicated by respondents to the questionnaire survey). The fact that chicken is eaten more frequently than beef, pork or goats' meat indicates that there are many chickens in the area, and that most people own chickens. Chicken is also a lot cheaper than beef, pork, goats' meat and mutton. It is thus only logical that people would eat more chicken than other types of meat and do so more frequently, with most people eating chicken at least once every week.

**Table 10: The frequency with which chicken is eaten in the research area.**

Every day	10% of respondents
Once a week	37% of respondents
Once a month	36% of respondents
Once every six months	10% of respondents
Once a year	6% of respondents

Despite the fact that 65% of people own their own chickens, most respondents (69.5%) said that they have to buy the chicken they eat. Only 40.5% said that they slaughter their own stock. This may be due to the small number of chickens people own. On average, those respondents who indicated that they have chickens (with the

exception of the respondent who owned 309) own 19 chickens. The people might therefore sometimes slaughter their own animals, but, most of the time, they would rather buy chicken. Only 4.5% of respondents said that they rely on friends and family to give them chicken free.

### 3. 2. 7. Dogs

Of the respondents to the questionnaire, 31% own dogs (*P- caê/s/ T-timbyana/ Z-izinja*). The respondent with the most dogs owns 10, although it is more common for respondents to own between 2 and 4 dogs. Dogs are mainly kept to protect homesteads and to protect fields against wild animals. In this regard, 75% of the respondents said they kept dogs to guard the house, while 50% also indicated that they kept dogs to guard their fields (11% kept dogs to chase away monkeys). A further two respondents said that they own dogs to hunt for them.

Most of the people who do not own dogs (37.5%) said that they do not have money to buy a dog, 4% of respondents said that their dogs had died, and a further 4.5% said that they did not have a place to keep a dog.

Some respondents had negative feelings towards dogs. During qualitative research, some spokespersons indicated that dogs are bad animals. The reason for this value judgment, they said, was that during the Civil War in Mozambique some dogs ate the bodies of people who had been shot. Some dogs came to see human beings as prey. Those dogs, they say, will not hesitate to bite people and even kill young children. In this regard, 5.5% of respondents said that dogs are bad and 9% said that they do not want dogs.

It was clear that, in contrast to the high incidence of hunting with dogs, in addition to the protection they afford their owners, as found by Els (1996:316-318) among the Tsonga in the Mpumalanga Lowveld, few people in the research area keep dogs for hunting. No doubt dogs do occasionally catch a wild animal which their owners can eat, but it was clear that hunting was not the main reason for keeping dogs – despite the relatively high number of dogs per owner.

Most people (76%) felt that dogs are beautiful. A fairly large percentage of people (21%), however, felt that dogs were not beautiful. No fewer than 11% of respondents said that dogs were bad and 12% said that dogs were dangerous.

Those who felt that dogs are beautiful said that dogs guard their homes and fields by keeping away strange people and wild animals. People who did not agree that dogs are beautiful said that dogs steal their chickens and eggs and that dogs chase and bite people.

### **3. 2. 8. Cats**

Of the people interviewed, 32.5% kept cats (P- *gatos*/Z- *amakati*). The person with the most cats owns 21. The predominant reason for keeping cats is that cats kill rats. Of the respondents who own cats, 90% said they kept cats to kill rats. Of the respondents, 4% also said that cats protect their homes and 6% said that they keep cats to kill snakes.

Of the respondents, 39% said they do not keep cats because they do not have money to buy cats. Another 6% said that they cannot find a cat to purchase. Only 17.5% of respondents said that they do not want, need or like cats.

It can therefore again be stated with reasonable certainty that if it was not for the absolute poverty that exists in the area, more people would have kept cats, and that if people were to get access to more money, more of them would purchase cats.

### **3. 2. 9. Care of domestic animals**

The vast majority of respondents (95.5%) said that it is peoples' responsibility to take care of domestic animals. This corresponds with the findings of Els (1996:419-427) amongst Tsonga people in the Mpumalanga Lowveld. These people believe that domestic animals, especially goats and cattle, were created by the same supreme being that created people and that these animals have the same attributes found in people, namely *miri*, *moya* and *xindzhuti*. It is therefore peoples' God-given task to look after these animals.

Of the respondents in Matutuine, 45% said that people have to look after domestic animals because people benefit from these animals. The study also found that people believe it is peoples' responsibility to care for domestic animals simply because, they said, it is the way things work, and domestic animals cannot care for themselves. Qualitative research has confirmed that people in Matutuine have the same value judgment with regard to the origin of domestic animals as the value judgments held by people in the Northern Province and the Mpumalanga Lowveld (see Els 1996:419-427). Spokespersons explained that the creator gave people this responsibility because people benefit from these animals. There is thus a close relationship between people and domestic animals that does not exist between human beings and wild animals (see Chapter 4). These beliefs have an impact on people's views on nature conservation: whereas it is human beings' god-given task to care for domestic animals, it is not their responsibility to care for wild animals. Doing so is the responsibility of the creator. This view differs radically from the modern Western or European value judgment that people have a responsibility to care for all animals, including wild animals (see Milton 1996:27). This issue is examined in more detail in the next chapter.

### 3.3. CONCLUSION

The fact that there are so few cattle, sheep, goats and pigs in the research area and the fact that people do not eat the meat of these animals very frequently demonstrate both the poverty of the people and their dependence on other sources of food. As was discussed in the beginning of this chapter, people cannot and do not produce enough crops to fulfil their dietary needs. It has also been shown above (2.4.5), that there are no real job opportunities inside the area whereby people can earn money to purchase food. People therefore have to rely strongly on wild plants and animals. It is important to note why people in the research area hold the value judgment that humans are responsible for caring for domestic animals and not wild animals. The reason for this, as has been explained in this chapter, is that domestic animals have a close link to people and that it is their god-given task to look after these animals, whereas it is the responsibility of the creator, and not that of people, to care for wild animals. The utilisation of wild plants and animals as sources of food is discussed in Chapter 4. It is important to examine the utilisation of wild plants and wild animals in

the light of the facts presented above with regard to domestic plants and animals as sources of food. It is vital to understand that these people have very limited alternatives to hunting wild animals, catching fish and collecting wild fruits in their immediate environment.