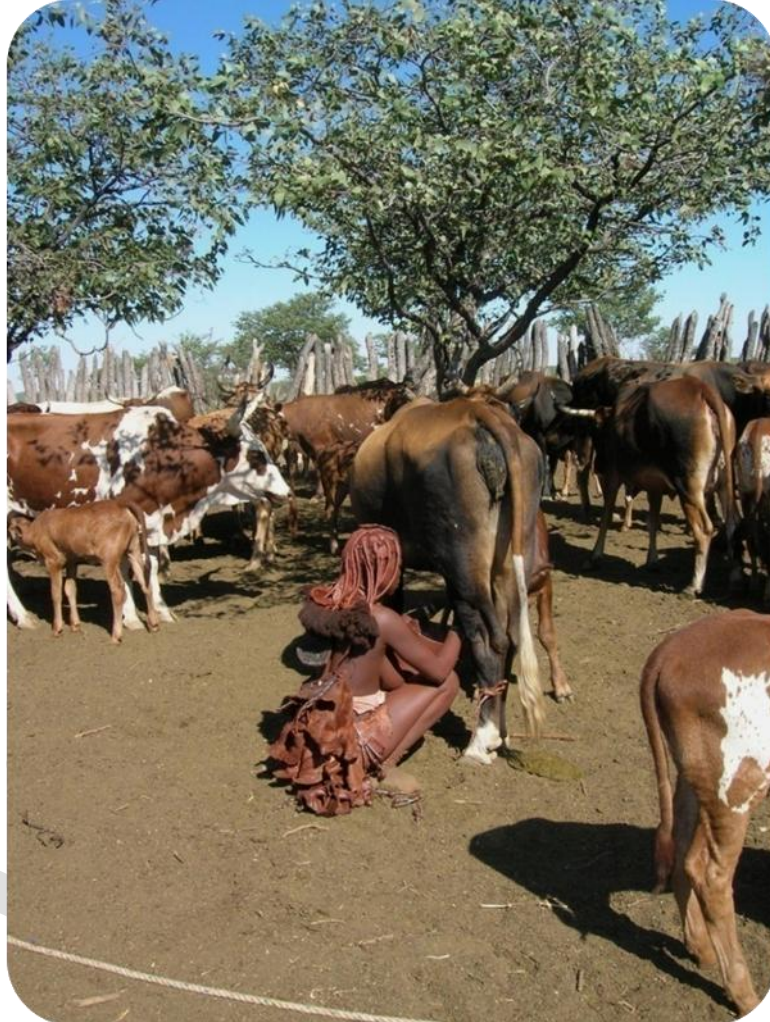


Kunene Region Livelihood Baseline Profile Communal Cattle and Small Stock Zone



NAMIBIA
Vulnerability
Assessment Committee

Office of the Prime Minister-Directorate Emergency
Management

Livelihoods Assessment Main Report-April 2009

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Acronyms and Abbreviations

| | |
|---------|--|
| DEM | Directorate Emergency Management |
| FAO | Food and Agricultural Organization |
| GRN | Government of the Republic of Namibia |
| HEA | Household Economy Assessment |
| LZ | Livelihood Zone |
| MAWF | Ministry of Agriculture, Water and Forestry |
| MDG | Millennium Development Goals |
| Nam-VAC | Namibia Vulnerability Assessment Committee |
| OPM | Office of the Prime Minister |
| OVC | Orphans and Vulnerable Children |
| RVAA | Regional Vulnerability Assessment and Analysis |
| SADC | Southern African Development Community |

Glossary

1. **Baseline**-The quantified analysis of sources of food and income and of expenditure for households in each wealth group over a defined reference period
2. **Coping capacity** is the capacity of households to diversify and expand access to various sources of food and income, and thus to cope with a specified hazard
3. **Household** is a group of people, each with different abilities and needs, who live together most of the time and contribute to a common economy, and share the food and other income from this.
4. **Household Economy Assessment** is an analytical framework used to predict the likely effects of crop failure or other shocks such as drought and floods on future food supply, access and livelihood patterns.
5. **Livelihood**- refers to sum of ways in which households obtain the things necessary for their lives within a reference period (typically 12 months)
6. **Livelihood zone** is a geographical area within which people share broadly the same patterns of access to food and income, and have the same access to markets.
7. **Poverty** refers to failure to attain a minimum acceptable consumption level of food and basic needs
8. **Risk** is the likelihood that an event such as drought or flooding will occur
9. **Reference period** is a define period (typically 12 months) to which the baseline information refers, needed in order to analyse how changes in the future can be defined in reference to the baseline
10. **Vulnerability**- People are vulnerable, if they are expected to be unable to cope with a defined hazard
11. **Vulnerability and poverty** -levels of vulnerability are often tied to poverty (primarily access, i.e. ability to purchase basic requirements)
12. **Wealth Group** is a group of households within the same community who share similar capacities to exploit the different food and income options within a particular livelihood zone

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1.0 Executive Summary

The Namibia Vulnerability Assessment Committee (Nam-VAC) requires livelihood baseline information on rural households as a reference point for modeling likely effects of shocks such as drought, flood and market failure on the population. Such shocks may severely affect people's ability to maintain their livelihoods and any response needs to be based on information and analysis designed to give solid guidance for development disaster mitigation planning, recovery, emergency assessment and early warning and monitoring initiatives. The essential target for any response would be the household since this is the basic unit of economic operation, and the unit which must try to cope with shocks.

For the above reason, the Household Economy Approach (HEA) is the methodology of choice, giving both a geographical template of livelihood zones and within these zones an analysis of typical household's within different wealth groups – given that these exhibit different levels of vulnerability to shocks.

The Kunene region, Communal Cattle and Small Stock zone was selected on the basis of an earlier national livelihood zoning report, which indicates the area to be prone to natural hazards such as drought and livestock diseases among others.

Objectives of the Assessment

1. To establish a detailed livelihoods baseline analysis of socioeconomic groups and their livelihood patterns;
2. To identify and describe coping and distress strategies that households employ to cope with common shocks;
3. To develop a set of clear, risk and vulnerability indicators and policy-oriented recommendations aimed to improve household food security and poverty alleviation in the long-term.

Introduction and Methodology

The methodology used was the Household Economy Approach (HEA) which is an analytical framework, that is used to predict the likely effects of crop failure or other shocks such as drought and floods on future food supply, access and livelihood patterns. The approach estimates the relative contributions of different food and income sources (e.g. livestock production and labour exchange among others) for different wealth groups over a normal/non crisis year.

The field work assessment was conducted over a three week period between March 24 and April 12 2009. The first two weeks were dedicated to field data collection, with the final week for analysis of the information collected. A total of 7 key informant and 28 household wealth group interviews were conducted during the period in the field.

The main data collection tools used were a key informant and wealth group checklists, which focus on understanding of wealth groups and various household sources of food, income and expenditure patterns among the three wealth groups as defined by community key informants. It also explored the issues related to household vulnerability in case of shocks as well as the coping strategies and options they undertake during bad years.

Other data collection techniques included proportional piling, year ranking and seasonal calendars.

In this exercise, communities carried out proportional piling to define wealth groups, ranked individual years over the past five years, and identified the determinants of a “normal/non crisis” and “bad/crisis” year. The details of the year ranking were then used to identify the 2007/2008 as the reference period for the baseline livelihoods assessment and analysis.

The household economy analysis established a picture of normal livelihood patterns for households in the Communal Cattle and Small Stock zone.

This zone is characterized by unreliable rainfall pattern. As a result, it experiences wide inter-annual variations in climatic and production conditions.

The assessment team was comprised of Namibia Vulnerability Assessment Committee (Nam-VAC) technical team members trained in November and December 2008.

2.0 Main Findings

The principal objective of the livelihoods baseline assessment was to establish a detailed analysis of livelihood patterns in the reference period 2007/08 in the Communal Cattle and Small Livestock zone of Kunene region. Thus the discussion of findings below emphasizes this baseline analysis. In addition, findings that are particularly relevant to disaster preparedness and response as well as general development are highlighted.

A discussion of the ways in which households in this zone cope with difficult circumstances in “bad years” follows the baseline livelihoods discussion below.

The main livelihoods related risk factors ranked on the basis of frequency and overall negative impact on the local peoples livelihoods are the following:

- Frequent drought conditions
- High prevalence of livestock diseases
- Wild life, human conflict
- Veldt fires

2.1 Baseline Livelihoods Analysis (2007/2008): The Communal Cattle and Small Livestock Zone in Kunene Region

A livelihood zone (LZ) is defined as a geographical area in which most households obtain their food and cash income by roughly the same combination of means. For example, a livelihood zone may be characterized by heavy reliance on livestock production and sale of livestock for food and income, with marginal reliance on crop production; or a livelihood zone may be characterized by an emphasis on consumption and sale of crops to the exclusion of substantial livestock keeping on commercial scale. While not all households in a livelihood zone are expected to engage in these activities to the same extent, they are often limited by the same environmental or socio-political constraints, and thus tend to engage in similar types of activities. Normally, a livelihood zone has defined boundaries which do not necessarily match administrative boundaries (such as by village, constituency or region), with all households living there in belonging to that livelihood zone.

A national map of the livelihood zone of Namibia can be found in Annex 1.

The Communal Cattle and Small Livestock zone has one rainy season per year, extending from November –December to October the following year.

The area lies within an altitude of 900-1,200m and has an average rainfall of 100-300mm per annum.

It is predominantly a livestock keeping zone with little food crop production. The main crops grown in specific villages are maize, supplemented with beans, pumpkins and some vegetables depending on seed availability at the start of the season.

Livelihood patterns in the zone considerably depend on livestock keeping for food and cash income, although the potential is limited by poor road conditions, marketing facilities and other infrastructure required to improve access to basic social services namely health, education and extension services among others.

2.2 Defining “Normal,” “Good” and “Bad” Years to Understand Inter-Annual Variability

Household economy analysis establishes a clear picture of typical, normal or non crisis year, livelihood patterns for households in a specific livelihood zone. As noted above, the Communal Cattle and Small Stock Zone is characterized by unreliability in rainfall. As a result, the area experiences wide inter-annual variations in climatic and livestock production conditions. In an effort to clarify the range of conditions that local communities must cope with in most years, a “year ranking” exercise was completed. In this exercise, communities ranked individual years over the past five years and identified the determinants of what makes a year “good,” “average,” and “bad”. Details about those ranking characteristics were then elicited (See details in page 12).

Based upon the year ranking interviews, the year 2007/08 was selected as the reference period for the assessment by most villages sampled. This year represents the range of conditions that indicate typical characteristic of the area, and the year is recent enough to allow accurate recall. In the in-depth focus group interviews, participants were encouraged to refer to 2007/2008 when describing livelihoods (and related parameters such as prices) in normal years.¹

3.0 Summary of Findings:

The Communal Cattle and Small Stock Zone is characterized by frequent unreliable rainfall, which sometimes affects quality of pasture and access to surface water for livestock causing livelihoods insecurity in some years. This assessment clearly identified that, household food insecurity is not a chronic phenomenon and mostly happens during very bad years such as the 2006/07 consumption year as ranked by the communities. The peak hunger period is also normally between the months of September to December of a particular bad year.

Given the regional level variation in climatic conditions and level of development, the Kunene- Communal Cattle and Small Stock zone exhibits higher levels of risk and vulnerability to natural hazards and economic shocks due to the following factors:

- Poor state of feeder roads limiting access to key markets and increased transport costs for local trade.
- Lack of strategic food markets particularly in remote villages to ensure more regular and affordable access to staple food items.
- Lack of agricultural inputs to plant, some crops on arable land
- Limited access to essential veterinary drugs in rural areas, due to over centralisation of agencies such as agra-business enterprise in Opuwo town market.
- Lack of animal treatment facilities in some rural villages.
- Negative impact of free market economy on the local population, shown by relatively low market prices for livestock. This is caused by more supply of livestock compared with prevailing market demand.
- Limited proximity to basic social services such as schools, health centres and safer sources of water for human consumption in the region.
- Lack of regular transport services and effective communication facilities such as mobile telephone net works and radios in order to aid marketing of livestock and livestock products.

¹ The normal year is defined differently than the agricultural year. An agricultural year commences with land clearance and cultivation, and thus in this zone would extend from September 2007 to August 2008. However, the normal year takes the beginning of milk production as its reference point, and thus extends from January 2007 to December 2008.

- Seasonal availability of water and pasture increasing household expenditure and high cost of livestock production.
- Poor sanitation facilities shown by lack of toilet facilities in most rural villages coupled with high susceptibility to malarial infection.
- Sparse population coupled with nomadic pastoral tendencies in some parts of the zone, makes it difficult to plan and provide the required basic services.
- High rate of unemployment among the population due to illiteracy and low level of productive skills particularly among the youth.

Over view of livelihoods patterns

Overall, 'poor', 'middle' and 'better off' households are able to meet their minimum food needs during normal years. However, the poor are the most vulnerable to food insecurity as they only consume 16% above their minimum requirement of 100% relative to 26% and 60% for the middle and better off households respectively. This indicates their level of vulnerability in case of any shock such as prolonged drought, livestock diseases or increase in food prices.

The main sources of cash income among the three wealth groups include: the sale of livestock, predictable cash transfers inform of old age, disability and veteran pensions and OVC grants.

Other non typical sources of cash income among some middle and better-off households include trade and formal employment particularly among employees of the Government of the Republic of Namibia (GRN) and local conservancies.

However the poor engage in multiple livelihoods strategies compared with the middle and better-off households in the zone.

This further shows that, the poor households are likely to find difficulties in coping with most shocks than the other wealth groups.

Expenditure patterns indicate that poor households have little or no disposable income for investment. This is contrary to the middle and better off, who spend more on investments such as livestock drugs, water for livestock, payment for cattle herding and discretionary items such as tobacco and beer.

Of the three wealth groups defined by local respondents, the poor constitute the majority represented by 40-50% of the total households in the livelihood zone. The poor are able to meet their minimum annual food needs (116% of household calorific requirements) in normal years.

Their consumption derives in largest part from labour exchange for food (52% of food requirements), followed by purchase and barter (32% of food requirements), own livestock products (24% of food requirements) and other minor sources such as on own crops, wild foods and gifts contributing (5%,2% and 1% respectively of food requirements). The main staple foods within the zone are milk, meat and maize meal. The poor households do not have a variety of food items to supplement their diet.

The above patterns of food sources imply, the poor are more vulnerable to shocks such as persistent drought, which normally affect livestock and their access to labour exchange and livestock products their primary source of food and cash income.

Differences in level of cash income among the three wealth groups illustrate the income disparity between the poor and the other two wealth groups (middle and better-off households) within the livelihood zone. For example, the average income level of most typical poor households is estimated to be about 7,000-9,000N\$ with upper end of the range applicable for beneficiaries of predictable cash transfers such as old age, disability and veteran social pensions as well as OVC grants compared with 16,000N\$ and 33,000N\$ among the middle and better-off households respectively.

The main reasons for low levels of cash income among poor households within the Communal Cattle and Small Livestock Zone among others include low prices for livestock, overreliance on casual labour depriving them of own labour for household production, high rate of unemployment and poor feeder roads and market infrastructure vital for marketing livestock and products.

The review of expenditure patterns presented in this report indicates that the poor households during a typical normal year spend most of their annual income on purchase of staple and non-staple foods (25-30%), followed by household restocking (20-25%) and other minor expenditure requirements, leaving them with no disposable income to pursue other household investments, in order to improve their economic status. The lack of capital tends to perpetuate the vicious cycle of poverty among the majority of poor households, exposing them to poor living conditions.

Meanwhile the middle and better off households have more advantages over the poor, in that they are able to spend a significant part of their annual income on various investment opportunities such as water for livestock, veterinary drugs and in some cases capital equipments such as vehicles and construction of semi and permanent structures.

The poor are more vulnerable than the middle and better off wealth groups to the effects of most economic shocks.

This derives from over-reliance on the middle and better-off households for food and cash income, rather than engaging in a more diverse set of activities to rely upon in bad years.

Middle and better off households are able to rely on increased sale of animals during bad/ crisis years. The better off in particular tend to capitalize upon selling animals at low prices in local markets in order to purchase food and meet other basic needs.

On the basis of the above analysis, the following implications are presented:

- There is need for more community involvement and participation in regional development planning and implementation process in line with the Ministry of Local Government Act.
- Grain market and trade. The Office of the Prime Minister – Directorate Emergency Management in partnership with private traders should explore the possibility of stabilising the supply of staple food items in the rural parts of Kunene region.
- There is need to fast track the implementation of cash or food for work activities in the Kunene region, so as to improve the poor village and constituency feeder roads.
- Seasonal unavailability of water for livestock is a major problem among farmers in this zone. The situation is exacerbated by the high cost for pumping underground ground. The provision of cost effective water for livestock through rainwater harvesting techniques should be explored by the Ministry of Agriculture, Water and Forestry.
- Promotion of micro- irrigation schemes using available rain water in some villages should be explored for purposes of crop production.
- Inadequate access to veterinary extension services by rural farmers has resulted from irregular provision of such services in some remote villages due to the poor state of road infrastructure. Veterinary extension services could be expanded through training community based animal health workers.
- Promotion of local livestock marketing cooperatives for purposes of improving bargaining power could be an option to address the persistent low livestock prices among farmers.

- The Ministry of Youth should intensify vocational training among unemployed youth, so as to mitigate the prevailing high rate of unemployment among the youth.
- The Ministry of Health and Social Services should implement a more comprehensive public health and hygiene education (safe water and latrine facilities) in rural villages.
- The Ministry of Education should explore possibilities of implementing community led, alternative education policy to address the numerous challenges facing the education sector in the region.

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4.0 Main Report- Introduction

The Namibia Vulnerability Assessment Committee (Nam-VAC) requires livelihood baseline information on rural households as a reference point for modelling likely effects of shocks such as drought, flood and market failure among others on the population. As a result with technical from SDAC RVAA programme, Nam-VAC conducted this detailed livelihood baseline assessment, to assist the Office of the Prime Minister-Directorate of Emergency Management and Kunene Regional Council with disaster preparedness and response as well as Central and Regional-level policy and program planning.

The assessment evolved out of a collaborative effort between the Government of the Republic of Namibia and SDAC-RVAA programme with an aim of obtaining vital vulnerability information and training/capacity building among national institutions. This report details the objectives, methodology and findings of the assessment of the Kunene Region–Communal Cattle and Small Livestock Zone, mainly comprised of three constituencies and some parts of Khorixas constituency and Erongo region.

The objectives of the assessment included:

1. To establish a detailed livelihoods baseline analysis of socioeconomic groups and their livelihood patterns in the Communal cattle and Small Stock Zone in non-crisis years;
2. To identify and describe coping and distress strategies that households employ to cope with common shocks (stressful events or changes), such as drought, reduced livestock prices, wild life crop and livestock destruction and veldt fires among others;
3. To develop a set of clear, risk and vulnerability indicators and policy-oriented recommendations for both Central and Local Government (Kunene Regional Council) aimed at improving food security of vulnerable households and poverty alleviation in the long-term.

4.1 Background

Kunene region is located in northwest Namibia, bordering Angola to the north and the Atlantic Ocean in the west. The region neighbours Erongo to the south and Otjozondjupa and Omusati in the east. The region is comprised of six constituencies, of which three lie in the Communal Cattle and Small Stock Zone.

According to the 2001 National Population and Housing Census, Kunene region has a total population of 68,735.² The socioeconomic situation in the region compares poorly to other parts of the country.

Infrastructure underdevelopment has constrained both local and private sector development initiatives through reduced investment and employment opportunities, which in turn has impacted negatively on household incomes and wellbeing of the local people.

The Office of the Prime Minister- Directorate Emergency Management in partnership with Kunene Regional Council is striving to establish a regional-level disaster management and mitigation system and other appropriate development strategies that will address some of the impediments to human survival and development in the long term. Most of the possible strategies and activities to be carried out will be derived from this vulnerability assessment and analysis report.

4.2 Methodology

The household economy assessment (HEA) approach to food security assessment provided the central conceptual framework for primary data collection and analysis. The household economy approach is a method of assessing food security and understanding livelihood patterns. This approach is based upon developing an understanding of the various options that people employ to secure access to food and income. It goes beyond the traditional production-based assessments by exploring, in a systematic fashion, the other food sources that people rely upon, and the extent to which these can be expanded in times of crisis.

HEA is household-based – that is, the household is the unit of analysis. The approach strives to clarify how locally defined wealth groups (in the Kunene region-Communal Cattle and Small Stock Zone, the 'poor,' 'middle' and 'better off') obtain food and income, and spend their income, to meet their needs.

HEA analyzes livelihood patterns for both 'normal' and 'bad/non crisis' years. A 'normal' year is one that exhibits the types of conditions—socioeconomic, climatic, health, etc. – that are characteristic for the area.

That is, the important determinants of livelihood security do not vary from their usual or most common conditions. The conditions faced in normal years represent the 'norm' for the area, to which households are usually fairly well adapted. The baseline livelihoods analysis included in this report describes livelihoods in these normal years. Following this baseline is a discussion of the strategies that households employ to cope with difficult circumstances; these coping and distress strategies can be utilized to model how households would be expected to cope (or not to be able to cope) in the event of a particular shock or set of shocks.

This HEA took place in a sequence of stages, each designed to answer specific research questions.

- Initial **key informant interviews** were used to clarify the boundaries of livelihood zone (discussed in more detail below).
- Once the boundaries of the livelihood zone study area are delineated, **village-level key informant interviews** provided an overview of the socioeconomic structure and basic livelihood patterns of villages. These interview participants were selected on the basis of their detailed and historical knowledge of their communities.
- Finally, **in-depth focus group interviews with wealth group representatives** provided considerable quantitative and qualitative detail regarding food sources, income sources and expenditures for each wealth group. Participants of these wealth group interviews were selected by their community leaders and elders (those who had participated in the introductory interview in that village) based upon their membership in, and ability to discuss, their specific wealth group.

The final analysis or 'picture' describes the economic functioning of specific types of households, highlighting the mechanisms of interdependence between them, their constraints to development and their capacities to cope with shocks. The result is a clear identification of priorities for intervention to meet short and/or long-term needs.

The assessment team conducted primary data collection in the villages of Okaanga and Okauwa in Epupa constituency; Ongango and Otjiheke in Opuwo constituency and Okavare, Otjizeka and Palm villages in Sesfontein constituency.

These villages were selected purposively with guidance from the Regional Council staff, based upon the conclusion that they were most characteristic of

socioeconomic and climatic conditions and in some cases accessible of the Communal Cattle and Small Livestock zone.

All in all, the assessment team conducted a total of seven (7) introductory interviews with village leaders and elders, and twenty eight (28) in-depth focus group interviews with wealth group representatives, across seven (7) villages in the Zone.

Each interview was recorded on an interview summary form, and calculations conducted and crosschecked manually. Raw data was then entered into an Excel spreadsheet, for the purposes of storing raw data for future reference, crosschecking calculations and facilitating analysis. The results of the analysis of food, income and expenditure data were documented in Microsoft Word. Qualitative information derived from key informant and focus group interviews was recorded on the same interview summary forms and utilized in data analysis and interpretation.

Previous HEA research was conducted in the Upland Cereal and Non Farm Income and Upland Cereal and Livestock Zones of North Central Namibia. This research and others such as the Kunene Regional Poverty Profile report were used for reference and comparison of the assessment.

4.3 Main Findings

A discussion of the ways in which households in this zone cope with difficult circumstances in "bad years" follows the baseline livelihoods discussion below. In addition, findings that are particularly relevant to disaster preparedness, mitigation and response programming are presented in detail.

The community key informants identified the following characteristics of "normal or non crisis" and "bad or crisis" years.

General characteristics of a "normal or non crisis" year:

- Timely on set of rainfall (November/December months).
- Good pasture and adequate surface water for both livestock and domestic use as a result of the reliable rainfall.
- Good grazing conditions for livestock due to adequate rainfall.
- Better livestock conditions, due to adequate grazing and pasture
- High milk production estimated at 5-10 litres and 2-3 litres for high and low milk production cattle respectively.
- Overall high rate of livestock multiplication due to availability of water and pasture.
- Relatively high household incomes from high livestock prices due to good livestock conditions.
- Controlled cases of livestock diseases attributed to high rainfall during normal/non crisis years.

General characteristics of "bad or crisis" years:

- Very low and late rainfall between February and March for a short period of time.
- Abnormal start of the season characterized by prolonged dry spells in November and December.
- Very poor pasture and grazing conditions
- Low milk production for a short period of time.
- Low livestock production due to lack of pasture and surface water for animals.
- Early movement in search of pasture and water for animals particularly on the mountain side.
- Very low household income due to low livestock prices attributed to poor livestock conditions.
- High rate of distressful livestock sales, due to hunger.
- High rate of migration as a coping strategy, particularly among the better-off households.
- Uncontrolled livestock diseases

4.4 Baseline Livelihoods Analysis (2007/2008): Characteristics of Socio-Economic Groups

After the identification of the livelihood zone, intensive key informant and focus group interviews were conducted to identify the characteristics of socio-economic groups in the communities. These "wealth groups" are normally defined by the community in terms of household assets and livelihood practices. This "wealth ranking" exercise enabled the assessment team to stratify the rest of the assessment by socio-economic group, allowing a more detailed, complex picture of the activities and interdependencies of types of households. The wealth ranking characteristics for both zones are provided in Table 1, to facilitate comparison between them.

Table 1: Typical Characteristics of Socio-economic (Wealth) Groups in the Communal Cattle and Small Livestock Zone

| Typical characteristics | Better-Off | Middle | Poor |
|--------------------------------------|-----------------|-----------------|-----------------|
| Percentage of population in the zone | (40-50%) 45% | (25-35%) 30% | (24-26%) 25% |
| Typical household size | (8-10) 9 | (5-7) 6 | (4-6) 5 |
| Number of wife's per household | (1-3) 1 | (1-4) 1 | (1-5) 1 |
| Land size cultivated | (0-0.5) | (0.5-1) | (1-3) |
| Cattle owned | (5-50) | (50-100) | (100-400) |
| Goats owned | (10-30) | (30-100) | (100-400) |

| | | | |
|---------------------|--|---|---|
| | | | |
| Sheep owned | (0-15) | (10-40) | (20-100) |
| Poultry owned | (0-10) | (0-10) | (0-10) |
| Donkeys | (0-10) | (2-4) | (2-4) |
| Horses | (0-2) | (2-3) | (3-4) |
| Economic Activities | Livestock Sales Casual labour Sale of wild foods Social pensions | Livestock Sales Trade Formal Employment Social pensions | Livestock Sales Trade Formal Employment Social Pensions |

As a result of the application of the participatory rural appraisal (PRA) tool of wealth ranking, the community leaders and members identified three main socio-economic groups. The fourth wealth group was a non typical, destitute category, who mainly depend on the existing local safety nets and are non typical in the livelihood zone. Overall the following are the defining characteristics of the socio-economic groups:

“Poor” households:

- Prevalence: The poor category encompasses the majority of households, i.e. 45% lying within the range of (40-50%) in the livelihood zone. As Table 1 illustrates, the precise characteristics of the group is summarized above.
- Land: The land is communal owned with exception of cultivated land estimated between 0-0.5 acres for the poor wealth category capable of growing crops such as maize, pumpkins and water melon. The poor are unable to increase cultivable acreage due to lack of draft power, inputs, limited arable land in the villages and more concentration on livestock keeping than crop production.
- Livestock: Poor households generally own fewer cattle than other wealth groups, principally because their level of production does not enable them to earn income sufficient for cattle purchase. Typical poor households own between 5-50 cattle, 10-30 goat, 0-10 sheep and 0-10 poultry. They also own between 0-10 donkeys primarily used for transport and other labour intensive activities as well as 0-2 horses.
- Economic activities: The most important sources of cash income among typical poor households include sale of livestock, on and off farm casual labour such as livestock herding, construction of kraals, houses and milking on contract basis. This is supplemented with social pension among an estimated 45% of the poor households.

“Middle” households:

- Prevalence: The “middle” group embodies the second largest number of households, with an average range of 30% and range of (25-35%) in the communal cattle and small stock zone.
- Land: As with the poor, middle households exhibit a failure to capitalize fully on their ability to cultivate more land for crop production. They

cultivate between 0.5-1 acre of land primarily for maize, pumpkins and water melons in some villages.

- Livestock: Middle households typically own at least 50-100 cattle minimum compared with 30-100 goats, 10-40 sheep, 0-10 poultry, 2-4 donkeys and 2-4 horses. The donkeys and horses are mainly used for transport and prestige purposes respectively.
- Economic activities: The most significant income generation activities undertaken by middle households include sale of livestock, trade including some form of local brewing, formal employment in some cases and social pension received by an estimated 45% middle wealth group households.

“Better off” households:

- Prevalence: The third main category of households is the “better off” who typically constitute 25% lying in the range (24-26%) of the total population in the livelihood zone.
- Land: Better off households typically cultivate between 1-3 acres of land mainly used for production of maize, pumpkins, water melon and beans in some cases.
- Livestock: In terms of livestock, typical better off households have the largest number of animals estimated at 100-400 cattle, 100-400 goats, 20-100 sheep, 0-10 poultry, 2-4 donkeys and 3-4 horses.
- Economic activities: The main source of cash income among typical better-off households is sale of livestock supplemented with either trade such as provision of local transport or formal employment or social pension. However a better-off household does not earn from more than one of the three supplementary sources of income, with exception of some villages in Sesfontein constituency, which has lower number of livestock particularly cattle.

Figure 1 : Household Sources of Food in Normal Years in the Communal Cattle and Small Stock Zone

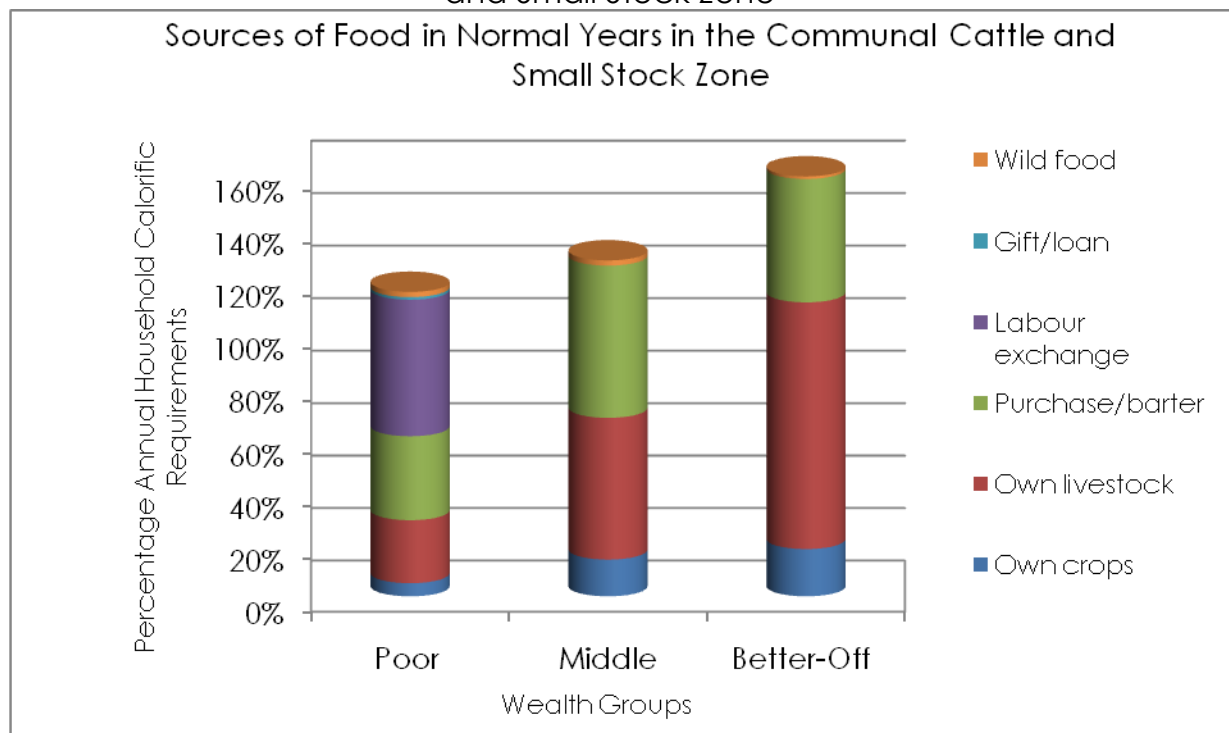


Figure 2: Household Sources of Cash Income in Normal Years in the Communal Cattle and Small Stock Zone

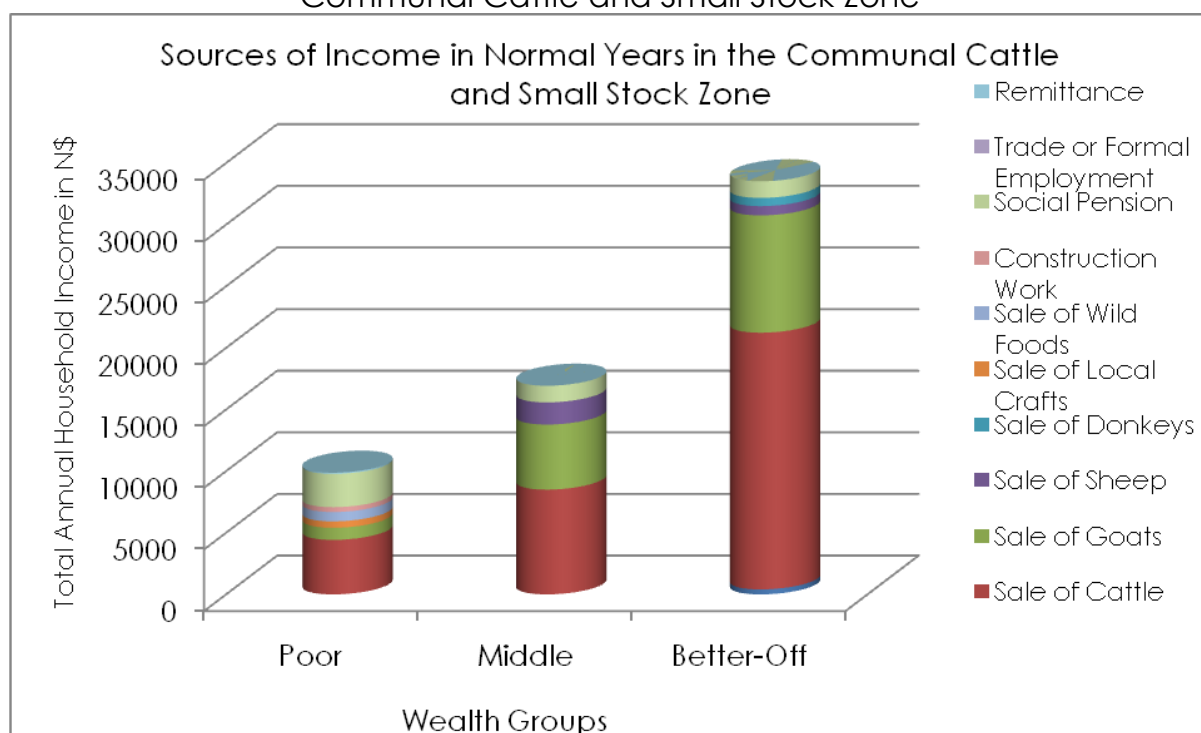
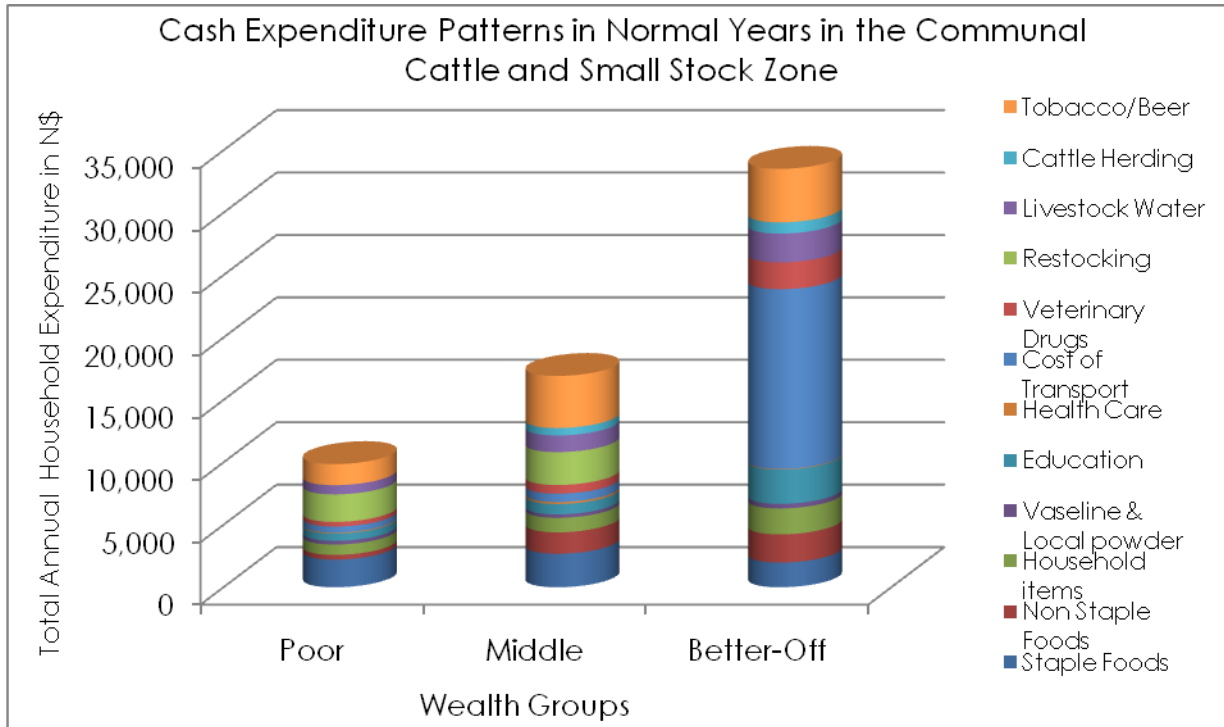


Figure 3: Household Expenditure Patterns in Normal Years in the Communal Cattle and Small Stock Zone



5.0 Baseline Livelihoods Analysis (2007/2008): Livelihoods Patterns

Introduction:

The wealth ranking exercise identified three socioeconomic categories in the Communal Cattle and Small Stock Zone: the poor, middle and better off (see Table 1). The year ranking exercise provided a framework that distinguished between different types of years and their impacts on livelihoods. The interviewers then used this information to conduct detailed focus group interviews with representatives of wealth groups about their food, income and expenditure patterns in normal years. This analysis for normal years is called a “baseline livelihoods analysis” because it is utilized as a benchmark to understand livelihoods in normal years as well as to measure changes in livelihoods in non-normal (and crisis) years. The baseline livelihoods analysis below describes the contributions to household food; income and expenditure patterns of a number of important economic sectors (see Figures 1-2):

- Livestock production
- Labour exchange (working for food)
- Wild foods
- Casual labour and formal employment
- Trade including local brewing

- Predictable cash transfers inform of social pension and grants

This is followed by a discussion of expenditure patterns of each wealth group (Figure 3)

5.1 Baseline Livelihoods Analysis (2007/2008): Contribution of the various livelihoods strategies to household food needs

For all wealth groups, household livestock production provides at least more than half of the household's minimum annual food needs in a normal year: giving more dietary energy than any other food source. For the middle and better off, livestock products is sufficient to provide more than 50% of the annual calorific food requirements in a normal year. It also provides more than one-third of annual household income.

As discussed above, livestock production is underutilized as a subsistence strategy in the Communal Cattle and Small Stock Zone. As illustrated by Table 1, all wealth groups underutilize livestock and its products. The reasons for this are numerous, including:

- Lack of competitive livestock markets – Local livestock market in the zone is non competitive and limited. This is attributed to the free market and demand driven economy which has seen more livestock supply than demand within Kunene region. The situation is exacerbated by the existing veterinary fence and lack of formal custom arrangements with lucrative markets such as neighbouring Angola. Despite the free market economy, livestock owners are exploited by local traders (middle men) due to oversupply of livestock compared with local demand. The situation is worsened by the lack of local livestock marketing co-operative societies, good feeder roads and accessible physical marketing facilities in the most remote villages within the zone.
- Lack of effective marketing associations/cooperatives to strengthen livestock owners bargaining power– The population of the Communal Cattle and Small Stock Zone have not initiated and developed any formal community-based cooperatives that may be used to strengthen bargaining power and harness financial and other labour resources for collective development. Indeed, no formal associations were found of any kind in the selected villages, with exception of adhoc community groups for purposes of raising funds for purchase of diesel in order to pump underground water for their livestock. The community expressed a lack of knowledge about how such associations would be formed, managed or sustained financially, although they did recognize associations generally as a key mechanism for solving some of their marketing and development related problems.

- Livestock diseases- Persistent cases of livestock diseases has raised the cost of livestock production particularly in some remote villages within the zone. Most livestock owners spend a significant amount of annual income on livestock drugs and water. This has constrained their ability to secure adequate disposable income for purposes of investment. The situation is exacerbated by keeping savings mainly in form of livestock, a cultural belief that will continue to be a major impediment to socio-economic transformation of the population.
- Dependency ratio – Key informants reported a correlation between household size and socio-economic status: poor households typically include an average of nine members, middle households include six and rich households include five. For the poor who mainly depend on exchange of their labour for food, it is difficult to get adequate productive labour since most of the household members are young to engage in labour intensive work.
- Human and wild life conflict- The human and wild life conflict in villages neighbouring the conservancies has become a major problem. This is evident with the level of crop and livestock destruction caused by some problematic wild animals. The respondents also indicated that, local compensations mechanisms are non functional.
- Negative cultural attitudes towards strenuous work–Key informants consistently reported that some of the main reasons for poverty induced vulnerability include the negative attitude towards strenuous work by some households. This is more so when additional labour is required during distant grazing season in search of pasture and water for livestock.
- Alcoholism and tobacco-Key informants underscored the critical role of excessive daily alcohol consumption, particularly by men, as a developmental constraint. Alcohol consumption drains time, motivation to work, and available household income that may have otherwise been devoted towards improving the family's economic status.
- Stock theft- Rampant cases of stock theft have also become a major problem in the zone. This has affected a significant number of progressive farmers, whose livestock are mainly stolen by unemployed urban dwellers.

Contribution of livestock production to the diet:

Poor households: The poor derive a significant amount of their household needs from own livestock products, particularly milk and its product such as butter. It contributes 25% of their annual food needs. This is complemented by labour exchange for livestock products, contributing 52% of the household food needs.

The main types of labour opportunities include milking on contract, herding and construction of kraals among others (Figure 1).

Whereas the labour exchange payment is mainly in kind using milk or maize meal categorized as meals at work, some payment are also in form of cash. This accounts for part of the household cash income of this wealth group as shown by payment for construction work (Figure 2)

Middle households: The middle benefit from a significantly increased livestock production, sufficient to allow 40-60% of their dietary requirements to be met through this source, plus close to half of total income to be met through livestock sale (Figures 1 and 2) Accordingly, the middle tend to purchase more proportion of their food requirements than the poor, because they do not typically engage in labour exchange for food, and much of this purchase shifts from staple to non-staple foods for dietary diversity (Figures 3). This implies that, they relatively have a better welfare than poor households.

Better off households: The food security of better off households is attributable in large part to their own livestock production, which provides fully 94% (60-120%) of food requirements (Figure 1). The increased multiplication of livestock such as cattle, goats and sheep ensures all year round milk production and access to natural meat among this wealth group.

Despite this, better off households purchase such items as maize meal, cooking oil, sugar and in some cases rice. The capacity of this group to hire labour allows for the increased levels of livestock production in normal years to allow both consumption of livestock and sale for income.

Contribution of market purchase of food

Poor households in the communal cattle and small stock zone spend a significant proportion of the annual income on staple and non staple foods such as maize meal and cooking oil, sugar respectively (Figure 3). This is a similar pattern for Middle and Better off households in the zone. However the middle and better off produce more own crops compared with the poor. The main reason for high expenditure on staples is that, all wealth groups do not invest much in crop production and rely on market purchase of maize meal, their other main staple food apart from milk and other livestock products.

Non-staple foods also form a major part of the market purchases. Non-staple foods purchased by all three wealth groups include cooking oil, sugar and in some cases rice among the middle and better-off households. The high expenditure on both staple and non-staples among all wealth groups is

attributed to the prices of non-staple food items in local markets in addition to cost of transport in the zone.

Overall market purchases of food contribute 32%, 58% and 47% of annual food needs for poor, middle and better-off households respectively.

Contribution of own crop production:

Poor households: The poor derive between 0- 5% of their household food needs from direct consumption of own crops (Figure 1). This principally is from maize, pumpkins and in some cases beans and water melons depending on availability of seeds.

Middle households: The middle households benefit more from own crop production compared with the poor. It contributes between 0-14% of their annual food needs in normal years. The main crops grown are maize, pumpkins and in some cases water melons.

Better off households: The food security of better off households is attributable in large part to their own livestock production. However this is supplemented by own crop production which contributes between 0-18% of the annual food needs. This is mainly derived from maize and pumpkin produced in specific arable land. It's important to note that, some remote villages do not grow any crops at all and this makes them more vulnerable to any market related shocks such as increase in food prices.

Contribution of hunting, gathering (wild foods) and local gifts

Poor households: The poor households in the zone do rely on wild foods such as mopane worms, wild berries, honey and in some cases small wild animals to meet their annual food calorific needs. These households are able to derive 0-3% of their food needs from this source. This is supplemented by local gifts such as milk and other livestock products among the wealth groups. The low contribution of these food sources can be attributed to the seasonal availability of the foods during a normal year as well as very low calorific intake. Overall their contribution is insignificant compared to other prime sources of food for poor households within the zone.

Middle and Better-Off households: Middle and Better-Off households are also able to supplement their annual calorific food needs by deriving 0-3% and 0-2% from wild foods respectively. This is mainly due to the lack of wild foods in some villages located within the zone. The main wild food consumed by these households are mopane worms in the month of March-April, wild berries and in some areas palm nut and wild honey in a normal year. However, these are also seasonal and low calorific intake foods, limiting their contribution towards the

annual food calorific requirements compared to what they derive from their own livestock and in some cases crop production in the normal years.

Conclusion

Despite having less own livestock, the poor households mainly depend on livestock products primarily through own production, labour exchange for livestock products and sale of livestock. The middle and better-off entirely depend on livestock production both for food and cash income. This implies that any negative changes due to shocks such as drought, diseases induced reduction in livestock productivity among others will have a significant impact on the livelihoods of the local population in the zone.

5.2 Baseline Livelihoods Analysis (2007/2008): Contribution of different livelihoods strategies to household cash income

Contribution of livestock sales:

Poor households: In addition to contributing to annual food requirements, typical poor households derive within the range of (50-60%) which is 55% of their annual household income from the sale of the animals in the zone. The comparability of income earned can be attributed to the number of livestock holdings among the poor. Most poor households acquire livestock, particularly cattle and goats, by mainly working for other wealth groups and in some cases purchase of younger cattle especially among beneficiaries of predictable cash transfers inform of social pension. The relatively low income derived from sale of animals by most poor households is mainly due to the low number of livestock owned, coupled with the low frequency of sale of livestock particularly in normal years (Figure 2).

As a result of the above reasons most typical poor households tend to diversify their income earning options so as to maximize income from other sources.

Middle households: Middle households are able to derive a significant proportion of their annual income estimated within the range of (90-100%) which is 92% from animal sales. The middle households depend more heavily on livestock than any source of income due to the sufficient number of livestock owned by them. However they are also highly vulnerable to livestock-related shocks such as drought or disease-induced animal mortality.

Most income generated by livestock for middle households is acquired through the sale of at least five cattle, goats and some sheep.

Similar to the poor, most middle households tend to sell animals during critical periods, especially in case of need for veterinary drugs, water for livestock, school fees and payment for casual labourers or any major investment such as construction work.

Animals are considered to be treasured assets or savings to be reserved for investment and critical emergencies, rather than an ongoing income source during any period of the year.

Better off households: Better off households exhibit the highest degree of dependency on livestock for income. Here, geographic variation is very significant: animal sale contributes within the range of (90-100%) which is 95%, of their annual income. Most better off households typically sell 10 cattle, 28 goats and 4 sheep per any normal year, particularly for issues related to investment in water for livestock, veterinary drugs, meeting social service costs such as education, and investment in capital equipment such as vehicles and other business opportunities. The tendency to only dispose livestock for major investment priorities is a core herd management strategy among the better-off households.

Mean while in normal years, some better-off households in particular villages also have excess maize harvest for sale. They derive between 0-1% of annual income from maize sales in the local market.

Contribution of social pensions:

Predictable cash transfers such as old age, disability, veterans and OVC grants are the second most important sources of cash income among all wealth three groups within the communal cattle and small stock zone. They provide a reliable source of income among the poor and middle group households, although a small proportion of wealthier households also benefit from the Government led cash transfers.

This safety net is aimed at financially assisting the elderly, disabled and households over burdened by OVCs. This is implemented through orphans and vulnerable children's grants, old age (above 60 years) and disability grants paid out to specific households who are eligible based on a Government defined criteria. This income source is predictable and given on monthly basis, however majority of beneficiary households at least loose 100N\$ on monthly basis due to distance and transport costs from villages to the payment points. Overall about 45% of households in each of the poor and middle households and only 10% among the better-off households benefit from the social pension fund.

The poor household's (about 20%) further benefit from the OVC grant which typically is given to a maximum of three children in the recipient households, with

the first child receiving N\$200, second and third child receiving N\$100/month each in the reference year.

To account for typical household income from this category, proportionate income was put into the household's income to avoid overestimations.

Overall social pensions contribute 27%, 8% and 4% of the annual income of poor, middle and better-off households respectively in a normal year.

Contribution of local crafts:

Local crafts are a supplementary source of income among the poor wealth group. The main types of local crafts sold by this wealth group include baskets, beads, Himba dolls, palm nut key holders, carvings (cups and tea spoons) and hand bangles. These crafts are made most of the year, however have limited market mainly among tourists. Local craft sales contribute 5% of the annual household income of poor wealth category.

Contribution of wild foods:

Wild foods such as bird fruit, Salvador wild berry, palm nut, mopane worms, root tubers and honey are collected from conservancies and mountainous areas on seasonal basis in specific villages within the livelihood zone.

It is equally an activity mainly under taken by the poor households. The wild foods are both a source of food and cash income among all wealth groups, however mainly sold by the poor households.

It contributes 8% of their annual income. The seasonal availability of wild foods and long distances involved in the collection of wild foods, limits its contribution to the local people's livelihoods.

Contribution of construction:

Local non-farm activities such as construction of kraals and huts among others are not only a main source of labour exchange for food, but also cash income among the poor households. It is equally carried out on seasonal basis and very competitive, due to more supply of labour than demand due to limited employment opportunities. It contributes up to 4% of the annual income of the poor households.

Contribution of remittance:

In-kind and cash remittances are not a typical phenomenon among the population in the communal cattle and small livestock zone. This is mainly due to the high rate of unemployment among the population. However households with relatives elsewhere do, once a while receive cash remittances from places

such as Opuwo and other urban areas in the country. It contributes between 0-1% of the annual cash income of the poor households. Mean while remittances are not typical among the middle and better-off households.

Conclusion:

Whereas poor households engage in multiple livelihoods strategies for their survival both in normal and bad/crisis years, the middle and better-off households mainly depend on livestock sales. Livestock sales are the typical source of income among the three wealth groups; however some middle and better off households supplement their income by engaging in formal employment or trade or receive social pensions. These contribute small proportions to their annual income. However this is not a typical pattern among the middle and better-off households in the communal cattle and small stock zone.

5.3 Baseline Livelihoods Analysis (2007/2008): Household expenditure patterns Contribution of different livelihoods strategies to household cash income

The analysis of expenditure patterns is an important complement to the analysis of food and income sources above. Expenditure profiles illustrate the extent to which households are able to access basic needs such as food, health care, education, clothes and household items among others.

Expenditure on staple and non staple foods:

The expenditure patterns significantly vary among the three wealth groups, with a clear pattern of poor households spending a greater proportion of expenditure on purchase of food than the middle and better off wealth groups in the livelihood zone. Poor households spend a significant proportion of the annual income on staple foods estimated between (25-30%) in the livelihood zone compared with (28-30%) and (12-15%) for the middle households and better-off households respectively, because of the household size and relatively higher domestic crop production among the two wealth groups.

The better off spend very little of their annual income on staple foods partly because of the household size and adequate livestock products in a normal year.

Non-staple foods account for 4%, 10% and 7% of the above total annual expenditure on food among the poor, middle and better-off households respectively. Non-staple foods purchased by all three wealth groups include cooking oil, sugar and in some cases rice. The high expenditure on non-staples among the middle and better-off is attributed to preference and seasonal availability of natural butter from milk products.

As evident in Figures 3, the overall total expenditure on staple and non staples foods is 26%, 29% and 13% among the poor, middle and better-off households respectively. The higher purchases for middle compared with better-off is due to differences in maize production during normal years.

Expenditure on household items:

Poor households in the livelihood zone spend 9% of their annual income on household items such as soap, paraffin, matches and clothing for household members. The poor minimize clothing expenditure by purchasing clothing used at local markets and purchasing clothes once yearly. Middle households spend up to 7% of annual income on household items, compared with 6% for better-off households. However this is slightly lower than what the poor and middle households annually spend on household items. The better off tend to spend less on clothing proportionally compared to other wealth groups due to the nature of their expenditure, with more focus on other expenditure priorities, particularly investment in livestock treatment, water and capital equipment such as vehicles which require fuel and maintenance.

Expenditure on Vaseline and local powder:

Local powder and Vaseline are essential items for the women, particularly in the Himba culture. It's meant for skin protection and beautification purposes. This is a main expenditure item for all wealth groups in the livelihood zone. The poor, middle and better-off households spend 3%, 2% and 1% of their annual household income respectively on local powder and Vaseline during normal years.

Expenditure on education:

Provision of education services is one of the most challenging issues in the communal cattle and small livestock zone of Kunene region. This is attributed to the nomadic pastoral way of life, particularly among the Himba tribe. This has made it difficult to effectively plan and provide educational services in the region. The situation is exacerbated by the lack of interest for educating children among the local population. The state of educational infrastructure is some villages such as Okaanga is very poor to the extent that teachers have no staff housing facilities, while children lack proper classroom space as well boarding facilities for safe accommodation. There are also no community contributions to improve the situation, making it difficult to conclude whether any learning takes place in such schools.

Despite the above challenges, some few poor households work hard to afford basic education for their children. These households are able to spend at least an average of 0-6% of their annual income on basic education compared with 0-5% for middle and 0-8% for better-off households.

School attendance also requires the purchase of books, pens and school uniforms. Additional expenses on basic education are also linked to distance from schools requiring transport. Most of this is subsidized through the use of donkeys for transport purposes. The higher expenditure on education among some better-off households is related to boarding fees and higher cost of tertiary education.

Due to a combination of factors such as lack of clear priorities, interest in education and to some extent poverty, typical poor households are unable to afford secondary and tertiary education for their children.

Expenditure on health care:

Overall expenditure on health care among all wealth groups is the smallest expenditure item compared with other basic needs. The poor, middle and better-off households spend 0-1% of their annual income on health care services. Most of the health care costs are out patient costs within government health units. The standard fee is 4 N\$ per visit, with an additional 10 N\$ for those without medical cards. However health care costs vary from one village to another depending on distance from a particular health unit, due to additional transport costs incurred by the people.

Expenditure on transport:

Expenditure on transport services also varies among the three wealth groups. Whereas the poor and middle mainly rely on irregular public transport, due to the bad state of feeder roads, better-off households spend on both public and private transport. A significant number of better off households have purchased second hand vehicles associated with high maintenance and fuel costs. Overall poor, middle and better-off households spend 5%, 4% and 43% of their annual income on transport services respectively, with the larger share incurred by the better-off due to vehicle ownership.

Expenditure on investment (veterinary drugs and water for livestock):

The typical poor household in the livelihood zone spend an average of 0-33% of their annual income on what is termed investment for the future in a normal year like 2007/08. The most common investments undertaken by the poor households include purchase of livestock, veterinary drugs and community contribution to pump water for livestock during the dry season in some villages. Similar expenditures are also incurred by the middle and better-off households. These two wealth groups spend up to 25% and 16% of their annual income on veterinary drugs, water for livestock and payment of hired labour for herding animals particularly during the dry season. The high cost of accessing water is attributed to the technology in place which requires fuel (diesel) for pumping underground water for the livestock. The approach is costly and may not be sustainable among the communities in the long term period.

Overall the poor spend on restocking during normal years, unlike the middle and better-off households, whose expenditure is mainly on capital equipment with a focus on maintaining the existing herds of livestock.

Expenditure on beer and tobacco:

Characteristic of the communal cattle and small stock zone as a whole, poor households relatively have a heavy expenditure on beer and tobacco in absolute terms (0-34%) compared with 0-21% and 0-16% among the middle and better-off households respectively. Poor households report regular beer consumption by male household heads as a social necessity, and it is suspected that alcohol addiction plays an enormous role in explaining daily consumption.

Similar to the poor, middle and better –off households normally spend on alcohol, when they sell livestock or obtain income from other sources. It is even believed that, due to alcohol and tobacco addiction, most households barter their livestock for the same. This is part of the problem likely to perpetuate the vicious cycle of poverty among some households in the zone.

Other expenditure:

Other non typical expenditure among all wealth groups includes construction of permanent houses using iron sheets and cement materials. However due to lack of disposal income, expenditure by the poor is accounted for by the above categories. However, most typical middle and better off households have some flexibility with disposable income, which is mainly used for restocking in some cases.

6.0 Analyzing Household Vulnerability: Identification of Common Shocks Drought Related Conditions

In household economy analysis, household vulnerability to “shocks” (potentially negative events or changes) is analyzed through two separate analyses:

- Household livelihood patterns (food, income and expenditure) in normal or non crisis years; and
- Household livelihood patterns and coping/distress strategies in bad/ crisis years when shocks occur.

Initial key informant interviews indicated that the year 2006/07 was ranked as a “bad year” for the households in the Communal Cattle and Small Stock zone. This ranking was based upon the following characteristics:

- Very low and late rainfall between February and March for a short period of time.
- Abnormal start of the season characterized by prolonged dry spells in November and December.
- Very poor pasture and grazing conditions
- Low milk production for a short period of time.

- Low livestock production due to lack of pasture and surface water for animals.
- Early movement in search of pasture and water for animals particularly on the mountain side.
- Very low household income due to low livestock prices attributed to poor livestock conditions.
- High rate of distressful livestock sales, due to hunger.
- High human mortality and morbidity rates, due to limited livestock products.
- High rate of migration as a coping strategy, particularly among the better-off households.

Poor households were the most economically affected by these conditions. This derived in large part from their reliance upon a less sustainable source of livelihood strategies, than the middle or better-off households. Ultimately however, all groups coped with the situation through specific coping strategies, which are discussed below.

Analyzing household vulnerability: coping capacity and food access

To compensate for reduced domestic milk, meat and crop production, poor households engaged in the following strategies:

- Increased labour exchange for food with some middle and better-off households. This included milking on contract and both local/distant construction of kraals among others, so as to reduce the food gap created by reduced own livestock production as a result of the 2006/07 drought related conditions.
- Long distance migration in search of cheaper sources of food in places such as Opuwo town and neighbouring regions of Omusati and Erongo.
- Increased search for wild foods in the mountain side and conservancies. More household members shared the responsibility for collecting wild foods, with children taking an active role as well.

Analyzing Household Vulnerability: Coping capacity and income access

Despite the relative low diversification of livelihoods strategies among the population, all wealth groups engaged in the following strategies to boost their income level:

- Households increased involvement in long distance sale of livestock. Due to capital costs, this option was practiced more by middle and better-off households than the poor.
- Increased cases of distressful sale of livestock at a lower price compared with the normal years, for example prices of goats reduced from 400N\$ to between 100-200N\$ and cattle from 2000N\$ to 800-1,000N\$. The elevated animal sales were necessary because of the sharp drop in animal market prices during the 2006/07 year of crisis.
- The middle and better off households increased the sale of livestock and other migrated into urban areas.

Analyzing household vulnerability: Coping capacity and expenditure

As with food and income generating activities, shocks affect the expenditures of the poor more than other wealth groups. Expenditures displayed the following trends during the 2006/07 crisis year:

- Due to the one digit inflation of staple food items, most poor households shifted their priorities to mainly purchase maize meal. However the increase in the price of maize meal meant higher proportions of their incomes had to be spent on one item.
- This forced poor households to resort to bartering their livestock with maize meal at very unfair terms of trade.
- Some poor households stopped using kerosene/paraffin as a source of fuel for lighting, and increased their use of firewood.
- Some poor households mainly relied on local herbs treatment compared with clinic-based treatment.
- Households reported reduced, though not eliminated, expenditure on alcohol and tobacco.

Analyzing Household Vulnerability: The case of food security and drought

The livelihoods based vulnerability analysis detailed in this report highlights some of the spatial and temporal variations in vulnerability as well as the structural poverty faced by communities in the Kunene Communal Cattle and Small Stock zone. Infrastructure underdevelopment, limited availability of community-level extension services, high unemployment and lack of livelihood diversification strategies combine to limit community economic development.

As a result, an estimated 40-50% of the households who fall among the poor household group face the real prospect of hunger during bad/crisis years characterised by shocks.

The most common shocks in the zone are drought related conditions, livestock diseases, wild life animal destruction and veldt fires.

However drought conditions are the single most serious threat to nomadic pastoralist, as has been widely documented as a major factor that effectively undermines rural livelihoods in sub-Saharan Africa. The negative climatic conditions rob households of their economically productive assets, leaving a very narrow productive asset base and resilience capacity to other shocks. Livestock based economies are particularly vulnerable to effects of drought because of high requirement for water and adequate grazing areas for both humans and livestock. Drought conditions worsen poverty, and poverty places people at greater risk of vulnerability to any other economic shocks including HIV and AIDs disease.

The following is the minimum livelihood basket for a household of 9 people in the poor category.

| Items | Sub Category | Cost per Unit | Total Cost (N\$) |
|--------------------------|--|---|------------------|
| Staple foods | Maize meal | 480 kg | 2,880 |
| | Milk | 6,500 litres | 2,400 |
| | Meat | 150 kg | 3,165 |
| | Butter | 25 litres | 25 |
| Non staple foods | Salt | 12 kg | 48 |
| | Sugar | 60 kg | 900 |
| | Cooking Oil | 30 litres | 629 |
| Essential non food items | Match box | 24 boxes | 24 |
| | Soap | Monthly an average of 10N\$ | 120 |
| | Clothing | All Household members, though more expenses for men's clothes @540N\$ | 540 |
| | Vaseline, local powder and hair braids | Monthly local powder " 10N\$, braids " 10N\$ and Vaseline @ 95N\$ | 295 |
| | Health care(includes transport) | Quarterly for outpatient and whole year @ 68 | 68 |
| | Education (fee, uniform etc) | 2 children @ 297 | 594 |
| | Cost of water for livestock | 2 goats @ 350 | 738 |
| | Livestock drugs | ¼ bottle @ 70 | 70 |
| Total Amount | | | 12,496 |

Overall the total amount of cash required for meeting the minimum annual livelihood basket is 12,496N\$, assuming livestock products such as milk, meat and butter also have a market value expressed in monetary terms. However since all these are items are local production (own livestock products and labour exchange) among poor households, the actual value of the minimum livelihoods basket reduces to 7,169N\$ among the poor household group. This implies that, the estimated annual income range of 7,000-9000N\$ is only adequate to meet the minimum livelihoods basket in a normal or non crisis year. There is no disposable income, particularly among the estimated 55% of poor household group who are non social pension beneficiaries in the Communal cattle and small stock livelihood zone.

Explanation of figures in the minimum livelihood basket:

- Beer and tobacco are discretionary non food items not included in this minimum livelihoods basket.
- The cash payment for contract milking in a year is N\$ 200 X 12 months = 2,400 N\$. The equivalent of this is paid in kind (milk and milk products) in some cases. This implies that, if milk was sold it would only be 0.3 cents per litre in a normal or non crisis year such as the 2007/08 reference period.
- 1 litre of local butter is equally cheap and would cost 1N\$.

Main conclusion and implications

Generally household food insecurity in the communal cattle and small stock zone is primarily caused by drought related conditions. It is therefore imperative to ensure that implementation of an effective development strategy in the region aims at drought mitigating initiatives, so as address the negative impact of drought the main risk factor for vulnerability, which continues to induce poverty among the population. Some of the main negative effects of drought among others include, lack of water and pasture, which tend to cause poor livestock conditions and induce diseases resulting into low livestock products and market prices affecting household incomes. A Large-scale drought mitigation strategy is an option for the achievement of sustainable livelihoods.

The principal conclusions and recommendations are outlined below.

Main livelihood patterns:

Overall livelihoods in the Kunene Communal Cattle and Small Stock zone depend on livestock. Of the three wealth groups defined by local respondents, the poor constitute the majority (40-50%) of the total number of households in the zone. The poor are able to meet their minimum food needs (116% of household calorific requirements) in normal years. This implies they can attain their survival threshold without any major problems in non crisis years.

The middle and better-off are relatively more food secure than poor households. They derive up to 126% and 160% of their annual food needs in normal or non crisis years. However the main problem is limited diet diversity and livelihoods diversification options among all three wealth groups.

Income levels show that, all three wealth groups are capable of providing for their own basic needs using income primarily derived from sale of livestock. The poor household group, who are the most vulnerable in the population, can meet their minimum livelihood basket in normal years. The main challenge is the lack of disposable income required for adequate investment and strengthening resilience to any future economic shocks.

Levels of vulnerability: A summary of the 2009/10 household food security forecast

The timely rainfall in the 2008/09 agricultural season in the Kunene Communal Cattle and Small Stock zone implies that, there is good pasture and adequate surface water for livestock. This has resulted into good livestock conditions and high milk production among the three wealth groups. It is also anticipated that livestock prices will be relatively stable, translating into relatively high household incomes for purposes of meeting basic needs of survival and other key expenditure priorities for future investment.

There will be no need for any drought relief food aid programme; however improved availability and access to maize meal is a minimum requirement. This can be achieved through a Government and private sector strategic food market partnership particularly during the annual hunger period (September to December 2009)

The following key risk and vulnerability indicators should be monitored on a quarterly basis in the course of 2009/10 consumption year:

1. Changes in prices of maize meal and other basic non food items
2. General distribution of maize meal and other non staple food items in the Kunene region.
3. Changes in livestock prices on a bi-monthly basis.
4. Terms of trade (bartering of livestock with maize meal and other basic commodities)
5. Cases of livestock diseases across the region.
6. Timing of long distant grazing period (Ideally it should start from late August or early September)

NB: A detailed seasonal price data for the 2007/08 normal is attached as Annex D for reference purposes.

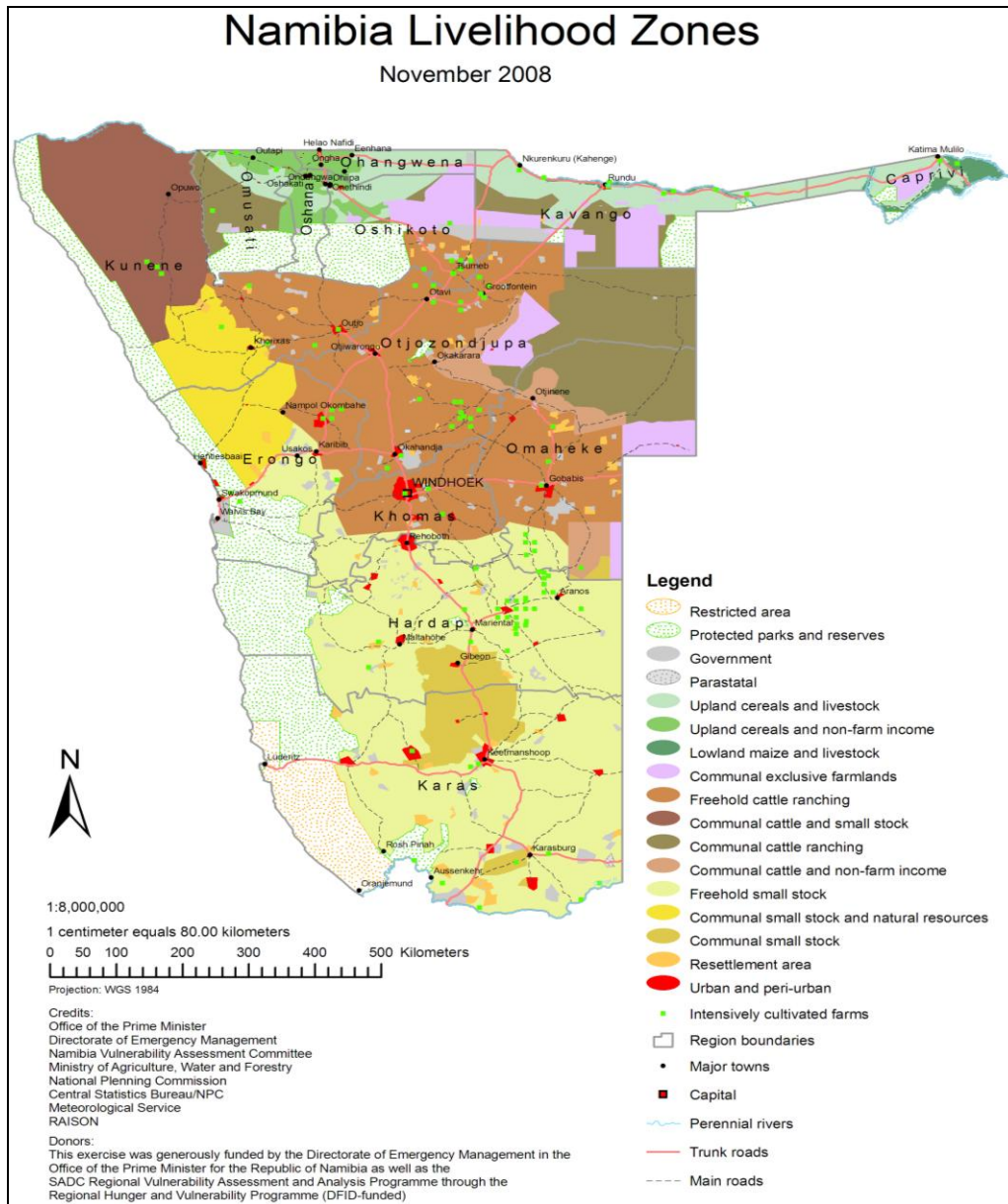
On the basis of the above analysis, the following implications are presented for policy and decision makers:

- 1. Community participation and involvement in development planning and implementation**-There is need for more community involvement and participation in regional development planning and implementation process in line with the Ministry of Local Government Act.
- 2. Food markets and the comprehensive food aid programme**- In view of the available evidence which shows that, the main problem of seasonal food insecurity is not ability to afford, but mainly lack of availability and access to staple foods, the Office of the Prime Minister–Directorate Emergency Management should explore possible options of addressing availability and access to staple food items such as maize meal through a Government led - Private Sector partnership. This should be aimed at stabilising the supply of staple and some non staple foods in the remote villages within Kunene region. This can be achieved through subsidising the delivery of staple foods, due to the poor state of feeder roads in most remote parts of the region. The staple foods can be delivered in strategic locations with an aim of improving availability and access through purchase from the market by the entire population compared with the high cost of delivering drought relief food for few selected households. This will be a more viable option as compared with the high cost of delivering drought relief food in the region. The overall logistical cost of three months period food distribution in the Kunene region is estimated to be between 74,000-110,000N\$. A cost benefit analysis of the food aid programme may reveal the actual cost of food per beneficiary household. A review of the cost per beneficiary household should also take into consideration the issues related to timing of the food assistance, adequacy of ration size and the overall targeting strategy.
- 3. Local infrastructure (feeder roads and earth water dams)** - In view of the ongoing food and cash for work programmes implemented by the Ministry of Regional Local Government, Housing and Rural Development, there is need to fast track the implementation process in the Kunene region, so as to improve the poor state of village and constituency feeder roads through community driven food and cash for work initiatives.
- 4. Water for livestock (Earth dams and elephant pumps)** Seasonal unavailability of water for livestock is a major problem among farmers in this zone. The situation is exacerbated by the high cost of pumping underground ground. The provision of cost effective water for livestock through rainwater harvesting techniques such as construction of earth and valley dams as well as simple elephant pump technology, should be explored by the Ministry of Agriculture, Water and Forestry.

- 5. Micro-irrigation schemes-** Promotion of micro- irrigation schemes using available rain water in some villages for crop production, particularly horticultural crops needs to be explored to enable the local population have balanced diet.
- 6. Veterinary extension services-** Inadequate access to veterinary extension services by rural farmers has resulted from irregular provision of such services in some remote villages, mainly due to the poor state of road infrastructure. Veterinary extension services should be expanded through training community based animal health workers to provide appropriate services based on their level of skills and knowledge. This could be complemented by ensuring timely delivery and distribution of non refrigerated drugs through local stockiest such as successful livestock farmers.
- 7. Marketing of livestock-** Promotion of local livestock marketing cooperatives and associations for purposes of improving bargaining power could be an option to address the persistent low livestock prices among farmers. Fast tracking of efforts to relocate the veterinary fence and more investment in veterinary services will also go a long way to address the current income inequality in the country.
- 8. Local employment creation schemes-** The Ministry of Youth should intensify vocational training among unemployed youth, so as to mitigate the prevailing high rate of unemployment among the youth.
- 9. Public Health and Hygiene-** The Ministry of Health and Social Services should implement a more comprehensive public health and hygiene education (safe water and latrine facilities) in rural villages and health delivery packages should include reproductive health issues, particularly on HIV and AIDs prevention, mitigation and treatment.
- 10. Education-**The Ministry of Education should explore possibilities of implementing community led, alternative education policy to address the numerous challenges facing the education sector and children's learning environment in the region.
- 11. Social Pensions-** Reduction of the distance between some villages and social pension payment points should be given priority, given the fact that, some pensioner loss about 22% (100N\$) of the monthly cash payment on transport. The Ministry of Labour and Social Welfare should work in partnership with companies contracted to pay out pensioner, so as to address this problem.

ANNEXES

Annex A: Map of Namibia Livelihood Zones



Annex B: List of Sites Visited

The constituencies and villages visited by the assessment team were the following:

Epupa Constituency: Okaanga and Okauwa Villages.

Opuwa Constituency: Ongango and Otjiheke villages.

Sesfontein Constituency: Okavare, Otjizeka and Palm villages.

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Annex C: Seasonal Calendar

| Activities | Who in the Hh | Nov | Dec | Jan | Feb | Mar | April | May | Jun | July | Aug | Sep | Oct |
|--|----------------|-----|-----|-----|-----|-----|-------|-----|-----|------|-----|-----|-----|
| Livestock production calendar | | | | | | | | | | | | | |
| Rainfall | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | |
| Calving | Men & women | ■ | ■ | | | | | | | | | | |
| High cattle milk production period | Men & women | | | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| Low cattle milk production period | Men & women | | | | | | | | | ■ | ■ | ■ | |
| Goat milking period | Women | ■ | ■ | ■ | ■ | | | | | | | | |
| Digging wells | Men | | | | | | | | | ■ | ■ | | |
| Long distance grazing/herding | Men | ■ | ■ | ■ | | | | | | ■ | ■ | ■ | ■ |
| Short distance grazing | Men | | | | ■ | ■ | ■ | ■ | ■ | | | | |
| Peak livestock sales/low market prices | Men & women | ■ | ■ | | | | | | | | | ■ | ■ |
| Peak livestock slaughtering months | | | ■ | | | | | | | ■ | ■ | | |
| Peak hunger months | All Hh members | ■ | ■ | | | | | | | | | ■ | ■ |
| Crop production calendar | | | | | | | | | | | | | |
| Land clearing/cultivation | Men | | | | | | | | | | | ■ | ■ |
| Planting | Men & women | ■ | ■ | | | | | | | | | | |
| Weeding | Women | | | | ■ | ■ | | | | | | | |
| Harvesting | Women | | | | | | | | ■ | ■ | | | |
| Other livelihoods activities | | | | | | | | | | | | | |
| Local crafts/Construction | Men & women | ■ | ■ | ■ | ■ | | | | | | | | |
| Collection of Mopane worms | Men & women | | | | | ■ | ■ | | | | | | |
| Community tourism activities | women | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

Annex D: Seasonal Market Prices

SEASONAL MARKET PRICES IN NAMIBIAN DOLLARS (N\$) FOR BASIC & ESSENTIAL COMMODITIES

| Items | Units | Nov 07 | Dec 07 | Jan 08 | Feb 08 | Mar 08 | Apr 08 | May 08 | Jun 08 | Jul 08 | Aug 08 | Sep 08 | Oct 08 |
|------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Meat | 1kg | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 | 21.10 |
| Milk | 1ltr | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Salt | 1kg | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| m/meal | 50kg | 250.00 | 250 | 250 | 250 | 250 | 250 | 250 | 300 | 300 | 300 | 300 | 300 |
| Sugar | 1kg | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| C/oil | 750ml | 18.00 | 18.00 | 20.93 | 20.93 | 20.93 | 20.93 | 20.93 | 20.93 | 20.93 | 20.93 | 20.93 | 20.93 |
| Rice | 1kg | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| Macaroni | 500gr | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| Beer, Soft /drink | 750ml | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| Paraffin | 250ml | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Matches | 1 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fuel | 1ltr | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 |
| Vet drugs | 1bottle | 217 | 217 | 217 | 217 | 217 | 217 | 217 | 217 | 2170 | 217 | 217 | 217 |
| Vaseline | 500gr | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| Soap | 250gr | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| W/powder | 500gr | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| Local powder | 50gr | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| Traditional perfume | 50gr | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| Primary & Sec Sch fees | Per Child/term | | | 45240 | | | | 45240 | | | | 45240 | |
| School uniforms | Child/year | | | 200 | | | | | | | | | |
| Transport costs | Average cost of trip from remote villages to Opuwo | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |
| Health care | Person | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Tobacco | 50gr | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Cattle | 1 | 2083 | 2083 | 2083 | 2083 | 2083 | 2083 | 2083 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Goat | 1 | 340 | 340 | 340 | 340 | 340 | 340 | 340 | 250 | 250 | 250 | 250 | 250 |
| Sheep | 1 | 375 | 375 | 375 | 375 | 375 | 375 | 375 | 250 | 250 | 250 | 250 | 250 |
| Donkey | 1 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Mopane worms | 450gr | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |