SAN / VAKWANGALI NATURAL RESOURCE AND LIVELIHOOD STUDY

MPUNGU AND KAHENGE CONSTITUENCIES
KAVANGO REGION - NAMIBIA

OCTOBER 1998

FOR

- *Centre for Research Information Action for Development in Africa - Southern Africa Development and Consulting (CRIAA SA - DC)*
- *Kavango Farming Systems Research and Extension (KFSRE)*

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LIST OF LOCAL NAMES

- **Vakwangali** - The name of one of the local people of the Kwangali District. However, there are many other ethnic groups living in the area, approximately seven. The term Vakwangali has been used throughout this report to denote Bantu people as opposed to San people. Therefore any reference to the Vakwangali people should be seen as reflecting the views of the Bantu people in the area and not just that of the Vakwangali.

- **Rukwangali** - The language spoken by the Vakwangali.

- **Hompa** - The name of the traditional leader of the Kwangali District.

- **Vaduni** - The named used by the Vakwangali to refer to San people.

- **Kashipembe** - The word given to alcohol brewed predominantly from Mangetti fruit but also other fruits.

- **Embo** - The Rukwangali name for Household. A household can consist of many related families.

- **Epata** - The name referring to a family within a household.

- **Nsivi** - Large False Mopane tree (Guibourtia colesperma).

ACKNOWLEDGEMENTS

We would like to thank all community members of the villages in the focus area we visited during this study that agreed to meet with us, to give of their time and valuable information that form the basis of this report. We are also grateful of their hospitality shown to us during our visit. We would also like to thank all government officials and many others who provided the team with information, advice and support. In particular we would like to thank Thomas Likuwa of Kaguni village who acted as our guide and interpreter and provided us with valuable insights into the area. We would like to thank the staff of CRIAA and KFSRE who gave advice and provided valuable logistical support for the fieldwork of this study. In addition we would also like to thank the Nyae Nyae Conservancy and the Nyae Nyae Development Foundation of Namibia for their support.

EXECUTIVE SUMMARY

1. The focus area represents a wide diversity of people from different origins. It appears that there might be up to 7 mother tongues spoken in the area.

2. There is a general acceptance that the San are the original inhabitants of the area. However, even at the time of first occupancy, the San were highly mobile and to some extent were dependent upon people who resided along the Kavango River.

3. The San are perceived by the Vakwangali people as being " behind " and therefore needing "upliftment" opportunities. However, there are also many Vakwangali people who are poor and in need of development opportunities.

4. The San regard cattle, ploughs and access to land as the cornerstones of their " upliftment".

5. The San are highly dependent on the Vakwangali, especially during the winter months or bad years, for employment as casual labour. On the other hand, the Vakwangali people are also dependent on the San for their labour, although not all Vakwangali have San attached to their households or employ them. The San are mostly attached to wealthier households.

6. The San see work and mobility as the most important means to alleviate the uncertainty imposed upon them during the bad years. Except for the elder San, the San are highly mobile.

7. The San do not have to ask permission to reside in a particular village from a Vakwangali headman but rather from individual Vakwangali households. Reasons given for this :
   - That the San move around a lot.
   - That the San do not own cattle.

8. The San see natural resources in good years as important for food and exchange purposes. The inherent mobility of the San is directly related to the availability of water, especially in poor seasons. (for living and for the collection of natural resources)

9. The Vakwangali see cattle as a form of insurance during bad years for food security reasons.

10. The Vakwangali rank crops in good years as the most important for subsistence and cash purposes.

11. For the Vakwangali, water availability influences grazing patterns, though this does not seem to precipitate the movement of people.

12. The distribution and abundance of natural resources varies widely across the area. This in turn influences patterns of resource utilisation between villages.

13. Although substantiated only by initial observation the variability in soil types appears to effect the potential for crop production, grazing and resource distribution.

14. The effectiveness of rainfall in terms of its contribution to crop production, grazing and resource abundance varies widely across time and space. This uncertainty is exacerbated by a fluid socio-economic situation such as: meat prices, policy, government regulations and perhaps even the extent of services provided by regional interests i.e. government institutions, church's and NGO's. Resource management systems must therefore acknowledge the uncertainty of the natural system.

15. The availability of water in the area is the limiting factor for all forms of subsistence.

16. Initial findings indicate that the Mangetti resource in the focus area and the Kavango region is substantial. It is found throughout the focus area, largely in groves.

17. The productivity of the Mangetti tree is highly dependent on rainfall. It goes without saying that the impact of this is that there will always be good and bad years and this will have to be taken into account in all the planning of projects or initiatives undertaken in the area, especially the proposed Mangetti oil extraction project.

18. The Mangetti fruit contributes significantly to the livelihoods of the people living in the area as:
    - A source of food.
    - A source of income, sale of nuts and alcohol, and bartering.

19. Kashipembe is seen as playing an important role, especially in bad years, in generating income at a household level.

20. People, generally, do not perceive that further possible commercialisation of the Mangetti will impact negatively on food security. However, the real impact thereof can only be ascertained once further commercialisation commences.

21. The new Forestry Act will be passed in the near future. The Act will allow for the formation and demarcation of forest community management areas thereby allowing the community to be able to generate income from these resources. This has not been legally possible to date. However, this will, depending on the process, also have implications on the access to and the commercialisation of Mangetti and other natural resources.

1. INTRODUCTION

The San / Vakwangali Natural Resource and Livelihood Study was commissioned by the *Kavango Farming Systems Research and Extension (KFSRE)* programme based at the Mashere Agricultural College in the Kavango region and the *Centre for Research Information Action for Development in Africa - Southern Africa Development and Consulting (CRIAA SA – DC)* based in Windhoek, Namibia.

The Focus area is situated in the north west of the Kavango region in the Mpungu and Kahenge constituencies. This particular focus area was chosen due to various influencing factors including:

- The reported high numbers of San people living in the focus area. (Appendix 11)
- The present lack of involvement by Non Governmental Organisations (NGO's) and government departments in the area.
- The lack of information concerning the San living in the area.
- The high occurrence of the Mangetti tree in the area.

The consultancy team consisted of four consultants, two Ju/'hoansi experts from the Nyae Nyae Conservancy situated in the Tsumkwe area (Benjamin !Aice and G/ao #Oma), one from the Department of Rural Development Studies at the Swedish Agricultural University in Uppsala (Neil Powell) and one from the Desert Research Foundation of Namibia (Dave Cole)based in Windhoek, Namibia.

In addition the work done for this report it is being complemented by ongoing field studies being conducted by Doreen Buschel also from the Department of Rural Development Studies at the Swedish Agricultural University in Uppsala. The consultancy team was also accompanied for part of the time by Barbara Adolph from the Kavango Farming Systems Research and Extension (KFSRE).

The following report is based on three field visits to the focus area between July and September 1998. These visits took place between the 24th June to the 2nd July, the 16th to the 23rd August and from the 2nd to the 18th September. Reports were written for the first two field trips. In addition, a field trip was undertaken to Western Bushmanland by Benjamin !Aice and G/ao #Oma during August 1998 to interview San people who were originally from the focus area. Valuable information was gathered from this field trip and a report was written.

1.1 Study Area Background

1.1.1 Physical

The focus area receives an annual average rainfall of between 348 mm and 871 mm. This average reflects the range of rainfall that can be expected 90 % of the time (Pallet, 1997). This highly variable and erratic rainfall pattern has a considerable impact on the productivity of the area in terms of crop, livestock and natural resource production.

The area is characterised by a slightly undulating surface situated on the Kalahari dune system interspersed by depressions, usually in the form of Omurambas. Aeolian Kalahari sands that have a low water retention capacity cover most of the area. The vegetation can be described as Tree Savannah and Woodland.

1.1.2 Historical

It should be noted that very little historical information exists about the area. The area is occupied predominantly by Vakwangali people but possibly up to at least 7 other mother tongues are spoken in the area, including San. Many of the inhabitants of the area originate from elsewhere, including Angola, the Tsintsabis area and the area along the Kavango River.

It appears that Vakwangali people started moving into the area in the 1960's although San people were probably residing there or utilising the area well before then. The permanent hand-dug shallow wells in the Omuramba around the Mpungu area probably played an important role in the permanent settlement process.

The area and its inhabitants were severely impacted upon by the war involving the South African Defence Force (SADF) and the South West African Peoples Organisation's (SWAPO) military liberation struggle. Between 1981 and 1983 many inhabitants, mostly Vakwangali, moved out of the area back to the Kavango river because of harassment and brutality inflicted upon them by the SADF. These people only started moving back in 1990 at the time of Namibia's independence. New boreholes sunk and the creation of permanent water points since independence has caused an influx of people into the area.

1.1.3 The San

The San people now living in the area appear to originate from the Kavango River and Tsintsabis areas and at present include San of both! Kung and Hai//om origin.

Assistance directed towards the San appears to have started in the 1960's with the arrival of Finnish missionaries. In 1966, Time Sarie (Sp.), a Finish Missionary began helping the San with settlement, boreholes, cattle and ploughs. She was assisted by the present Senior Headman of the Mpungu constituency Reino Mbambero, who continued with these activities for some time after her departure. The Nsivi borehole for example, was drilled in 1967 specifically for the settlement of San.

In 1978, the SADF recruited many San who were then moved to Western Bushmanland for training. According to information gathered in Western Bushmanland, July 1998, the period between 1980 and 1984 saw many San leave the Kwangali area for Western Bushmanland. This relocation resulted in the San having to leave their cattle and ploughs behind. These were apparently collected by the ELCIN church or left with Vakwangali families. This had a disruptive impact on the further acquisition of cattle, ploughs and access to land, all means of reducing their dependence on the Vakwangali. At Namibia's independence, the San people in the SADF in Western Bushmanland were offered by the SADF to continue in the army and be moved to the Kimberly area of South Africa. Those that remained in Western Bushmanland participated in a Namibian government/Evangelical Lutheran Church in Namibia resettlement scheme. A few San people moved back to the Kwangali/Kavango area. It is alleged that these San people were offered no support in returning to their homes in the Kwangali/Kavango area and in some cases had to walk this considerable distance. (See also Mpungu San and Western Bushmanland)

2. STUDY OBJECTIVE

This Study focuses on two aspects, to meet the requirements of the two organisations commissioning this report. While not ignoring the wider context the report focuses on:

1. The Mangetti tree, its occurrence, uses and the socio-economic implications of setting up a Mangetti oil extraction project, initially on a trial basis by CRIAA SA-DC.
2. Farming systems with the view to increasing extension services.

Both of these aspects require consideration of the position of the San people living in this area and are an attempt to gain a better understanding of the relationship between the San and Vakwangali people within the context of poverty alleviation.

It should be noted that the study took place at a particular time with certain circumstances. While every effort was made to verify the information contained in this report, it is quite possible that other information, especially of a more detailed nature, will come to light. We hope that this study will contribute to further debate and to the planning and implementation of development programmes in the focus area.

3. CONCEPTUAL FRAMEWORK

The Kavango region is situated in terms of both its natural and human realm, in a contentious position. The following sections provide a background to the different theories that have guided prevailing resource management approaches in Rangeland areas such as the Kwangali district. This framework will subsequently be used to examine the results emerging from the livelihood study. The following section will introduce the two main natural resource management approaches that have been implemented in Namibia, both of which are based on equilibrium models in which the number of livestock matches the availability of grazing.

3.1 The Rangelands Natural System: Equilibrium vs. Non-Equilibrium Perspectives

Conventional resource management practices advocated by the scientific community, and so in turn regional interests, for marginal areas such as the Kavango, tend to enshrine closed system management principles that are guided by equilibrium-based models, such succession theory and the principle of a climax community[1]. The concept of "carrying capacity" is closely associated with equilibrium-based management. Carrying capacity seeks to identify at what level of consumption a natural resource system will shift from one equilibrium-state to another (considered as a less productive state). If the management objectives are economically determined, then carrying capacity is generally referred to as *maximum sustainable yield* - the point at which a natural resource is extracted at the maximum rate without compromising its future productivity *ad infinitum*. The carrying capacity in ecological terms, however, is an estimate of a rate of extraction, *ecological carrying capacity*, which neither compromises the future survival of the natural resource in question, nor the integrity of the larger ecosystem in which the resource is nested.

In an equilibrium system it is postulated that resource users have a "density dependant relationship" with the rangeland. For example, the availability of grazing is seen as a function of the density of livestock. Negative feedbacks eventually lead to a stable equilibrium. This assumption may be more or less correct in systems where conditions for plant growth are relatively constant, such as in North America. Is such an assumption valid for rangelands where rainfall is both temporally and spatially extremely inconsistent?

A growing school of academics and practitioners point to the evidence that plant growth or vegetation dynamics in rangelands are not directly related to biotic factors, as once believed, but rather to chance occurrence of abiotic factors, such as precipitation (Ellis and Swift, 1988; Behnke and Scoones, 1993:8;). Based on this understanding, it has been argued that herbivores will never attain a population level governed by negative regulations owing to the population crashes associated with unpredictable episodal droughts (Ellis, et al, 1993:33; Copprock, 1993:60). It should be noted there is divergence in the literature regarding where the cut-off exists, in terms of rainfall, between a range governed by abiotic factors and range governed by biotic factors (Ellis et al, 1993:33; Copprock, 1993:60).

[1] Succession continues until the community is considered to have developed into a relative stable state – a state reflecting the prevailing soil and climatic regime. Such a community is referred to as a *climax* community (Ehrlich, et. al. 1977:135; Deshmukh, 1986:93-95).

This non-equilibrium perspective has been institutionalised in the "Holling Figure of Eight Model", a model that is rapidly gaining ground as a substitute for the conventional succession model.

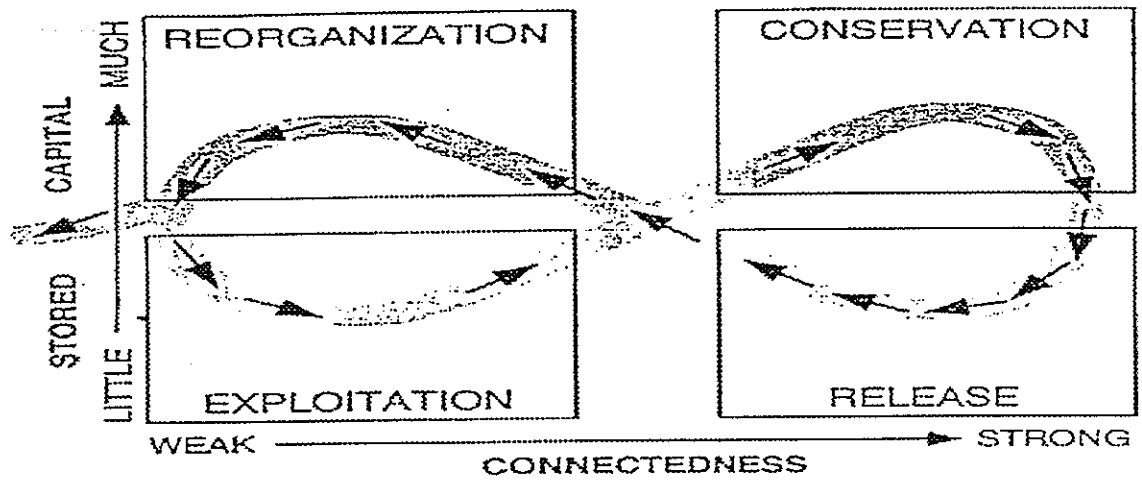


Figure 1 Holling's figure 8 model of ecosystem dynamics (Source: Holling, 1995)

Figure 1 depicts four different phases of ecosystem dynamics: *exploitation*, *conservation*, *release*, and *reorganisation.* The succession model is illustrated in the figure by the upward arrows between the points of exploitation and conservation (the Climax State). However, in the full figure eight, the point at which a stable climax exists in the succession over time is seen to grow beyond maturity and into old age. The aged system is said to become risk prone. At some stage a serious disturbance impacts upon the system, such as fire, pests, long term drought, etc. The nutrients and energy locked up in the mature system are subsequently released.

An additional point needs to be made about the movement of the system between the conservation and the release phases. Holling (1987&1992) writes that if accidents are suppressed in a system, then when the release phase is finally triggered the magnitude of the "catastrophe" will be much greater than if the suppressive agents were not applied. The extent of the catastrophe may in fact be so great that the system will not be able to reorganise sufficiently in order to return to the previous system-state.

Examples of the type of suppressive agents, which are currently used in the Kavango, are the creation of artificial water points for livestock and attempts at controlling community burning. A number of cases, including the Kunene region in Namibia, have shown that artificial water points help pastoralists avoid episodic crashes in livestock numbers during extended dry periods and hence to maintain larger herds. However, under certain conditions (pump breakdowns, the lowering of the water table, problems of salinity, insufficient grazing, etc), artificial water points can lead to a catastrophic die-off of cattle, many times the magnitude of an event occurring without presence of artificial water (Powell, 1996). A number of cases have also shown that the suppression of fire, a natural agent in most rangelands, will also inevitably lead to a catastrophe many times the magnitude of a non-suppressed episodic event.

Further, it has been suggested that if fire is suppressed the accumulation of biomass is higher than the accumulation which occurred under the original firing regime. When the overly abundant biomass finally burns the result is extremely intense destructive fires, often plunging a system into a completely different organisational arrangement; one dominated by woody vegetation rather than grassland for example. Holling (1992) argues however, that if the destruction, through fire or drought, is not suppressed, the ensuing result will be "creative destruction", serving to contribute to the system's resilience and integrity (Costanza et al., 1993:552). It should be noted that system resilience does not resemble commonly accepted interpretations of sustainability. In many contexts sustainability, as a concept, has emerged based on viewing equilibrium as the desirable state for a system. Implicit within this version of sustainability, therefore, is system stability through time. In contrast, resilience is arguably a more appropriate indicator for the integrity of non-equilibrium systems. Holling et al. (1995) defines resilience in the following way: *"Resilience means the capacity to recover after disturbance, absorb stress, endogenise it and transcend it."*

3.2 The Rangelands Human System: Evolutionary vs. Revisionist Perspectives

Whilst ecologists and economists have been engaged in interpreting natural systems by way of equilibrium thinking, parallel paradigms within anthropology have been used to interpret the behaviour of human systems, or cultures. The notion of structuralism in anthropology has been instrumental in maintaining the belief that cultures such as the San are stable, both in terms of their traditional knowledge about ecological processes, and their institutional response to the use of resources in natural systems.

It is argued that the recent degradation of land and resources in indigenous systems can be attributed to the activities of westerners and outsiders who have come in and destabilised or pushed traditional knowledge systems out of equilibrium with the surrounding nature. Examples would include the disruption of, traditional religion, kinship structures, and production systems. It is held that traditional societies began to be undermined by exogenous factors with the inception of the colonial era and this has continued and accelerated up until today. In the structuralism argument, "tradition" is synonymous with equilibrium, so that if traditional structures are destroyed or disrupted, then the human system is plunged into chaos.

The decade of the nineties has born witness to a developing debate surrounding the historical and present day positioning of the San. The maintenance of what the outsiders have considered an unaffected foraging lifestyle or the "old ways" until to recent times, has been attributed to the "remarkably constant" (closed) nature of their system (Yellen, 1990:74). Yellen, 1990, writes as a caption to his paper " *The Transformation of the Kalahari !Kung* ", " why after centuries of stability has this society, an apparent relic of ancient hunting and gathering groups, abandoned many of its traditional ways "? Yellen's question epitomises the views held by the so-called " evolutionary " school that primarily consists of a group of researchers from Harvard University working on the "Kalahari Project". The project was originally inspired by Richard Lee's PhD research between 1972-74 on the San in the Dobe area, of Botswana. Kent (1992:45) refers to the individuals within the Kalahari Project (see Lee 1979, Silbauer 1981, Tanaka 1980, Yellen 1990, etc) as traditionalists on account of their conventional view; namely that the San are an autonomous group of foragers with a cultural identity distinct from neighbouring agro-pastoral groups.

Along similar lines Solway and Lee (1990:122) write that "foragers are for whatever reason, people who have resisted the temptation (or threat) to become like us".

This perspective has been challenged by the self-named "revisionist" school, which claims that the San have always been open to external influences. The revisionists see the San as responding to the inherent uncertainty of their system by readily shifting between different forms of subsistence and by maintaining close relations with other ethnic groups. Revisionists reject the assumption that the San's foraging system is characterised by its autonomy. In this regard they maintain that the San have, for hundreds (if not thousands) of years, been heavily dependent upon both trade and food producing populations and part-time cultivation or pastoralism (Headland & Reid 1989; Wilmsen, 1989; Wilmsen & Denbow 1990; Kent 1992; Gordon 1992). In stronger terms Wilmsen and Denbow (1990:490) even suggest that the terms "San" and "Bushmen" are in fact an "ethnographic reification" drawn from only one subsistence strategy, foraging, rather the integration of a number of strategies engaged in by all the "poor". They continue by writing that the "*foraging and food production in the Kalahari are not ideologically separate pursuits but activities mutually constructed within a foraging/farmer symbolic reservoir*" (ibid. 1990:490). Wilmsen and Denbow maintain: "*the theoretical issue is transparent. Do we look at people encased in "culture", in closed societies that are reifications of that which is considered "unique" in their lives? Or do we look at them engaged in social formations continuously shaped in the arena of economic and social action*" (1990:499).

3.3 Preservation Management and Open Access

Preservation management is built upon the view that local communities have been the major determinant in Rangeland degradation, depletion in wildlife numbers and deforestation, etc, across sub-Saharan Africa. In 1968 Hardin translated this interpretation into a market economics framework, in an infamous essay *entitled "The Tragedy of the Commons*'. In his essay, Hardin predicts the eventual over-exploitation of resources held in common, asserting that the relationship which users of common property such as rangelands have with natural resources is typically a "free for all," with no limits on who has rights to use the resources. Further there are no regulations associated with individual or collective resource utilisation. Armed with this perception of common property, policy makers began drawing up a new centralised approach to conserve natural resources in the form of "preservationist"[2] protective legislation.

This approach is strongly evident in the measures employed to preserve wildlife in much of southern Africa. It has led to the proclamation of a system of parks and reserves across large tracts of southern Africa, such as the Etosha Park and the subsequent displacement of communities out of these areas; the element perceived to disrupt the stability of wildlife populations. Further, it can be argued, this "open access" perception precipitated the decision made by Namibia's pre-independence colonial regime to transfer to state ownership, the land and natural resources in communal areas. In Namibia, this resulted also in the banning of hunting, a prohibition on the utilisation of forest products for commercial purposes and the outlawing of community burning.

[2] Preservation can be defined as meaning to set aside and protect selected natural resources such as unique biological or geological formations, endangered or threatened species, representative biomes or other natural or cultural sites of importance (Okidi, 1994:20 in Biodiplomacy)

Generally, the state's attempt to control resource exploitation in protected areas was poor, and almost non-existent on the newly appropriated public lands (WRI, et al, 1992). This incapacity, coupled with the fact that local rules and regulations associated with resource utilisation were overridden with the transfer to state ownership, often *created* an open access condition by default. Outsiders and poachers began to exploit resources on previously locally controlled land, causing an exploitative frenzy of first come, first serve. Hardin's so called "tragedy of the commons" became manifest as a result of a tragic misunderstanding of the *status ante quo.*

3.4 Common Property and Community-Based Natural Resource Management

Hardin (1968) argued that peoples inhabiting common property[3] typically utilise natural resources in an open access fashion. Contemporary research, however, suggests that open access situations are relatively rare. Although the common pool of resources might appear to be available to all land users, they are more typically held in common between individuals within a discrete user group, whose use rights generally are constrained by social institutions. These institutions in turn represent a "constellation of rights and duties" that precludes the indiscriminate and/or unsustainable use of natural resources (Runge, 1981; Little, 1987:199).

Randall suggests that it is these rules of governance and moral and ethical structures that "define the rules of the game" (1981:160-161). This revised way of viewing common property has begun to permeate natural resource management circles, hastened by the growing awareness of the problems created of alienating local people from regions and resources perceived by conservationists to hold high conservation[4] value. Numerous other classes of protected areas emerged towards the end of the 1970s based on a more sophisticated understanding of common property theory and local management regimes (Lindsay, 1987:149).

Arguably one of the more enlightened approaches belonging to this new perspective, which has rapidly gained ground in last decade, is Community-Based Natural Resource Management (CBNRM). In short, this approach is built upon securing the support and participation of local communities to protect natural resources. It is becoming increasingly common to seek the support of local communities as the means to resource conservation. This has often been achieved by creating economic incentives for communities to become actively engaged in resource management (Murindagomo, 1990: Young, 1995:206).

In Namibia the CBNRM approach was introduced by a project conceived by Owen-Smith (1984) in co-operation with the Sesfontein, Warmquella and Purros communities. The project had three components:

- A pledge made by the local leaders to ban all hunting of wildlife in Kaokoland;

[3] Bromley (1990:94) defines common property to have the following tenurial characteristics: the management group (owners) has a right to exclude non-members, and non-members have the right to abide by exclusion; individuals within the management group (co-owners) have rights and duties with respect to use rates and maintenance of thing owned.

[4] Conservation in this context is a management term meaning to manage renewable resources sustainably and to avoid waste of non-renewable resources. Thus conservation is purposive, based on specific objectives and clearly perceived benefits and a fundamental requirement for sustainable development (Okidi, 1994:20 in Biodiplomacy).

- A community game guard project which enabled the community to take an active role in the conservation of wildlife and;
- A development project - started several years after the community game guard project - which serves to channel some of the economic benefits associated with wildlife conservation back into the hands of local people.

The Ministry of Environment and Tourism has recently institutionalised CBNRM through the enactment of the Conservancy Act. The Act allows local communities to pool their land and thereby create an area with clearly defined physical boundaries, termed a *conservancy*. The notion of conservancy closely resembles a common property regime. The community or the user group who holds the conservancy title has exclusive user rights to commercialise or use as they see fit a quota of wildlife within the delineated area (MET, 1997). It is expected that communities will also be able to generate benefits from wildlife tourism. As part of the conservancy agreement, a conservancy will be a legally recognised statutory body established with a constitution. A conservancy council, consisting of elected or appointed community representatives, makes executive decisions over the management of the conservancy. The conservancy council will work in conjunction with other local and regional committees, composed of line ministerial representatives and other stakeholders, in order to co-ordinate planning and management at a regional level.

It is expected that by the year 2000 there will be approximately 20 registered conservancies. At present they cover an area of 4 million hectares and could cover about 13% - 14% of Namibia's land area (Pers Com P. Tarr 1998). Coupled with the already 13%-14% of Namibia's land protected in National Parks, this would bring the total protected area to about 30 % of Namibia's total land area.

The National Land Policy passed in 1998 also allows for the sustainable utilisation of natural resources. A new Forest Act is also expected to be passed by the end of 1998. This Act will cover the use and management of community forests and their products that will operate along similar lines to wildlife conservancies. The proposed Forestry Act will have far reaching implications and opportunities for the proposed Mangetti Oil extraction project.

4. METHODOLOGY

The character of the methods applied in the course of the Study were based on the two assumptions: First, the knowledge and perspectives enshrined in the Kwangali community (and others where consensual knowledge and decision making structures characterise the community) is manifested as a reality consisting of a community of views, values and aspirations or what is termed in the literature as a "multiple reality". Second, the manifest realities are extremely dynamic through time. Bender (1993), for example, sees landscapes as "polysemic, and not so much artifact, as in the process of construction and deconstruction". This dynamic process of reconstruction is particular pertinent to disequilibrium systems, such as the Kavango, which are inherently unstable through time.

Hence these assumptions have led to the adoption of an " approach " rather than methods to elicit knowledge, values and perspectives from the community. This approach, in contrast to more " objective " or "quantifiable" method based forms of rural appraisal, has attempted to capture the range of community perspectives. Hence, by default, a number of ambiguous views at community level were elicited. We would argue, however, that the rigor in our approach is apparent in its ability to identify the "multiple reality" rather the "objective reality" that prevails in the Kwangali district.

The information contained in this report was obtained through several approaches, including:

- Community meetings
- Village mapping
- Village resource mapping
- Village resource ranking
- Key informant interviews

A large section of the information gathered is based on the oral history of the inhabitants of the area and other informed sources in Namibia.

4.1 Translation

Thomas Likuwa of Kaguni village ably assisted the team with translation. He also acted as a guide, a valuable source of information and a reference for points of clarification. All meetings were carried out in Rukwangali and English, San people in the area are fully conversant in Rukwangali.

4.2 Community Meetings

A number of community meetings at various villages were convened during the three visits to the focus area. (See Itinerary, Appendix 12) Community meetings provided the bulk of the information contained in this report. The village mapping, natural resource mapping and resource ranking exercises were carried out during community meetings rather than on an individual basis.

At the commencement of the study, the team visited the Hompa of the Kwangali district to fully brief him on the scope of our work and to gain initial insights into the area. The Hompa was also re-visited during the second field trip to update him on the current status of the study.

All community meetings were organised through the village headman or village elder who were also briefed on our scope of work. Community meetings were then requested and a suitable date, time and venue decided upon by the headman. All communities were informed at least a day in advance. At the beginning of the meetings a member of the team would give a brief overview of the purpose of the study and also introduce the members of the team to the community.

Initially information of a general nature, the area and its people, was sought from these meetings. During the final visit information of a more specific nature was gathered through the village mapping and resource ranking exercises.

4.3 Village Mapping

Village mapping exercises were carried out in 5 selected villages in the focus area. These villages were selected according to initial insights and other criteria. The following criteria were considered in the choice of a village:

- Access to water
- Access to Mangetti resources
- Number of San residing in a village
- Infrastructure present, schools and clinics

An attempt was made to sample villages that would provide a broad spectrum of information as a result of their social and natural circumstances. Therefore villages were chosen that were far and close to Mangetti resources, had a borehole or not and had a school or not. All villages, except for Kaguni, were chosen because San were residing in them. (See Summary of Villages, Appendix 5)

The aim of the village mapping exercises was to gain insights into:

- The Infrastructure of the village.
- The Number of households, both San and Vakwangali.
- The location and size of various natural resources.
- The importance, perceived or otherwise, of various resources.

Emphasis was placed on gaining insights into why certain decisions were made and the process whereby they were reached.

These maps are contained in Appendices 6 through to 10 and are not to scale. In terms of the natural resources, however, bigger circles represent larger and or more important resources.

4.3.1 Natural Resource and Village Mapping

Participants at the community meetings were asked to draw a map, in the sand and by using other materials of, firstly, their village and secondly the natural resources which they made use of. Certain questions were asked to participants as to why certain aspects were included or excluded.

4.4 Resource Ranking

At each of the selected villages a resource ranking exercise was conducted. The exercise entailed community members ranking three resources identified as

important during initial visits to the area namely; Livestock, Crops and Natural Resources. Three different sized circles were drawn in the sand and participants were asked to place drawings of the resources into the circles according to their perceived importance. This exercise was completed for both good and bad years. The amount of rainfall and the state of crop and natural resource yields determined good and bad years. Participants were also asked to assess whether 1998 was perceived to be a good or bad year. The exercise was, where possible, also done separately with San and Vakwangali participants. This was done with permission of all participants at the community meetings. (See Resource Ranking Table, Appendix 4)

Initially the exercise included four resources, the fourth being Cash Income. However, during initial meetings, the ranking of cash income was complicated by the fact that cash income was closely tied to the other resources. It was therefore decided to omit this from the ranking exercise. An important aspect of this ranking exercise was to gain an understanding into the process whereby the participants reached certain decisions. These processes and explanations are contained in other sections of this report.

4.5 Key Informant Interviews

In addition to the informal discussions held with people of the area, the team also visited number of key informants to brief them of our study and to gather more specific information, especially with regards to key decision makers. Meetings with the following key informants were held:

R. Muremi	-	(Regional Governor – Kavango)
J. Hambjuka	-	(Regional Councillor – Mpungu constituency)
Mpasi Sithendu	-	(Hompa – Kwangali district)
R. Mbambero	-	(Senior Headman – Mpungu constituency)
D. Kashikola	-	(Headman – Runda)
A. Toto	-	(Regional Head – Veterinarian Services MAWRD)
G. Masilo	-	(Regional Head – MET)
P. Horn	-	(Regional Head – Extension services MAWRD)
D. Nheta	-	(Regional Head – Directorate of Forestry)
K. Kaheka	-	(Regional Head – Rural water Supply)

5. RESULTS AND DISCUSSION

5.1 The Mpungu San

There has been little documentation of the history of the San peoples living in the Kwangali area. The prevailing view is that they are situated as clients in an exploitative relationship with their patrons, the Vakwangali. This view arguably is related to the "evolutionary" view outlined in section 3.2. With the movement of Vakwangali into the area, the San were marginalised and found themselves in the position of a subservient client.

During the field study, both San and Vakwangali respondents confirmed that the Mpungu constituency area was originally the exclusive domain of San groups up until the 1950s. Mpungu and the area south to Tsintsabis made up the extent of the Hai//om. The Mpungu San's range appears to have extended from the Mpungu area north to the Kavango River in the east and north up into what is now part of Angola. Contrary to the evolutionary perspective, both San and Vakwangali respondents suggested that San from the Mpungu area periodically lived and worked with Vakwangali families, who prior to 1950 lived close to the Kavango river where permanent water could be found. The water at Mpungu, which in the wet season is found above ground and during the dry season is accessed through shallow wells, appears to support a number of respondent claims that Mpungu has historically served as a San focus point. In an otherwise waterless plain that extends from the Angolan border south to the Tsintsabis area, Mpungu must has served an important function as a trading point for the mobile San populations and as a dry season refuge.

It can be speculated that in the very dry years such as the one experienced this year, 1998, when bushfoods were extremely limited, and the wells in Mpungu dried, the Mpungu San were forced to draw on their Vakwangali river neighbours for resources and food. A more recent twist to the relationship may have resulted in the activities of the Finnish Missionary who attempted to uplift the San in the Mpungu area. This project consisted of the drilling of boreholes in and around the Mpungu area, at Nsivi, Runda, Nandingwa, etc. A number of San households were given cattle and ploughs. The opening of permanent water points in the area marked the inception of a permanent Vakwangali presence in the area. It appears that the San held on to their cattle for a period of time and then lost them. Respondents provided a number of explanations for this including:

- The Mpungu San were relocated to Western Bushmanland. When some of them returned their cattle and ploughs had disappeared. Some San suggest that in their absence the Vakwangali appropriated their animals and ploughs. The ELCIN church was mentioned as having collected the cattle and ploughs when the San moved to Western Bushmanland. However, no insight was provided as to where these items might now be.

- Several Vakwangali respondents suggested that San lost their cattle because they ate them and did not look after them properly.

It is difficult to develop a clear explanation of why the San lost the cattle and ploughs; however, we believe that the explanation can partially be found in both reasons.

At present it is difficult to estimate the numbers of San living in the area. The national drought relief census, (Appendix 11), conducted in April 1998, which registered the San, does provide numbers, however, these numbers could not be verified and the team believes that the numbers might be an over-exaggeration. It should be noted that at the time of the study no food aid had been received. A number of study participants, including the Hompa, mentioned this as being problematic.

5.1.1 Western Bushmanland

Many of the San living in the area at present have family living in Western Bushmanland who claim that are not attracted to moving back. One of the main reasons stated was because of a lack of resources and control over them as well as the exploitative relationship between the Vakwangali and San in the Kwangali district. Another reason was that the San felt unsafe returning to Kwangali, post-independence, because they might have been seen as traitors after having served in the SADF. This and the prospect of continued employment in the SADF resulted in some San being resettled in Kimberly, South Africa.

5.1.2 Present Day Patron-Client Relationship

The presence of the Vakwangali in the Mpungu area appears to mark the transition from a co-operative relationship between the Vakwangali and San as a mechanism which served to hedge against uncertainty, to a more formalised relationship which some observers refer to as a patron-client relationship.

Both groups were and continue to be nested in a rapidly changing physical and social environment. A situational snap shot, evidenced by the data emerging from a one-off livelihood study, suggests that to a lesser or greater degree the San are locked into an exploitative relationship with the Vakwangali. However, if this snap shot is contextualised by locating it into a temporal continuum, i.e. by acknowledging historical bonds, the present day evidence may in reality be experienced as a larger process of reciprocation.

Results from our study suggest that the relationship between the San and Vakwangali is far too complex and dynamic to reify or freeze it in terms of a patron-client narrative. The label of patron-client rests on certain assumptions and therefore also implies certain negative connotations. For example, for whatever the reasons there is a general acknowledgement, from the Hompa to individual community members, that the San are " behind " and that they need to be uplifted. Irrespective of the Vakwangali's need for labour, a number of Vakwangali respondents indicated the need for something to be done to assist the San.

There is great deal of diversity within the San community with regard to the status of their relationship with Vakwangali. As the village map of Nyonga (Appendix 6) suggests, several different household systems exist even within one small village. In summary, we would say that today the San find themselves living in 3 different types of relational attachments with the Vakwangali:

1. Firstly, and what appears the most prevalent category is a discrete *transitory household* whose members move as an itinerant seasonal labour force for the Vakwangali between villages in the Kwangali area. In Lihaha, Nyonga and Mukekete, for example, in June 1998 a rather substantial population of San was

found living and working in these villages. In August, however, when the Study team once again returned to the area a large proportion of the San population identified in June had relocated to other villages. These people generally do not have any formal attachment to a village, for example, in the form of fields.

2. A second category of discrete San household is a household consisting of *elderly San who live on permanent basis in a village*. They are as the headman of Nyonga suggests, now too old to earn their own way and are "looked after" by the Vakwangali. The San depend on the Vakwangali for the collection of water, even though the San might have to collect it, because of the Vakwangali's access to transport. These households generally have their own fields which, after tending to the needs of the Vakwangali, can be worked to produce enough for their subsistence purposes. The ploughs and oxen needed to work the land, are in almost all cases, except Ngode, loaned from the Vakwangali.

3. The third and final category consists of a *Vakwangali household with San living permanently with that particular family*. The San find themselves in a relatively secure position, such that, for example in the Hompa's household, the San receive benefits such as schooling for their children. However, the San in this arrangement serve as labour for the Vakwangali household.

5.1.3 Sub-Conclusion

In some cases, San people, who have fields that are cultivated during the rainy season, predominantly inhabit some villages, for example, Ngode and Nkata. In the case of Ngode, the San move to Wiwi village during the dry season for two reasons, to have closer access to water and to seek "work" from the Vakwangali. In Nkata village access to water at Nandingwa village is possible without having to move there. However, these San are still highly dependent on the Vakwangali, for work etc, and are restricted by the fact that the majority of these San do not own ploughs, sleds, oxen and other livestock. The following question could be posed: How in the present situation do the San open new avenues to transform their current relationship of dependence upon the Vakwangali?

5.2 Present Systems of Land Use

The inhabitants of the Kwangali area derive their livelihood from four major forms of subsistence: cropping, livestock husbandry, natural resource harvesting and small-scale industries, such as shops and brewing alcohol. The informal sector plays an important role in the socio-economic make-up of the area. Income generation is to a large extent directly related and dependent on natural resources. Salaries to teachers, some headmen, clinic/hospital staff and pensions constitute the other sources of cash.

5.2.1 Seasonal Diary – Kwangali district

TASKS	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Plough Fields and Sow	X	X	X									
Weeding			X	X	X	X	X					
Harvesting						X	X	X	X	X		
Threshing									X	X	X	X
Clear New Fields	X											X
Thatching Grass											X	X
House Construction	X											X
Mangetti Collection							X	X	X	X	X	X
Mangetti Purchasing	X									X	X	X

(Source: San / Vakwangali, October 1998)

5.2.2 The Cropping Situation

The most prevalent crop grown in area is dry land Mahangu. In addition to this, maize, groundnuts and watermelon were identified as making a limited contribution to cropping subsistence. Mahangu is grown primarily to meet subsistence needs. It is also used to make Mahangu beer, and in good years, when sufficient grain is produced, it is stored or sold. In bad years grain is also stored, however, it will not last until the next harvesting season, giving rise to food security problems. Results from this study show that neither crop nor field rotation is commonly practised, despite the fact that numerous respondents complained about soil fertility problems. Two possible reasons could be put forward as to why farmers are not rotating or clearing new fields:

- Increasing land pressure.
- A migration out of the area of the labour force.

However, the most serious limiting factor on cropping in the area is rainfall. This finding was evidenced by a resource ranking exercise implemented in a sample of 5 villages. When the Vakwangali respondents ranked resources in what they regarded as a "good year" (good rainfall), cropping was listed as the most important livelihood strategy. In a poor year (poor rainfall), such as this year (1998), the ranking exercise indicated the cropping livelihood value diminished significantly. (Appendix 4)

Results from the village mapping exercise indicate that without exception all Vakwangali households have fields within and around the village in which Mahangu and to a lesser extent other crops such as Maize and Groundnuts are grown. Further it appears that the Vakwangali men and women have separate fields in which each subsequently has a distinct responsibility. As mentioned in the previous section it appears that the only San who have fields of their own are those who reside permanently in villages. Itinerant San work at a more general level in Vakwangali fields based on need and in return receive food or alcohol as wages. Permanently based San work for the Vakwangali households that they are attached to. The character of this *de facto* working arrangement was reflected in the results

from the resource ranking exercise. In both good and bad years the San ranked crops as one of the most important livelihood strategies. Respondents explained this result in the following way; crops signified work and work enabled them to get food for subsistence.

5.2.3 Livestock

The predominant livestock in the region are cattle. Goats, donkeys and to an even more limited extent pigs, can be found in some of the villages. Results emerging from the village maps and discussions at community meetings suggest that cattle are one of the cornerstones of the Vakwangali's livelihood, as a source on income, transport and ploughing. With few exceptions, all Vakwangali households own cattle. In the case of the San, one household from Ngode was identified as owning cattle – a family that periodically moved between Ngode and Wiwi villages.

Constraints: During the Study, Vakwangali respondents identified the present borehole situation as one of the major factors constraining their livestock husbandry practices. The water/cattle map, (Appendix 2) depicts the catchments of the boreholes in the area. The large catchment areas in some places are generally the result of pump breakdowns or problems associated with the borehole itself. In Mukekete, for example, the borehole has been broken for the last 3 years. This means that this community is forced to herd their animals to Mpotomukukutu everyday for water. The school at Mukekete relies on a water tanker filling the school's holding tank on a regular basis. According to the Principal of the Mukekete school it is not uncommon that he is forced to send learners home because the holding tank is empty.

There is evidence of significant changes in the range condition in a wide radius from water points that have large cattle numbers, either from pressure from within or from other villages. At Nandingwa, for example, over 350 cattle were observed one morning by the study team at the water point. Presently it is not possible to state with certainty whether the depletion of range in areas surrounding water points is an indicator of chronic degradation owing to the biotic impact of cattle, or simply abiotically induced depletion, suggesting that the range condition would recover with sufficient rainfall.

Cattle's Livelihood Role: In the resource ranking exercise in the villages sampled, the Vakwangali ranked livestock as the most important subsistence resource during poor years such as this year. (See Appendix 4) This preference was rationalised by respondents in the following way: in poor years when the Vakwangali are unable to produce enough Mahangu to feed themselves cattle serves as a form of insurance. During poor years they are able to sell their cattle to Meatco in Mpungu, thereby generating income that enables them to purchase food. In Nsivi even the San respondents ranked cattle as the number one subsistence form, despite the fact that they did not own any cattle themselves. Respondents explained in this way; in the bad years they were dependent on the Vakwangali for food gained by working for them. Hence during the bad years, as the Vakwangali generate food indirectly through cattle sales, they too relied heavily on cattle.

5.2.4 Sub-Conclusion

The permanent presence of large numbers of cattle is a relative new phenomenon in the Mpungu system, enabled by the creation of a number of permanent water points from the 1960's onwards. It is probable that the permanent wells at Mpungu may have enabled some Vakwangali to maintain limited cattle herds in the area before this time. However, it is likely that cattle numbers were kept in check by the abiotic constraints imposed by rainfall on range, i.e. by episodic crashes in cattle population.

Today, the presence of a large number of permanent water points is probably serving to suppress the abiotic constraint imposed on long term cattle populations. It can be superposed that prior to the introduction of permanent water points, the "ecological carrying capacity" of the system was not exceeded as abiotic factors governed the range's integrity. Today, however, the presence of numbers of cattle over more than three decades may have shifted the character of the range from a density independent resource to one that density dependent. The implications of this development will be discussed in more detail in a later section.

5.3 Natural Resources

Amongst both the Vakwangali and the San, the Mangetti (Ricinidendron rautanenii) makes a considerable contribution towards their livelihood. To a lesser extent Nsivi and Monkey Orange also make a contribution. The San also use to a limited extent, a variety of tubers, berries, and other bushfoods on a seasonal basis as a contribution towards their subsistence. Resource maps and discussions with local respondents identified that the presence of natural resources and in particular Mangetti, Nsivi, and Monkey Orange, is spatially inconsistent across the Kwangali area. Hence there is great variation between villages with regards to their proximity to those natural resource areas.

As with livestock husbandry and cropping, rainfall is the principal limiting factor affecting the abundance of the most important edible plant/tree resources. Respondents suggested that these resources were insufficient in poor rainfall years, whilst in good rainfall years, the supply exceeds their demand. Fire was also mentioned by respondents as a limiting factor to the production of fruits. Some Vakwangali respondents even suggested that after a fire has been through an area of fruit trees, the trees stop producing fruits for a number of years. This view requires further investigation, it may be a misinterpretation based on the fact that fire and low rainfall happened to coincide in a particular area, as in the present case of the Nsivi tree.

5.3.1 Temporal and Spatial Distribution Issues

Insights elicited during the resource ranking exercise suggest that there is a significant relationship between the distributional character of natural resources and in particular Mangetti, and the way the San ranked natural resources in terms of their contribution towards their livelihood. For example, for the villages that are close to a Mangetti resource such as Nyonga, Runda and Lihaha, even in poor years the resource remains important for subsistence. However, in villages located far from Mangetti resources such as Nsivi and Canchana, natural resources were not listed as important in bad years. The distributional character of Mangetti and its

subsequent impact on resource ranking amongst the Vakwangali was less evident. This is probably a reflection of the fact that they controlled transport resources and these could be used to shift large quantities of Mangetti over relatively long distances.

The production of Kashipembe in poor years serves an important means for the Vakwangali and San to generate income and hence purchase needed foodstuffs. Although the overall abundance of Mangetti fruits appears to be limited in poor years, trees still seem to produce some fruits. A number of San respondents noted that in poor years it is possible to find Mangetti fruits buried in previous years in the burrows of Spring-Hares.

5.3.2 Sub-Conclusion

There is no single factor that explains the relevance of natural resources to both the Vakwangali and San in good and bad years. The interdependence in both the natural and social realms is highly complex and requires additional research at household level.

5.3.3 Other Resource Use in the Area

Regarding the existing utilisation of natural resources, the Mangetti (Ricinidendron rautanenii) (Palgrave 1977), Monkey Orange (Strychnos Cocculoides), (Ibid.), the fruit from the Large False Mopane (Guibourtia colesperma), (Ibid.) or Nsivi, the fruit of the Buffalo thorn tree (Ziziphus mucronata), (Ibid.) and a particular tuber (shi) were listed as the principal non-timber forest and veld products. Both the San and Vakwangali appeared to use these products. Kiaat (Pterocarpus angloensis), (Ibid.) was also mentioned as being used extensively for furniture and sled production. In addition a variety of berries and tubers were mentioned as being utilised for various purposes. This is an area recommended for further investigation, in terms of distribution, uses and also biophysical aspects.

5.4 Mangetti

The Mangetti resource in the entire Kavango region seems to be highly widespread, although still found in concentrations (groves), dependent on certain biophysical factors such as soil type, temperature and altitude.

The Mangetti tree gets its leaves in mid to end October, flowers and begins to bear fruits between October and November. This however, is highly dependent on rainfall and other factors such as temperature. The fruit ripens from the end of February but might only begin to fall from March/April onwards. The production and quality of fruit is also highly dependent on seasonal rainfall.

5.4.1 Utilisation of Mangetti

The fruit contributes significantly to the livelihoods of the people living in the area as a source of food and as a source of income and exchange. The Mangetti fruit is used in following ways:

- The flesh as a relish.
- The peel and flesh for the production of Kashipembe.

- The nut crushed and added to food.
- Oil from the nut used for food and cosmetics.
- The shell of the nut used as fuel.

In addition twigs or sticks from the tree are used to start fires by rubbing them together. Traditional law forbids the cutting down of the Mangetti tree.

5.4.2 Food Security

The Mangetti Fruit is an important source of food for local communities. This is especially the case in years when the Mahangu harvest is not good. This effects the poorer households more significantly. In these years more importance is placed on Mangetti and therefore more are collected and more alcohol is brewed because firstly there is more Mangetti in the village and secondly it is an important source of income to buy food. This is despite the fact there might also be less Mangetti resources available. The Mangetti fruit would be collected from further afield and collected more diligently. In good Mahangu harvest years there is less need and less time to collect Mangetti. A Mangetti oil extraction project could therefore indirectly result in an increase in the production of alcohol, as the two processes are not to be in competition with each other. The Mangetti fruit can serve as both sources of food and Kashipembe.

5.4.3 Value of Mangetti, Mahangu and Labour

The Mangetti nut is also used by the San to barter for Mahangu, the rate of exchange for decorticated nuts and Mahangu was found to be 1:1 in Wiwi village. The rate of exchange, however, varies from village to village and also from individual to individual. In Nyonga a 200 litre drum of Mahangu was valued at about N$ 700-00. This amount of Mahangu could feed a family of 10 people for about 5 months. In addition this amount of Mahangu could also be used to trade for a cow.

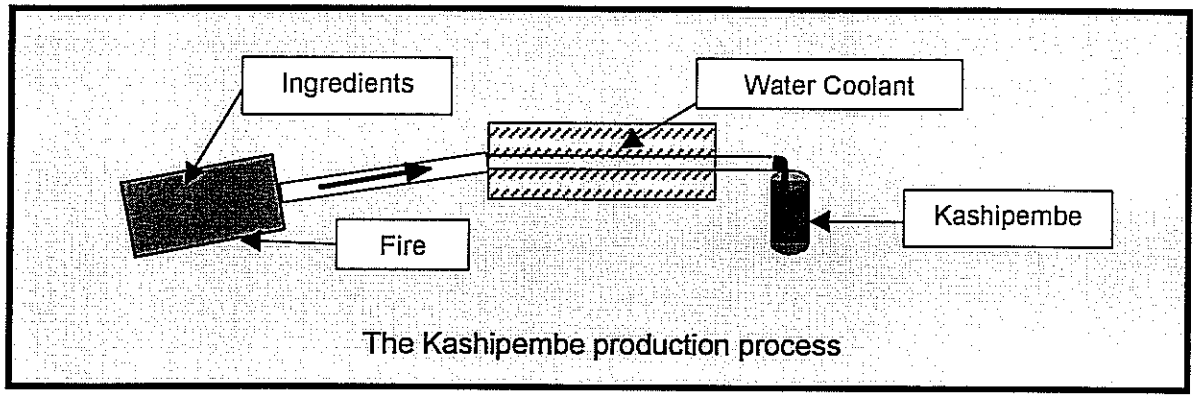
In Nyonga again, information gathered there indicated that three (1 litre cups) of Mahangu would be exchanged for a ten litre bucket of Mangetti, and four (1 litre cups) for a fifteen litre bucket of Mangetti. This exchange would be based on the whole fruit of the Mangetti. Although not usually the case for San people, a 10 litre bucket of whole Mangetti would be valued between N$2-00 and N$2-50, a 15 litre bucket is valued at between N$3-00 to N$ 4-50. The value, of whole Mangetti as opposed to decorticated Mangetti, is higher.

The San in Nyonga village would also receive four (1 litre cups) of Mahangu for a full days threshing work. The San person or people would also receive alcohol during the day with some food. It should be noted though that alcohol has traditionally played a significant role the harvesting and threshing activities.

5.4.4 The Production of Kashipembe

- The Mangetti fruit is boiled rapidly for about 15 minutes to soften the flesh so that it can be removed from the nut.
- The fruit is put into a mortar and pounded to remove flesh.
- The nuts are removed from the flesh.

- The flesh and peel is added to a 200 litre drum, about 10 kg's brown sugar is added to assist the process (not always done) and then stirred, the drum is sealed and left for a day to stand.
- The mixture is then boiled (Heat must be regulated) and the distilling process begins.
- The alcohol passes in a metal pipe through a wooden trough filled with water to cool the alcohol, if this water gets too hot it is replaced.
- The first 5 litres is usually the strongest, which is then mixed together with the rest and marketed. A 50-kg bag filled with Mangetti nuts could make about 25 litres of Kashipembe.



The Kashipembe production process

While Kashipembe is predominantly made from Mangetti, other fruits such as Monkey orange, Nsivi and Buffalo thorn can be added to it or can produce Kashipembe by themselves, as long as enough of the resource can be found.

5.4.5 Prices of Kashipembe

The following prices of Kashipembe were obtained from the villages of Nandingwa, Mpungu, Kaguni and Rundu. The prices reflected here represent a range as they may change from time to time and from place to place.

Village	1 Litre Kashipembe	5 litres Kashipembe
Nandingwa	N$ 12-50	N$ 62-50
Mpungu	N$ 12-50	N$ 62-50
Kaguni	N$ 10-00	?
Rundu	N$ 5-00	?

5.4.6 Test Purchase

It appears at this stage, taking other factors into consideration, such as the harvesting and threshing of Mahangu, (See Seasonal calendar), that the months July through to October might be the most appropriate months to purchase Mangetti nuts.

While all people seem to have equal access, it should be noted that at times the resource is at some distance. Therefore, while the San people may be able to

collect Mangetti in the resource areas they will not necessarily have a sled and or oxen to transport the Mangetti to the point of sale. This might have two consequences, first they collect less Mangetti and second they have to hire a sled and oxen, for which they will have to pay for from the Mangetti nuts collected.

5.4.7 Oil Extraction

The differences between oil extracted from Mangetti nuts that have been boiled and those that have not needs to be analysed. Local communities report that the oil is the same but state that those that have been boiled do not last as long as those that have not. (See Kashipembe process)

It was also stated that the softening of the flesh could take place through a cold water process, however, this was said to take longer and be less efficient. The possibility of the Mangetti nut being cracked before the boiling process, so as not to effect the nut was also explored. Again, while this would be possible it was stated that the sharp edges of the cracked shell would damage the mortar and pestle. In addition the cracking of nuts before hand would constitute an extra workload and it is therefore doubtful whether people would be willing to undertake this process.

A number of people spoken to during this field trip indicated that oil extraction should be carried out locally, thus providing for more jobs.

5.5 Common Property and Regional Aspirations

Responses to questions of property relations associated with natural resources during the initial reconnaissance trip in June 1998 changed somewhat towards the end of the fieldwork in August 1998.

During the initial field trip, views articulated by respondents suggested that the San had open access to all natural resources, including forest resources, wildlife, grazing resource, etc in all areas not circumscribed by fields. For the Vakwangali, however, under certain situations, utilisation of natural resources appeared to be confined to those areas that fell under a village to which a particular individual belongs. (See Appendix 3 that depicts the spatial character of traditional authority in the area). This was further qualified by a number of respondents. One man noted that in Tare, for example, members of the village would be regulated in their utilisation of Mangetti only in an area falling under another's territory, especially if it was a bad rainfall year when fruits were limited. Thus, an early view was that there is indeed some form of common property institution regulating utilisation of natural resources.

When the study team returned to the area in August 1998, respondents were invited to discuss the rules and regulations associated with access to forest resources. The views gained were entirely contrary to the original finding. All respondents maintained that there was open access to all forest resources and grazing provided that fields did not circumscribe them. This open access status applied to San and Vakwangali alike and, according to respondents, there was no mechanism or institutional response open to the inhabitants of the Kwangali area to regulate outsiders accessing common resources.

No clear reason has been identified by the team that could in some way explain the

apparent contradiction between the June and August responses. The following interpretation might be hypothesised:

- In the period after the initial Study visit community respondents became more strategic in their response owing to the fact that they were now informed about the proposed Mangetti project. The Vakwangali, for example, might be seeking to secure their future as recipients of a project that would require them accessing Mangetti resources over and above that which can be presently accessed within their territories.

Owing to the divergence in the information, the Study team decided to explore the issues related to local tenure with two key informants drawn from the traditional authority structure. The headman from Runda and the senior headman of the Mpungu constituency were interviewed. Both respondents confirmed that, "yes in fact, no division could be made between the San and Vakwangali or indeed outsiders regarding accessing common pool resources". The difference regarding tenure and resource access was also explored. It emerged that a difference did exist between San and Vakwangali when it came to resettlement and land allocation within the Kwangali area. In this regard the Vakwangali were constrained under the traditional leadership system, with a Vakwangali household being obliged to seek permission to settle, cultivate land and build a house from the respective headman within or between villages.

The San, however, did not need to seek any permission and were free to move and relocate as they pleased. When the Headman of Runda was questioned as to the reasons for this difference he firstly replied "that the San did not have cattle and hence their movement did not result in the same sort of land impact that the movement of a Vakwangali imposed." Thereafter a fictitious scenario was posed to the headman: " *What if a San family which had cattle wanted to move into your area, would they need to seek permission from you?"* The answer was no. This phenomenon may suggest that an unwritten acknowledgement exists that because the San were the original inhabitants of the area it entitles them to special privileges regarding land tenure. This still needs to be explored further.

However, while the San do not have to ask permission from the headman or elder, they do have to ask the family with whom they want to attach themselves. This could, however, imply that in certain cases settlement in a particular village might be dependent on employment. The fact San do not have to ask permission in terms of Vakwangali traditional authority also reflects other perceptions of San people which influences the " patron – client relationship". Some perceptions of the San people included:

- That San can not have cattle and ploughs because they move around too much and do not look after their possessions.
- That they can not handle money and have an alcohol problem.
- That they do not like to live sedentary lives.
- That they always revert back to gathering veld products.

5.5.1 Water

There appears to be an informal system of tenure associated with discrete water points. The water/cattle map depicts the cattle catchment associated with each of the water points included in the livelihood Study. (Appendix 2) As mentioned in an earlier section, cattle owners in a number of villages are forced to herd their cattle to water points that are located in other villages, the case of Mukekete herding to Mpoto, for example. It appears that those who are accessing water points in other villages are obliged to pay N$ 5-00 per month irrespective of the number of cattle or amount of water used. This money is paid to the water point committee that has been set up by each village to take responsibility for issues pertaining to the management of the water point. It does not appear that this rule applies to the San. It could be that because they do not own cattle and therefore do not incur significant additional management costs upon the water point, such as the cost of diesel, this exemption is regarded as self-evident.

5.5.2 Traditional Authority

The Kwangali district is divided into two constituencies, Mpungu and Kahenge. The Hompa, who has senior headmen, junior headmen and headmen underneath him, heads the traditional authority structure. The Hompa, senior and junior headmen are paid by the government. The posts of senior and junior headmen are relatively new in this system and were necessary for the recognition of traditional leaders by the government. As from 1998 all Vakwangali households will have to pay N$2-00 to the traditional authority, this money would be used for the administration of their tasks. Information gathered indicated that the San would not be required to pay this, however, no clear explanation could be gained as to why this was the case. In the past households were also expected to pay this levy/tax although it had lapsed for some time and was now being re-introduced.

Upon the death of the Hompa, his brother or eldest son will replace him. While the role of Hompa will stay within a family, if a suitable candidate is not found, someone else might fill the position.

Senior and junior headmen do not necessarily represent any given village. (See Traditional Authority map, Appendix 3) Therefore, in many cases, headmen represent communities from other villages but are elected by the community of the main village. The study team was not able to gain insight into what criteria apply for the election of a headman. The Hompa must approve an elected headman. Headmen are largely responsible for land allocation, representing the village at meetings, and solving disputes. In principle a woman can fill the position of headman, although this is not usually the case.

Each village does, however, have a senior or elder who is responsible for land allocation and minor dispute resolution within that village in the absence of an elected headman. In this case this role is usually assumed by the first person to settle in that particular village. In Lihaha, for example, a woman has assumed this role after the death of her husband.

There was some uncertainty over how exactly people became senior or junior headman, (Pers com, Reino Mbambero, senior headman) as this was a new system, however, this did not seem to constitute any unhappiness with the system.

Dispute Resolution: There is a clear system of dispute resolution. On the declaration of a dispute the village headman or elder will attempt to solve the dispute. If this is not possible the dispute will be referred to the senior headman who will try to solve it together with other headmen, failing this, the dispute is referred to the Hompa and the Traditional Council.

It should be noted that in practice this might not always be carried out like this, if at all. Respondents indicated that the traditional system was breaking down and that this was causing problems in many areas, for example, land cultivation and the enforcement of traditional laws and customs.

5.5.3 Other Rules Associated with Common Property

According to the respondents and the key informants, under traditional law it is illegal to:

- Cut Mangetti trees.
- Start Bush fires.

The most serious of these is considered to be the starting of fires. However, this should also be seen in relation to the fact that the starting of fires is also prohibited under the present Forestry and Nature Conservation Act.

The use of natural resources on a commercial basis is also prohibited by law in the former communal areas. This, however, did not apply to the use of natural resources for construction purposes. This would even make the current production of Kashipembe illegal. However, this is changing, the Conservancy Policy and the new Forest Act will now allow communities to generate income from the sustainable utilisation of natural resources. This is dependent, however, on communities fulfilling certain requirements and provisions as set out in those policies.

5.5.4 Sub-Conclusion

The fact that the Vakwangali system is governed by a non-equilibrium environment could explain why there is, in general, an absence of rules and regulations to control access to and use of land and natural resources. Institutions enshrining rules and regulations tend to aim at maintaining some form of equilibrium or stability and this is not relevant in a system that is characterised by abiotically driven instability. In an earlier section, mention was made that there are now new elements, most significantly water points that serve to suppress the disequilibrium character of the system.

The Division of Rural Water Affairs is proposing to make water delivery more efficient by providing water through pipelines to the Kwangali area from the Kavango River. This would open up the possibility of stabilising the output from livestock husbandry. The addition of a further suppressive agent might be seen as exacerbating the chance of what Holling (1992) refers to as a major catastrophic event. To alleviate the potential of a "catastrophic" impact created by the present and proposed investments in the Vakwangali system there appears to be a strong case to establish a system of common property management of the presently unregulated common pool resources.

The proposed new Forestry Act and initiatives such as the proposed Mangetti project may serve as incentives for the community to engage in institution building and a reassessment of its present mechanisms associated with common pool resources. The Act will allow for the formation and demarcation of forest community management areas thereby allowing the community to be able to manage and generate income from these resources. This to date has not been legally possible. However, this will, depending on the process, also have implications with respect to the access to Mangetti and other natural resource areas.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 General

- In terms of both extension services and the proposed Mangetti project there is a need to address issues of Institutional Arrangements and Capacity Building. This should be undertaken in conjunction with all relevant partners.

- It is recommended that planning, in general, be undertaken to include as many stakeholders as possible. It is evident that planning in this area, at present, is not co-ordinated efficiently and this impacts negatively on the communities living in the area.

- There are other non-timber forest products found in the area that may warrant further investigation :

  - Monkey Orange (Strychnos Cocculoides)
  - Large False Mopane (Guibourtia colesperma)
  - Buffalo thorn tree (Ziziphus mucronata)
  - A variety of Berries
  - A variety of Tubers

6.2 Proposed Mangetti Project

- It is now evident that the Mangetti resource is widespread throughout the region. While some mapping of these resources was possible during the study, this does not give a good overall picture as to the extent of this resource in the focus area and in the region as a whole. It is therefore proposed that an Arial survey be conducted to achieve this.

- It is advised that the Hompa and other traditional leaders, regional councillors and relevant government Ministries and NGO's, be kept fully informed and participate in all stages of the possible development of this project and that regular feedback meetings are planned and carried out.

- It is recommended that, in light of the new Forest Act, which allows for the establishment of Community Forest Management Areas, the proposed Mangetti project is developed in line with the guidelines set out in this Act. In addition, the proposed Mangetti project could act as a catalyst in the implementation of community forest management areas.

- It is also recommended that a substantive monitoring programme be developed and put in place at the onset of the proposed Mangetti project. This is particularly pertinent with respect to any trial purchase of Mangetti nuts in order to be able to determine any impacts thereof. It is noted that any monitoring programme be developed in conjunction with the respective communities and that they play a lead role in any monitoring programme. It is suggested that possible areas where the community should be involved in include :
  - The record keeping of rainfall.
  - The monitoring of fires and their impact on resources.
  - The productivity and quality of Mangetti resources.
  - Issues related to the access of Mangetti resources.

- While this study has indicated that any project should not be developed for the exclusivity of one group of people i.e. the San, it should be noted that the current position of the San in the area, for example, their lack of transport, should be taken into account. The subsequent purchase of Mangetti nuts should not be carried out in a manner that would necessarily exclude the San, directly or indirectly, or any other group of people for that matter.

6.3 Agricultural Extension

- Some respondents also indicated that they are "tired" of being researched only and therefore want something concrete, the Katope/Komongoro community is waiting for seeds after research was undertaken in the village. It is therefore recommended that appropriate research, which results in tangible benefits for the community, be prioritised.

- Communities expressed concern with soil fertility and it is therefore recommended that appropriate research be carried out to address this problem.

- It is noted that the Ministry of Agriculture, Water and Rural Development, Division of Agricultural Development and Extension is in the process of opening an extension office in Mpungu and this needs to be supported.

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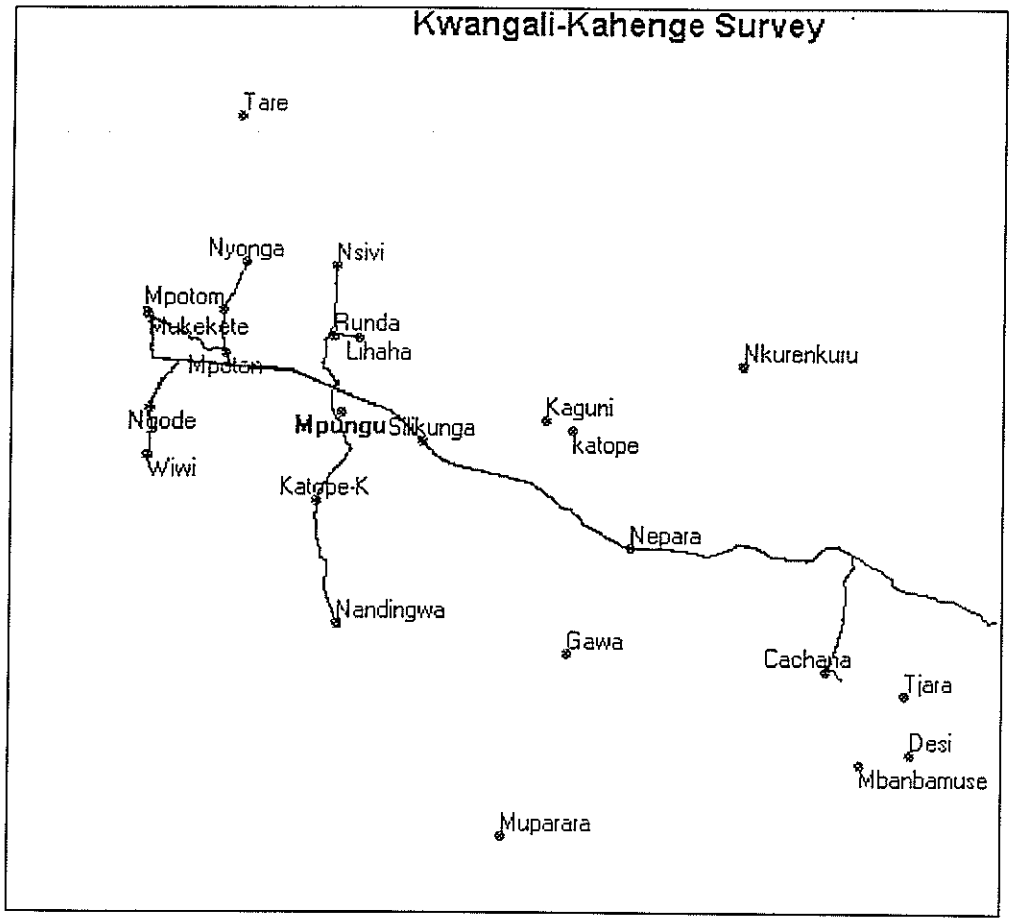
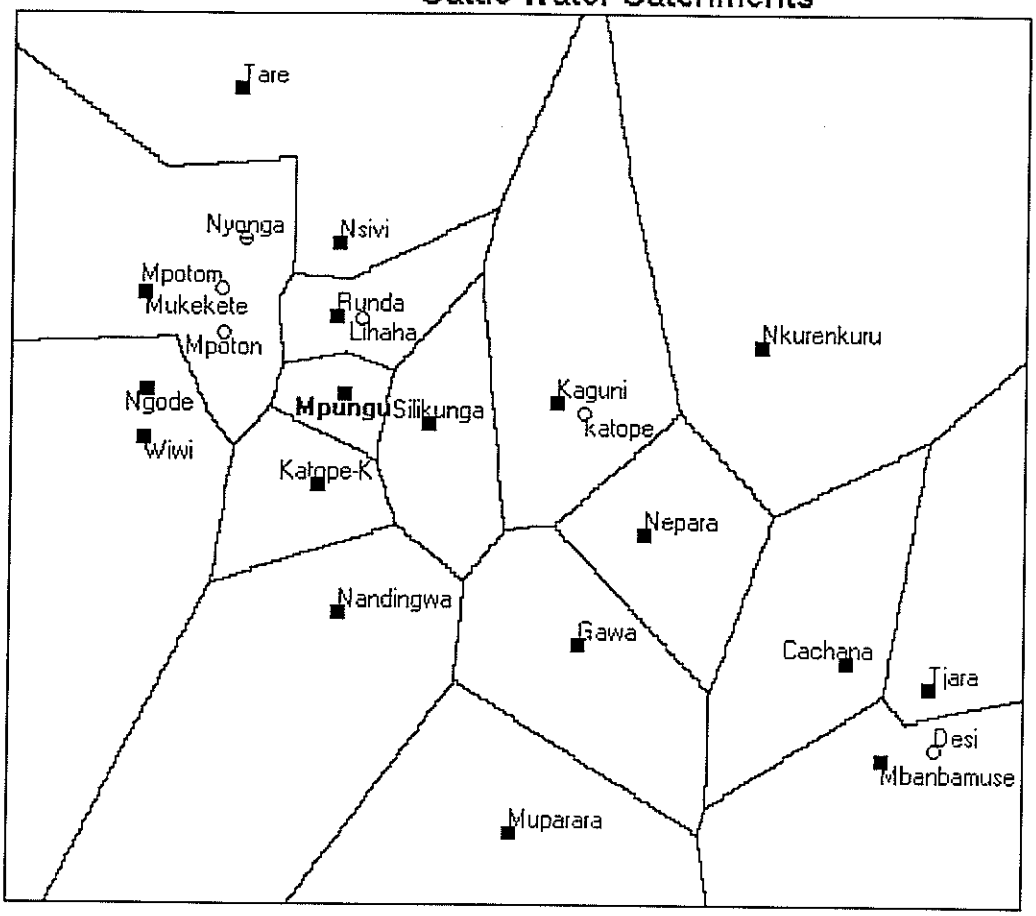
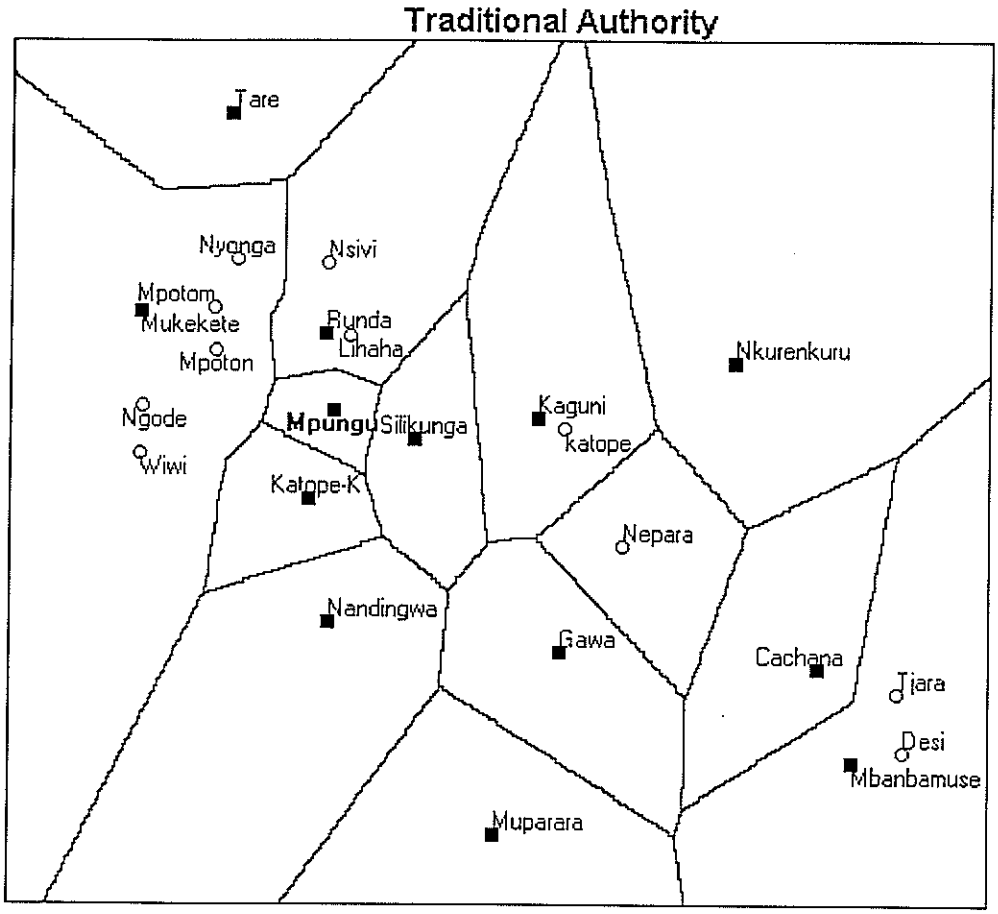
APPENDIX 1


Kwangali-Kahenge Survey
Tare
Nyonga
Nsivi
Mpotom
Mukekete
Runda
Lihaha
Mpoton
Nkurenkuru
Kaguni
Ngode
Mpungu
Sikunga
katope
Wiwi
Katope-K
Nepara
Nandingwa
Gawa
Cachama
Tjara
Desi
Mbanbamuse
Muparara

Cattle Water Catchments




Traditional Authority
Tare
Nyonga
Nsivi
Mpotom
Mukekete
Bunda
Lihaha
Mpoton
Nkurenkuru
Ngode
Mpungu
Silikunga
Kaguni
katope
Wiwi
Katope-K
Nepara
Nandingwa
Gawa
Cachana
Tiara
Desi
Mbanbamuse
Muparara

VILLAGE RESOURCE RANKING

VILLAGE	GOOD YEAR	BAD YEAR
KAGUNI		
Vakwangali	1. CROPS	1. LIVESTOCK
	2. LIVESTOCK	2. CROPS
	3. NATURAL RESOURCES	3. NATURAL RESOURCES
NYONGA		
Vakwangali	1. CROPS	1. LIVESTOCK
	2. NATURAL RESOURCES	2. CROPS
	3. LIVESTOCK	3. NATURAL RESOURCES
San	1. CROPS	1. CROPS
	2. NATURAL RESOURCES	2. LIVESTOCK
	3. LIVESTOCK	3. NATURAL RESOURCES
NSIVI		
Vakwangali	1. CROPS	1. LIVESTOCK
	2. LIVESTOCK	2. NATURAL RESOURCES
	3. NATURAL RESOURCES	3. CROPS
San	1. NATURAL RESOURCES	1. LIVESTOCK
	2. NA	2. CROPS
	3. NA	3. NATURAL RESOURCES
LIHAHA		
Vakwangali	1. CROPS	1. LIVESTOCK
	2. LIVESTOCK	2. CROPS
	3. NATURAL RESOURCES	3. NATURAL RESOURCES
San	1. NATURAL RESOURCES	1. NATURAL RESOURCES
	2. CROPS	2. LIVESTOCK
	3. LIVESTOCK	3. CROPS
CANCHANA		
Vakwangali	1. LIVESTOCK	1. LIVESTOCK
	2. CROPS	2. CROPS
	3. NATURAL RESOURCES	3. NATURAL RESOURCES
San	1. NATURAL RESOURCES	1. NA
	2. NA	2. NA
	3. NA	3. NA

Source : San / Vakwangali study, October 1998, Kwangali district.

SUMMARY OF VILLAGES VISITED, COMMUNITY AND OTHER MEETINGS

1. CANCHANA

- Headman : Muruti Hoebert
- Traditional Leader : Severinus Stiketa (SWAPO Central Committee)

The village has 1 borehole equipped with a diesel pump and reservoir. In addition 1 borehole is owned privately by Mr. Stiketa who also has approximately 250 ha of cleared land for crop cultivation. Mr. Stiketa also has about 100 seasonal workers of which 40 are San people. The village mapping exercise identified 78 households 6 of which were individual San households.

2. TJARA

A brief meeting was held with a teacher Mr. Haimbanga Steven Himarwa of the local school. The school is for grade 1 and 2 and has about 42 children, 2 of whom are San. This village has 1 borehole equipped with a diesel pump and reservoir. The Mangetti resource is collected at Mbambamusi and Ekuli. Also met with the mobile clinic doing a child immunisation programme.

3. DESI and MBAMBAMUSI

Informal discussions with various community members took place. The village has 1 borehole equipped with a diesel pump and reservoir. The water resource is shared with Desi. Community members of Mbambamusi mentioned that oil extraction should take place locally.

4. NANDINGWA

- Headman : Samuel Musongo
- Secretary : Sevelinus Kambara (Teacher)

The nearby villages of Nkata and Mkulivere also attended the initial meeting. The follow up meeting scheduled for the 14th September 1998 was cancelled because of voter registration taking place. This village has 1 borehole equipped with a diesel pump and reservoir and a number of Cuca shops. In addition it has a clinic, built apparently almost 4 years ago, however to date there are no staff to keep it functioning.

5. MPUNGU

Mpungu village can be considered to be the main centre within the focus area. Mpungu is electrified, has a hospital, a school, a church and shops and a good water supply. Mpungu serves as a centre for trade within the area and is the point of sale of cattle to MEATCO. There are also a number of permanent wells that are historically important for settlement patterns in the area. Agricultural extension has premises that are due to come into operation soon.

6. MUKEKETE

♦ Headman – Mr. Festus Haikali

Mukekete has a school, initially established to serve the educational requirements of the San in the area. A number of San learners are still enrolled at the school. Some basic infrastructure exists at the school for learners living too far to board.

Mukekete's borehole has been out of order for the last 3 years, a major constraint for the village and school. Water for the school is trucked in and livestock are watered at Mpotomukukutu village, some 5km north. The Mukekete community also has to fetch water at this village and transport it with sleds and oxen. The Mukekete community also contributes to the running costs of the pump at Mpotomukukutu.

Preliminary findings indicated that Mukekete might have the highest concentration of San people. However on return to the village in September 1998 many San had moved to other areas. In addition the Headman was not available for 2 days and the meeting was cancelled.

7. MPOTOMUKUKUTU

Mpotomukukutu village has a borehole equipped with a diesel engine and storage reservoir. This water point serves the needs of Mukekete and Nyonga. Residents of these villages are charged N$ 5-00 per month to collect and water cattle. This fee seems to be the same irrespective of the amount of water consumed.

8. NYONGA

Nyonga village is situated north of Mpotomukukutu and has a number of !Kung people living attached to Kwangali households. The village is dependent on water from Mpotomukukutu and if that is out of order then residents go to Nsivi for water. The village map indicated 2 San households and 4 Vakwangali households with San living in them.

9. WIWI

Situated south of the main road to the former Ovamboland area. The village is equipped with a borehole fitted with a diesel engine and storage reservoir. San from Ngode village have moved to Wiwi as Ngode does not have a borehole. The San sees this as a major constraint as Ngode has primarily San residents. The village map indicted at present 6 San households and 8 Vakwangali households.

10. TARE

Situated in the north adjacent to the Angolan border and has approximately 10 San people living there attached to Kwangali households. Tare has a borehole equipped with a handpump. Mupapama village is just east of Tare and also has a number of San living there. Mupapama apparently has a number of Cuca shops.

11. NSIVI

Nsivi village has a borehole equipped with a diesel engine and storage reservoir. In addition there is a school with about 23 learners, 4 of whom are San.

12. RUNDA

♦ Headman – Mr. Dawid Kashicola

Runda can be considered as a large settlement, perhaps because of its proximity to Mpungu. Runda has a borehole equipped with a diesel engine and storage reservoir. It also has a number of Cuca shops. Lihaha village is situated just east of Runda and has a number of San inhabitants.

13. LIHAHA

Lihaha is situated just east of Runda in the centre of a considerable Mangetti resource area. It has 1 Vakwangali, 1 San/Vakwangali and 3 San households. Lihaha has no borehole and is dependent on Runda for water.

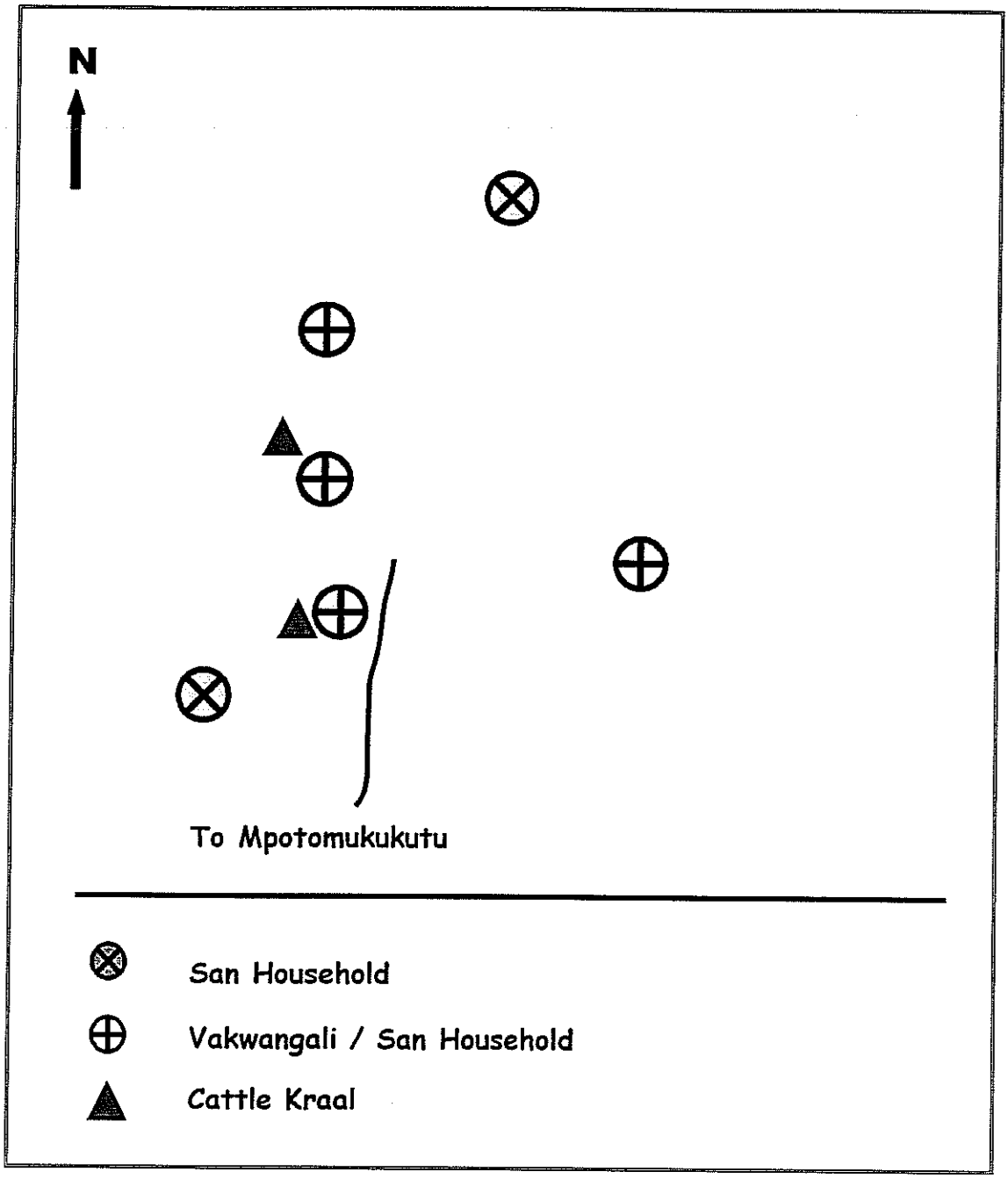
14. KAGUNI

Situated slightly outside of the focus area, Kaguni has a borehole equipped with a diesel engine and storage reservoir. No San families live here but some Kwangali elders were able to give some valuable insights into the circumstances in the focus area. A few elders from this village worked on the mines in South Africa.

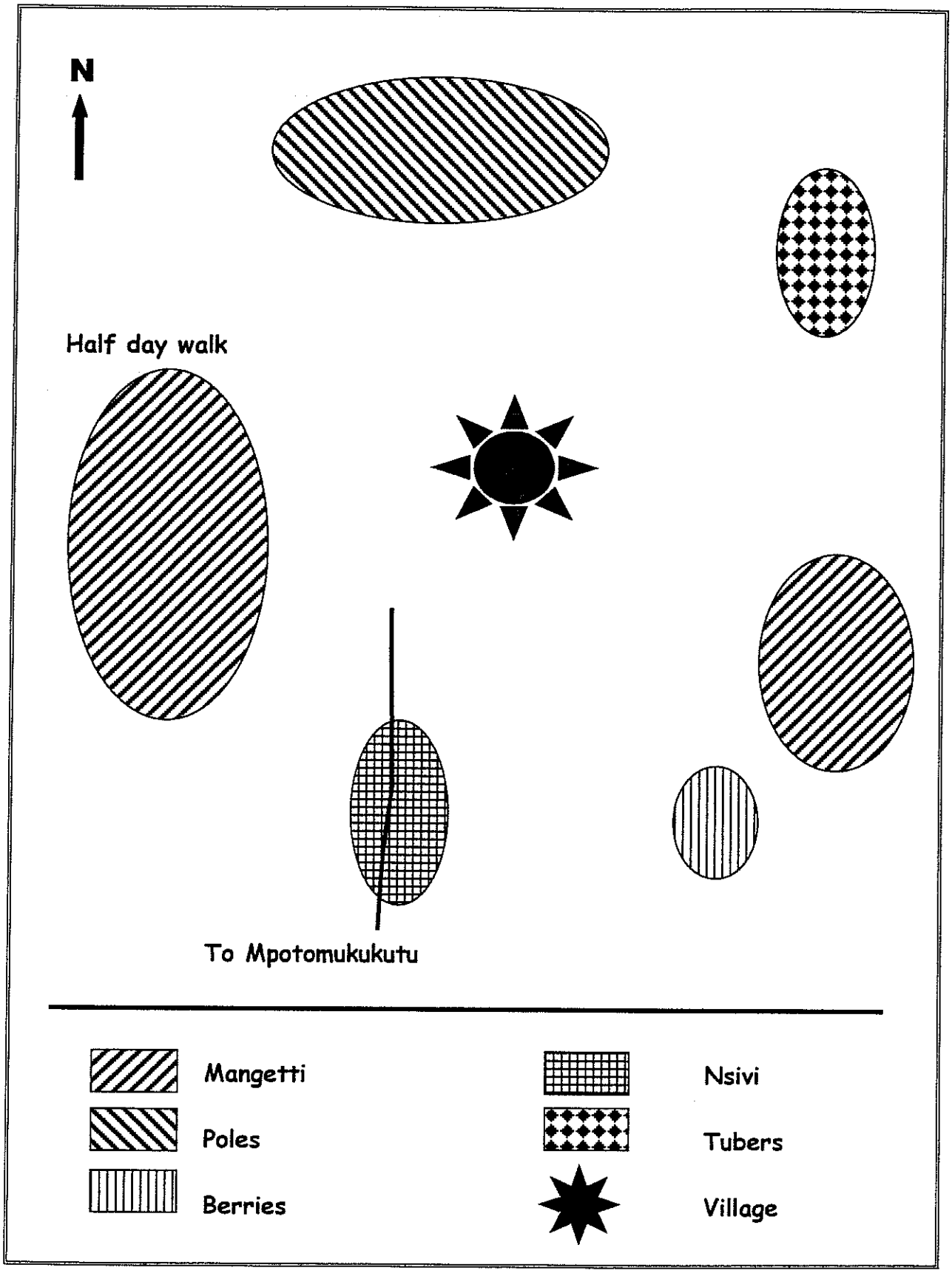
VILLAGE SUMMARY TABLE

VILLAGE	SCHOOL	CLINIC	BOREHOLE	SAN HOUSEHOLD	VAKWANGALI HOUSEHOLD	SAN and VAKWANGALI HOUSEHOLD	MANGETTI RESOURCE (FAR / NEAR)	SHOPS
1. KAGUNI	X		X	0	14	0	NEAR	2
2. WIWI	X		X	6	8	0	FAR	1
3. NSIVI	X		X	1	13	4	NEAR	1
4. LIHAHA				3	1	1	NEAR	
5. CANCHANA	X		X X	6	69	1	FAR	2
6. NYONGA				2	0	4	NEAR	
7. RUNDA	X		X				NEAR	5
8. MUKEKETE	X						NEAR	1
9. MPOTOMUKUKTU			X				FAR	1
10. TARE			HP	1	9		FAR	
11. NANDINGWA		X	X				FAR	10
12. DESI							NEAR	
13. TJARA	X		X				FAR	
14. MBAMBAMUSI	X		X				NEAR	

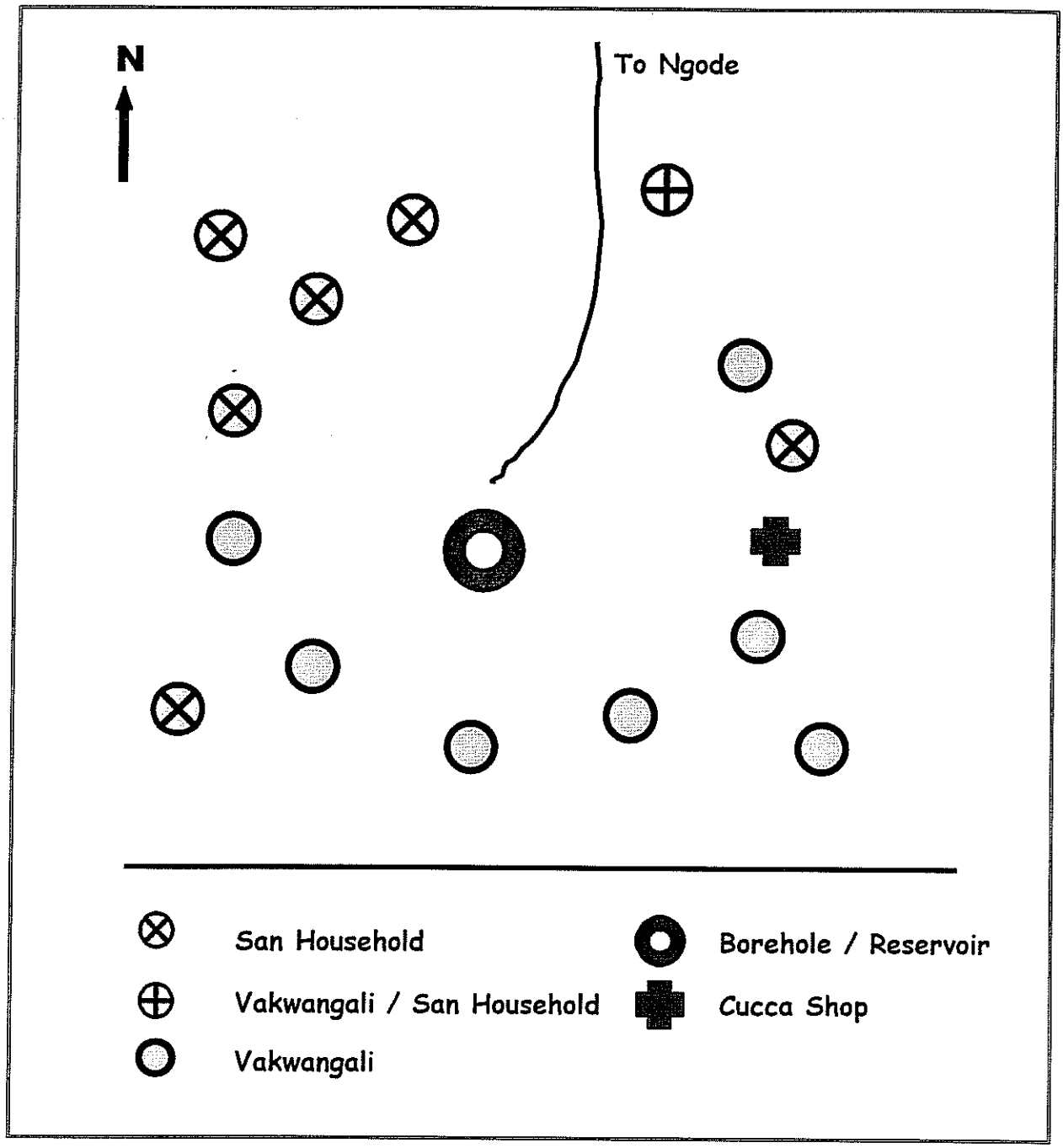
NYONGA VILLAGE MAP



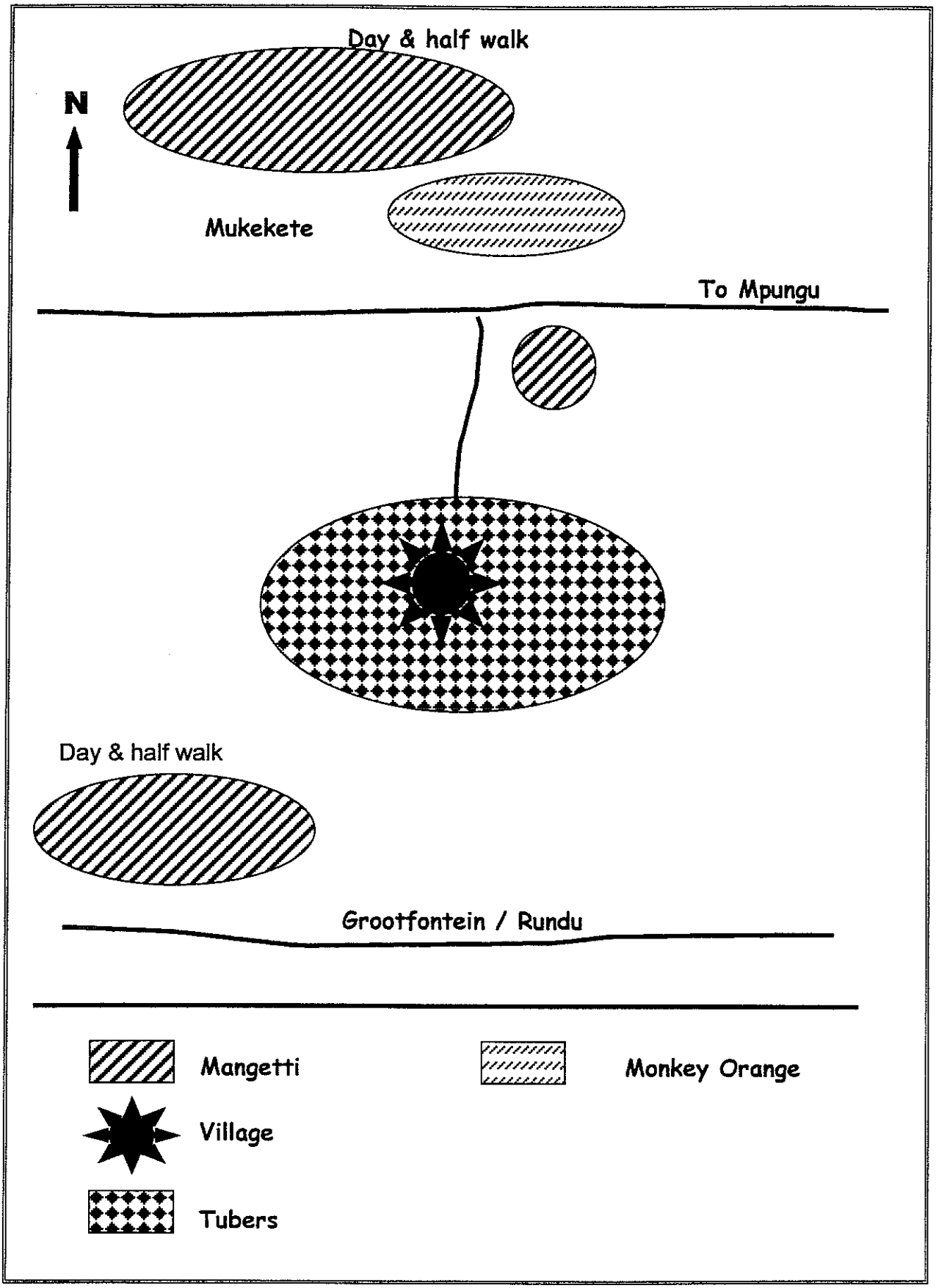
NYONGA RESOURCE MAP



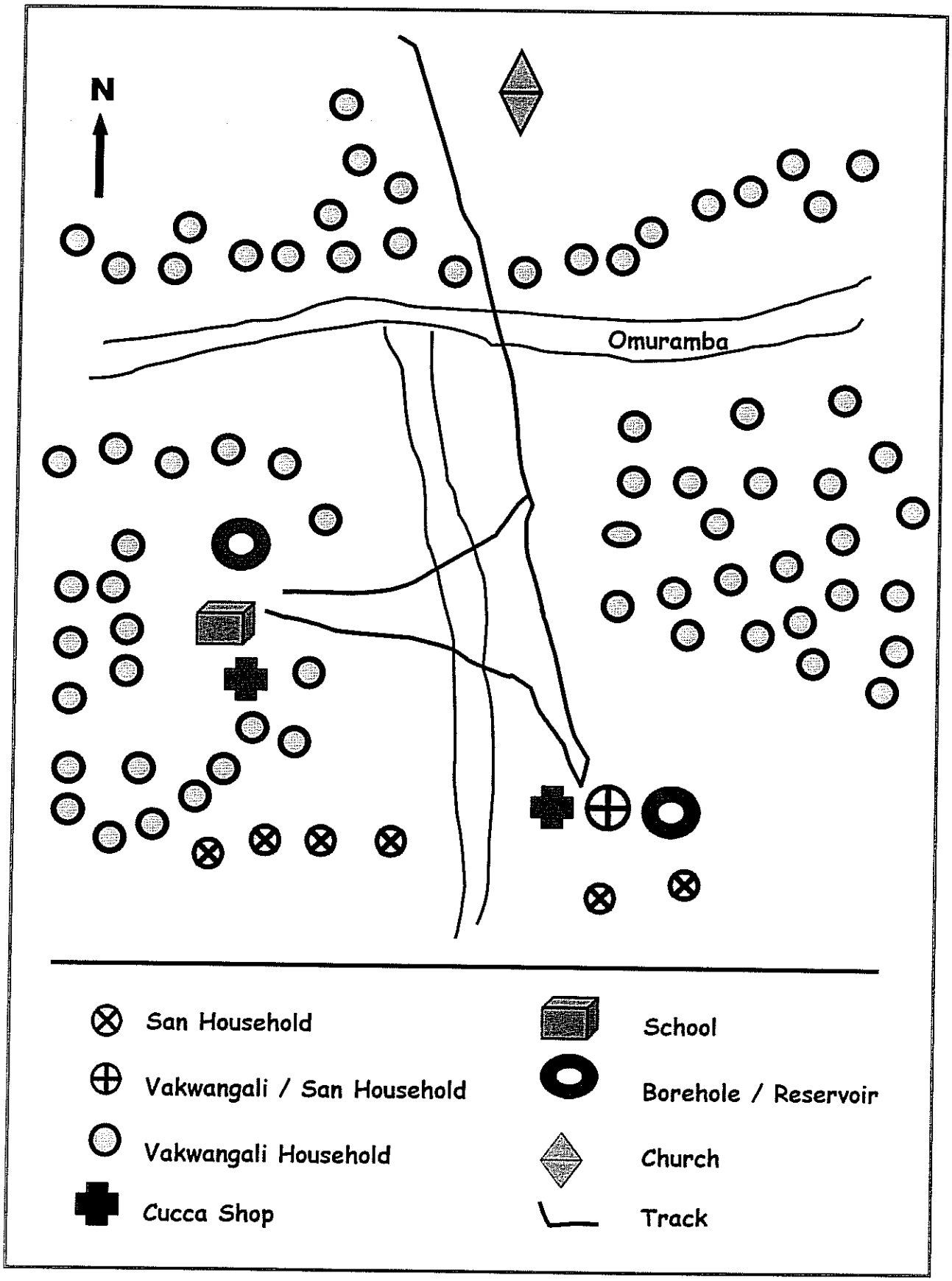
WIWI VILLAGE MAP



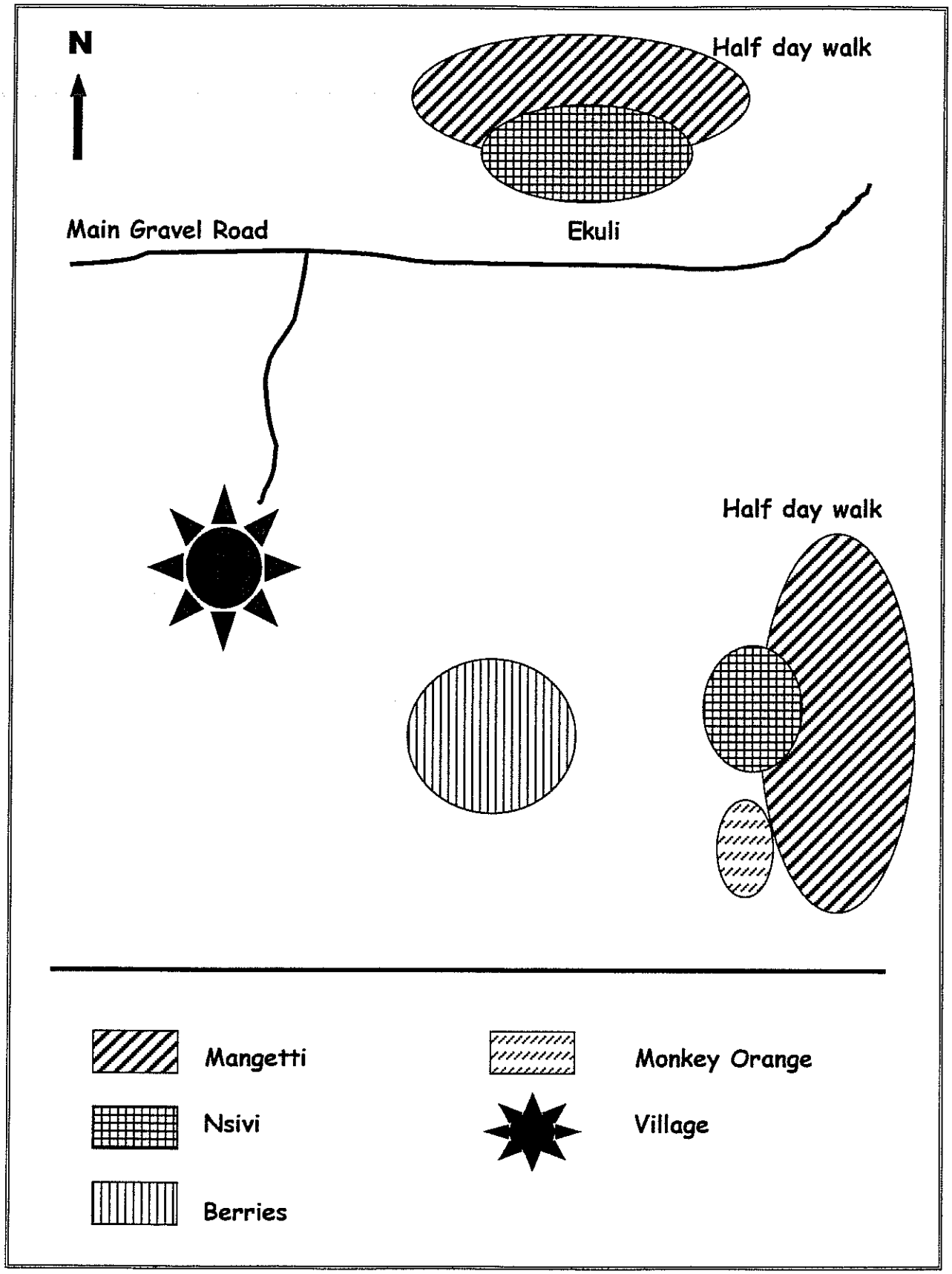
WIWI RESOURCE MAP



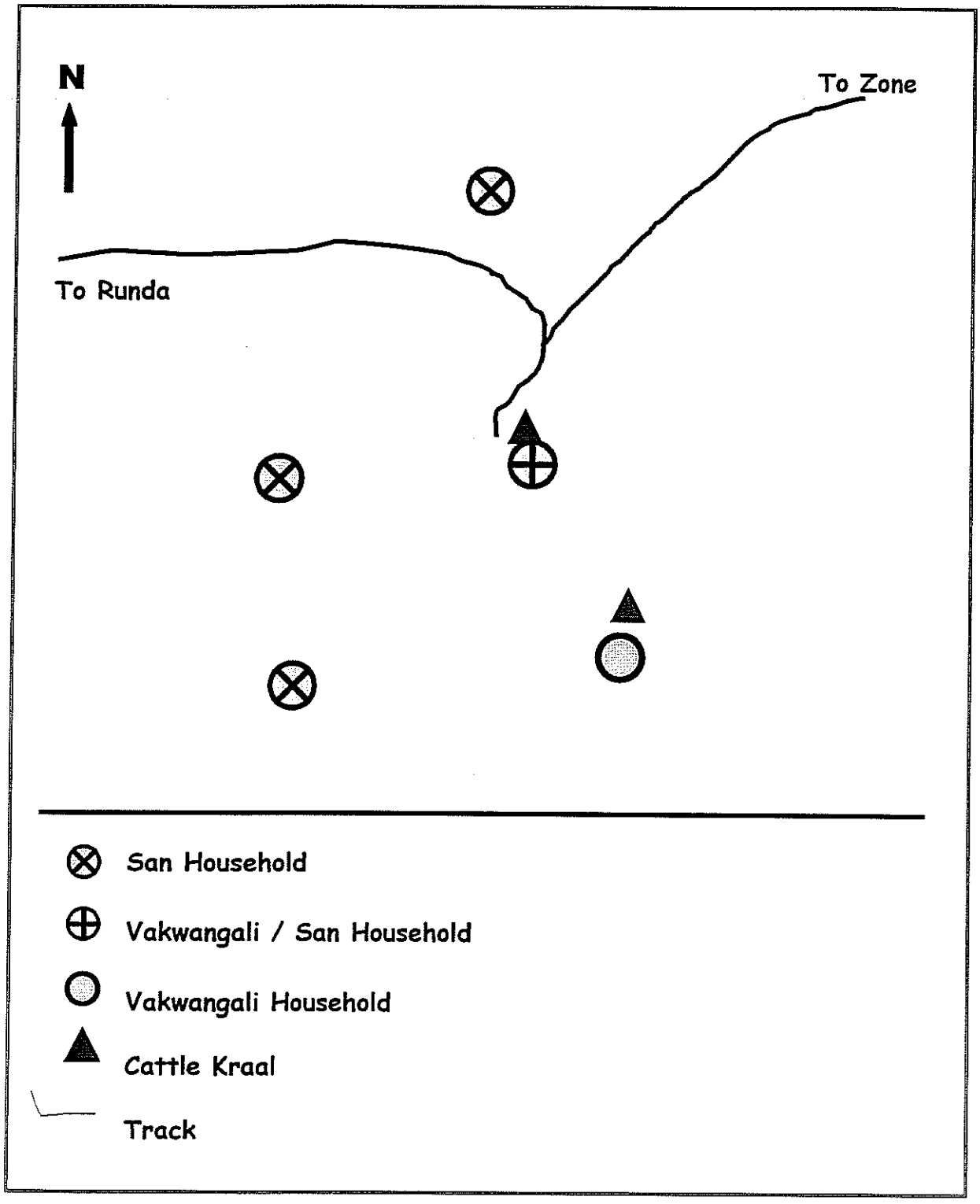
CANCHANA VILLAGE MAP



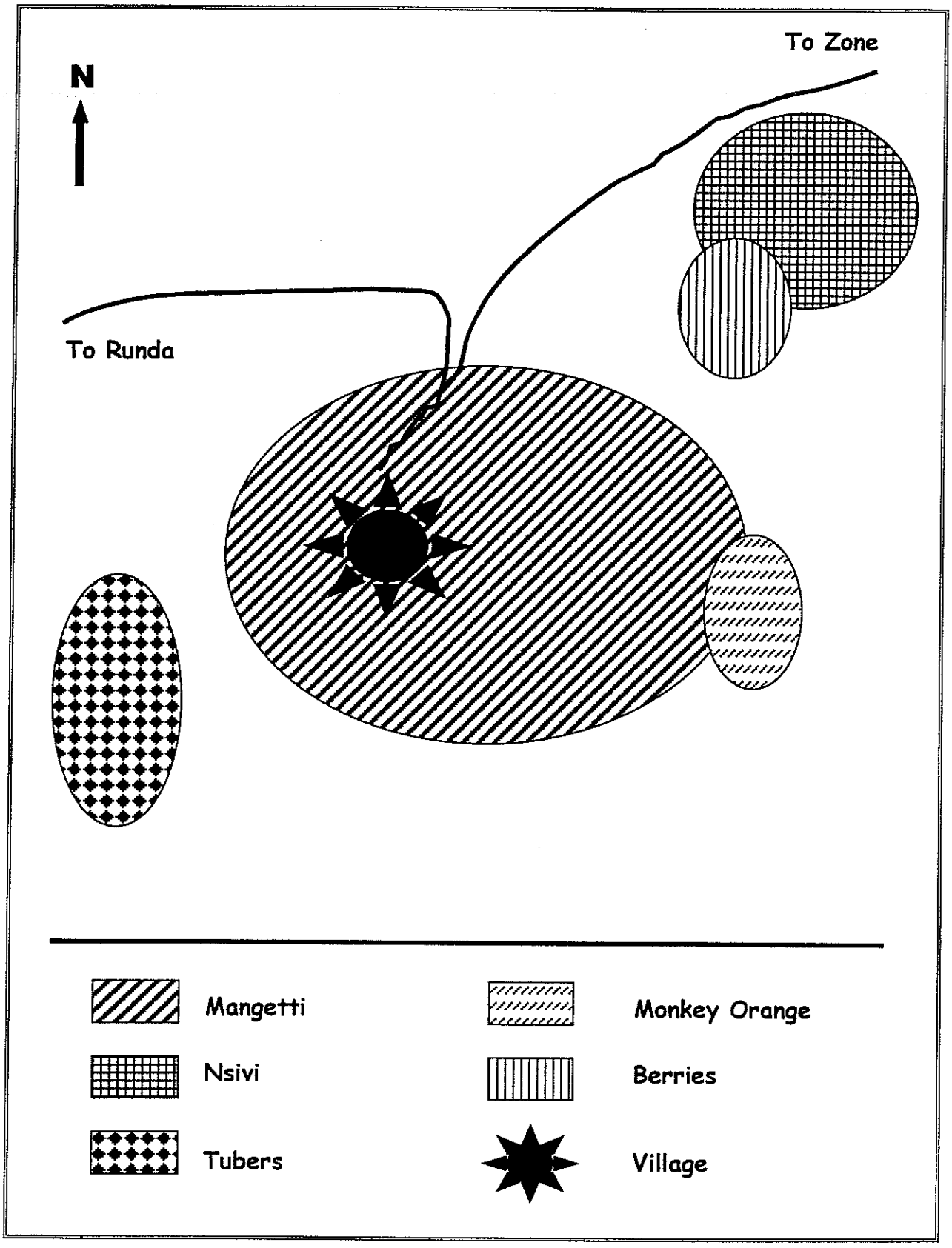
CANCHANA RESOURCE MAP



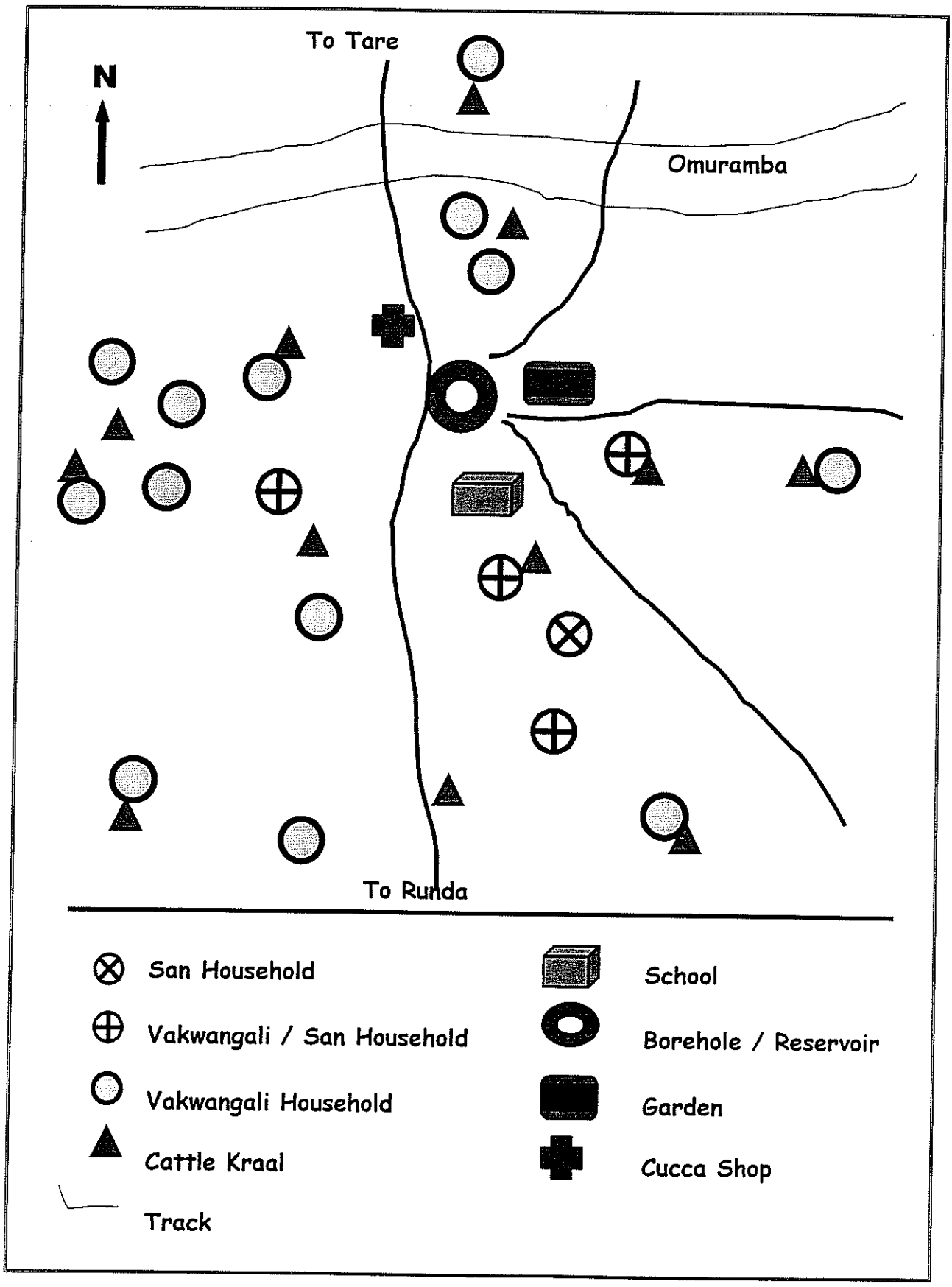
LIHAHA VILLAGE MAP



LIHAHA RESOURCE MAP

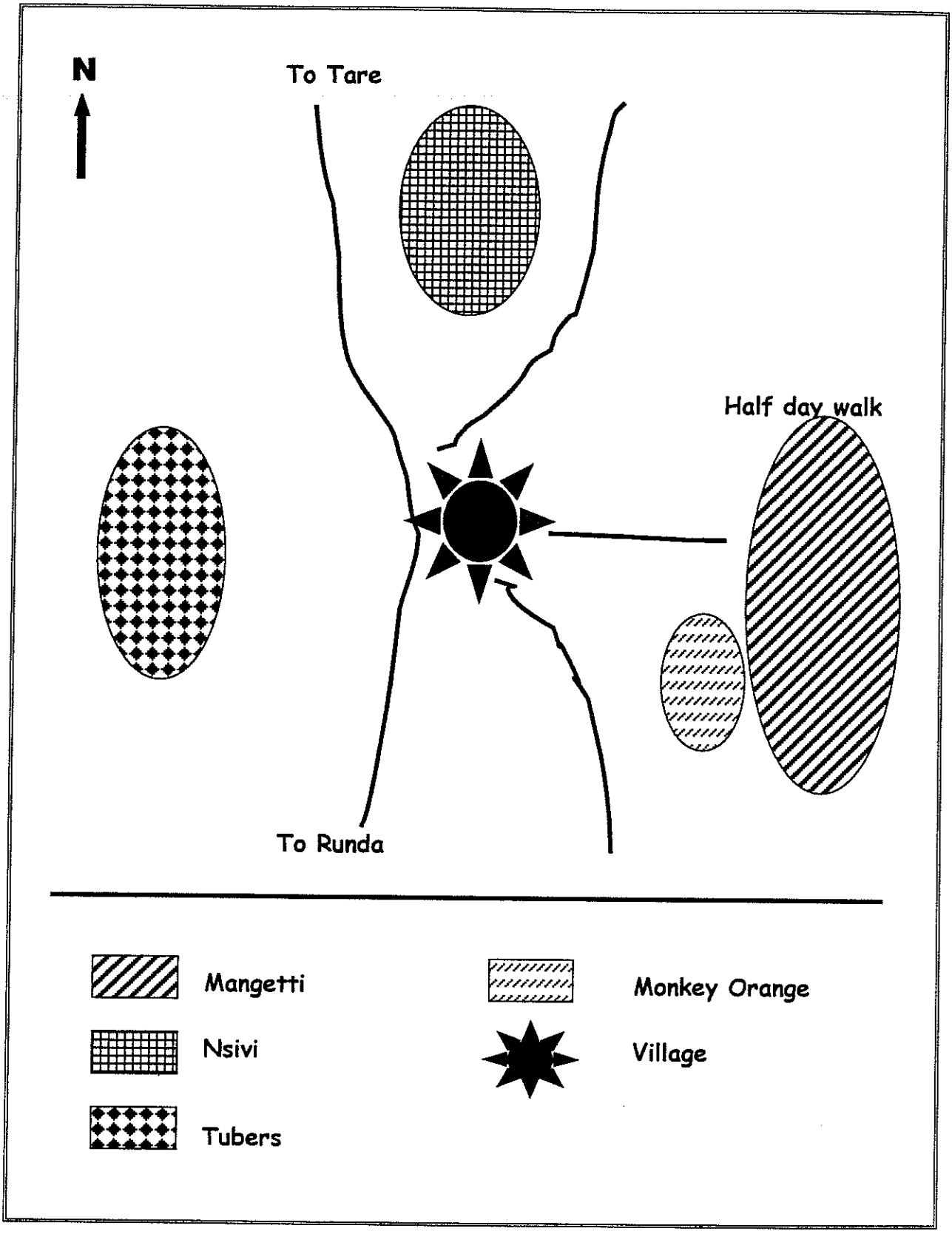


NSIVI VILLAGE MAP



APPENDIX 10

NSIVI RESOURCE MAP



SAN POPULATION IN KAVANGO REGION – NAMIBIA

(National drought relief census 20th April 1998)

VILLAGE	PREGNANT WOMEN	LACTATING WOMEN	CHILDREN 0 – 5 yrs	CHILDREN 6 – 15 yrs	ELDERS	HANDICA-PPED	OTHERS 16 – 60 yrs	TOTAL
NDIYONA	8	33	91	67	16	3	112	*330*
MASHARE	11	30	62	79	51	6	66	*305*
KAPAKO	61	126	327	309	337	83	0	*1243*
KAHENGE	46	118	289	396	166	19	400	*1434*
RUNDU	24	43	104	117	82	17	127	*514*
MPUNGU	87	66	117	297	86	4	293	*950*
TOTAL	*237*	*416*	*990*	*1265*	*738*	*132*	*998*	*4776*

Source : Kavango Regional Council in Felton. S. 1998.

FIELD TRIP ITINERARY
(June / July / August / September 1998)

☯ 1ST FIELD TRIP

24TH June 1998 -	Depart Windhoek for Mashere
25TH June 1998 -	Depart for Kwangali District
	Meeting with Kwangali Hompa (Mpasi Sitendu)
	Visit Kaguni village
	Overnight Katope village
26TH June 1998 -	Mukekete village
	Meeting with Headman (Festus Haikali)
	Meeting with Mukekete School principal
	Meeting at Mpotomukukutu
	Overnight Mukekete
27TH June 1998 -	Community meeting Mukekete School
	Arrange meeting for 28th at Wiwi village
	Overnight Mukekete village
28TH June 1998 -	Community meeting Wiwi village
	Depart for Mashere
	Overnight Mashere
29TH June 1998 -	Depart for Kaguni (Translator)
	Nyonga village
	Overnight Nyonga village
30TH June 1998 -	Community meeting Nyonga village
	Depart for Tare village (Angolan border)
	Arrange meetings at Nsivi and Runda villages
	Overnight Nsivi village
1ST July 1998 -	Community meeting Nsivi village (Cancelled)
	Community meeting Runda village
	Depart for Mashere
2ND July 1998 -	Depart for Windhoek
3RD July 1998 -	Write up preliminary report
5TH July 1998 -	Write up preliminary report

☯ 2ND FIELD TRIP

16th August -	Travel with Doreen Buschel to Mashere.
	Brief meeting with Barbara Adolf (KFSRE).
17th August -	Travel to focus area.
	Kaguni village to collect translator.
	Set up Community meetings –Canchana, Tjara, Desi
	Visit Mbambamusi.
18th August -	Community Meeting – Canchana.
	Tjara (Cancelled)
	Desi and Mbambamusi (Cancelled)
	Meet with the Hompa's at his farm.
19th August -	Set up Community meeting - Nandingwa
	Travel to Nkurenkuru. (Fuel)
	Visit Regional Councillor John Hambyuka. (Mpungu Constituency) – Not available

	Travel to Mpungu to meet Cyril Lombard.
20th August -	Community Meeting – Nandingwa
	Regional Councillor (not available)
	Project Planning – Mpungu
21st August -	Project Planning – Kaguni
22nd August -	Travel to Mashere.
	Brief meeting with Barbara Adolf. (KFSRE)
23rd August -	Travel to Windhoek.
	Meet with Shebby Mate. (NNDFN – Grootfontein).
24th August -	Write up field report.

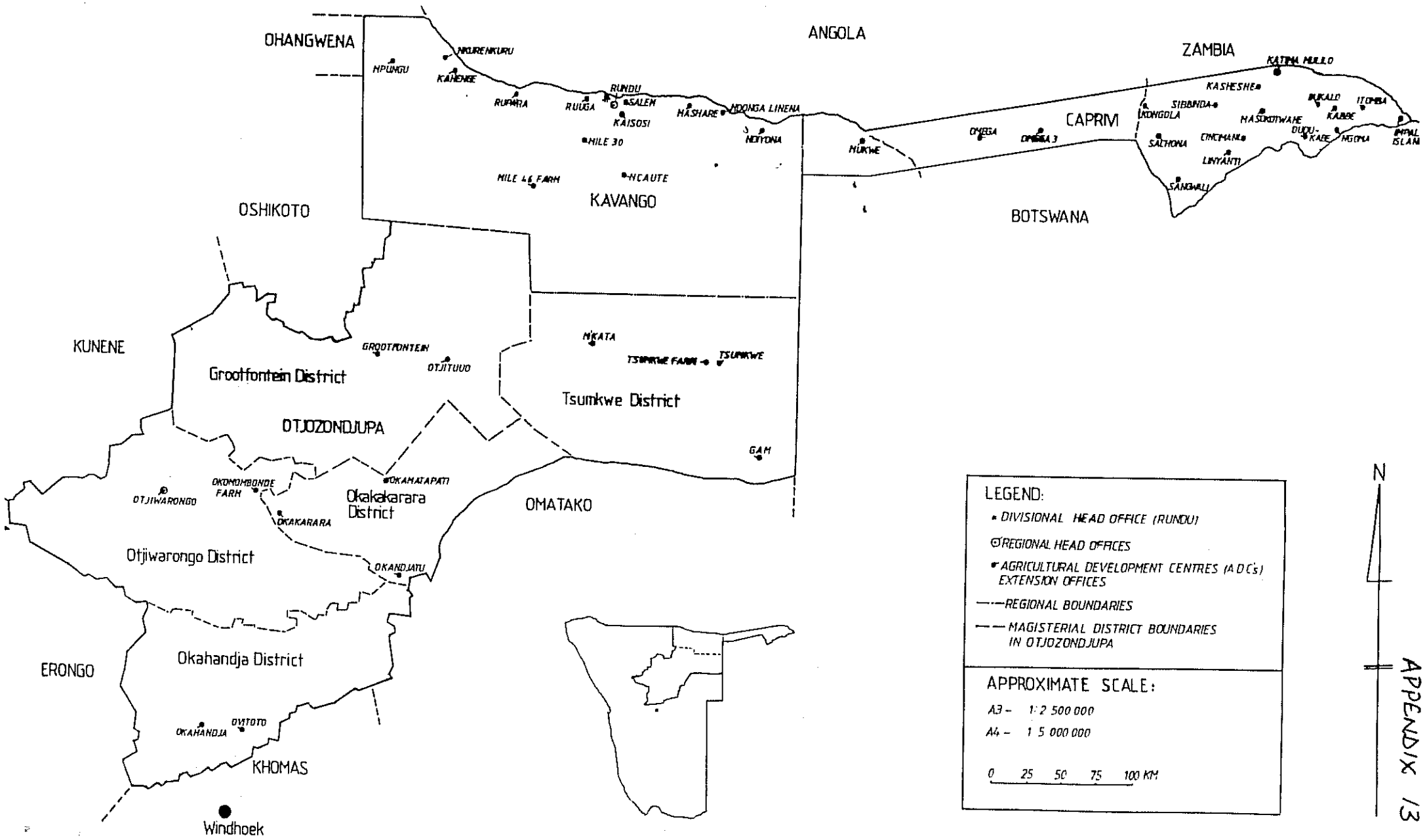
Unfortunately on both occasions the Regional Councillor of Mpungu Constituency was visited he was unavailable. The project team will visit him during September. In addition there are still a number of people in government and private or NGO that need to be consulted.

☯ 3RD FIELD TRIP

2nd September -	Depart Windhoek for Mashare
3rd September -	Depart for Focus area (Kaguni village)
4th September -	Planning (Kaguni village)
5th September -	Community meeting (Kaguni village)
	Travel to Canchana to inform them of meeting.
6th September -	Travel to Mukekete village
7th September -	Travel to Wiwi village
8th September -	Community meeting (Wiwi village)
	Neil Powell joins team
9th September -	Planning meeting
10th September -	Travel to Nyonga village
11th September -	Community meeting (Nyonga village)
12th September -	Community meeting (Nsivi village)
	Meet Headman of Runda village
13th September -	Community meeting (Lihaha village)
	Depart for Nandingwa village
14th September -	Meet Senior Headman Mpungu constituency (Mr. R. Mbambero)
	Travel to Canchana village
15th September -	Community meeting (Canchana village)
	Meet Regional Councilor Mpungu constituency (Mr. J. Hambjuka)
	Depart for Rundu
16th September -	Set up meetings in Rundu with Government Institutions
	10h00 – Rural Water Supply (Mr. K. Kaheka)
17th September -	09h00 – Regional Governor (Mr. R. Muremi)
	11h30 – Veterinarian Services (Mr. A. Toto)
	14h30 – Min of Environment (Mr. G. Masilo)
18th September -	09h00 - Extension services MAWRD (Mr. P. Horn)
	11h00 – Directorate of Forestry (Ms. D. Nheta)
19th September -	Return to Windhoek

MINISTRY OF AGRICULTURE, WATER + RURAL DEVELOPMENT
DIVISION AGRICULTURAL DEVELOPMENT + EXTENSION

NORTH EASTERN DIVISION



LEGEND:

- * DIVISIONAL HEAD OFFICE (RUNDU)
- ⊙ REGIONAL HEAD OFFICES
- • AGRICULTURAL DEVELOPMENT CENTRES (ADC's) EXTENSION OFFICES
- —·— REGIONAL BOUNDARIES
- — — MAGISTERIAL DISTRICT BOUNDARIES IN OTJOZONDJUPA

APPROXIMATE SCALE:

A3 – 1: 2 500 000

A4 – 1 5 000 000

0 25 50 75 100 KM

N

APPENDIX 13

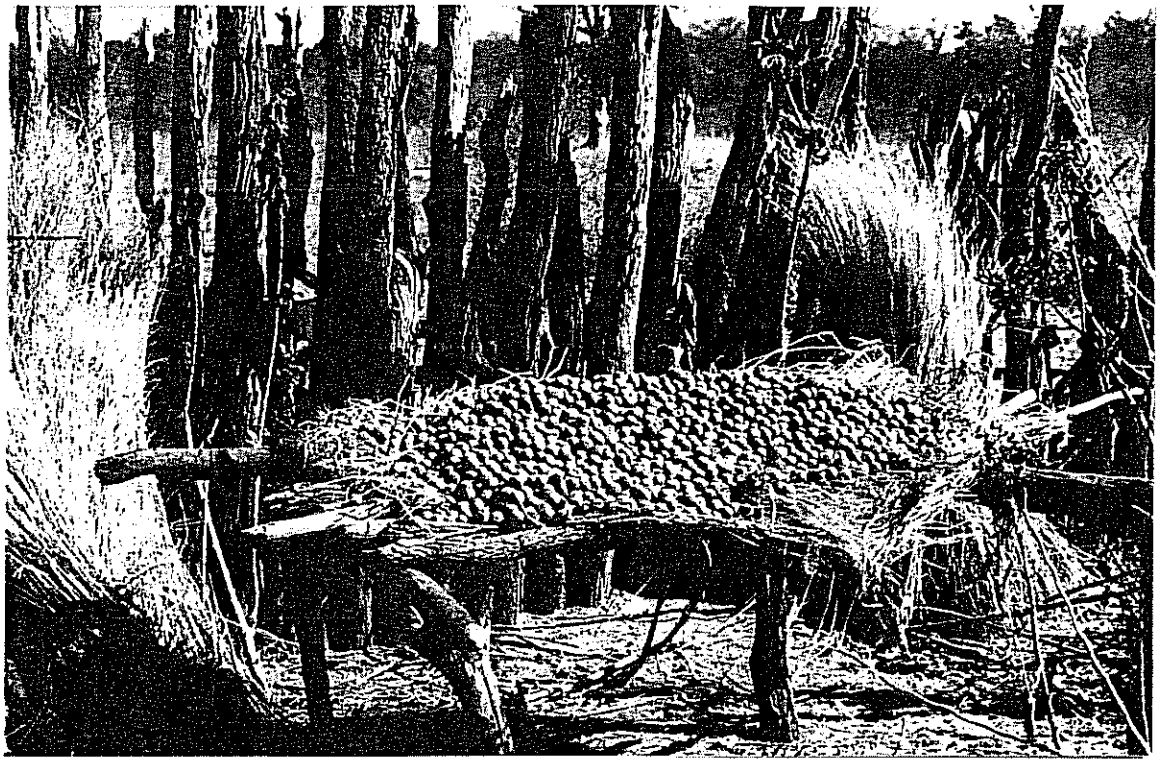
SELECTED PHOTOGRAPHS FROM STUDY FOCUS AREA

Kwangali District - Kavango Region - Namibia

(All photographs by Dave Cole, 1998)

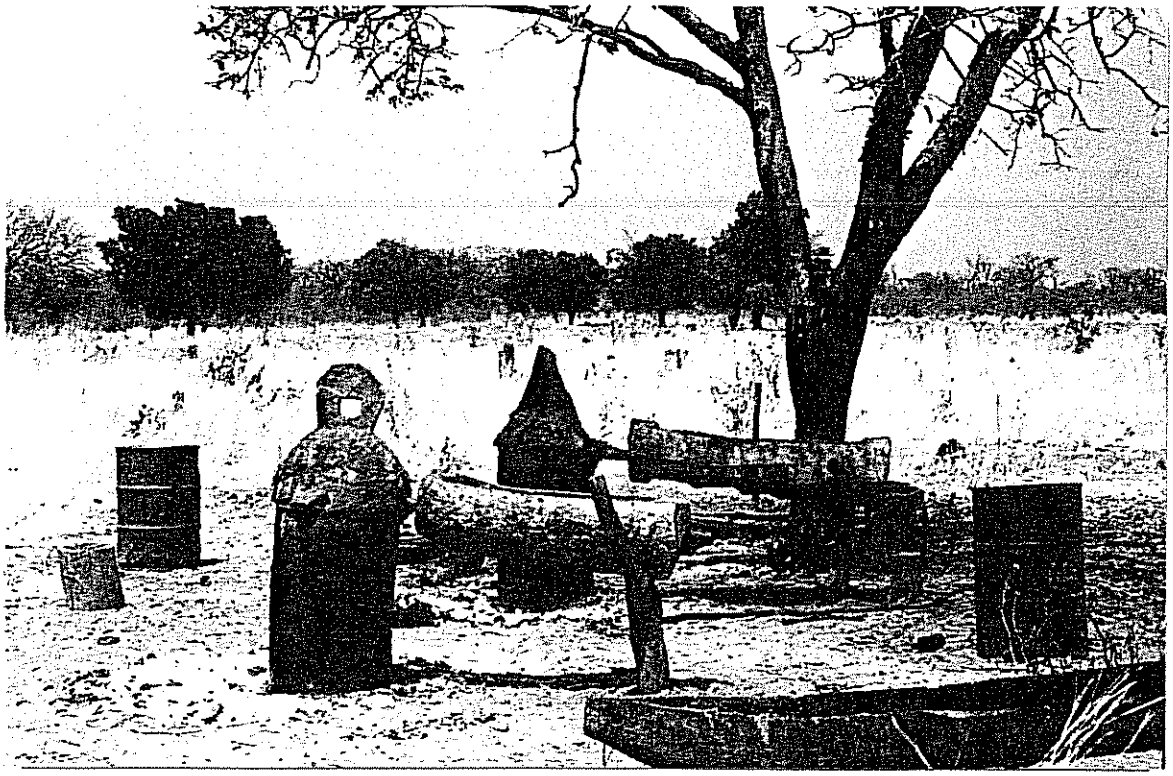
Community Mapping Exercise - Wiwi Village

Mangetti Tree (Ricinidendron rautanenii) - Near Kaguni Village



Storage of Mangetti Nuts - Mukekete Village

Separating Nuts from Mangetti Flesh for Kasipembe - Lihaha Village



Kasipembe Distillery – Nsivi Village

San Threshing Mahangu – Nyonga Village