

A socio-economics baseline study Of Onkani village.

Final year in-service training project report in community development studies.

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PREFACE

During my in-service training I was working with Desert Research Foundation of Namibia (DRFN). I was seconded to work with Namibia's Programme to Combat Desertification (NAPCOD). My research project is based on work that I did in support of NAPCOD based at Onkani village. Napcod is operational in Uuvudhiya constituency working at the former pilot sites of the Sustainable Animal and Rangeland Development Programme (SARDEP) of the Ministry of Agriculture, Water and Rural Development (MAWRD) at Onkani village. I stayed at the village for several weeks to work together with Otty Amaambo, NAPCOD's local facilitator. Together we conducted the socio-economic survey in relation to natural resource management that forms the basis of my research project.

In my initial project proposal I defined a full range of research objectives. However, the short period of time available, including the need to accomplish many other activities related to the in-service training did not allow me to address all of the suggested objectives in my own research.

The initial proposal for this study encompassed three objectives.

Objective 1 was to establish a participatory community based monitoring system as a basis for natural resource management.

Objective 2 was to collect baseline information of the biophysical aspects.

Objective 3 was to collect baseline data of the socio-economic aspects relating to natural resource management in the area.

I could only accomplish the research in support of objective 3. Therefore this report is only tackling this objective.

1. INTRODUCTION

Community development plays an important role in all societies in the world. Namibia has embarked upon community development programmes in various regions in the country in order to empower its people. Creating knowledge and understanding of their resources, especially the natural resources base, and the sustainable management thereof, are an important part of rural development. There is an expression that says "Unity builds and division breaks" therefore to get somewhere various groups, institutions and especially the individual people and community members have to be involved for community development to take place. These involve the councillors, the traditional leaders, Government institutions, NGO's, the private sector and the community to mention just a few.

In the following report an attempt is made to provide an overview of the socio-economic aspects of Onkani village in Uuvudhiya constituency. Major gaps exist in our knowledge of the way in which rural households currently organise themselves and of the varied strategies they have adopted for survival and livelihood management. Therefore information is needed for better understanding of our environment and social life to enable the people and our future generation to come up with wise decisions on both ecologically and socio-economically viable options for development. One important aspect is to enable communities to utilize natural resources and benefit from them through good management and conservation.

1.1 Description and general background of NAPCOD

NAPCOD is a programme of the Ministry of Environment and Tourism (MET) and the Ministry of Agriculture, Water and Rural Development (MAWRD) largely implemented by the consortium of the Desert Research Foundation (DRFN) and Namibian Economic Policy Research Unit (NEPRU).

The overall objective of NAPCOD is to combat desertification by promoting the sustainable use of natural resources for the benefit of all Namibians both present and future.

Napcod is currently in its third programme phase. Phase I of Napcod started in 1994, after the United Nations Conference on Environment and Development took place in Rio de Janeiro in 1992 and the Inter-governmental Negotiation Committee drafted the UN Convention to Combat Desertification (UNCCD). The first phase of NAPCOD focused on awareness raising and information gathering regarding desertification and land degradation in Namibia and it culminated in a national planning workshop. This workshop gave life to the second phase of NAPCOD. Phase II consisted of planning, a research and community-action agenda, and also investigated policy constraints and opportunities in terms of combating desertification. Phase II came to an end in 1998. Phase III commenced in February 2000 and will continue for the next four years.

NAPCOD is a national programme that is seeking for public and private sector commitment. In its initial phases the programme was mainly funded by the German Government through its Agency for Technical Cooperation (GTZ). However, as the combatting of desertification and land degradation is a national concern other donors, national as well as international are becoming more involved in the issue.

NAPCOD has adopted the following principles:

- Sustainability** - for long term sustainability, the programme must be linked to existing structures and the realities of Namibia's variable climate.
- Participation** - real interactive participation must be fostered where people themselves are setting the agenda and are involved from the planning to the implementation stages of programmes and projects.
- Capacity building** - for all levels, from community to professionals, for full empowerment.
- Stakeholder involvement** - all stakeholders at all levels must be involved and participating.
- Tangible benefits** - there must be short term, tangible outcomes for participants as well as long term sustainability.
- Diversification** - from natural resource use only to alternative incomes and livelihoods.

The following are objectives of NAPCOD phase III implemented by DRFN and NEPRU (from the NAPCOD brochure).

- Objective 1: Monitoring system to track and help understand key desertification indices are established and functional.
- Objective 2: The capacity of selected community-based organisations (CBOs) to plan and sustainably manage their natural resource base, and promote diversified livelihoods, is strengthened.
- Objective 3: The capacity of service organisations is strengthened.

1.2. Project and personal objectives

Project objectives

- (1) To determine the level to which the Onkani community depends on agriculture and other for their livelihoods looking at sources of income and expenditure.



- (2) To get an overview of the household and population structure in Onkani as one representative village in Uuvudhiya constituency.
- (3) To develop a baseline of the current living standard and livelihoods of the people at Onkani to be able to monitor whether their situation it is being improved or worsening as the years progress.

Some key questions:

- How many households exist in Onkani village?
- What is the history of the village?
- How are the individual histories of the people at Onkani?
- What is the demographic structure of the average household at Onkani?
- What are the main incomes and expenditures in a rural household?
- What are the livestock ownership structures in the village?
- What other natural resources are being used by the people?

Personal objectives

- To obtain computer skills and knowledge of how to use various computer programmes and administration skills through learning to use office equipment.
- To obtain a more detailed knowledge on how to identify plants in the veld and also in the herbarium
- To experience life in the villages and get more knowledge of how to get along with the community.
- Teamwork, team building, mentally interacting with other DRFN staff and their activities and improve micro-management skills, facilitation skills and presentation skills.

1.3 The study area

Onkani is situated in northern part of Namibia, in Uuvudhiya constituency¹, Oshana region. Uuvudhiya constituency is covering an area of almost 6000km². The southern part of the constituency falls within the boundary of the Etosha National Park, and can therefore not be utilised by the community. The rainfall pattern increases from 350-400mm in the south-west to 450-500mm in the north east (Barnard, 1998).

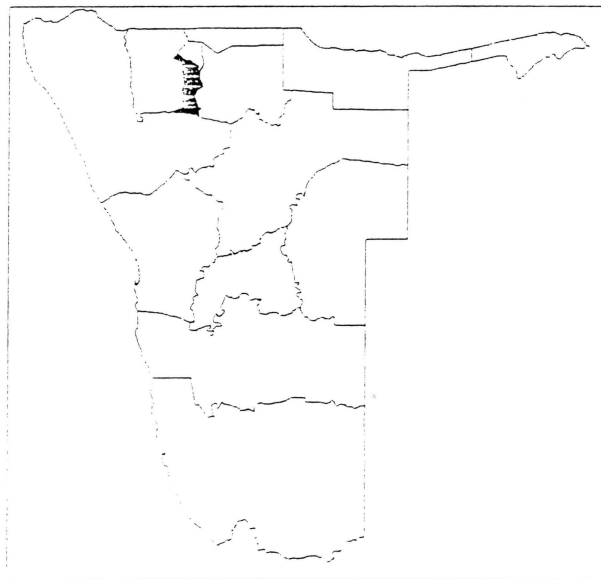
There are no perennial rivers in the area but a number of water courses called oshanas, transverse the centre of the region. The most important of these is the seasonal Cuvelai river which originates in Angola and drains southwards across the central plain area

¹ Recently Onkani was moved back into Okahao constituency, Omusati region. Traditionally Onkani falls into the boundaries of Okahao. However, people have a strong feeling that they want to remain associated with Uuvudhiya constituency. (Councillors Kupenta Ombili Essau, Okahao & Hamutenyz Ndahafa, Uuvudhiya).

towards the Etosha pan. The Cuvelai catchment area, which is rich in alluvial soil, is the area of greatest agricultural potential, it is also for this reason the most densely populated area in Namibia (Mendelsohn *et al.*, 2000).

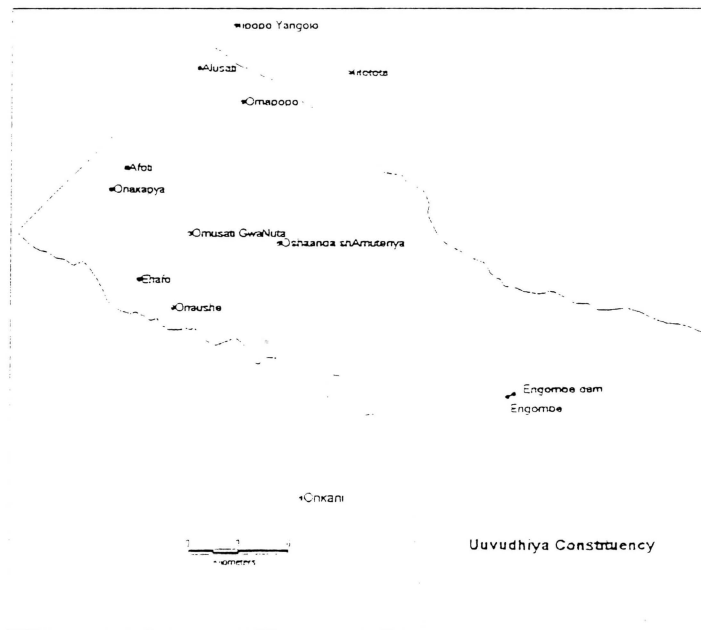
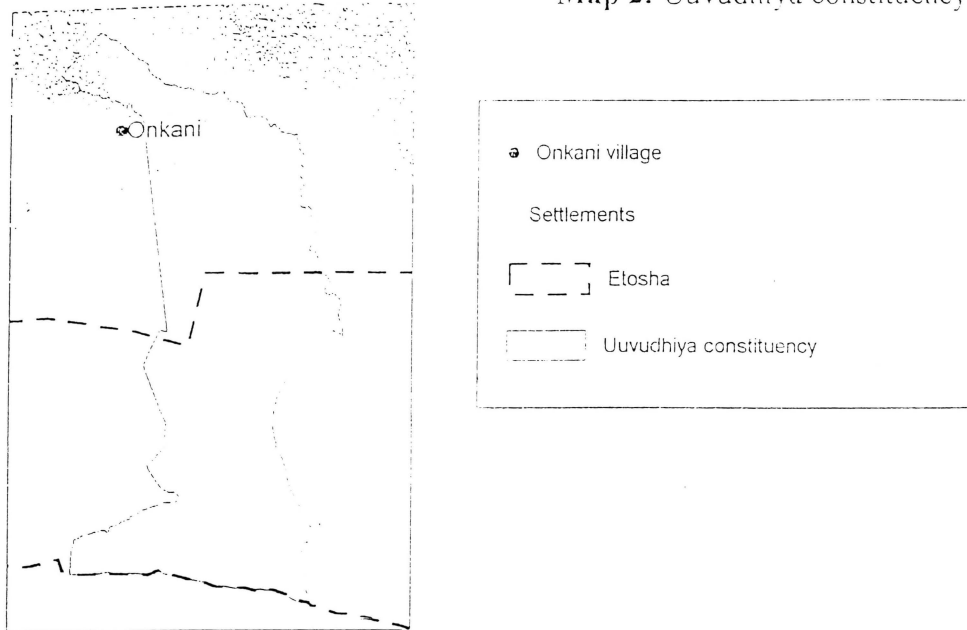
Onkani is situated in the Oshana region, which has the highest population density of 26 persons per km² in the country followed by Ohangwena with 17.7 person per km² and Omusati with 15.1 persons per km² (Tshikesho, 1996.) Onkani is situated about 100 km from the second largest city of Namibia, which is Oshakati.

The area is extremely flat, without a single hill or mountain, characterised by degraded wooded savannah dominated by *Colophospermum mopane*. The vegetation type is mopane shrubland (Giess, 1971). Onkani is bordered by 8 villages, Oluthalwegolo, Eengombe, Omapopo, Oshaanda shamutenya, Omapale, Efoetalala and Uuvudhiya. The global position system reading of Onkani is S17°56'01", E 15° 16' 49" to S19°19' 55", E16°01' 38".



Map 1: Oshana region in northern Namibia

Map 2: Uuvudhiya constituency



Map 3: Villages in Uuvudhiya constituency bordering Onkani village

All maps courtesy of Patrik Klintonberg, Napcod 2000

2. METHODS

To carry out my project I applied a number of different methods. These are presented in the following and include methods for the preparation of the field visit, data collection and data analysis.

2.1 Internal meeting for preparation of questionnaire

A consultative brainstorming meeting with NAPCOD staff was held to consolidate inputs into the design of a questionnaire to be used for the survey. The following socio-economic aspects were identified as focus areas:

- (1) Individual history
- (2) Household composition
- (3) Income and Expenditure
- (4) Livestock dynamics
- (5) Resource use

2.2 Socio-economic survey

Information was gathered through a questionnaire designed by the author in collaboration with NAPCOD staff and experts at DRFN (see a sample in the Appendix).

Interviews were conveyed in eight villages situated in Uuvudhiya constituency (see Map 3). However only the data collected at Onkani village are being integrated in this study. The total number of households surveyed in Onkani were fifteen (15) while the total villages surveyed sum up to forty six (46).

Fifteen households represent approximately 27% of the overall households at Onkani. This can be considered a good sample size for a survey of this nature to be representative of the village.

Households to be included in the survey were selected at random, however a balance between male and female headed households according to their percentage representation was attempted. Other stratifying aspects were thought about (level of education, status etc.), however were not considered in a quantitative manner.

In each selected household the head of household was interviewed. Appointments were made beforehand and scheduled for a time that best suited the interviewee. The minimum time spent at each households interview is 40 minutes, while the maximum was 7 hour and 30 minutes.

increasing number of cuca shops where one can buy basic goods and entertain oneself. Recently local taxi businesses were established improving the infrastructure and offering reliable transportation to and from Oshakati. The Ministry of Agriculture, Water and Rural Development (MAWRD) has a local extension office at Onkani and an officer is based here on a permanent basis. There also is a school at Onkani.

History of individuals

A few members of the Onkani community provided brief description of their individual histories. Following are some of their responses.

Shivolo Ephraim Ashipala (headman)

He came to Onkani in 1971 to establish a cattle post. He built his house in 1977, coming from Oniimwandi. He became the headman of the village in 1995 replacing the late headman. He was appointed to be the headman as he was seen by his district officers as having the potential to lead the Onkani community. He is married to three wives and he has sixteen children.

There was very few households at the time when he initially came to Onkani. Most places were cattle posts. Changes observed when he shifted from Oniimwandi to Onkani were that here his cattle never dies of hunger anymore but of diseases. Diseases are *Onyango* and *Oshinambunda* (Oshiwambo names only, English names not found). The problems they do experience are wild fire and cattle theft. Farming is now getting difficult due to modernisation.

Iitembu Matheus

He came to Onkani in 1990. He is now 79 years, married with six children. Initially Iitembu did not want to settle in Onkani but rather at Onkaankaa village. However he was not allowed to settle there, so Onkani was the only choice. He found lots of houses at Onkani, to mention a few there were the household of E. Ashipala, Kalukula, Makili, Kaliwandjo, Shilongo, Mathews and more. The changes he noticed during the time period he has been in Onkani include are that there was no water initially, only dug wells. Water from the wells was salty during the dry seasons. Now there is tap water. The grazing is now good due to the good rainfall received this year.

Samuel Rut

He came to Onkani on 6 August 1971 to establish a household. There was plenty of good grazing for his livestock in this area. He is now 64 years and is married with nine children. When he came he found many cattle posts. He can remember one, which belonged to Michael Kayone. At the time when he settled in the area there was a lot of wildlife compared to finding none these days. They used to live together with late Nekwaya and late Iitembu because they were afraid of elephants. Before they came there use to be Himba people staying at Onkani even though he did not find them here. Now there is lot more people and space for grazing is limited. This is causing farming to be difficult, especially as there are lots of livestock floating in from other areas.

Matheus Ruben

He came to Onkani in 1979 to form a new household from Otshuungu. He came because there were plenty of natural resources in the area. He is now 62 years and he is married with ten children. He is a temporary resident because he works at Windhoek. When he came here he found about five houses including the ones of E. Ashipala, R. Paulus and the headman that time Nekwaya Nakaande. The rest were cattle posts. Changes observed are that at first there was a thick forest in Onkani area but now not anymore. Wildlife like elephants was very common. The village was established around 1966 by Nekwaya Lazarus Nakaande. Difficulties in farming are caused by fire, which is caused by nobody and more and more people coming into the area with livestock.

Iindongo Silas

Mr. Iindongo came to Onkani in 1991 for better grazing for his livestock since they were dying at the place where he was residing first. He remembered only three houses, which he found the time he came here. The household names were for Ambrosius Shivute, Ruben Paulus and Nekwaya Nakaande. He is married with five children. Changes observed are that there used to be a thick forest and now it is like they are living in the desert. Difficulties they experience are that the tap water that they now have is most of the time not running and wells they used to survive from are not being taken care off. Farming is now getting difficult because space for livestock on the pasture is very limited.

Shiimi Rebecca

She is a widow who was married to the first person to settle in Onkani, late Nekwaya Nakaande and she is now crowning sixtyfive. Her husband died in 1994 after staying there as from 1968 when they shifted from Ontanga. She is left with her seven children. There was a thick forest with lots of wildlife like elephants, ostriches and many more wild animals. The village got established the year they came here.

Iiyambo Renigius

She came to Onkani in 1970 with her livestock, looking for grazing. She is now seventy years, a single parent with four children. She remembered wildlife in the area and lots of grazing areas for animals unlike now. Big trees are now gone. The village she is staying in got established by late Nekwaya Nakaande. That she can remember very well - and Kaalukula, which she found living in the village before her.

Sheehama Evi

She is now 25 years in Onkani. Originally she came here from Onaanda. Her age is sixty eight and she can recall Nekwaya Nakaande, Iitembu Sheehama, Michael Nakaanda, Frans Uushona and Mani, Petrus Lyashula as the people who settled here before her. She is a mother of eight. Changes observed in the area are that the forest trees are disappearing. Grazing used to be good now not anymore. Rainfall is not so good now compared to the way it used to be.

Uushona Kaalukula

He came in 1971 to look for survival of both his livestock and his people. He is seventy eight years and a father of four. Three of them were staying together, late Nekwaya, late Iitembu and another one he can't remember right now. Changes observed are that they used to milk their cows throughout the year, getting a lot of butter. And grazing, grazing was perfect those years. The difficulties, which they are experiencing right now are the fences, which make the grazing space so little. Livestock have to go round many fences and they not only get tired but there are also less pastures. Now people are floating here due to access to water, which is now present here.

Paulus Ruben

He came to Onkani in September 1979 to set up a household. He is fifty-two years and he is a father of nine children. When he came he found many cattle posts around with houses, however not more than three. There was a forest all over, with good grazing. The only problem was that the water was saline since they used to dig wells. Difficulties that are usually experienced in farming are drought and that taps are not having water. They have to travel long distances to get to the nearest tap with running water since the wells that were there before are not being taken care of anymore. This year there was no drought.

Nuukala Aina

Meme Aina came to Onkani in 1987 to join her relatives who were here before her. She found about twenty houses to mention just a few there were Johana, Kaliwandjo, Kaalukula, Shikolo, Kayola, Kanhalelo, Ashipala, Pandeni, Andiya, Shilongo, Mathews, Ruben Paulus and more. She observed a positive change because the water is nice unlike the salty water in the past. The village got established by late Nakaande. Difficulties being experienced is the water which closes most of the times especially during dry season.

3.2 Household composition

The man is the head of the household till deaths take its cause. That is when the widow takes over. The man is also the decision-maker within the household. The average number of people in a household is nine (9), which is high (Table 1). At Onkani the average is 4 unemployed people out of 9 in the household with one (1) person being employed. This is a ratio of 4:1. There are a number of kids which are not yet going to school at Home. At average there are more males than females living in the household. On 5 male household members you find four females. There seems to be a fairly high number of adults living at the village, however I could not establish the age structure in more detail. From the personal histories it is apparent that most interviewees were at the age above 60.

Table 1: Household composition, sex and occupation of Onkani residents (15 households surveyed out of approximately 50 households.)

Household owner	No. of people in household	Males	Females	School goers (students)	Kids	Employed	Unemployed
Ruben Mathews	12	4	8	7	0	4	1
Ephraim Shivolo	19	11	8	14	0	0	5
Renigius Iivambo	6	5	1	3	1	0	1
Aina Nuukala	5	2	3	2	1	0	2
Samuel Rut	12	6	6	3	6	1	2
Mathews Iitembu	4	1	3	2	0	0	2
Sheehama Evi	9	3	6	1	2	1	6
Ruben Paulus	12	7	5	4	2	0	6
Silas Iindongo	7	7	0	3	0	1	3
Kaalukula Uushona	6	2	4	0	0	0	6
Rebecca Shiimi	11	3	8	3	3	3	2
Maria Nelumbu	7	5	2	2	2	0	3
Thomas Shaanka	9	6	3	3	1	1	4
Nuuyoma Thomas	11	8	3	2	0	1	8
Bernhardt Justine	10	3	7	2	0	1	7
Total	140	73	67	27	18	13	58
Average	9	5	4	2	1	1	4
Village population estimates	467	243	223	90	60	43	193

3.3 Income and expenditure

Income

Livestock are considered to contribute the most to the income at the households at Onkani (Table 2). Crop farming is of great importance, ranking very high on the income scale. Pensions and remittances coming from urban areas to the rural areas and incomes from local businesses are also mentioned as incomes. Pensions are given by the government to old people as from the age of sixty (60) about every two months. If remittances are being paid to a household depends on whether household members are employed.

Table.2. Ranking for sources of income (5 high and 1 low)

Explanation of the ranking; The higher the number the most preferred source of income, and the lower it gets the less preferred and most people don't use it or don't get any.

Source of income	Rank	Explanation
Livestock	5	90% of the people in Onkani own livestock. The livestock is sold if there is a big need for cash e.g. for school fees.
Crops and others	4	Selling of mahangu, maize, beans and pumpkins generates income. Other products are mopane worms, thatching grass and mopane fibres during good years.
Pensions	3	Most of the household heads are pensioners. They receive a pension, which is something even if not a lot.
Remittance	2	If money is sent back home to the village depends on how much is being earned.

Cuca shops	1	Few households have cuca shops where they sell tomo, traditional beers and some other basic products.
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Expenditure

On an annual total most money is being spent on food, followed by transport. School fees, clothing and medial treatment are following. Only a small amount of money (N\$ 98) are spent per year on veterinary treatment. Overall an average household at Onkani spends N\$ 3,308 per year. The range of average expenditure varies a lot between households (Table 3 & 4).

Table 3: Average annual expenditures at 15 households at Onkani.

	Households (number 1 to 15)															Sum	Total ³
Sf ¹	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	NS	NS
	N\$ 223	NS 180	NS 4650	NS 20	NS 150	NS 500	NS 290	NS 150	NS 300	NS 45	NS 16	NS 133	NS 30	NS 0	NS 18	NS 6705	NS 447
Tp ²	40	160	45	0	60	300	0	0	0	0	220	67	0	60	0	952	768
Ct ¹	600	600	630	150	300	600	0	1000	300	36	280	200	50	200	150	5116	341
Fd ²	180	150	100	50	151	200	50	200	40	120	50	0	150	80	100	1621	1296
Mt ²	3	3	35	18	6	0	60	0	50	24	146	24	0	6	12	387	312
Vt ²	0	75	0	0	10	0	0	6	0	0	10	0	0	0	12	113	96
Cc ²	2	3	0	7	5	10	0	0	6	8	0	0	0	10	7	58	48
Tot	1048	1511	5480	245	682	1610	400	1356	696	223	722	424	380	356	281		3308

Keys: Sf=school fees, Tp=transport, Ct=clothing, Fd=food, Mt=medical treatment, Vt=veterinary, Cc=church contribution

¹ School fees and clothing expense are based on a yearly expenditure.

² Transport, food, medical treatment, veterinary and church contribution are given monthly

³ The total calculates the annual expenses of all positions for an average household

Table 4. Ranking sources of expense.

Explanation of the ranking; The higher the number the most costly it is.

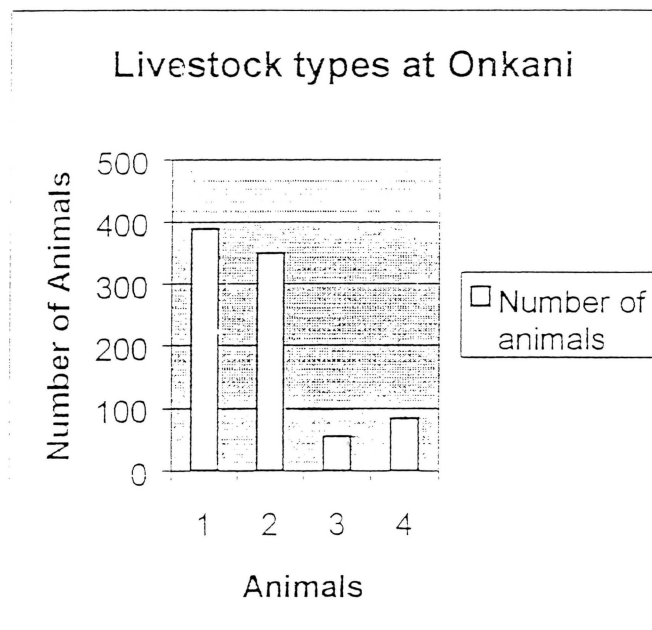
Source of expense	Rank	Explanation
Food	7	Most meat is bought if one person at the village slaughters livestock.
Transport	6	Is quite costly especially when going to Oshakati
School fees	5	Depending on the grade: the lower the grade the cheaper the school fees and vice- versa. It also depends on the number of kids in the household
Clothing	4	The more people there are in the household the higher the clothing expenditure

Medical treatment	3	The local clinic is charging N\$3- 00. If one is seriously sick then one gets transferred to Oshakati state hospital where the expenses get more.
Veterinary	2	Medicines for animals when sick are not used much.
Church contribution	1	Being paid during church attendance

3.4 Livestock dynamics

At Onkani people farm with cattle, goats, sheep and donkeys. There are fairly large numbers of cattle and goats at Onkani (Figure 1). Few households own sheep (Figure 1, Table 5). According to Mr. Ashipala, they are susceptible to diseases and they do not reproduce that well in their environment. Donkeys are the second least animal type kept (Figure 1, Table 5). They serve a very important function to the people since they are used for donkey carts to transport people to different places as well as for ploughing. The Ovambo people do not eat the donkey meat unlike other livestock that is why donkeys are not being kept in huge numbers.

Looking at each household it is apparent that livestock numbers owned are fluctuating quite a lot between households (Table 5, Figure 2).



1= cattle, 2=goats, 3=sheeps, 4=donkeys.

Figure 1: Livestock types held at Onkani.

Table 5: Number of livestock in each of the fifteen surveyed households at Onkani

Household name	Cattle	Goats	Sheep	Donkeys
Ruben Mathew	67	18	8	9
E. Shivolo	60	60	10	25
R. Iiyambo	11	30		3
A. Nuukala	35	28	5	15
R. Samuel	4	50	6	
M. Iitembu	9	10		4
E. Sheehama	10	8	5	4
T. Shaanka	30	6		6
M. Nelumbu			6	
R. Paulus	50		1	6
S. Iindongo	10	42		7
K. Uushona		23	2	
R. Shiimi	35	20	4	
N. Thomas	42	18	8	
B. Justine	25	36		4
Total	388	349	55	83
Average	26	23	4	6
Village population estimates	1293	1163	183	923

Cattle numbers per household

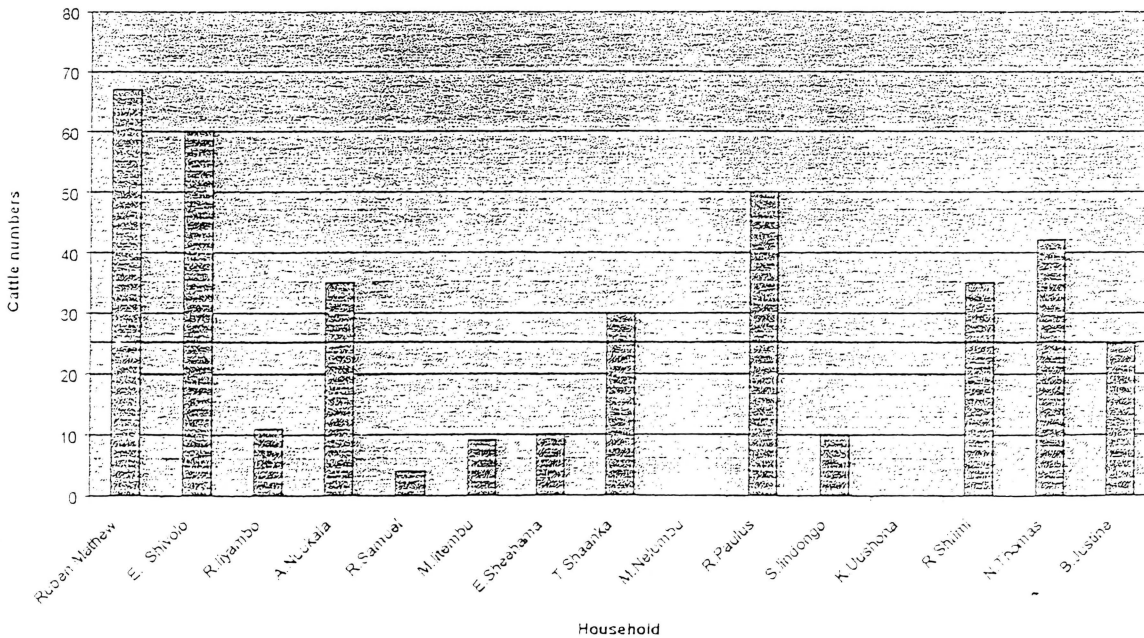


Figure 2: Numbers of cattle in each of the surveyed household

3.5 Use of other natural resources

According to the survey, *Omahangu* (pearl millet) is the major food source and every households has a field for cultivation. Ploughing starts in November/ December using draught animals (oxen and donkeys) or with tractors for those who can afford as well as cultivate by hands. Mopane worms and other products from the Mopane tree were mentioned before as income generating products, also thatch grass.

Other veld plants for food were mentioned. These include:

<u>Oshivambo name</u>	<u>Scientific name</u>
Omuve	<i>Berchemia discolor</i>
Omulunga	<i>Hyphaene petersiana</i>
Omwandi	<i>Diospyros mespiliformis</i>
Omwoongo	<i>Sclerocarya birrea</i>
Omukwiyu	<i>Ficus sycamorus</i>

The respondents also make use of veld plants as medicine. English names could not be provided. Trees for curing coughing for humans are: Okawekamuthithi, Omuhama's roots, Omugongo's stem and Omuungaalipi. Omakakata cures cattle when coughing and Eshompwa prevents animal wounds from getting rotten.

3.6 Environmental friendly technologies

At Onkani deforestation was mentioned as a major constraint. Therefore I included a question on what type of method people use for cooking. This can help to assess the potential to introduce e.g. fuel-efficient stoves as an appropriate technology in the area.

The survey data reveals that three methods are being used, open fires, fuel efficient stoves and kerosine stoves (Figure 3).

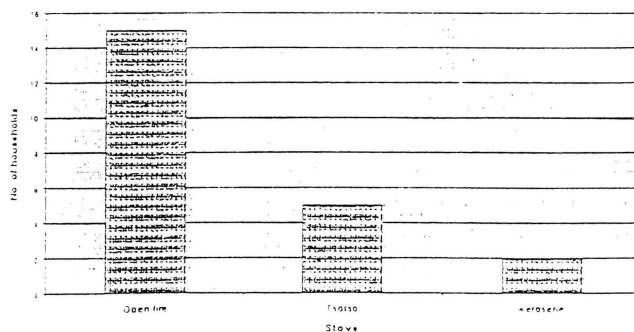


Figure 3: Method used for cooking by villagers at Onkani

It was recorded that some households use all three types of methods, kerosene being mainly used during wet season. Due to the high population density of Onkani it is identified as being most vulnerable to fuel wood shortages since all the households use open fires.

There is a tsootso stove project going on at Onkani. Two youths attended a course in Oshakati for tsootso stove making and they are now teaching other local youth members in the village. They buy the constructing materials from Oshakati. It is noted that the community members do not understand how the stoves work and each trainee was given a fuel efficient stove to demonstrate to their neighbours and family members how it works. When members of the community were approached for comments and on how they perceive the tso-tso stove, most of them reacted positively and in favour of the stove. The only problem seem sot be the lack of cash to purchase one for own use even though some own the stove.

A fuel efficient (tsootso) stove will slow down the high use of firewood and save time and money spent on buying or collecting wood (Du Toit and Sguazzine, 1995).

4. DISCUSSION

It is apparent that now there are lot more people residing in the area, compared to only ten years ago. Although settlement started in Onkani area in the late 60's and Himba migrants were recorded form the area before, permanent settlement on a larger scale only took place since permanent and larger-scale water resources have the water have been brought to the area. This give rise to increasing pressure on all natural resources in the area. All elders interviewed, who had a fairly long-term memory of the place mentioned that grazing is deteriorating as well as deforestation is a serious problem. Increasing and uncontrolled settling were also mentioned by the headman, Mr. Shivolo Ashipala. Natural resources are diminishing and there is a significant evidence of deforestation and land degradation shown also by the number of fully packed donkey carts with wood for construction and fuel consumption. Evidence of increasing numbers of cattle in the area was mentioned as well.

It is clear that the reasons for these dynamics are the growing population in the area. It is not quite clear whether this due only to people moving into the area or also to increased demands and expectations of the long-standing residence of the area. Livestock, mainly cattle and goats and crops such as mahangu & sorghum are the most important agricultural products mentioned, being the most significant source of income. Incomes from non-agricultural products seem to contribute little to the cash incomes at the village. It is astonishing that these agricultural products are ranking so high in importance even if their value for subsistence and as "security" are not even being calculated into their overall value. Like in other cultures, livestock is not only accumulated for income but also for status and hierachy. It is part of the Owambo tradition for cattle to be slaughtered during a wedding, funerals or other big occasions. All the afore said highlights the threat

Sources of Income

Agricultural:

Selling livestock: N\$

Selling livestock products (bones, milk, etc.): N\$

Selling vegetables or other crops: N\$

Other agricultural: N\$

Non-agricultural:

Pension/Remittance: N\$

Selling wood: N\$

Other non-agricultural: N\$

Expenditures

Cloth: N\$

Food: N\$

School fees: N\$

Medical treatment: N\$

Veterinary: N\$

Animal fodder: N\$

Wood: N\$

Transport: N\$

Other: N\$

Livestock Dynamics (Monthly)

Month:

	Cattle	Goats	Sheep	Donkeys	Horses
Total number					
Bought (this month)					
Price?	NS	NS	NS	NS	NS
Sold (this month)					
Price?	NS	NS	NS	NS	NS
Slaughtered for own use					
Moved to new location					
Where?					
Died					
Stolen					
Lost					

Subtopic

alternative/agricultural/expe

Site	Topic	SheetID	Region	Results
Onkani	Income	434	Oshana	Sold 2 goats N\$450-00 Gets pension N\$200-00 Expenditure: clothes N\$300-00 per annum food N\$150-00 monthly School fees N\$150-00 yearly Medical treatment N\$6-00 at Oshikuku Veterinary N\$10-00 measured at N\$3-00 per spoon. Transport N\$60-00 to Oshikuku

Subtopic

alternative/agriculture/expe

Site	Topic	SheetID	Region	Results
Onkani	Income	408	Oshana	Expenditure: clothing N\$600-00 annually food N\$200-00 per month school fees N\$500-00 transport N\$300-00 or more even per year.
Onkani	Income	422	Oshana	Sold milk N\$60-00 gained gets pension N\$200-00 Sell wood N\$60-00 gained Expenditure: clothes N\$150-00 annually School fees N\$290-00 Medical treatment N\$60-00
Onkani	Income	412	Oshana	Gets pension sells mahangu N\$750-00 sold this year. Expenditure: clothing N\$ 1000-00 annually food N\$200-00 per month school fees N\$150-00 annually
Onkani	Income	403	Oshana	Expenditure: clothing N\$300-00 school fees N\$300-00 medical treatment N\$50-00

Subtopic

alternative/agriculture/expe

Site	Topic	SheetID	Region	Results
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Onkani	Population	388	Oshana	Ephraim Shivolo 66,male, permanent,farmer Selima Sheehama 41, female,permanent, farmer Monica David 71, female,permanent,farmer Marcus Shivolo 34,male, permanent, farmer Amaria Shivolo 23,female, permanent,student Frans Shivolo 24,male ,permanent,unempolyed Listo Shivolo 18,male,permanent, learner Mekondjo S. 11,M ,perm. learner Pulakena S. 9,M ,perm. learner Ndinomukumo S. 9,M ,perm. learner Shambekela S. 7,M ,perm. learner Tshazipeni S. 5,M ,perm. learner Hileni S. 15, F ,perm. learner Saima S. 3,F ,perm. learner Magano S. 0,F ,perm. learner Tuuliki S. 9,F , perm. learner Tuyoleni S. 10,F ,perm. learner Fillipus Viatala 16, M ,perm. learner Heinrich T. Uupindi 2, M ,perm. learner
Onkani	Population	421	Oshana	Renigius Iiyambo 70, M ,permanent,pensioner Aini Shilongo 46, F, perm,farmer Abisai Peturs 17,M,perm,student Iiyambo Shafashuma 12,perm,M,learner Iiyambo Iimanuel 8,M,perm,learner Iiyambo Festus 5,M,perm,kid
Onkani	Population	392	Oshana	Aina Nuukala 54,Female ,permanent,Farmer Kandali Daniel 20,M ,perm, Farmer Hilma Jonas 15,F ,perm, student Aili Shilumbu 10,F ,perm, student Tangeni Abiatata 3,M ,perm, kid

Subtopic

Household composition/reid

Site	Topic	SheetID	Region	Results
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Onkani	population	428	Oshana	<p>Thomas M. Shaanka 56, M, permanent, farmer Amalia Shaanka ?, F, permanent, farmer Aina Shaanka 22, F, permanent, student Eino Shaanka ?, M, permanent ,student Simon Shaanka ?, M,perm, student Paulina Shaanka ?, F, perm,student Amalia Shaanka ?,F, perm,student Paulina Abiniel ?, F, temporaly,student Bertha Shiimi 4, F, permanent,kid</p>
Onkani	Population	397	Oshana	<p>Ruben Paulus 52, M,permanent,farmer Rachel Joseph 55,F, permanent,farmer Raina Paulus 26, F,temporaly,self-employed Joel P. 24,M,permanent,unemployed Gerhard P. 21,M,tempo,unemployed Rachel P. 20, F, tempo ,unemployed Ruben P. 17, M,permanent,learner Paulus P. 15, M, permanent,learner Magdalena P. 8, F,perm ,learner Jason P. 6, M,perm,kid Lahya P. 10 ,F,perm,learner Alitina Ularius 5, M,perm,kid</p>
Onkani	population	402	Oshana	<p>Silas lindongo 76, M,permanent,famer Hergadis Santu 54, M,permanent,farmer Lazarus Silas 26, M,permanent,farmer Moses Silas 23, M,permanent,social woker Ananias Silas 21,M,permanent, student Immanuel Silas 18,M,permanent,student Simon Silas 16, M,permanent, learner</p>

Onkani	Agriculture	399	Oshana	Cattle 35,sold this month 2 price N\$3200,slaughtered for own use 1,lost 1 Goats 28,slaughtered for own use 1 Sheep 5 Donkeys 15
Onkani	Agriculture	378	Oshana	Cattle 4,bought this month 1 price N\$1000.00,stolen 3, lost 5. Goats 50 Sheep 6
Onkani	agriculture	404	Oshana	Cattle 9,died 1,lost 8. Goats 10, sold this month 1 price N\$100-00,died 2,lost 10. Donkeys 4,lost 4
Onkani	Agriculture	419	Oshana	Cattle 10,died 2,stolen 3,lost 4. Goats 8 Sheep 5 Donkeys 4 Horses 2
Onkani	agriculture	430	Oshana	Cattle 30,died 2,stolen10,lost 5. Goats 6 Donkeys 6
Onkani	Agriculture	407	Oshana	Goats 6, slaughtered for own use 2,died 2.
Onkani	Agriculture	433	Oshana	Goats 50,sold this month 2 at the price N\$450-00, slaughtered for own use 3. Sheep 1. Donkeys 6.
Onkani	Agriculture	423	Oshana	Cattle all bought this month 10. Goats all bought this month 42, one got sold price N\$250-00 Sheep bought this month 1 and died. Donkeys 7
Onkani	Agriculture	415	Oshana	Goats 23,bought this month 1 price N\$200-0,died 1,lost 13. Sheep 2

Subtopic

veid foods and medicines/w

Site	Topic	SheetID	Region	Results
Onkani	Resource material	396	Oshana	omakakata cures liver and lungs for animals. Malula tree make juice/wine and eating oil. Uses traditional 3 stove for cooking

Subtopic

Village establishment/origin

Site	Topic	SheetID	Region	Results
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Onkani	Village history	375 Oshana	<p>Came in 1990, wanted to settle in Onkaankaa but was told this not for settlement so then he settled in Onkani. Found lot of houses a few are E. Ashipala, Kalukula, Makili, Kaliwandjo, Shilongo Mathews. Changes are that there was no water, dug wells now there is tap water, the grazing is good now, and received good rainfall this year. Village got established by Nekwaya Nakaande in 1971. No difficulties being experienced apart from people stealing our cattle.</p>
Onkani	Village history	385 Oshana	<p>Came here in 6 August 1971 to make a household because believe that there is good veld and good grazing for livestock. Found no one in the village only wild animals. Changes the grass is no more seen. About the village establishment as far as I know the name Onkani was still existing and then there was Himba people even though I did not find them here. I found cattle post belong to Michael Kayone. Late Nekwaya and late Iitembu lived together with him because we were afraid of Elephants. Now there is lot more people and space for grazing is now limited. That is why farming is now getting difficult and also lot of cattle coming in.</p>
Onkani	Village history	379 Oshana	<p>Came in 1979 to make a household from Otshuungu because of plenty of natural resources. Found only two households E. Ashipala, R Paulus. The rest were cattle post. Changes observed are that at first there was a thick forest here but now things are changing, found animal like Elephants here and many other wildlives which we were even scared off. The village got established in 1966 around there by Nekwaya Iazarus Nakaande. Difficulties in farming is caused by fire which is caused by nobody. Farming is now getting difficult because of more people coming to the area.</p>

Onkani	Village history	380 Oshana	<p>Came in 1979 to graze livestock. Found only two households Ambrosius Shivute, Ruben Paulus. Changes observed are that there use to be a thick forest and now is like a desert. The village got established in 1979 by Ruben Paulus. Difficulties in farming is that water is most of the time closed (pipe water) and there is no good water in wells. Farming is now getting difficult because there is no more space for livestock to pasture on.</p>
Onkani	Village history	381 Oshana	<p>The first person to settle in Onkani, in 1968 found nobody . Is a pity that the husband died in 1994. Came from Ontanga village . There was a thick forest with lot of wildlifes like Elephants, Ostrich, and many more wildlifes. The village got established the year we came here. It was very good compared to now.</p>
Onkani	village history	410 Oshana	<p>Came in 1968 to Onkani ,the first person to settle in Onkani. Found nobody here when he came, unluckly the husband passed away in 1994. They came from Ontanga before they came here. Changes observed are that there used to be a thick forest here with animals like elephants, ostrich, and many more wild animals. He established the village the year they came here. It was very good compared to now that natural resources are now diminishing.</p>
Onkani	Village history	384 Oshana	<p>Came in 1970 to look for grazing. Found Ikaalukula Shushe (christian name not remembered) and late Nekwaya Nakaande. Changes observed are that there is no more wildlife and lot of grazing now there is high grasses and there are no big trees. Got established by Nekwaya Nakaande long ago. Difficulties are lack of space, grass destroyed by fire or eaten till roots.</p>

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Onkani	Village history	386 Oshana	<p>Came 25 yrs ago from Onaanda, Found Nekwaya Naakaande, litembu Sheehama, Michael Nakaanda ,Frans Uushona, Mani Petrus Lyashula. Change observed is the forest disappearing because mopane was the dominant species. Grazing used to be good now not anymore. Rainfall is not so good like as it use to be.</p>
Onkani	Village history	387 Oshana	<p>Came in 1977 for settlement from Oniimwandi. There was very few people when he came here ccountable houses and the rest were cattle posts. Changes observed when he came here are that his cattle never dies of hunger anymore but of diseases like Onyango and oshinambunda (oshiwambo name). Got established in 1971 by the headman Nekwaya Nakaande Difficulties in farming right now are fire and theft. Farming is now getting difficult because is like becoming a town.</p>
Onkani	Village history	382 Oshana	<p>Came in 1971 to look for survival of both livestock and people. Came 3 of us other household for late Nekwaya, late litembu and the other one cant remember him right now. Changes observed are that we used to milk our cows till december getting lot of butter and grazing was perfect. We established this village me Kalukale Uushona, late Nekwaya and litembu. The difficulties experienced right now are fences around which makes the space for grazing so little. Now there is many people coming due to water availability. Farming is now getting difficult due to fenced areas so livestock have to go round many fences. Not only they gets tired but also have to travel long distances to pasture sites.</p>