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**“The Inter-Relationships and Linkages among
Migration, Food Security and HIV/AIDS in
Windhoek, Namibia”**

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Acronyms

AIDS-	Acquired Immune Deficiency Syndrome
ART-	Antiretroviral Therapy
ARV-	Antiretroviral
CBO-	Community Based Organization
DHS-	Demographic and Health Surveys
ECA-	Economic Commission for Africa
EDF-	Education Development Fund
FAO-	Food and Agriculture Organization of the United Nations
FGD-	Focus Group Discussion
GDP-	Gross Domestic Production
GRN -	Government of the Republic of Namibia
HIV-	Human Immunodeficiency Virus
IOM-	International Organization for Migration
IPPR-	Institute for Public Policy Research
IRD-	International Relief and Development
LAC-	Legal Assistance Centre
KII -	Key Informant Interview
MBESC-	Ministry of Basic Education, Sport and Culture
MECYS-	Ministry of Education, Culture, Youth and Sport
MET-	Ministry of Environment and Tourism
MGECW-	Ministry of Gender Equality and Child Welfare
MHSS-	Ministry of Health and Social Services
MoE-	Ministry of Education
NGO-	Non-governmental Organization
NPC-	National Planning Commission
OVC-	Orphans and Vulnerable Children
SDF-	School Development Fund
STD-	Sexually Transmitted Disease
UNAIDS-	Joint United Nations Program on HIV and AIDS
UNFPA-	United Nations Population Fund
UNICEF-	United Nations Children's Fund
UNAM-	University of Namibia
WHO-	World Health Organization

Executive Summary

This is a study of the inter-relationships and linkages among migration, food security and HIV/AIDS in Windhoek, Namibia. Specifically at the urban household level, the purpose is to examine the impact of rural-urban migration, continued linkages and the reciprocity these linkages offer regarding food security in magnifying or ameliorating the impacts of HIV and AIDS. Given Namibia's particular socio-demographic and environmental situation, i.e., large arid land mass, low rainfall and limited agricultural production, HIV prevalence of approximately 20% of the adult population as well as extremely unequal wealth distribution, the need to understand the co-existing factors of food security, migration and HIV/AIDS is imperative to the health and well-being of the population. Therefore, this study was undertaken with the support of the Regional Network on AIDS, Livelihoods and Food Security (RENEWAL), through the International Food Policy Research Institute (IFPRI). The aim of this study is to inform policy decisions and address the triple challenge of migration, food security and AIDS in Namibia. It is anticipated that the outcomes and recommendations will be of use to the Government of the Republic of Namibia (GRN) in the formulation of policy.

The research objectives are to:

- 1) Demonstrate that household level rural food production contributes to the food budget of urban households
- 2) Examine the role of rural-urban migration and rural-urban linkages at the household level in magnifying or ameliorating the impacts of AIDS
- 3) Quantify the role that urban agriculture plays in meeting the food gap of urban households, and the extent to which AIDS influences this
- 4) Assess the policy environment's role in hindering or contributing to the urban food security of households (urbanization, economic, health)
- 5) Identify policy and programming implications of the findings in the context of the triple challenge of migration, AIDS and food insecurity
- 6) Identify problems and challenges that are specific to orphans and vulnerable children (OVC) as a critical element of society within the regional context of migration, AIDS and food security.

The methodology consisted of three data collection techniques: 1) policy analysis; 2) standardized questionnaire survey with 513 respondents; and 3) in-depth, semi-

structured case study and key informant interviews with 31 respondents. This research was conducted in the township of Katutura, where many of the migrants from rural areas reside in both formal and informal settlements. Frayne (2007, p.96), who conducted a similar study, stated that:

“Katutura is the primary destination of migrants to the city [of Windhoek], and appears to have the strongest urban rural linkages in Windhoek. Furthermore, it is home to more than half of the city’s entire population and represents the poorest (and most vulnerable) sectors of society. It should be noted that the name Katutura is used to refer to both the formal area of the township and the informal areas to the northwest of the city.”

The sample was purposeful, with systematic convenience selected households according to Population Sample Unit (PSU) maps from the National Planning Commission (NPC). Purposeful sampling is sometimes referred to as “purposive or judgment sampling. In judgment sampling, “you decide the purpose you want informants (or communities) to serve and go out there to find some” (Patton, 2002, p.230). Neuman (2003, p.218) stated that randomly selected samples “are most likely to yield a sample that truly represents the population.” In this case, it was expected that the sample was representative of the general population of Namibia; however, it could be regarded as representative of urban migrants in the townships of Windhoek.

Five hundred thirteen (513) interviews were conducted in the North-western townships of Windhoek (Katutura, Okuryangava, Wanaheda, Goreangab, Hakahana, and Otjomuise). Fifty-five percent (55%) of the interviews were carried out in formal settlements and 45% were in informal settlements. These townships were purposely identified based on ethnicity, poverty level and migration trends. The sample was convenience by each 10th house or shack on a given street. Only migrants i.e., those not born in Windhoek, were interviewed.

A synopsis of key findings regarding migration is that in Namibian culture, one does not migrate forever. The place in the rural area is home; the city is just a place to work. This corroborates the ‘circular nature’ of internal migration in Namibia (references). Rural dwellers move from rural areas (home) to urban areas (place of

work) in search of a better livelihood during their prime working age, they visit home regularly maintaining important reciprocal relations with extended families, and/or eventually retire to rural areas (home). Of the migrants interviewed for this study, 62% of the respondent heads of household are male, 38% are female. They are young (75% are under 41 years of age), educated (59% have completed grade 10), mainly single or never married (52%), and are internal migrants primarily from the Northern regions of the country. This profile conforms to previous studies of migration in Namibia (Frayne, 2001) which also indicate that the majority of migrants to Windhoek are from the Northern regions of the country.

A synopsis of key findings concerning remittance transfers (implying linkages) is that money is the main item sent outside of Windhoek. Money is sent by 54% of respondents, 90% of the money sent is to rural areas in the Northern regions with 73% of the recipients being parents. Neither food (73%) nor goods (77%) are sent. The vast majority (91%) of those who send money presume that it is being used for food.

There is only a small difference between male and female heads of household in terms of sending money, where 3% more female headed households send money outside of Windhoek. Without exception, however, the amount sent by male headed households exceeds that of female headed households.

Food was received by only 44% of the respondents and money by 24% of the respondents, compared to 54% of respondents who had sent money. Thus, urban areas like Windhoek are key for diversified livelihood systems of families/kin because remittances in the form of money are regularly sent back home, making the „senders’, who themselves are generally food secure, important assets in a rural based system. Although there does not appear to be direct reciprocity between money sent and food received, of the food that was received, about three-fourths came from the Northern regions, where the majority of money was sent.

A synopsis of key findings about food security is that two-thirds of the respondents (68.9% of those who answered the question) are food secure in response to the question, “Were there particular times in the past year when food security was poor?” The most food secure are people who are employed and live in formal settlements.

The most food insecure are the respondents who live in informal settlements, are HIV positive and are on ART; most of these households do not receive the dietary diversity necessary to support good nutrition. About a fifth of the respondents (21.6% of those who answered the question) feel their food-security has changed for the worse, mainly due to unreliable income or loss of work. Those respondents who reported experiencing instances of food insecurity said they relied on family, friends and/or neighbours to give them food or money. Thus, although the majority of respondents in the study reported that they were food secure when validated with the dietary diversity score, a proxy for food security, it was found that some groups were clearly particularly vulnerable to hunger. These vulnerable groups are important targets for state and NGO responses.

Tests for correlation between food insecurity and formal/informal residence show no evidence of significant relationship between the two variables. A significant association between food security and region of origin was found. Migrants from the North reported decreased food security in Windhoek compared to home, while those from South reported improved food security. This likely is related to agricultural production in the North, and hence more food availability, as opposed to the South.

Food is available in Windhoek's supermarkets and informal *kapanas*; hence the food security or insecurity of migrants is an issue of affordability rather than availability of food. Food insecure migrants reported that when they are hungry, they may request (and hope to receive) food transfers from rural areas, but most generally depend on receiving food from neighbours. To the food insecure migrants, food security does not mean accessibility to nutritious food, but accessibility to any food that *makes the stomach full*. Balanced diet is likely not an issue; and the HIV positive migrants who are on ART are more food insecure as a result of affordability/accessibility rather than availability. Among this sub-sample of households affected by HIV, utilization of accessible food is high - the central point is accessibility or lack thereof.

As indicated above, the food system in Windhoek is predominantly based upon a cash economy whereby food is available on the markets, largely from commercial farmers in Namibia and from exports. It is therefore not surprising that urban agriculture does not appear to provide a significant food resource in Windhoek. This was despite the issue of urban agriculture seen as a potentially important source of food security at the outset of the study. Water security is a particular obstacle to urban agriculture coupled with small plots and unfavourable land tenure matters.

A synopsis of key findings relating to health is that when people are sick, they want to be with their families. So, depending upon where the family is (here or home), that is where people want to be. The expressed preference (60%) is to go home to families (probably parents), when asked, “If you were very sick and unable to work, where would you want to stay?” This demonstrates the importance of retaining familial linkages with rural based kin largely through sending remittances and maintaining regular contact. In some ways this can be seen as a form of health insurance – related to culture and identity. It is important to note that healthcare in Windhoek is available, accessible and affordable.

Regarding HIV and AIDS, a majority of respondents have been tested for HIV, know their status, know where to get treatment as necessary and know that someone who is HIV positive can live a healthy life. 53% of respondents said they are at no risk of contracting HIV (most frequent responses were: one faithful partner and use a condom; 32% said they are at some risk (most frequent responses were: don't trust partner, AIDS can be contracted many ways, use a condom); and 13% said they were at high risk (most frequent response was: don't use a condom). There are relatively more females who do not perceive themselves to be at risk (63%) than males (52%). The responses are very similar for males and females regarding some risk and high risk. More females than males (11%) have been tested, likely due to pregnancy.

These findings compare to national statistics of 22% of the population having been tested, 62% of young people (aged 15-24) correctly able to identify ways of preventing sexual transmission of HIV, 8% of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months, and 69% of women and men aged 15–49 who had more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse.

(http://cfs.unaids.org/country_factsheet.aspx?ISO=NAM).

A summary of qualitative interviews with caregivers of orphans and vulnerable children (OVC) as well as OVC themselves reveal important findings about food security in households that care for OVC. Significantly, food security in households that care for OVC did not mirror the overall findings wherein the majority of respondents are food secure. In the households that care for orphans, 90% reported ***not having sufficient food***.

100% of the children mentioned that there was *not enough to eat*. Most of these children feel well cared for by their extended families, particularly those who are staying with their grandmother. Indeed, those children who stay with their grandmothers stated that they do not perceive themselves as orphans. Each and every child expressed a dream to go to university to become a teacher, doctor, nurse, lawyer, accountant or engineer. Simply being able to express such a dream speaks to the resiliency and optimism of these children.

Focus group discussions with stakeholders, who are all policy makers, implementers or beneficiaries, revealed that the most pressing discussion topic concerned the obvious lack of policies regarding food security and urban agriculture. Internal migration was perceived as a problem only in the context of a lack of affordable housing in Windhoek. There exist policies regarding HIV and AIDS and it was perceived that the GRN was effectively addressing the epidemic with the assistance of international donors. Only one participant expressed concern about the GRN's ability to sustain the implementation of these policies once international donors decrease their presence (and money).

The findings are herein presented with respect to each research objective.

Research objective 1: *Demonstrate that household level rural food production contributes to the food budget of urban households through urban-rural linkages.*

The key findings related to this objective address migration and continued urban-rural linkages. It can be stated that rural food production contributes to the food budget of urban households, however, this is the case for less than half (44%) of the respondent households.

Research objective 2: *Examine the role of rural-urban migration and rural-urban linkages at the household level in magnifying or ameliorating the impacts of AIDS on urban household food security. AIDS in and of itself does not appear to be a factor in relation to rural-urban migration, rural-urban linkages and urban household food security.* A migrant who becomes sick, regardless of whether it is an HIV-related illness, wants to be wherever the family is, be that in the urban or rural household. It could be argued that the ability to return „home’ to the village and to be welcomed may be a result of the carefully maintained linkages between the urban and rural households. Although no conclusion can be drawn about rural-urban migration relative to urban household food security of AIDS impacted households, the data does show that rural-urban linkages remain intact for some of these households

which receive food from family in the Northern regions. Furthermore, the food that is sent is of high nutritional value. This is of particular importance given that the most food insecure were the respondents who were HIV positive, staying in informal settlements and on ART.

Research objective 3: *Quantify the role that urban agriculture plays in meeting the food gap of urban households, and the extent to which AIDS influences this.* Urban agriculture does not appear to provide a significant food resource in Windhoek.

Research Objective 4: *Assess the policy environment's role in hindering or contributing to the urban food security of households (urbanization, economic, health – including AIDS - and education).* The policy environment in Windhoek regarding urban food security is absent.

Research objective 5: *Identify policy and programming implications of the findings in the context of the triple challenge of migration, AIDS and food insecurity.* The findings reveal that there is a significant influx of mainly young migrants into Windhoek from rural areas who are looking for employment and economic opportunities. This influx results in socio-economic challenges such as high unemployment, food insecurity and HIV/AIDS. The challenges require an integrated policy if they are to be tackled effectively, consistently and appropriately. The city of Windhoek does not have a policy directing migration nor addressing food security or urban agriculture. There is need for such a policy to guide and direct decision-making concerning the increased rural-urban migration.

Research objective 6: *Identify problems and challenges that are specific to orphans and vulnerable children as a critical element of society within the regional context of migration, AIDS and food security.* It must be understood that the sub-sample of OVC in this study may not be representative of the population of OVC in Namibia. These children are living with extended family members in an urban area which is the capital of the country, while many of Namibia's OVC stay with grandparents or other caregivers in rural areas or are living unsupported on the streets. The problems faced by this sub-sample represent only some of those faced by Namibia's OVC – mainly hunger and lack of access to education (as a result of inability to pay school fees).

Conclusion: The salient conclusion of this study is that migration, food security, employment and to some extent HIV/AIDS, are all interwoven in households in the North-western townships of Windhoek, regardless of whether the households are in formal or informal settlements. Food is available and accessible, presupposing that people can afford to buy it. In order to be able to access food, one must first be able to access the money necessary, either through employment (formal or informal) or government grants. Therefore, **food insecurity must be viewed in a larger context as a poverty problem**. Thus, it is not a stand alone issue; rather it is embedded in the entire socio-economic fabric of Namibia. Although urban agriculture could be a component of increased food security (albeit minor due to some inherent problems of urban agriculture in Windhoek), formal and informal employment and income are even larger factors. Any discussion of food security cannot take place in the absence of understanding land affordability and densification issues and the municipal policies that promote densification. These municipal policies are land policies only which favour zero agriculture and have developed in the context of widespread poverty.

It is clear from this study that local and national policies about migration, HIV/AIDS and food security are not coordinated to form the integrated policy and programming interventions required to address urban development needs. There is recognition that these three policy areas require integration, but not enough information exists to ensure the development of such an integrated policy with an effective implementation strategy.

This study has contributed to the understanding that there is a need to develop and integrate policies in these areas of the *Triple Threat*. This requires further study of Windhoek's urban land policy, land tenure and current migration patterns. One of the benefits of this current study has been the inclusion of stakeholders at all stages. Such stakeholder involvement is critical to ensure that an integrated policy can be implemented.

1. Background and Introduction

This is a study of the inter-relationships and linkages among migration, food security and HIV/AIDS in Windhoek, Namibia. Specifically at the urban household level, the purpose is to examine the impact of rural-urban migration, continued linkages and the reciprocity these linkages offer regarding food security in magnifying or ameliorating the impacts of HIV and AIDS.

It is within Namibia's particular sociodemographic context that considerations about food security, urban agriculture, migration, rural-urban linkages and especially HIV and AIDS must be considered. Namibia is a sparsely populated country (approximately 2,000,000) with an HIV prevalence rate of approximately 20%. It is the most arid country in sub-Saharan Africa with both the Kalahari desert (260,000 km²) and the Namib desert (134,000 km²). The desert climate is hot and dry with low and erratic rainfall and prolonged periods of drought. Less than 1% of the land is arable for crop production. Environmental issues concern limited fresh water resources and encroaching desertification. Economically, Namibia's gross domestic product (GDP) per capita is relatively high among developing countries but obscures one of the most unequal income distributions on the African continent. Although Namibian agriculture (excluding fishing) accounted for less than 6% of Namibia's GDP in 2006, about 70% of the Namibian population depends on agricultural activities for livelihood, mostly in the subsistence sector (United States Dept. of State Background Paper, 2008).

1.1 Research Objectives

This project aims to better understand the interactions between migration, HIV/AIDS, food and nutrition security for the purpose of enhancing policy development. The key research objectives are to:

- 1) Demonstrate that household level rural food production contributes to the food budget of urban households
- 2) Examine the role of rural-urban migration and rural-urban linkages at the household level in magnifying or ameliorating the impacts of AIDS
- 3) Quantify the role that urban agriculture plays in meeting the food gap of urban households, and the extent to which AIDS influences this

- 4) Assess the policy environment's role in hindering or contributing to the urban food security of households (urbanization, economic, health)
- 5) Identify policy and programming implications of the findings in the context of the triple challenge of migration, AIDS and food insecurity
- 6) Identify problems and challenges that are specific to orphans and vulnerable children as a critical element of society within the regional context of migration, AIDS and food security.

Each of these research objectives is reviewed and discussed in Section 6 of this report.

1.2 Research Framework

As highlighted in the proposal to fund this project:

“... the research framework accepts migration as the process that links together people's livelihoods within the dynamic context of HIV and AIDS. In this framework, both urban and rural households share in the livelihood process, with resource flows moving from urban to rural and from rural to urban contexts. The interactions between rural and urban systems are continuous within this framework, suggesting the evolution of a more integrated rural-urban social and economic system that moves beyond the traditional bounds of the rural-urban dichotomy. This is what has been termed urban-rural reciprocity, a process which increasingly underwrites the new social economy of migration ... and profoundly influences and is shaped by the progression of the AIDS epidemic.

“While this project is directly concerned with the impacts and consequences of HIV and AIDS in relation to migration and food and nutrition security, the disease is viewed as one (important) variable in the within the broader context of human health. The project therefore situates itself within an ecosystems approach in which it is recognized that the efficient and sustainable production of food, be it rural or urban, will fall from reach for the vulnerable in society without an intact ecosystem capable of supporting production at the levels required to address current and widespread food shortages in Southern and Eastern Africa. This in turn will negatively impact the health of the population. The complexity of the migration, HIV/AIDS and food and nutrition security nexus can only be addressed through the adoption of a trans-disciplinary approach to the development challenge it poses. In adopting the eco-

health framework, this project will work with local knowledge and priorities while also bringing to bear the macro and temporal perspectives so critical in the scaling up of interventions in migration, HIV/AIDS and food security that are required” (Frayne et.al. 2007).

1.3 Structure of the report

Section two of this report presents an abbreviated review of the literature with emphasis on the relationships among internal rural-urban migration, remittance transfers (including money, food, goods), food security (including urban agriculture), HIV in Namibia, and orphans and vulnerable children. The full literature review is attached as Appendix I. Section three details the methodology with a discussion about the sample selection, quantitative and qualitative data gathering and data analysis. Section four presents the quantitative findings and Section five presents the qualitative information from the individual case studies and focus group discussions.

Section six provides comments relative to the findings concerning each of the six research objectives of this study. Section seven offers conclusions about the findings in view of initial hypotheses from the literature review. Recommendations, detailed in sections eight and nine, include policy suggestions based on the outcomes of this study as well as recommendations for future research. References are provided in section 10.

2. Literature Review

2.1 Introduction and context

Windhoek, as the primary and capital city of Namibia, has been the most attractive urban area for migrants looking for job opportunities. Migration to Windhoek started when Windhoek was founded in 1890. In 1912, during the German colonial time, the Town Council of Windhoek established two locations for the black inhabitants, namely Old Location in the present day Pionierspark, and another location in the present day Klein Windhoek. In 1959, during the South African apartheid government, the municipality of Windhoek established a peri-urban settlement, Katutura¹, for blacks outside of Windhoek (Republic of Namibia, 1995). Compound and single quarters were built in the new settlement to accommodate contract

¹ Katutura is a settlement similar to Soweto in Johannesburg in South Africa. “Katutura” is an Otjiherero word which means “a place where we do not want to settle.” It is a large area to the northwest of the city. Black residents refused to move to this new location. They were forcefully moved there.

migrant workers. After the abolition of contract law, migrant workers moved into Katutura (Republic of Namibia, 1995). Currently, about 60% of the city's population lives in Katutura (Frayne, 2007).

Frayne and Pendleton (2001) have found that migration in Namibia is influenced by a combination of the following macro factors:

- Migration as a disaster mitigation strategy
- Migration as an economic strategy
- Migration due to poor rural productivity
- Migration due to population issues
- Migration as social and economic strategy
- Migration as a lifestyle

Caraël and Glynn (2008, p.124) stressed that the “urban populations of sub-Saharan Africa have increased by 600% in the last 35 years: a growth rate which has no precedent in human history.” This resulted in the emergence of informal settlements and in 2003 sub-Saharan Africa had the highest rate of informal settlers, with 72% of the urban population living in these areas (Caraël & Glynn 2008).

2.2 Rural-urban migration

Namibia has a very mobile population inside the country, but also to neighbouring countries. In Namibia the two most common forms of migration are cross-border cyclical migration and internal cyclical migration (International Organization for Migration/ Institute for Public Policy Research [IOM/IPPR, no date]). Internal migration is primarily from the northern regions to the major urban centres in an attempt to find work.

Dima et al. (2002) asserted that the high migratory rate into Windhoek increased when the Municipality started to accommodate squatters, due to political pressure. The latter meant that existing squatter laws were deliberately not being enforced by the Windhoek Municipality (Dima et al., 2002). The population of Windhoek has been growing at an annual rate of 15% to 20% (Republic of Namibia, 1995). In 2001, the population of Windhoek was about 224 000, which represented almost half of all urban residents in Namibia (Frayne, 2007). No other country in southern Africa has such a large proportion of its urban population living in the capital (Dima et al., 2002).

It is estimated that the population of Windhoek will double between 2000 and 2015 (Frayne, 2007).

Of the total migration to the city of Windhoek between 1990 and 2000, more than two-thirds has been to Katutura (Frayne, 2007). The traditional philosophy of humanism and the availability of space for squatters led to the rapid growth of Katutura (Republic of Namibia, 1995). Since 1990, new informal and formal settlements in Windhoek were established on the periphery around the old core of Katutura such as Okuryangava, Ombili, Goreangab, Okahandja Park, Greenwell Matongo, Havana, Hakahana, Babilon and Otjomuise. These areas have a substantial percentage of semi- and informal settlers, who have linkages to their home regions.

Frayne (2007) referred to previous studies (Potts, 2000; Frayne & Pendleton, 2001, 2003; Crush, et al., 2006) which emphasised the importance of urban wages for rural households, resulting in the dependency of rural households on urban incomes. However, urban centres have not been able to accommodate the large numbers of migrants as industrial growth has been limited. Windhoek experienced the closing down of a textile factory in 2008, which originally promised to employ 15,000 workers. Informal economic activities have expanded, but cannot provide for the increasing number of new arrivals.

2.3 Rural-urban food and remittance transfers

Increased population growth in Windhoek has resulted in hardship for many migrants, who try to eke out a living. Widespread unemployment among migrants has led to a high crime rate in Katutura (Government of Namibia, 1995). Sources of income for Katutura residents include wage employment, trade activities, old age pension and agriculture (Republic of Namibia, 1995). Republic of Namibia (1995) cited a study which revealed that 68% of the interviewed households in Katutura had incomes below the poverty line² and female-headed households were the worst affected.

Household data collected from Katutura between 1991 and 1996 reported a decrease from 70% to 30% in the proportion of households that considered food to be a „serious problem’ (Frayne 2007). The contradiction between high unemployment

² Poverty line is defined by van Rooy et al. (1994) as N\$ 116.63 per adult male for four weeks, equivalent to approximately N\$ 1, 500 per annum.

and a lower level of food insecurity can be explained in terms of transfers of food from rural areas especially the north central regions (former Owamboland) to Windhoek. Frayne (2007) found that of the households sampled, 62% received food from relatives in rural areas and another 4% from friends. These food transfers were critical in ensuring some food security in urban areas.

Another urban-rural linkage is money transfer. In 2000, about 50% of Windhoek households sampled remitted money to rural relatives every month or at least every two or three months, compared to 63% in 1991 (Frayne, 2007). This decrease in percentage of households sending money has been thought to be a result of decreased earning potential for migrants due to the low growth in the Windhoek economy. Nevertheless, as a result of the rapid increase in population numbers in urban areas, the total value of remitted amounts has increased. Most of the remittances (85%) were sent to parents and/or children living in the rural areas, which indicate the importance of the social and economic ties between the various segments of an extended family.

2.4 Food security and HIV/AIDS

Food security in Africa has been a decade long problem, exacerbated by the prevalence of HIV/AIDS, whose impact agricultural production and food availability is felt in terms of quantity and quality of food (Villarreal, 2006). According to Misselhorn (2005, p.40), future determinants of food security in southern Africa lie primarily outside the domain of agricultural production, which means that a “focus on improving crop yields would neglect those economic (e.g. poverty, lack of employment, inflation and market failures) and socio-political factors (e.g. conflict, property rights, education and HIV/AIDS) that are undermining the coherence of the family unit and creating increasingly vulnerable and socially unstable communities.” In Africa, rural women provide most of the work in the small-scale agricultural sector, and the proportion of woman-headed households reaches almost one third in some countries (United Nations Population Fund [UNFPA], no date). Another problem emerges when children lose their parents before learning basic agricultural skills or obtaining nutrition and health-related knowledge.

The World Food Summit in 1996 asserted that “Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Food and Agriculture Organization of the United Nations [FAO], 2006, p.1). The

documents pointed out the following dimensions of food security and the multidimensional nature of food security:

- *Food availability*: The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).
- *Food access*: Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economic and social arrangements of the community in which they live (including traditional rights such as access to common resources).
- *Utilization*: Utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met. This brings out the importance of non-food inputs in food security.
- *Stability*: To be food secure, a population, household or individual must have access to adequate food at all times. They should not risk losing access to food as a consequence of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food insecurity). The concept of stability can therefore refer to both the availability and access dimensions of food security.

As emphasized above, food security is only one dimension of a wider livelihood crisis. The United Nations (UN), charged with overseeing the unprecedented food aid response in southern Africa between 2001 and 2006, defined the prevailing situation as the “Triple Threat”: the combination of HIV and AIDS, food insecurity and a weakened capacity for governments to deliver basic social services has led to the region experiencing an acute phase of a long-term emergency (Maunder and Wiggins, 2006). HIV/AIDS exacerbates the impacts of other stressors and intensifies the insecurity of many communities affected by the disease in southern Africa (Baylies, 2001; Gillespie and Kadiyala, 2005). The epidemic contributes to the crisis by reducing production and income, as labour and capital are lost to disease and death (Maunder and Wiggins, 2006); undercutting the ability of households to cope with shocks; and contributing to losses of scarce, skilled staff in the public service and private enterprise. Another possible consequence of the AIDS epidemic is increasing inequality (Timaeus, 2008), even where average incomes remain constant, through the “impoverishing” nature of the disease affecting some families and not others (Richter *et al*, 2006).

Food relief programs, social and financial support, food-for-work programs, and gardening projects are unlikely to be the most appropriate and sustainable solution for the majority of African families. These programs “usually have a narrow focus on food and food production, without addressing the factors that drive the HIV epidemic and its impact” (Swaans et al., 2008). Singh (2008, p.98) also argued that, “Nutrition and food security must be addressed not simply by giving food packages but thinking of long-term solutions such as individual or communal vegetable gardens.” In other words, to move beyond relief to longer-term programmes that might underpin sustainable food security. This remains a serious challenge in a region facing a series of intertwined stressors that are undermining livelihoods, including failure to reduce the underlying risks and vulnerability to HIV. Maunder & Wiggins (2006) point out hunger is a chronic condition that cannot be alleviated by simply increasing access to food. They cite the importance of female education and the need for women’s’ empowerment and health as critical components.

In Africa, HIV/AIDS is commonly referred to as *the slim disease* because as the disease progresses, food intake and metabolism are altered, leading to visible body weight loss (Piwoz & Preble quoted by Wiig & Smith, 2007). A poor diet may accelerate the onset of AIDS after HIV infection, creating a vicious cycle in which malnutrition, HIV infection, and additional opportunistic infections destroy the immune system, and death can occur more swiftly.

Another issue is the fact that food is essential for those who receive treatment. Many people living with HIV and AIDS, who are on anti-retroviral treatment (ART), were taking treatment without sufficient food. Food and nutrition was therefore considered very important in cases where people take anti-retroviral treatment (HIV and Aids Standing Committee. 2005, p.2). The Joint United Nations Program on HIV and AIDS (UNAIDS 2008e, p.1) stated that food security and nutrition are often neglected, although these are critical factors for individuals, households and communities affected by HIV.

“Lack of food security and poor nutritional status may hasten progression to AIDS-related illnesses, undermine adherence and response to antiretroviral therapy, and exacerbate socioeconomic impacts of the virus. ... HIV impairs nutritional

status by undermining the immune system, as well as nutrient intake, absorption and use.”

An important fact is that adults living with HIV have 10–30% higher energy requirements than a healthy adult without HIV, whereas children living with HIV have 50–100% higher requirements than healthy ones (UNAIDS 2008e, p.1). Malnutrition increases fatigue and decreases physical activity in people living with HIV (UNAIDS 2008e, p.3). Food production can suffer as a result of deaths in a family, because the loss of workers at the crucial periods of planting and harvesting can significantly reduce the size of the harvest (Bollinger & Stover, 1999). Additionally, farmers may switch from export crops to less-labour-intensive food crops. One example is the change from mahangu to maize. The rationale for this is that maize requires less work, particularly in terms of weeding, and it has a better market value (Fuller, 2005). This practice is more of a *Devil's Trade-off*, as maize is both a heavy feeder thereby depleting the soil, it is not as drought tolerant as millet (mahangu), and as a food, it has fewer amino acids than mahangu. AIDS could, therefore, affect the production of cash crops as well as food crops.

A study conducted by Leporrier et al. (2002) asked mahangu consumers what other staple foods they eat instead of mahangu. Only three major products are mentioned regularly: rice, pasta (wheat), and vegetables (bean and potatoes). Maize is used as a supplement to mahangu. Most mahangu consumers (80% in Windhoek) mix mahangu with maize for different reasons, but rarely consume maize alone. One reason is that mixing mahangu with maize helps to save mahangu, which is attributed to years of poor harvest and to the memory of famine years (Leporrier et al., 2002). A variety of meals and drinks are made out of mahangu and the most popular meal for 83% of consumers in Windhoek, is the traditional *oshifima* porridge made from fermented or unfermented flour (Leporrier et al., 2002). The most common drink prepared is *oshikundu*, a fermented but non-alcoholic drink made from mahangu flour and malted sorghum (Leporrier et al., 2002).

Water is a major problem in an arid country, in particular when exotic crops are planted, which require substantial amounts of water, compared to indigenous crops such as mahangu. The Khomas Region and the capital city rely heavily upon water resources generated in other regions (Ministry of Environment and Tourism [MET], 2001). Shortages of water were reported as a constraint by 46% of all respondents in Windhoek (Dima et al., 2002). The regular droughts that occur in Namibia can

adversely affect the price that consumers must pay for water. The Municipality instituted a block tariff, after a drought in the beginning of the 1990s, which means that the cost for water increases drastically after a certain amount is exceeded. Due to the aridness, rainwater is also limited and storage facilities are very expensive. "This has great potential in the settled middle to high income areas, but would require some intervention in the form of provision of plastic storage tanks in the poorer areas" (Dima et al., 2002, p.75). The use of waste domestic water in Windhoek is not encouraged by the Municipality in areas with an installed sewer network, as it could reduce the flow required to keep the system operational.

According to Mougeot (2005), the contribution of rural–urban food transfers to the provisioning of poor urban migrants appears to be workable only when there are rural food surpluses and when transportation is both available and affordable. In countries where these latter conditions have deteriorated, urban agriculture has become an attractive substitute.

2.5 Urban agriculture

Currently, most of the food sold in Namibia is imported from South Africa. Being the driest country in sub Saharan Africa, the agricultural base of Namibia is very weak (Dima et al., 2002). Urban agriculture is a limited activity in Windhoek. In Frayne's study (2007), about 5% of respondents were involved in some form of agriculture. This saved households an average of N\$60 per month on food costs in 2000. Livestock did not feature high in this survey, as there are limits imposed by the municipality on livestock within municipal boundaries. Urban and peri-urban agriculture producers in Windhoek are faced by numerous problems (Dima et al. 2002) such as shortage of water (41%), pest attacks (40%) and theft of the produce (31%). Other problems identified include the lack of information regarding the type of crops to grow, which chemicals to use, and the prices producers would receive for their products. This is partly because of the absence of Extension Services to the producers. Farmers rely on trial and error as part of their experiences. More men (79%) than women (56%) in Windhoek receive no advice from anyone. Those who receive help and advice rely on neighbours and friends and not on elders or relatives, who are traditionally the source of advice in the African society (Dima et al. 2002).

According to Dima et al. (2002), the authors contacted the Ministry of Agriculture, Water and Rural Development and the Municipality of Windhoek. It was established

that there is no policy on urban and peri-urban agriculture. The Ministries of Health and Social Services (MHSS) and Environment and Tourism (MET) also do not consider urban and peri-urban agriculture as their responsibility. Thus, it can be assumed that the government has adopted a policy of *benign neglect* towards urban agriculture.

Dima et al. (2002) proposed that in order to exploit the potential of urban agriculture to the full, the government, the municipalities and the private sector should be involved. A policy should be formulated to encourage the production of high value fruits and vegetables for the market. In addition, micro loans should be considered to enable producers to purchase inputs, including appropriate technology. The policy should also allocate responsibilities amongst the concerned authorities in respect to legal recognition, guidelines on the correct husbandry practices and the protection of the environment for sustainable production.

The Economic Commission for Africa (ECA, 2006) evaluated mitigation interventions with respect to improving smallholder agricultural production and nutrition. In their report, they noted that vegetable gardens can help vulnerable and affected households get access to vegetables to ensure food and nutrition security, either as individually owned or community owned gardens. A range of vegetables can be grown to provide the household and chronically ill people with vegetables and herbs to improve their nutrition throughout the year. Gardening can also be a source of income generation. These gardens should be close to homesteads or houses, to ease the burden of women and other members of a household. The World Health Organization (WHO) and FAO (ECA 2006, p.11) support the “production of specific medicinal plants that have a role in treating HIV related symptoms; improving digestion and stimulating appetite are also being promoted in conjunction with the vegetable gardens.”

2.6 HIV and food security in Namibia

In Namibia, the impact of HIV and AIDS on agricultural production could be widespread.

Bollinger & Stover (1999) stated that:

- 50% of Namibians obtain their income through subsistence farming, which accounts for 3% of the GDP. Studies have shown that “...there is evidence that surviving children, who may have lost both parents to HIV-related

illnesses, often have problems in retaining family land and other assets” (Cohen quoted by Bollinger & Stover 1999, p.5).

- Commercial agriculture accounts for 9% of the Namibian Gross Domestic Production (GDP) and employs approximately 36,000 workers. Productivity will be affected as skilled, supervisory and unskilled workers experience HIV-related morbidity and mortality.

HIV/AIDS in Namibia “will exacerbate the present decline in farming output and/or per capita food production, widening income disparities, increased food prices and exodus to cities already crowded with unemployment” (Ojo & Delaney quoted by Bollinger & Stover 1999, p.5). The situation in rural areas and the impacts of AIDS on agriculture were investigated by the FAO and were identified as (SIAPAC 2002; FAO 2000):

- smallholder farming (livestock, arable, mixed)
- commercial and commercialised agriculture
- irrigated agriculture
- specialised crop production for export markets
- the supply of services by government and other agencies

As the epidemic has negative effects on labour availability, labour substitution of younger children may occur, which is the case in the northern parts of the country (SIAPAC 2002). The FAO study mentioned this deficiency already in 1999. Another problem pinpointed by the FAO (quoted by SIAPAC 2002, p.62) is that,

“Over 50% of the communities reported sale of livestock as the means of covering direct costs caused by sickness and death. This diverts critical crop production resources (draft animals and manure), essential animal food products (meat and milk) and the returns in cash or kind from the mobile bank away from the household’s normal use ...”.

Fuller (2005) pointed out that many communal farmers in northern Namibia (Kavango, Oshana and Oshikoto) are not coping. Over half of those surveyed own livestock, but do not have enough for regular off take for either consumption or sale.

“Given the very low levels of production, hunger is a constant feature of life. ... With them a hard question must be asked whether or not it is best to support them with assistance to agriculture, or to provide them with direct support via disability pay outs, pensions, support for orphans or a basic grant. Food for work programs may not be successful with these households because there may not be enough healthy adults able to work” (Fuller 2005, p.2).

The issue of food security has also to take into account that,

“Namibia is the driest country in sub-Saharan Africa. It is largely semi-arid, with the rainfall being not only low but also erratic with a high level of inter- and intra-seasonal variability. The acute scarcity of water means that most of the country is a marginal, high-risk cropping environment, with livestock representing the predominant source of agricultural income” (FAO 2000).

The Food, Agriculture, Natural Resources Policy Analysis Network (FANRPAN) conducted an impact study in 2005 on the effects of HIV and AIDS on agriculture in Namibia. This study conducted in three Northern regions of Namibia (Kavango, Oshana, Oshikoto) found that HIV and AIDS are impacting the social and community frameworks in rural areas and that there was an increase in malnutrition due to food shortages and poor nutrition mostly in HIV affected households. Crop yields have declined as a result of less cultivation and poor livestock managements has occurred due to illness and loss of labour. Assets, such as livestock and farm animals are being sold to pay for funeral expenses, and lack of secure land tenure leaves widows vulnerable to „property grabbing’ which further impacts the vulnerability of HIV/AIDS affected households.

The problems associated with HIV/AIDS are illustrated with regard to livestock by the FAO (2000) in the framework below:

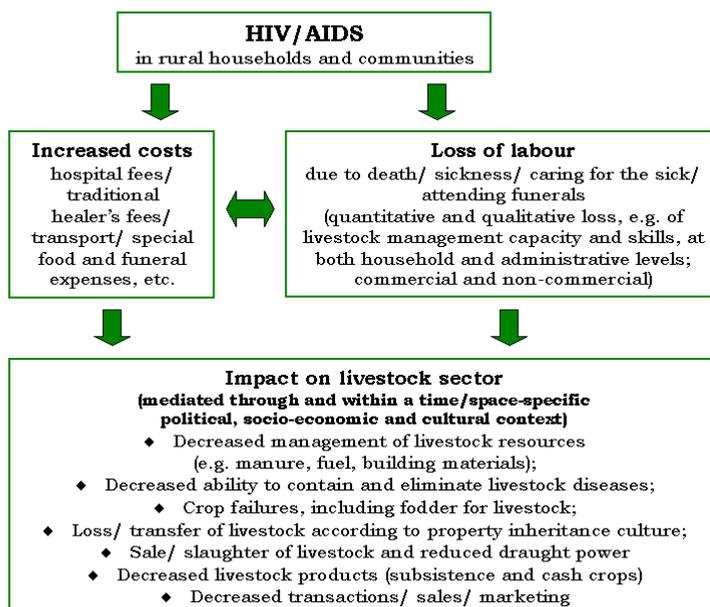


Figure 1 — Impact of HIV on livestock

One possibility to save labour inputs would be to investigate labour saving technologies (ECA 2006; FAO 2000). This should be done with local participation to ensure their relevance and appropriateness while adaptation is facilitated (FAO, 2000). For example with respect to livestock the identification could include the improvement and promotion of livestock species that require little labour, e.g. scavenging chickens, pigs and bees, and efficient use of farm organic wastes, e.g. use of mobile livestock enclosures, toilets and homesteads within the arable land. In urban areas, the promotion of urban agriculture could contribute to a higher level of food security.

In Namibia, the ministries of health and of agriculture are collaborating on activities to build extension and home-based care workers' capacity to support the food security needs of households affected by HIV/AIDS (IPPR, 2003). Furthermore, the manual *Living Well with HIV/AIDS* by the FAO and WHO and local recipe books are being adapted to the local context. They also provide the basis for inter-active training and guidelines.

There are numerous challenges to addressing the HIV/AIDS epidemic. According to Drimie (quoted by Clarke 2006, p.12):

“The advent of AIDS in particular underscores the fact that ‚business as usual’ is no longer applicable, as this ‚creeping disaster’ has steadily eroded the livelihood base of millions of

people. Increasingly the challenge should be for the development component of the response to go beyond rehabilitation and to be built centrally into projects. This raises an imperative for agencies to seriously consider their medium and long-term assistance priorities as „silo-oriented’ fragmented development support.”

A four-pronged approach was recommended to mitigate the HIV and AIDS epidemic’s effects on agriculture and food security. The approach consists of (Gillespie and Kadiyala quoted by UNAIDS 2008c, p.174):

- initiatives to protect and improve the livelihoods of rural households (through both farm and non-farm avenues);
- social protection policies to provide financial and nutritional assistance where appropriate;
- focused nutrition programs for key populations at higher risk (e.g. girls and women); and
- improvements in the development, implementation, and accountability of policy-making in the agricultural sector.

2.7 HIV prevalence in Namibia

Namibia has one of the highest rates for HIV infection in the world. According to the 2006 HIV sentinel sero-survey (MoHSS, 2007d) HIV prevalence in Namibia varied by region from 9% to 43%, with an overall estimated 20% “crude prevalence rate for sexually active adults.” In other words, one out of five Namibians aged 15–49 is HIV positive, making Namibia one of the top five HIV-affected countries in the world. Namibia’s epidemic is generalized, meaning that the high prevalence rate occurs throughout the country and not just within certain high-risk groups, and infection rates have not yet peaked in Namibia. According to the United Nations General Assembly Special Session Country Report for Namibia (2008), “...it should be noted that HIV prevalence is still on the increase in some regions and in some age groups, meaning continued high levels of prevention, care and support services are needed.” (p. 9)

Efforts to stem the increase of HIV infections involve information dissemination, testing and behavioural analysis. In Namibia the achievements are detailed below (UNAIDS 2008b):



Namibia: HIV related knowledge and behaviour in the general population, 2000–2006

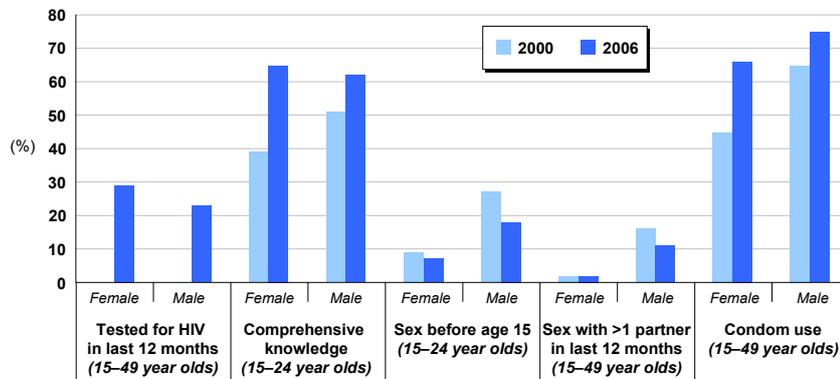


Figure 4.2 Source: Namibia Country Progress Report 2008. 2008 Report on the global AIDS epidemic

Figure 2 - Namibia: HIV related knowledge and behaviour

Figure 2 indicates that in general the population has knowledge of HIV and the use of condoms is regular. Testing is still relatively low, which indicates little interest in knowing one’s status. However, in line with other findings, males are more sexually active before the age of 15 and have more partners than females.

2.8 Migration and HIV/AIDS

According to Frayne and Pendleton (2001), HIV/AIDS is often characterized as an urban problem, with urban areas generally having higher prevalence rates than rural areas. They stated that when urban dwellers become symptomatic, they may return to the rural areas where they will eventually die. Migrants are involved in both spreading HIV to rural areas and caring for those infected. Migrants periodically visit their home regions and may infect rural dwellers with HIV that was acquired in urban areas. At the same time, migrants may make money available for the care of the infected in rural areas. This state of affairs, argued Frayne and Pendleton (2001), may lead to the decline in food production in rural areas, a situation that affects both rural and urban dwellers.

The increasingly connected world offers innumerable opportunities for a pathogen to travel vast distances. For HIV/AIDS, the infection can only take place through the exchange of certain bodily fluids (sperm, blood, breast milk). In addition, the HIV/AIDS virus mutates constantly in replication from RNA to DNA, with the consequence being an increasing variety of different strains (<http://www.thebody.com/content/art32981.html>). The situation on the African continent is depicted below where Figure 3 shows that Southern Africa is the region most affected by HIV and AIDS (UNAIDS 2008d):

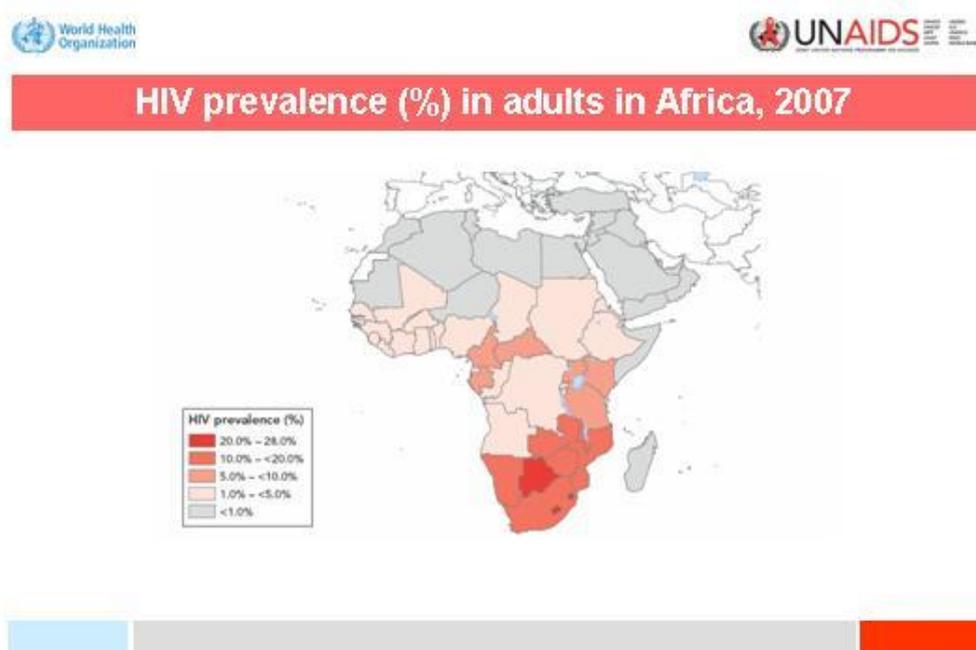


Figure 3 - Estimated HIV prevalence in Africa

According to Decosas and Pedneault (1992), the first decade of the HIV epidemic in Africa was characterized primarily by the urban spread of the virus. The movement of migrants between urban and rural areas introduced the virus in non-urban localities. A demographic imbalance was created, because most migrants were young rural men, who contributed considerably to the rapid urban growth, which limited the choice of partners in urban areas (Decosas & Pedneault 1992; Caraël & Glynn 2008). Caraël and Glynn further highlighted the fact that the system of migrant labour, which separates individuals from their families and prolongs absence of the regular partner for economic reasons, is widespread in Africa. Therefore several relationships could be established in urban areas, many of them commercialized.

This created an ideal environment for the rapid spread of HIV (Decosas & Pedneault, 1992).

2.9 Orphans and vulnerable children (OVC)

Singh (2008, p.100) has pointed out that, “Orphaned children are more vulnerable to HIV/AIDS as well as more likely to undertake migration themselves in the face of depleted social support. Due to their lack of identification documentation in most cases, community based organizations find it difficult to access child support grants on the behalf of these children.” These children require access to child support grants and interventions into education and life skills programs in the absence of parental guidance. Singh (2005) argued that very little coordination exists between the efforts of different actors (government, NGOs, medical personnel) involved with various aspects of HIV/AIDS management, i.e. prevention, treatment and care.

According to the World Food Program briefing paper on Namibia (2008), chronic food insecurity is a fact of life in many areas where OVC live. Twenty-four percent (24%) of children under five are underweight, and 9% are wasted. Vulnerable households hosting OVC include those from marginalised communities, such as the San and Himba, and households headed by single women, grandmothers, children and people living with HIV/AIDS.

Education ceases to be an option for many orphans, because they cannot afford the fees and their survival is a more imperative concern (Phororo, 2002). This increases the risk that some children could end up on the streets and become involved in risky behaviours, such as commercial sex work, to earn an income. This makes them vulnerable to contracting STDs and ultimately HIV/AIDS. The burden of caring for orphans is already falling on an already vulnerable group, the elderly, who are, inter alia, often unable to pay school fees. Lack of food in orphan households is a serious constraint, as this is also a factor associated with poor school attendance. “Orphaned children who go hungry do not attend school or shy away because they do not want to face the rigorous academic pursuit in school” (Nyambedha et al. 2001, p.89-90).

Administratively, the responsibility for orphans in Namibia falls under the Directorate of Developmental Social Services of the Ministry of Health and Social Services (MoHSS, 2002). The MoHSS (2002) pointed out that there was no baseline available indicating the total number of non-AIDS orphans in 1991. The crude death rate for

adults for 1991 was used and it was assumed that one orphan would be created for each death. A comparison of those orphaned due to all causes and those orphaned due to AIDS is shown in Table 1 below:

YEAR	Total Number Of Orphans	Number of AIDS orphans	AIDS Orphans as % of total
1991	27,503	10	0.04
1992	28,499	30	0.11
1993	29,532	80	0.27
1994	31,067	650	2.09
1995	32,886	1,690	5.14
1996	35,976	4,000	11.12
1997	40,881	7,930	19.40
1998	47,882	14,150	29.55
1999	57,111	22,600	39.57
2000	68,711	33,420	48.64
2001	82,671	46,600	56.37
2002	98,230	61,380	62.49
2003	114,556	77,120	67.32
2004	131,120	93,100	71.00
2005	147,270	108,470	73.65
2006	162,175	122,790	75.71
2007	175,152	135,180	77.18
2008	189,150	145,520	76.93
2009	198,338	154,080	77.69
2010	206,074	160,980	78.12
2011	212,351	166,630	78.47
2012	217,798	171,240	78.62
2013	222,521	175,130	78.70
2014	226,755	178,530	78.73
2015	230,710	181,650	78.74
2016	234,574	184,680	78.73
2017	238,012	187,490	78.77
2018	241,476	190,120	78.73
2019	244,843	192,650	78.68
2020	248,088	195,060	78.63
2021	251,054	197,400	78.63

Table 1 - Estimated number of AIDS orphans (MOTSS, 2002, p.34)

There are major regional differences in the geographical distribution of the orphan population. The following is a summary and projection, according to regions, for the years 2001 and 2021 (SIAPAC 2002, p.35):

	Total no. of orphans		No. of AIDS orphans	
	2001	2021	2001	2021
Caprivi	12,235	22,419	6,897	17,628
Kunene/rural Erongo	3,571	11,297	2,013	8,883
Hardap/Karas	2,381	8,335	1,342	6,554
rural Khomas, Otjozondjupa, Omaheke	3,571	21,038	2,013	16,542
4 "O" regions	39,977	126,481	22,536	99,450
Oshakati (urban)	3,100	7,632	1,748	6,001
Ongwediva (urban)	430	1,105	242	869
Swakopmund (urban)	951	2,736	536	2,152
Walvis Bay (urban)	1,951	3,716	1,100	2,922
Windhoek (urban)	8,101	24,453	4,567	19,227

Table 2 — Geographical distribution of orphans

Traditionally, the extended family plays a significant role in caring for orphans. Most orphans live with extended family members, usually on the mother's side (MoHSS, 2002). According to the National Plan of Action for OVC (MGECW 2007a, p.31), basic family units and extended families remain the primary caregivers to the majority of OVC. The MGECW (2007a) has as one of its targets to provide 50% of all registered OVC with external support (economic, home-based care, psycho-social and education). Current interventions regarding emotional needs include youth mentors, home-visitors, lay counsellors, camp leaders, and school counsellors (MGECW (2007a). The Plan states that faith-based organizations are playing an ever increasing role in supporting families.

The MGECW plan (2007a) points out that little data is available on the health and nutrition status of OVC. Nutritional indicators in 2000 showed that malnutrition was higher for children not living with their mothers. The Plan of Action (MGECW 2007a) stresses that food security is a particular problem for OVC. Undernutrition impedes directly or indirectly on primary education, reducing child mortality, improving maternal health and combating HIV/AIDS, malaria and other diseases.

A concept note presented by the European Union in January, 2009 (Enhancing EC's contribution to address maternal and child undernutrition and its causes) emphasizes that early nutrition is crucial and that the physical and mental impairments which result from poor fetal growth are irreversible after two years. This paper continues to state that, "In Sub-Saharan Africa, although the prevalence of underweight appears to have dropped (32% in 1990 to 28% in 2006), the number of underweight children is on the increase (29 million in 1990 to 37 million in 2003). Between 2005 and 2015,

an additional 3.7 million underweight children is expected” (p.3), and that “...undernutrition passes from one generation to the next as maternal undernutrition increases the risk of low birth weight leading to the inter-generational cycle of undernutrition” (p.4).

Clearly, food security for mothers and children cannot be overemphasized. However, the underlying causes must be addressed if this issue is ever to be resolved. The authors of the EC concept note (2009) state that, “Actions such as land reforms, safety-nets/social transfers, primary health care, empowerment of women, education, agriculture/agro-biodiversity, livestock and water programmes should be more systematically aligned behind nutrition objectives and designed to improve nutritional outcomes” (p. 4).

2.10 Summary

The literature review has revealed that there are numerous macro factors which drive migration from rural areas to Windhoek. Rural-urban linkages continue to exist as shown in a 2007 study, in which Frayne reported that 66% of the respondents received food from relatives and friends in rural areas (primarily mahangu). Nevertheless, food security remains a problem and it is exacerbated by the persistent increases in HIV and AIDS. The MGECW has found that food security is a pressing issue for orphans and vulnerable children. Urban agriculture in Windhoek is not extensive nor is it a particularly viable solution to food insecurity, primarily due to unfavourable environmental growing conditions. Sections 4 through 9 of this report will be considered in relation to this background information.

3. Methodology

3.1 Research design

The nature of the research aim and objectives necessitated the use of both qualitative and quantitative data collection methods. In other words, this study took theories of the previous pertinent studies as the starting point, but was open to whatever context-bound research outcomes emerged. Furthermore, the review of similar studies (Frayne and Pendleton, 2001; SIAPAC, 2003; Frayne, 2007) proved that a combination of the two methods is more promising and effective in providing valid and accurate data in order to reach sound conclusions. Thus, combining quantitative and qualitative approaches to the question of migration, food security

and HIV/AIDS creates the methodological synergy needed to uncover the multidimensional nature of the household as a unit of analysis, which is important in this context where households are fluid and may extend across time and geographical space.

3.2 Research instruments used

A standardized personal interview questionnaire comprised of 259 items, most of which were closed ended, was prepared to collect quantitative data. Given the nature of this study as part of a multi-national comparative project, the questionnaire was developed in concert with the research teams from South Africa and Ethiopia in order to have conformity. Before the data collection commenced, two senior researchers conducted a pilot study. The respondents for the pilot study had the same characteristics as the respondents who would participate in the main study, in that they were also migrants residing in Katutura. The rationale for the pilot study was to identify possible gaps, loopholes and oversights in the data collection instruments and in the research process as a whole. The pilot study discovered that there were a few questions that needed rephrasing and clarification and appropriate alterations were made.

In addition to the personal interview questionnaire, two sets of interview guides for the individual case studies were also prepared to collect qualitative data, namely open ended interview guides for teenage OVC and caregivers.

3.3 Training of field workers

Eight experienced field workers were trained for one week at the University of Namibia (UNAM) by the senior researchers about research ethics, data collection methods and the specific questionnaire. The field workers were from varied ethnic groups and were able speak and write the official language, English, as well as one or two local languages. The field work team mirrored the mother-tongue demographics of the sample. Furthermore, the senior researchers and the field workers discussed the entire questionnaire in order to be certain that all field workers were clear about each question, that they were using common translations of words or concepts, and to clarify all possible misunderstandings or misinterpretations.

3.4 Sample selection

This research was conducted in the township of Katutura, where many of the migrants from rural areas reside in both formal and informal settlements. Frayne (2007, p.96), who conducted a similar study, stated that:

“Katutura is the primary destination of migrants to the city [of Windhoek], and appears to have the strongest urban rural linkages in Windhoek. Furthermore, it is home to more than half of the city’s entire population and represents the poorest (and most vulnerable) sectors of society. It should be noted that the name Katutura is used to refer to both the formal area of the township and the informal areas to the northwest of the city.”

The sample was purposeful, with systematic convenience selected households according to Population Sample Unit (PSU) maps from the National Planning Commission (NPC). Purposeful sampling is sometimes referred to as “purposive or judgment sampling. In judgment sampling, “you decide the purpose you want informants (or communities) to serve and go out there to find some” (Patton, 2002, p.230). Neuman (2003, p.218) stated that randomly selected samples “are most likely to yield a sample that truly represents the population.” In this case, it was expected that the sample was representative of the general population of Namibia; however, it could be regarded of representative of urban migrants in the townships of Windhoek.

Five hundred thirteen (513) interviews were conducted in the North-western townships of Windhoek (Katutura, Okuryangava, Wanaheda, Goreangab, Hakahana, and Otjomuise). Fifty-five percent (55%) of the interviews were carried out in formal settlements and 45% were in informal settlements. These townships were purposely identified based on ethnicity, poverty level and migration trends. The sample was convenience by each 10th house or shack on a given street. Only migrants i.e., those not born in Windhoek, were interviewed.

3.5 Confidentiality and informed consent

A proper ethical approach was practiced throughout the study. Participants were informed in their local language about the purpose of the interviews and signed an informed consent. Participation in the study was voluntary, and participants were

ensured that anonymity was maintained in the study. Participants could withdraw any time they wished.

Confidentiality was ensured at all times and the data collected was only reported on an aggregate basis and never on an individual basis. The information/data collected was never linked to the names of individual participants. The data was kept secure and only available to members of the evaluation team. The evaluation team undertook to adhere to the Helsinki declaration, which emphasizes autonomy, beneficence, non-maleficence and justice.

3.6 Quantitative and qualitative data collection techniques

The methodology consisted of three data collection techniques: 1) policy analysis; 2) standardized questionnaire survey; 3) in-depth, semi-structured case study and key informant interviews. These three data collection methods complemented each other by providing generalized information through the analysis of existing information and policies and the standardized questionnaire survey, together with the more fine-grained information acquired through the in-depth interviews.

1) The policy analysis focused mainly on analyzing pertinent policy documents, legislation and research studies to determine the gaps that exist in knowledge about rural-urban migration, urbanization, health issues, food security and general livelihoods. Furthermore, analysis of the policy documents, legislation and previous research studies helped to draw together background information and to identify promising research techniques used in previous studies.

2) There were 513 interviews conducted through the standardized survey questionnaire. All dwellings on an identified plot were targeted. The questionnaire was designed to collect information at the household and the individual levels, and was divided into five parts to collect information on demography of the households; household economics and employment; migration and urban-rural links; remittances and transfers of money, food or goods; and health and wellbeing. Interviewers used local languages to collect data.

3) In addition to the questionnaire, case studies for in-depth qualitative interviews were purposefully selected through the quantitative survey. Eighteen (18) households that were affected by HIV/AIDS or households with orphans and vulnerable children (OVC) were selected for in-depth interviews with individual teenage orphans and/or

their caregivers about policy related issues. Qualitative studies are context bound, hence the talk of “multiple realities” (McMillan & Schumacher, 1997, p. 554) or the “pluralisation of life world” (Flick, 2002, p. 2) in qualitative research. Therefore, in the case of this study, it was an in-depth study of “knowledge and practice ... as local knowledge and practice” (Flick, 2002, p. 2) of migration, food security and HIV/AIDS in Windhoek.

3.7 Data analysis

Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS), and presented in frequency tables and chi-square coefficients. Data were analyzed, interpreted and discussed objective by objective. Relationships between variables were identified, inferences were made and conclusions drawn about the target population. Generalizations of conclusions to the target population were possible, because, as already stated, the sample was representative of the population from which it was selected.

Field notes of the qualitative interviews were taken by both senior consultants. These notes were then discussed, analyzed, coded and the data were grouped in themes. Interpretation of qualitative data involved making sense of the data in terms of correlations and commonalities.

3.8 Common definitions

In order for all data collected to be as valid and consistent as possible, a common understanding and definitions were agreed upon by the senior researchers for key terms. These definitions then were used by the field workers and data analysts so that everyone involved with the data had the same understanding.

Food security: Food security refers to the reliable availability of a sufficient quantity and quality of nutritious food for a population, including the elements of availability, accessibility, utilization and sustainability over time. For the purposes of this study, it was agreed that the definition be condensed to the ability of migrants to access food on a daily basis at the household level.

Formal housing: A physical structure for living that is located on a site formally planned and serviced by the local authority. Such a house is built with approved materials such as bricks, iron sheets, concrete.

Household: An economic and social unit whose members may share food, eat together and contribute money, food or goods to the household unit. Members of a household usually stay in the same dwelling.

Informal housing: Located on a site formally planned but the construction of such a dwelling can be *in situ* allowing for further construction.

Internal migration: Internal rural-urban and urban-rural movements of migrants within Namibia.

Linkages: The ties (economic, social, cultural) that hold the urban migrants to the rural areas from where they came.

4. Quantitative Findings

4.1 Demographics

Five hundred thirteen (513) interviews were conducted in the North-western townships of Windhoek (Katutura, Okuryangava, Wanaheda, Goreangab, Hakahana, and Otjomuise). Fifty-five percent (55%) of the interviews were carried out in formal settlements and 45% were in informal settlements. These townships were purposely identified based on ethnicity, poverty level and migration trends. The sample was convenience by each 10th house or shack on a given street. Oshiwambo speakers constituted 43.3% of the sample; Otjiherero speakers constituted 23.1%; Damara>Nama speakers constituted 21.3%. This corresponds to the ethnic distribution of the Namibian population, therefore validating this as a representative sample. Table 3 illustrates the demographics of respondent head of household.

Head of Household

Gender	Mother tongue	Age	Region of origin	Marital status	Education
Male = 62%	Oshiwambo = 43%	Mean = 37.46 yrs.	Ohangwena = 14%	Single/never married = 52%	Post matric = 8%
Female = 38%	Otjiherero = 23%	Median = less than 34 yrs.	Otjzondjupa = 13%	Married = 23%	Grade 12 = 30%
	Damara>Nama = 21%	Mode = 32 yrs.	Oshikoto = 12%	Living together = 9%	Grade 10 = 23%
	Other = 13%	Below 41 yrs. = 75%	Omusati = 11%	Other = 16%	Less than grade 10 = 39%
			Oshana = 7%		
			Kunene = 7%		
			Hardap = 7%		
			Omaheke = 6%		
			Erongo = 6%		
			Kavango = 5%		
			Karas = 4%		
			Caprivi = 2%		
			Other = 6%		

Table 3 — Head of household demographics

When further considering the demographic data by gender of head of household in terms of settlement type (Table 4), it can be seen that among male headed

households, there is an almost equal proportion staying in formal vs. informal housing, while among female headed households, 60% stay in formal housing.

P1 by location and gender						
Male		Female		Not stated	Total	
306		186		1	493	
Informal	Formal	Informal	Formal	Informal/formal	Informal	Formal
146	156	71	112	6	302	183

TABLE 4 — GENDER OF HEAD OF HOUSEHOLD BY settlement

Table 5 shows size of household by type of settlement and gender of head of household. In informal settlements, there is no significant difference in terms of gender of head of household for larger households (five or more members) with the exception of households with six members, in which 80% are headed by males. Conversely, larger households (five or more members) in formal settlements are mainly headed by females (61% of households with five members, 75% of households with six members, 100% of households with seven members), with the exception of households with eight members, in which 86% are headed by males. There is no significant difference for households of nine or 10 members in formal settlements.

For smaller households (four members or less) in informal settlements, 59% of single person households are male, while the majority of two and three member households are headed by females (76% of two member households, 63% of three member households) with no significant difference the gender of head of household in 4 member households. Interestingly, smaller households in formal settlements are mainly male headed (69% of single person households, 54% of 3 member households and 65% of 4 member households) with the exception of households with 2 members, in which 67% are headed by females.

Size of household by type of settlement (Formal/Informal) and gender

Number of household members	Type of settlement (Formal/Informal)						
	Informal		Formal		Sub-Total		Total
	Male	Female	Male	Female	Male	Female	All gender
1	29	20	29	13	58	33	91
2	17	54	20	41	37	95	132
3	20	34	34	29	54	63	117
4	13	12	24	13	37	25	62
5	6	5	9	14	15	19	34
6	8	2	5	10	13	12	25
7	2	2	0	6	2	8	10
8	0	0	6	1	6	1	7
9	1	1	1	2	2	3	5
10	1	1	5	3	6	4	10
Total	97	131	133	132	230	263	493

TABLE 5 — HOUSEHOLD SIZE BY SETTLEMENT AND GENDER OF HEAD

Additionally, there were 26 households in which orphans were part of the household. The demographics of this sub-sample are presented in the qualitative findings section 5.1.

4.1.1 Employment

This sample is unusual relative to previous studies in Windhoek in that 74% of the current respondents are earning money. This economic livelihood is positively related to the high perception of security, particularly food security, as shown in section 4.5. There is less than 10% difference in the percentage of people earning money who live in formal settlements as opposed to those earning money who live in informal settlements, where about 69% of those living in informal settlements are earning money, compared to almost 78% of those living in formal settlements, as indicated in Table 6. The most common jobs are office worker (6.4%), security guard (5.6%), cleaner (4.5%), mechanic/car repair (3.9%), clerk (3.5%), domestic (3.5%), electrician (3.5%), taxi driver (2.9%), waiter (2.9%), driver/courier (2.7%), factory worker (2.7%), kapana seller (2.7%), builder/bricklayer (2.5%) and teacher/educational professional (2.5%).

Furthermore, of this 74% of the sample who are earning money, almost 10% work a second job in the informal sector.

Are you, the respondent, currently earning money? * Type of location Crosstabulation

			Type of location		Total
			Informal	Formal	
Are you, the respondent, currently earning money?	Yes	Count	150	208	358
		% within Type of location	69.4%	77.6%	74.0%
	No	Count	66	60	126
		% within Type of location	30.6%	22.4%	26.0%
Total		Count	216	268	484
		% within Type of location	100.0%	100.0%	100.0%

TABLE 6 — *earning money by type of residence*

4.2 Migration

➤ **Key finding:**

Who: Young (mode age of 32 years), single or never married, educated

Why: Economic/employment reasons

From: Internal migration, primarily from the Northern regions

Among the heads of household who had migrated to Windhoek, 29.8% completed grade 12; 22.9% grade 10 while 6.7% went as far as post-matriculation. This follows migration patterns with respect to education, favouring those with higher education who go in search of jobs. Additionally, 79.5% of respondents stated that they came to Windhoek for economic/employment reasons, while 5.3% came for educational opportunities.

Regions from which the largest percentages of heads of household migrate are: Ohangwena (14%); Otjozondjupa (13%); Oshikoto (12%); Omusati (11%); Oshana (7%); Hardap (7%) and Kunene (7%). Thus, the majority of migrants are from the Northern regions. Only 3% migrated from smaller towns in Namibia, while the remaining 97% came from rural villages.

The majority (51%) of respondents have been in their residence less than five years. A majority (60%) had family or friends in Windhoek with whom they were in contact and who helped them by means of money for travel and/or provision of accommodation in Windhoek. Clearly this reinforces the continuing linkages with rural areas and sustained family and community ties. Such ties reflect more than core social and cultural values; they may well be a key component in multiple livelihood strategies and reciprocity, where rural households depend on urban wages, as mentioned by Frayne (2007).

It is important to note that prior to Independence in 1990, migration to Windhoek was restricted according to work permits and no informal settlements were permitted. (Republic of Namibia, 1995). Post 1990 saw the exponential growth of the informal settlements in the North-western townships of Windhoek as well as the expansion of the existing formal settlements. (Frayne, 2007). In this study, 9.8% of respondents have lived in Windhoek prior to Independence and for the purposes of this study are considered as non-migrants. 75.5% of these non-migrants live in formal settlements, which would be expected given their length of time in Windhoek.

4.2.1 Continuing linkages

- **Key finding:** In Namibian culture, one does not migrate forever. The place in the rural area is home; the city is just a place to work. This corroborates the *circular nature* of internal migration.

Ninety percent (90%) of respondents reported continuing linkages with other areas in Namibia. The majority of these linkages relate to family (74%) and land ownership (12%) and 70% of these linkages are in rural areas. As indicated above, the majority of migrants come from the Northern regions of the country. In the sample of 513 respondents, there were only eight migrants from other countries (one from Zimbabwe, one from Mozambique, one from Botswana, one from the Democratic Republic of Congo, two from South Africa and two from Angola).

4.2.2 Summary

Rural dwellers move from rural areas (home) to urban areas (place of work) in search of a better livelihood, they visit home regularly, and/or eventually retire to rural areas (home). Might say something about importance of reciprocity....

4.3 Remittances sent

- **Key finding:**
 - What:* Money is sent by 54% of respondents
 - To whom:* Parents are 73% of recipients
 - Where:* 90% of money sent is to Northern regions

Money is the main item sent outside of Windhoek. Money is sent by 54% of the respondents and mainly to parents (73%) in the rural areas (90%) of the North. The majority of the remittances (90%) go to rural areas, which is an important indication of the importance of such remittances for rural livelihoods. Money is sent when there is a special need (34%), a few times a year (40%), or almost every month (28%). The vast majority (91%) of those who send money presume that it is being used for food.

On average, a given money remittance consists of N\$ 3,114.47 (at the time of writing, this would be equivalent to US\$ 311.00), the maximum remittance being N\$ 8,000 (at the time of writing, this would be equivalent to US\$800.00) However, half of all the remittances (the median) are of less than N\$ 1,000 (US\$ 100.00 at time of writing) while 75% of all remittances are less than N\$ 3,000 (US\$300.00 at time of writing). The money is mainly sent via banking system (30%), taken in person by the sender (19%) or sent through family members (14%). This again signifies that migrants keep in touch with their places of origin by going there themselves or sending family members. The amount sent has not changed over the six months prior to this study (February-July, 2008). This means, given the increased food and petrol costs, that the senders in Windhoek are concerned about their rural families and did not decrease the amount sent. Rather, perhaps they are doing without themselves.

Among people born in the Southern, Eastern and Western regions of Namibia (Omaheke, Hardap, Karas, Erongo and Otjozondjupa) there are more people who do not send money outside Windhoek than those who do so. It is people who are from the Northern regions who send money outside Windhoek, reinforcing cultural expectations, ties and household linkages. Two-thirds of the people born in Ohangwena, Oshana and Omusati send money outside Windhoek while in the case of Oshikoto the proportion rises to three-quarters. The chi-square test shows a significant relationship (at the 95% confidence) between place of birth and remittance of money sent outside Windhoek.

There is only a small difference between male and female heads of household in terms of sending money, where 3% more female headed households send money outside of Windhoek. Without exception, however, the amount sent by male headed households exceeds that of female headed households. This may be an indication that males have higher incomes.

Although money is the most useful and frequent remittance sent, food was sent by 27% of respondents and goods sent by 23% of respondents.

4.3.1 Summary

There was concurrence that money is sent from Windhoek rather than food or goods because both food and goods can be purchased easily in regional towns for almost the same prices as in Windhoek. Thus there is no reason to pay the additional costs for transport of food or goods. The majority of money is sent to the Northern regions by people born in those regions.

4.4 Remittances Received

➤ **Key finding:**

What: Food is received by 44% of the respondents in Windhoek; money is received by 24% of respondents in Windhoek

From where: Food is sent from the North, money is sent from Otjozondjupa

The majority of monetary remittances received come from the Otjozondjupa region. As many as 60% of people born in this region receive money from outside Windhoek while only 40% do not. In all the other places of birth the proportion that receives money from outside Windhoek is less than that of those who do receive money. It is hypothesized that because Otjozondjupa is largely cattle country and culturally even children can own many head of cattle. Therefore, when money is needed cattle are sold and the money is sent to the owner who stays in Windhoek.

In total 75% of people born outside Windhoek do not receive money from outside Windhoek. The highest proportions of people who do not receive money from outside Windhoek were born in the following regions, per Table 7:

Region	Percentage <i>not receiving money</i> from outside Windhoek
Omusati	91%
Ohangwena	90%
Caprivi	89%
Oshikoto	86%
Kavango	86%
Oshana	79%
Hardap	78%
Karas	76%
Otjozondjupa	40%

Table 7 - Monetary remittances received

It is clear that there is no reciprocity by region between sending money and receiving money. It is a one-way direction of movement. Money is sent out of Windhoek while little comes in. It can be surmised that Windhoek is taken as the source of income to feed the poorer regions of birth. It must be noted, however, that of the recipients of money, 32% are female while only 20% are male, and the female headed households receive larger amounts of money than do the male headed households. It can be surmised that female headed households require more outside monetary support, substantiating the importance of urban remittances for rural livelihoods, and reinforcing the reciprocity between kin in different geographic areas.

Similarly, with respect to all regions of birth, there are more households that do not receive food or goods from outside Windhoek than those which do so. However, 44% of respondents reported receiving food from outside of Windhoek and 99% of this food was sent by family members. Furthermore, 73% of this food was sent from the Northern regions. This may be due to higher agricultural production in the Northern regions as well as cultural traditions of reciprocity among Owambo people. The main foods sent were reported to be mahangu (pearl millet) and meat. It must be noted that agricultural regulations prohibit transfer of meat or live animals from the North to Windhoek due to concerns about animal diseases. Therefore, it is possible that the percentage of reported food received is low because recipients of food from the North did not wish to divulge that they had received food contrary to the law.

4.4.1 Summary

Although there does not appear to be direct reciprocity between money sent and food received, of the food that was received, about three-fourths came from the Northern regions, where the majority of money was sent.

4.5 Food security

For the purpose of this study, food security has been defined as having enough to eat on a daily basis at the household level. Of course this is a subjective definition, dependent upon the experiences of the household level respondent. It is precisely that subjective experience which defines a person's or household's relation to food and a feeling of food security or insecurity.

- **Key finding:** Two-thirds of the respondents (68.9% of those who answered the question) are **food secure**. In response to the question, "Were there particular times in the past year when food security was poor?" they answered NO. This of course is their perception and the respondents may or may not have been open about this issue, however the fact that 74% of the sample reported that they are earning money corroborates the feeling of being food secure.

Were there particular times in the past year when food security was poor?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	150	30.4	31.1	31.1
	No	333	67.4	68.9	100.0
	Total	483	97.8	100.0	
Missing		11	2.2		
Total		494	100.0		

Table 8 — food security past year

Those respondents who reported experiencing instances of food insecurity (31%) said they relied on family, friends and/or neighbours to give them food or money. Nevertheless, 92.4% of these said they do not use credit to get food and 89.3% said they do not use the cash loan business to get money for food. The majority of those who do use credit or the cash loan business for food (about 10% of respondents) said they do so about once a month.

- **Key finding:** The most **food insecure** were the respondents who live in informal settlements, are HIV positive and are on ART.

There is a significant relationship between food security and economic status where economic status means earning money as indicated in Table 9, where 480

respondents answered both questions (“Were there particular times in the past year when food security was poor?” and “Are you currently earning money?”) Thus, food security and economic status are mutually dependent, which is not surprising considering that food security in Windhoek is based largely on access of food through the cash economy. Of respondents earning money, 75.8% never experienced poor food security. Alternatively, of those not earning money, the experience of food insecurity is equally divided: 50.8% reported experiencing poor food security, meaning that even if they are not working, they are getting food.

Were there particular times in the past year when food security was poor? * Are you, the respondent, currently earning money? Crosstabulation

			Are you, the respondent, currently earning money?		Total
			Yes	No	
Were there particular times in the past year when food security was poor?	Yes	Count % within Are you, the respondent, currently earning money?	86 24.2%	63 50.8%	149 31.0%
	No	Count % within Are you, the respondent, currently earning money?	270 75.8%	61 49.2%	331 69.0%
Total		Count % within Are you, the respondent, currently earning money?	356 100.0%	124 100.0%	480 100.0%

Table 9 — food security and earning money

Eighty-seven percent (87%) of the respondents never go to eat with others and those who do go, said that it is for social reasons. This again confirms a general impression of food security. More than three-fourths (77%) of all respondents neither borrow nor lend food.

Examining the data about food security relative to residence in formal or informal settlements, of those who are in the informal locations, 66.4% had never experienced food insecurity. At the same time 71% of those in the formal locations had never experienced food insecurity (Table 10). Tests for correlation between food insecurity and formal/informal residence show no evidence of significant relationship between the two variables.

**Were there particular times in the past year when food security was poor? * Type of location
Crosstabulation**

			Type of location		Total
			Informal	Formal	
Were there particular times in the past year when food security was poor?	Yes	Count	73	75	148
		% within Type of location	33.6%	29.0%	31.1%
	No	Count	144	184	328
		% within Type of location	66.4%	71.0%	68.9%
Total	Count	217	259	476	
	% within Type of location	100.0%	100.0%	100.0%	

Table 10 — Food security by location currently residing

Regarding access to food, there is a significant association between food security and region of origin. As indicated in Table 11, 42% of respondents said their food security has improved, 36.3% reported no change, while 21.6% said their food security is worse now, mainly due to unreliable income or loss of work. Of this 21.6%, the majority are from Northern regions of Namibia (Ohangwena, Oshikoto and Omusati). Just 3.6% of respondents said that food security is always poor.

Migrants from the Northern regions reported decreased food security in Windhoek compared to home, while those from the Southern regions reported improved food security. This likely is related to agricultural production in the Northern regions, and hence more food availability, as opposed to the Southern regions. However, there is not sufficient data to assume that people migrate from the Southern regions as a result of food insecurity.

Do you think your access to food has changed since moving to Windhoek?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes. It is better now	206	41.7	42.0	42.0
	Yes. It is worse now	106	21.5	21.6	63.7
	No. No change	178	36.0	36.3	100.0
	Total	490	99.2	100.0	
Missing	99	4	.8		
Total		494	100.0		

Table 11 — changes in access to food

4.5.1 Urban Agriculture

- **Key finding:** Urban agriculture does not appear to provide a significant food resource in Windhoek.

Although 82.5% of respondents know of vegetable gardens to which they have access, only 8% reported having used these gardens. When asked if they would grow vegetables if there were an opportunity for them to do so, the responses were equally divided, with 46% affirmative, 42% negative, and 12% not willing to answer. Livestock (chickens) was reportedly kept by 3% of the respondents. This corresponds to the findings of Frayne's study (2007), where less than 1% of respondents reported keeping livestock, likely due to limits imposed by the municipality on livestock within municipal boundaries.

These findings are not surprising. There is generally insufficient land for individual gardens within the formal and informal settlements of the North-western townships of Windhoek; communal gardens would have to be established. Moreover, one must be aware that water is the most scarce resource in Namibia, particularly in the drier central and southern regions. Water security is a particular obstacle to urban agriculture in Windhoek. As indicated in the literature review, a 2007 study conducted in Katutura (Frayne) revealed that only about 5% of the 305 respondents were involved in some form of agriculture. Dima et al. (2002) reported that urban and peri-urban agriculture producers in Windhoek are faced by numerous problems such as shortage of water (41%), pest attacks (40%) and theft of the produce (31%).

4.5.2 Dietary Issues

As reported in the concept note of the European Commission's 2009 "Enhancing EC's contribution to address maternal and child undernutrition and its causes", undernutrition and food insecurity are urgent global issues. The report cites statistics (p.3) such as:

- There are 13 million children born annually with Intrauterine Growth Restriction, 55 million children under 5 years wasted and 178 million stunted
- Between 40 and 50% of pregnant women and preschool children suffer from iron deficiency anaemia worldwide.
- About 40% of children are growing up with insufficient vitamin A₁
- About 15% of people in developing countries lack adequate iodine

- The reduction of underweight (from 32% to 27% between 1990 and 2006) is considerably lower than what is needed in order to reach the MDG 1 target (halving, between 1990 and 2015, the proportion of children under five who are underweight).
- The regions worst affected by undernutrition are South Central Asia and Sub-Saharan Africa.
- In Sub-Saharan Africa, although the prevalence of underweight appears to have dropped (32% in 1990 to 28% in 2006), the number of underweight children is on the increase (29 million in 1990 to 37 million in 2003). Between 2005 and 2015, an additional 3.7 million underweight children is expected.

The concept of food security has been defined (USAID 1992) as having three variables central to the definition - availability, access, and utilization. Household food access is defined as the ability to acquire sufficient quality and quantity of food to meet all household members' nutritional requirements for productive lives. In any discussion of food, it must be recognized that throughout Namibia meat equates food; if there is no meat, there is no food. Thus, when considering food security the findings conform in that 70% reported being food secure and 84% reported having eaten meat the previous day. However, it should be taken into consideration that in many African cultures, and certainly in Namibia, people will not admit that they do not have enough food, and particularly they will not admit this to strangers.

One measurement of food utilization is to examine the dietary diversity (number of different food groups consumed) of individuals or households over a specific reference period of time, for example the previous 24 hours. Certainly the amount and variety of foods eaten is reflective of a well-balanced and nutritional diet.

Swindale and Bilensky (2006, p.2) state, "To better reflect a quality diet, the number of different food groups consumed is calculated, rather than the number of different foods consumed. Knowing that households consume, for example, an average of four different food groups implies that their diets offer some diversity in both macro- and micronutrients. This is a more meaningful indicator than knowing that households consume four different foods, which might all be cereals." Dietary diversity can be used as an indicator of micro-nutrient adequacy, and the dietary diversity score (DDS) is a proxy measure of the nutritional quality of the diet

For the purposes of this study, it was determined that an aggregated dietary diversity

score for all households would be calculated in order to provide additional information about food security. The respondents were asked to recall the foods that they or anyone else in the household ate during the previous 24 hours. The field worker ticked the groups that were consumed from a possible 15 that were listed and probed for unmentioned food groups. For each food group, a value of one (1) was given if one or more food items within the food group was consumed the previous day, and a value of zero (0) was given if no foods within the food group were consumed the previous day.

It is noteworthy that 12.8% of adults reported going without breakfast; 8.3% without lunch; and 7.7% without supper. The corresponding percentages for children are 3% for breakfast; 3% for lunch and as 4.2% for supper. This would imply that adults may be sacrificing themselves for the sake of children. Also of note is that „not applicable’ accounts for almost 30% of responses in the case of children; meaning that there are no children in the household. This corresponds with data that migrants, who are mostly single, come alone to Windhoek.

Table 12 illustrates the aggregated responses of 494 households that responded to this question. Prior to reviewing the information, one must be aware that Namibia is very much a meat-eating country and that mahangu (pearl millet) is the main dietary staple in the North (and hence for the majority of the Namibian population). Both meat and mahangu are highly valued not only for their nutritional contribution, but having mahangu fields and owning cattle, goats and sheep are viewed as measures of wealth. Consuming meat and mahangu is considered a daily necessity; this is to say that Namibians believe that they are *hungry* if they have not eaten meat and mahangu, regardless of how much of other foods may have been eaten. Fruits and vegetables are not traditionally regarded as food in Namibian culture, perhaps because the costs are so high because they are imported from South Africa.

This is reflected in Table 12, where 84.4% of households ate meat (or poultry or fish) and 76.7% ate maize or mahangu. Vitamin A rich (yellow) fruit was consumed by only 2.6% of households and other fruits by only 19.2% of households. Vitamin A rich vegetables (yellow/orange and dark leafy green vegetables) were eaten by 16.8% of households while other vegetables were reportedly eaten by 41.7% of households. Given that this group of other vegetables includes onions, cabbage, tomatoes and beetroot, which are plentiful and inexpensive, it is not surprising that this percentage is much higher than that of vitamin A rich vegetables.

Foods consumed previous day

N = 494	Percentage eaten
Maize or mahangu	76.7
Cereals other than maize or mahangu	69.0
Roots and tubers	27.3
Orange-fleshed sweet potato	3.2
Yellow fruit	2.6
Fruit other than yellow-fleshed	19.2
Yellow/orange fleshed and dark-green leafy vegetables	16.8
Other vegetables	41.7
Meat, poultry and fish	84.4
Eggs	26.1
Legumes	13.2
Dairy products	42.9
Foods made with oil, fat or margarine	64.8
Sugar or honey	68.6
Beverages	80.4

Table 12 - Type of food consumed

It is interesting to note that 68.6% of households reported consuming sugar or honey and 80% reported consuming beverages (tea, coffee, fruit juice, cool drinks) which may be taken as indicators of economic access to food since they are more expensive “luxuries.”

The DDS was then calculated by summing the values assigned to the nine food groups: “cereals, roots and tubers” + “vitamin A rich plant foods” + “other fruits” + “other vegetables” + “meat, poultry and fish” + “eggs” + “legumes”+ “dairy products” + “oils and fat”. The last two food groups (“sugar and honey”, “beverages”) in the table above are indicators of economic access to food, but do not contribute substantially to protein or micronutrient intake (and therefore nutritional quality of the diet). They are therefore not included in the DDS computation, but they could be used in calculating energy.

Calculated following the procedures discussed above, the DDS can range from 0 to 9. A DDS of 0 is possible, but unlikely as this means that no foods within any of the 9 food groups were consumed the previous day. The higher the DDS, the more food groups were consumed, the more varied the diet and therefore the higher the nutritional quality of the diet. After comparing with national consumption data, Steyn et al, (2006) showed for South Africa that the nutritional adequacy of the diet is low if the DDS is below 4.

When this data is calculated according to number of food groups consumed Table 13 shows that 41.9% of respondents have an insufficient diet (DDS below 4), 45.1%

have a sufficient diet (DDS from 4 through 6), and 13% a diverse diet including up to 9 food groups.

DDS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	3	.6	.6	.6
	1.00	17	3.5	3.5	4.1
	2.00	79	16.2	16.3	20.4
	3.00	104	21.4	21.4	41.9
	4.00	99	20.3	20.4	62.3
	5.00	74	15.2	15.3	77.5
	6.00	46	9.4	9.5	87.0
	7.00	29	6.0	6.0	93.0
	8.00	27	5.5	5.6	98.6
	9.00	7	1.4	1.4	100.0
	Total	485	99.6	100.0	
Missing	System	2	.4		
Total		487	100.0		

Table 13 — dietary diversity score

4.5.3 Dietary diversity for HIV affected households

The dietary diversity score for the 16 reported HIV affected households was examined to understand the nutrition of the members of these households (Table 14). Their dietary diversity is less varied than that of the general population, with a relatively higher consumption of maize/mahungu, other cereals and fats and oils (an essential ingredient in porridge), but relatively lower consumption of roots, tubers, other fruits and vegetables, eggs and dairy. The consumption of meat/poultry/fish is relatively similar between the two groups.

Foods consumed previous day

N = 16	Percentage eaten
Maize or mahangu	93.75
Cereals other than maize or mahangu	75.0
Roots and tubers	6.25
Orange-fleshed sweet potato	0
Yellow fruit	0
Fruit other than yellow-fleshed	6.25
Yellow/orange fleshed and dark-green leafy vegetables	12.5
Other vegetables	18.75
Meat, poultry and fish	81.25
Eggs	18.75
Legumes	0
Dairy products	37.5
Foods made with oil, fat or margarine	87.5
Sugar or honey	31.25
Beverages	81.25

Table 14 - Type of food consumed in HIV AFFECTED HOUSEHOLDS

When considering the number of food groups consumed per household (Table 15), rather than aggregated for all HIV affected households, it is evident that most of these households do not receive the dietary diversity to support good nutrition, and this lack of diversity especially does not support those members of the household who are HIV positive. In one household, only porridge (mahangu and oil) was eaten (2 food groups consumed the previous day), in another two households, only porridge and tinned fish (3 food groups – mahangu, oil, fish), and in another two households, porridge, other cereals and meat (4 food groups).

Number of food groups by number of households

	N=16
Number of food groups consumed previous day	Number of households consuming these food groups
2	1
3	2
4	2
5	5
6	1
7	3
8	2

Table 15 — NUMBER OF FOOD GROUPS HIV AFFECTED HOUSEHOLDS

Piwoz and Preble (2001) have shown how HIV+ individuals require 50% more protein and up to 15% more calories than the general population. Nutritional status

modulates the immunological response to HIV infection, affecting the overall clinical outcome. Immune suppression caused by malnutrition is similar in many ways to the effects of HIV infection (Beisel 1996). Macro and micronutrient deficiency are significant risk factors in the survival of HIV positive individuals (Chopra, 2003). Finally, adequate nutrition also plays a role in the uptake of, and adherence to anti-retroviral therapy (Panagides et al., 2007).

4.5.4 Summary

Food is available in Windhoek's supermarkets and informal *kapanas*; hence the food security or insecurity of migrants is an issue of access through affordability rather than availability of food. Food insecure migrants depend on food transfers from rural areas or on receiving food from neighbours. To the food insecure migrants, food security does not mean accessibility to nutritious food, but accessibility to any food that "makes the stomach full." Balanced diet is less of an issue when access is limited and one is simply hungry; and the HIV positive migrants who are on ART are more food insecure as a result of affordability/accessibility rather than availability. Among this sub-sample of households affected by HIV, utilization of accessible food is high - the central point is accessibility or lack thereof.

4.6 Health

- **Key finding:** When people are sick, they want to be with their families. So, depending upon where the family is (here or home), that is where people want to be. The expressed preference (60%) is to go home to families (probably parents), when asked, “If you were very sick and unable to work, where would you want to stay?”, which again reinforces the rural linkages and the reciprocity created.

Generally, 42% of respondents think that disease incidence is higher in Windhoek where they live now than from where they migrated. Nevertheless, there was no difference in rating the suitability of the urban area for living as opposed to their home areas.

Ninety-one percent (91%) of respondents know where their nearest healthcare clinic is located, 66.5% said they walk to their nearest clinic while 16% reported taking public transportation. The 10% of respondents who reported receiving medical care in the past 12 months rated the care from average to very good and said that they received the care they wanted. They paid for healthcare services, with the most frequent amounts reported between N\$8 – N\$15 (equivalent at time of writing to US\$.80 - \$1.50). The majority chose the healthcare provider because it was nearest to where they stay, they had been there before, and they perceived that there are good services and friendly staff. Those few (5 of 513) who did not receive the care they wanted said it was because they had to wait too long and there was no medication available.

- **Key finding:** Healthcare is available, accessible and affordable.

Fifty-seven respondents (12%) have had tuberculosis (TB) and 53 of them received Directly Observed Treatment Short-course (DOTS) therapy. It is not known if these cases of TB were related to HIV.

4.6.1 HIV/AIDS

4.6.1.1 Knowledge

More than two-thirds (68%) of respondents know where ARVs can be obtained and that it is free. Only 58% have heard about HIV information sessions in their neighbourhoods and 77% said that no one has ever come to talk to them. This 77% is equally distributed in formal and informal settlements.

- **Key finding:** 79% of respondents know where to get tested for HIV and have heard of antiretroviral (ARV) therapy.

This is significant in that despite their relatively recent migration to Windhoek, the link between mobility and HIV may be a preventative rather than a causal one. It is critical to understand the circular nature of Namibian migration; these migrants are generally referred to as 'trans-migrants' (Crush et al., 2006), who have homes in more than one location – in this case, both urban and rural. However, the assumption that mobility can increase vulnerability to high risk sexual behaviours due to multi-local social networks may or may not be the case in Windhoek. Certainly as Crush et al. (2006) point out, mobility makes it more difficult to reach people for preventative care or treatment services.

The relationship between education and vulnerability to HIV infection, especially for young women, has been the subject of much research. Gregson (2001) cites a literature review of small scale studies about HIV infection and education by Hargreaves et al. (2000), the results of which indicate reductions in infection levels among more educated groups, especially at young ages. It is unclear if this is a result of HIV prevention programmes in school, or simply by remaining in school. Gregson continues by stating that "women of secondary school age who remain in school may have less reason to resort to commercial sex or to seek early marriage. Equally, women from poorer households who do commence sexual activity at young ages are more likely to become pregnant and be forced to drop out of school...it appears that secondary educated young women currently acquire HIV infection at a slower rate due to later onset of sexual relations and less unprotected casual sex." (p.11, 18)

The significance of this information is that the female migrant heads of household in this present study had a comparatively high level of education. As shown Table 12, a relatively greater percentage of women do not perceive themselves to be at risk of HIV infection and these women all reported abstinence or having a long-term, faithful

partner. Additionally, relatively more women than men have been tested and know their status (Table 13).

4.6.1.2 Risk of getting HIV

Obviously, reporting of one's sexual behaviour to a stranger conducting a survey could lead to untruthful reporting and errors in drawing conclusions from this type of survey research data. However, it is noteworthy that five respondents volunteered that they are HIV positive (all female) and another 17 said that members of their household were HIV positive.

- No risk = 53%
- Most frequent responses were: one faithful partner (30%) and use a condom (23%)
- Some risk = 32%
- Most frequent responses were: don't trust partner (19%), AIDS can be contracted many ways (17%), use a condom (16%)
- High risk = 13%
- Most frequent response was: don't use a condom (25%)
- Respondent is HIV positive = 1%

In order to understand the role of gender in relation to HIV risk, responses were examined according to gender of respondent. As indicated in Table 16, there are relatively more females who do not perceive themselves to be at risk (60%) than males (49%). In terms of perception of some risk, the responses are similar for males (33%) and females (30%). Regarding high HIV risk, more males than females perceive themselves at high risk by a factor of 3:1, that is, within the high risk responses, 74% of the respondents were male and 24% were female.

**What do you think your chances for getting HIV/AIDS are? * Is P01 male or female?
Crosstabulation**

Count		Is P01 male or female?			Total
		Not applicable	Male	Female	
What do you think your chances for getting HIV/AIDS are?	No risk at all	0	152	112	264
	Some risk	0	102	54	156
	High risk	1	46	15	62
	I am HIV positive	0	0	4	4
		0	4	1	5
	0	0	2	0	2
Total		1	306	186	493

Table 16 — risk of HIV infection by gender

Gender is a central issue in any discussion of HIV risk. Women are especially at risk and vulnerable because, as a rule, their relatively weak socio-economic, political and cultural position inhibits them from making informed sexual and reproductive choices to prevent HIV infection, and also inhibits them from accessing resources and services to cope with the impact of AIDS. Women bear the greater burden of the HIV/AIDS epidemic, both living with the disease and as the primary caregivers for others who are afflicted. Moreover, their unequal social and economic status places them at risk for earlier infection, leads to their stigmatisation and allows them to be unfairly blamed for transmission of the disease.

Results from a study in Namibia (Ashton et al., 2005) indicated four central cultural themes which put women at greater risk of HIV infection, the strongest of which is that of male dominance (patriarchy). The magnitude of this belief and that it is recognised and accepted by both women and men, raises issues of the legitimacy of women's rights in Namibia. The extent to which male dominance affects all areas of women's lives and impacts on the transmission of HIV/AIDS, cannot be over-emphasised. All data sources corroborated that men exercise power over sexual relationships. The other themes were the importance of marriage, the value of children, and the separation of men's and women's rights. Therefore, in examining the current findings about HIV, it may be useful to consider that women reporting no risk said they abstained from sexual relations or had one faithful partner, while men reporting no risk said they had one faithful partner or used a condom. This corroborates that men may continue to exercise power in sexual relationships.

4.6.1.3 Tested for HIV

The majority of respondents (57%) reported that they had been tested for HIV, 33% reported being tested more than once, while 37% said they had not been tested. The main reasons for testing were that they wanted to know their status and/or pregnancy. When asked if they know their status, this same 57% responded in the affirmative while 44% did not answer the question. When the 37% who indicated that they had never been tested were asked if they wanted to know their status, 28% said no (16% said I am afraid, 12% said I don't care/I don't want to know), 16% said yes, and the rest refused to answer. Based on the ratio of male and female respondents, more females than males (11%) have been tested, likely due to pregnancy. Additionally, 32.6% of respondents reported that they had been tested more than once, primarily to double check the previous results and to continue to know their status.

Have you ever been tested for HIV?

Count						Total
		Yes	No	Refused to answer	Not stated	
Not applicable		0	1	0		1
Male		162	123	10	11	306
Female		119	59	6	2	186
Total		281	183	16	13	493

Table 17 — tested for HIV by gender

4.6.1.4 Positive living

- **Key finding:** 71% of respondents know that someone with HIV can live a healthy life.

When asked in which ways, responses were, in order of frequency:

1. Take ARV medicine
2. Eat healthy
3. Stop having unprotected sex
4. Get regular exercise
5. Eat fruits and vegetables

These responses are indicative that information about positive living has been received and internalized.

4.6.1.5 Household members with HIV

More than half of the respondents (54%) said that they do not personally know anyone with HIV or AIDS. Those respondents who said that they do know someone who is HIV positive (40%) were then asked if that person is a member of household. Six percent (6%) of respondents declined to answer the question.

Five respondents offered that they themselves are HIV positive. Seventeen additional respondents said yes, there was a member of the household and identified: Partner – 1; Child – 5; Sibling – 7; Other relative – 4. Of these 17 people, three were reported as already deceased, leaving a *sample group of HIV positive respondents at 19, 15 of whom are receiving antiretroviral therapy.*

- **Key finding:** Of the 15 receiving ART, almost three-fourths (11) said they are experiencing problems with insufficient food, and three also said they lack money for transport to the clinic. Section 4.5.3 above confirms the lack of adequate nutrition. The seriousness of these findings concerning lack of adequate nutrition for HIV positive respondents, even in a relatively small sample size, presents what could be a far more pervasive and extensive health problem.

More than half (52%) of the respondents knew someone who had died of AIDS. (This question was asked directly, “Do you know anyone who has died of AIDS?”) Of this 52%, 17% (46 respondents) said that they were members of their household:

Partner – 5; Child – 9; Parent – 1; Sibling – 12; Other relative – 19

In order to consider the relationship between HIV and *home* respondents were asked, “If a member of this household were sick with HIV/AIDS, would they stay here or go home?”

- **Key finding:** Respondents whose households are affected by HIV want to be where their family can provide support. About half would stay in Windhoek and half would go home. This again reflects the reciprocal rural-urban linkages, particularly apparent during times of need, vulnerability and illness.

Respondents were then asked, “If a member of this household, here in Windhoek, were sick with HIV/AIDS, would you be willing to or could you care for them?” Sixty-nine percent (69%) said yes and gave the following reasons:

22%- I love them

17%- It is necessary to care for sick people – the person needs help and support and you can’t get HIV by helping someone with HIV

16%- They are family

15%- It is my responsibility

- **Key finding:** Knowledge about transmission of HIV has been gained and internalized.

- **Key finding:** Family ties are of primary importance and if a member of family back home were sick with HIV or AIDS, 75% of respondents would send money, medicine and/or food.

4.6.2 Summary

People who are sick want to be where there is the most support from family; they will stay in Windhoek if that is where family is, otherwise they will go home (unless they have specifically come to Windhoek for treatment). Healthcare in Windhoek is reported to be available and accessible. A majority of respondents have been tested for HIV, know their status, know where to get treatment as necessary and know that someone who is HIV positive can live a healthy life.

4.7 Community Well-being

Respondents all stay in the same larger neighbourhood of Windhoek, that is, the North-western townships. Within these townships there are particular communities, some of which are more recent informal settlements, some of which are established formal settlements and some of which are newer formal settlements.

When considering the findings in an aggregate fashion, over 90% of respondents had no community involvement in tackling a common problem or needing to consult authorities about a problem. However, only 36.8% of respondents reported that the majority of people in their neighbourhood can be trusted. Approximately 57%

reported that people get along with each other and that they feel part of the neighbourhood

When asked to compare their household to others within the community, 29.6% of respondents said that their household was better off, 27.9% said it was similar, 14.6% said their household was worse off and 24.5% did not know. There was no significant difference in responses when compared by formal or informal settlements.

How does your household compare with others in this community?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11	2.2	2.2	2.2
.	1	.2	.2	2.4
0	5	1.0	1.0	3.4
Better	146	29.6	29.6	33.0
Similar	138	27.9	27.9	60.9
Worse off	72	14.6	14.6	75.5
Don't know	121	24.5	24.5	100.0
Total	494	100.0	100.0	

Table 18 — Household compared to others

5. Qualitative findings

The objective of the qualitative portion of this study was twofold: 1) to identify problems and challenges that are specific to orphans and vulnerable children as a critical element of society within the regional context of migration, AIDS and food security and 2) to gather input from policy makers and implementers regarding housing, food security and policy issues. The findings regarding OVC are reviewed in sections 5.1, 5.2 and 5.3. The findings regarding housing, food security and policy issues are detailed in section

5.1 Introduction

During the quantitative questionnaire, respondents were asked if the household cared for any orphans as members of that household. Findings indicated that there were 26 households in which orphans were members of the household. One additional interview was conducted with the head of household of an unofficial orphanage, in which 27 children are being cared for, six of whom are orphans related

to the head of household. The relevant demographics of these households are detailed in Table 19.

Households with orphans

Age(s) of orphans	Relationship to head of household	Number in household	Number orphans receiving social grants	Head of Household working?	Food secure? (per questionnaire)
8	Child	3	1	no	yes
1	Grandchild	2	1	no	NO
8, 10, 12	Grandchild	6	0	no	NO
7	Grandchild	9	1	no	yes
14	Niece	11	1	no	NO
8, 16	Children	5	0	yes	yes
1	Niece	6	0	yes	yes
7, 13	Siblings	6	1	yes	yes
13,14	Siblings	8	0	yes	NO
5	Other relative	10	0	yes	yes
14	Child	2	0	no	yes
6	Child	4	0	no	yes
4	Grandchild	6	0	no	NO
10	Other relative	10	0	no	NO
1	Grandchild	5	0	yes	yes
8	Niece	5	0	yes	NO
16	Other relative	4	1	yes	NO
9	Other relative	9	0	yes	yes
17,18	Grandchildren	4	0	yes	yes
7,7,11	Children	5	0	no	NO
17	Non-relative	7	0	yes	yes
2,5	Nieces	6	0	yes	NO
8	Non-relative	9	0	yes	yes
8	Niece	5	1	yes	yes
5	Child	3	1	no	NO
6	Nephew	6	0	no	yes
6, 9, 10, 12, 14, 17	Grandchildren, Nieces, Non-relatives	27	0	yes	NO

Table 19 — Households with Orphans

It can be seen from this information that 12 of the 27 households with orphans (44%) reported being food insecure, *meaning the inability to access food on a daily basis*. This is 13% more than the quantitative findings of the full sample, which showed 31% of households being food insecure. Furthermore, in these 12 households, five of the heads of household are earning money. Clearly, whatever money they are earning is not sufficient to feed their family.

In depth individual interviews were conducted with 10 selected heads of these households (or the child's caregiver) as well as with eight of the teenage orphans themselves. The caregivers were purposefully selected based upon the ages of the

children for whom they were caring and their relationship to these children, in order to obtain as much varied information as possible. The orphans were purposefully selected based on their age (no one under 12) because the researchers determined that the richest and most reliable information would be provided by the older children.

The interviews with the caregivers were conducted by the two senior researchers using a translator as necessary. The interviews with the orphans were conducted by the two senior researchers in English. In order to balance for any gender and/or cultural differences, one senior researcher was male Namibian (Oshiwambo mother tongue) and the other a female American/Namibian (English mother tongue).

Findings of caregiver interviews as well as orphan interviews were coded and aggregated by general themes. Situation-specific findings of note are also mentioned in the following narrative.

5.2 Caregiver findings

Caregivers – All female

Caregiver age	Orphan age	Relationship to orphan	HIV/AIDS status	Housing	Household members
19	7	Step-mother	N/A	Informal shack	5 (2 adults)
30	13,14	Sister	Mother of orphans (dead)	Informal shack	8 (1 adult)
32	12	Sister	Mother of orphan (dead)	Formal house	4 (2 adults)
34	1	Aunt	Mother of orphan (dead)	Formal house	6 (2 adults)
36	7,7,11	Mother	Father of orphan (dead)	Informal shack	5 (2 adults)
40	14	Aunt	Father of orphan (dead), mother HIV+	Formal house	12 (3 adults)
46	8,10,12	Grandmother	Mother of orphan (dead), other son is HIV+	Informal shack	6 (3 adults)
49	1, 3, 14, 15	Grandmother	Mother of orphan (dead), grandmother is HIV+, one orphan is HIV+	Informal shack	5 (1 adult)
51	13,14	Mother	N/A	Informal shack	3 (1 adult)
63	6, 9, 10, 12, 14, 17	Grandmother, Aunt	Mother and father of 9 yr. old both dead	Formal house, orphanage	27 (2 adults)

Table 20 — Caregiver demographics

General thematic findings

1. ***There is never enough food***; some families share equally; in some families the children eat first.
2. When there is no food, the caregiver either asks neighbours, buys on credit or the household goes hungry.
3. There is no money to pay the school development fund (SDF) so orphans do not go to school or do not receive their report cards. (N.B. Government's "Education Sector Policy for Orphans and Vulnerable Children" mandates that SDF be waived for orphans but principals are not adhering to this policy – see section 6.6 below).
4. Maintenance grants for orphans (N\$200 per month) are insufficient to care for the child's needs but do contribute to household maintenance.
5. Older caregivers, grandparents, those on pension or not working have the most difficulty meeting basic needs of food, water and clothing.
6. Teenage orphans have domestic chores (child care, cleaning house, laundry) but no more than other children in household.
7. A male partner of the caregiver is present in only 2 of the 10 households and only one is working.

5.2.2 Specific household findings

1. A grandmother caring for four orphans said her family in North does not send food because there are too many people in that household and not enough food there.
2. The same grandmother reported that there is not enough money to pay for transport to hospital to get ART for one of the orphans who is HIV positive.
3. In larger families, one more person (orphan) can be a big burden in terms of having sufficient food.
4. The orphan is *"like my own child and not a burden- she is my younger sister. I am the eldest and I must care for her."*
5. There is no transport money to the government office to apply for a social welfare grant.

5.2.3 Summary

The issue of food security for households in which OVC are being cared for does not mirror the overall quantitative findings wherein the majority of respondents are food secure. In the households that care for orphans, 9 of 10 report not having sufficient food. The one household that is food secure is the one in which there is a husband who is working. Eight of the 10 households have been affected by HIV/AIDS, which would be expected given that they are caring for orphans. It has been confirmed in various studies that HIV/AIDS is the significant contributory factor to the ever-increasing number of orphans in Namibia (SIAPAC, 2001; MGECW, 2007). Further discussion about OVC, food security and HIV/AIDS is presented in section 6.6.

5.3 Orphan findings

Orphans

Age	Gender	Housing	Caregiver	Parental status	Household members
12	F	Formal house, orphanage	Grandmother	Father dead, mother absent	27
13	F	Formal house, orphanage	Grandmother	Father dead, mother absent	27
13	F	Formal house	Elder sister	Mother dead, father absent	4
14	F	Formal house	Aunt	Father dead, mother sick	12
17	F	Formal house, orphanage	Aunt	Double orphan	27
17	M	Informal shack	Mother	Father dead, mother sick	5
17	M	Formal house	Grandmother	Double orphan	6
17	M	Formal house	Grandmother	Mother dead, father absent	6

Table 21 — Orphan Demographics

Double orphan = 2; Mother dead, father absent = 2; Father dead, mother absent = 2; Father dead, mother sick = 2

5.3.1 General thematic findings

1. Those who are being cared for by mothers, grandmothers or siblings feel loved and part of the family.

“My sister helps me with schoolwork.”

“I am talking to my sister because sometimes other kids are beating me and saying bad things to me.”

“My grandmother is my parent and I don’t feel I am an orphan.”

“I miss my mother but I must stay here and go to school and learn and pass.”

“Home is where my grandmother is, either here or at the farm.”

2. **Insufficient food** was an issue in all households but one. The children reported that they either go hungry or relatives sometimes bring food. When they go hungry, it is usually in the morning and they go to school without breakfast, or at night and they go to bed without supper or with only porridge.

“Sometimes we are not eating, I have nothing but water.”

“I had no breakfast, no food, no food at school, but then I drank coffee with sugar but no milk.”

“My sister gives me bread.”

“We only eat food at night.”

“What we get to eat is what we share.”

3. All have responsibility for washing their own school clothes. Additionally, the boys have responsibility for cleaning the yard, while the girls have responsibility for helping with domestic chores and child care.

4. School is experienced as a good place; a happy place by the majority of respondents.

“When kids tease me I can talk to my teachers.”

“School is fine – I am learning about the ecosystem.”

“Nothing is difficult at school for learning but sometimes other kids are beating me and pushing me.”

“I am in LRC and always have been close to my teachers. Everyone says I am very smart but I don’t believe them; I am just lucky.”

5.3.2 Specific household findings

1. One female reported being sexually molested and beaten by an older male in the household (caregiver’s husband). When she reported this to her caregiver, she was accused of lying and told never to speak of it again. (NB. Consultants arranged a counselling intervention for this child).
2. One household has two orphans who are cousins and they stay in their grandmothers’ house. She sends food and meat from the farm.
3. Before the father died the family lived in a formal house in a different neighbourhood, but when he died the family was forced to move to an informal shack. They now have no food.

“My mother sends me to go and ask for money where my father used to work.”

5.3.3 Happiness

The respondents were all asked what makes them happiest and what make them unhappy. Some comments included:

Happy means:

“Spending time with my family.”

“When I go home to the village and play with my brother.”

“I am happiest learning in science class.”

“I love meeting new people and being with all the kids here.”

“My birthday when people give me presents and new clothes.”

“Family is my favourite thing.”

Unhappy means:

“My mother is sick and I miss her.”

“When I am insulted if I make a mistake.”

“They say I must do the dishes and clean the house and I don’t have time for my homework.”

“When the other kids talk about their fathers and I don’t have one.”

5.3.4 Summary

The issue of food security from the qualitative perspective of the orphans interviewed does not correspond to the overall quantitative findings of the full study. 100% of the children mentioned that there was not enough to eat, as opposed to only approximately 31% of the general sample saying that they were food insecure. It can be argued that children are always hungry and so were more forthcoming about this issue. Additionally, when one is engaged in an in-depth qualitative interview/conversation, the likelihood of providing detailed information is much greater than when responding to a questionnaire. Thus, it could be that even a higher percentage of the general sample would be classified as food insecure if they had been interviewed qualitatively by the senior researchers. Nevertheless, having enough food to eat is the central and most urgent issue for these OVC.

Most of these children feel well cared for by their extended families, particularly those who are staying with their grandmother. Indeed, those children who stay with their grandmothers stated that they do not perceive themselves as orphans. Each and every child expressed a dream to go to university to become a teacher, doctor, nurse, lawyer, accountant or engineer. Simply being able to express such a dream speaks to the resiliency and optimism of these children.

It is important to note that Namibia has a very favourable policy environment about children, including OVC as detailed in Appendix 1. The implementation of these policies is constrained, however, by lack of human resources and financial capital.

5.4 Stakeholders

Input was solicited from key stakeholders by means of an initial meeting to familiarize them with the study and discuss the issues in general. There were 13 representatives from government and non-governmental organizations, including the National Planning Commission (NPC), City of Windhoek, Ministry of Gender Equality and Child Welfare (MGE CW), United Nations Population Fund (UNFPA), Ministry of Regional and Local Government, Housing and Rural Development (MRLGHRD), National Housing Action Group, Shack Dwellers Federation, Habitat Research and Development Centre and the University of Namibia (UNAM). Subsequently, a Focus Group Discussion (FGD) with key informants was conducted regarding the findings as well as the policy environment. Key points from this FGD were categorized by topic and are bulleted below.

5.4.1 Items of note - migration

- Migration is generational, circular and continuous. It is on-going among the young generation because they are job-seeking. The findings confirmed this.
- The younger generation are attracted to what they believe is the *good city life* and therefore come to Windhoek for *greener pastures*. The findings did not address this.
- However, they know they must respect cultural expectations and they must return *home* to rural areas during holidays and for all special occasions (wedding, funerals). This is confirmed in the findings by continued rural-urban linkages and remittances.

- The younger generation tends to lose their heritage and mother tongue if they have been in Windhoek since birth, causing them to become isolated when visiting family in the rural area. Eventually this leads to the severing of linkages as visitation to the rural areas decreases. This was not investigated.
- In Namibian cultures, when one is unemployed (retrenchment, retirement, structural unemployment, etc) he/she returns to the rural areas. This was not investigated.

5.4.2 Items of note – food security

- Not all land in the rural areas within the Namibia is rich for cultivation. The northern areas are more suited for cultivation than the southern area, which is mostly desert and not suitable for cultivation. Therefore, it was expected that those who migrate from the south are more motivated because of food insecurity. The findings support this insofar as migrants from the Southern regions reported increased food security in Windhoek; however the driving force behind migration was employment.
- There is a linkage between food insecurity and HIV/AIDS. If food insecurity is the cause of migration, it can lead those who are unemployed to engage in unsafe sex and/or multiple partners in order to feed and clothe themselves and their family, thus adding to the increase in the HIV/AIDS epidemic. The findings neither confirmed nor denied this.
- The definition of food security can vary according to rural and urban areas; urban residents may consider food security to be nutritious food whereas people in the rural area may consider having any meal that day as food security. By proxy, this is confirmed in the findings.
- Anecdotally, and contrary to findings, a great deal of food products including meat, do come from the North to Windhoek.

5.4.3 Items of note – urban agriculture

- GRN is aware of the need for urban agriculture; there are currently some government schools that have gardens to provide food for the learners and for nearby soup kitchens.
- Urban agriculture in Windhoek should emphasize vegetable production rather than livestock due to small plot size as well as lack of proper facilities and theft.
- There is not sufficient land space in either formal or informal settlements for individual gardens, therefore the only option is a community garden.
- Stony soil, scarcity of water, lack of land availability and affordability and pests (crickets) are the main obstacles to individual urban gardens in Windhoek.
- Communal gardens are not being implemented successfully because the community participants cannot easily access nor afford water.

5.4.4 Items of note – policy issues

- Urban governance is not a distinguishing factor in terms of lack of policy; all the townships fall under the municipality. However, there remains confusion as to the responsibilities of the regional council as opposed to the municipality.
- The municipality (City of Windhoek) is pro housing (due to socio-economic pressures) rather than pro agriculture. Thus, it does not assist in the development of viable urban agricultural activities. There are no formal policies regarding urban agriculture or food security; hence ‚benign neglect’ is the de facto policy.
- There is a great deal of conversation at the national level about ‚pro-poor’ policies, but there is little implementation of such on the ground.

- City of Windhoek town planning must address the need for communal gardens as an urgent matter.
- There remains stigma about AIDS as a „cause of death’ because insurance companies will not pay survivor benefits if AIDS is on the death certificate. Therefore, it is common practice to put the final illness (e.g., TB, pneumonia) on the death certificate and not to acknowledge that AIDS was the catalyst.

5.4.5 Summary

Given that the stakeholders are all policy makers, implementers or beneficiaries, the most pressing discussion topic concerned the obvious lack of policies regarding food security and urban agriculture. Internal migration was discussed but only perceived as a problem due to lack of affordable housing in Windhoek. There exist policies regarding HIV and AIDS and it was perceived that the GRN is doing as much as it can with the assistance of international donors. Only one participant expressed concern about the GRN’s ability to sustain the implementation of these policies once international donors decrease their presence (and money). These same stakeholders will be engaged again at dissemination meeting to highlight the finding and inform policy.

6. Discussion

6.1 Research objective 1

Demonstrate that household level rural food production contributes to the food budget of urban households through urban-rural linkages.

The key findings related to this objective address migration and continued urban-rural linkages. It can be stated that rural food production contributes to the food budget of urban households, however, this is the case for less than half (44%) of the respondent households. This is 22% less than reported by Frayne in his 2007 study, where he found that 66% of respondents received food from family or friends outside of Windhoek and that the survival of migrants in Windhoek was in part due to food received from rural areas. In the current study, although there are continuing linkages for 90% of the respondent households, these linkages are not necessarily reciprocal in terms of remittances sent and received. The majority of these linkages relate to family (74%) and land ownership (12%) and 70% are in rural areas.

When considering migration, the key findings that migrants come to Windhoek for economic and employment reasons, that they are mainly in their 30s, single or never married, educated and primarily from the Northern regions must be considered from the perspective of Namibian culture. The statement, *In Namibian culture, one does not migrate forever. The place in the rural area is home; the city is just a place to work* is emphatically true. Indeed, *home* is described as where one's roots are and/or where significant family ties exist.

The central cultural issue concerning migration, that one does not migrate forever, is embedded in the language and traditions of the Owambo and Kavango regions in particular. The Oshiwambo word *ombwiti* and the similar Rukwangali word *bwiti* both mean the same thing and are both used derogatorily - someone who goes to town and does not come back to the village; someone who has broken or neglected ties to the village (Frayne and Pendleton, 2001). It is expected that even if a person sends money to the family in rural areas (findings that 54% of respondents send money back home and 73% of the money goes to parents in rural areas) it is not sufficient – proper cultural behaviour dictates that one must physically go back home at least quarterly.

The contribution of rural food production to the urban household food budget is indistinct. Although it was reported by 44% of respondents that they receive food from outside of Windhoek and 99% of this food was sent by family members, it is an assumption that the food sent was grown or produced in rural areas. This assumption is likely correct since 73% of the food was sent from the Northern regions. This may be due to higher agricultural production in the Northern regions as well as cultural traditions of reciprocity among Owambo people. The main foods sent were reported to be mahangu (pearl millet) and meat. It should be noted that agricultural regulations prohibit transfer of meat (excluding fish and poultry) or live animals from the Northern regions (north of the veterinary cordon fence) to Windhoek due to concerns about animal diseases. Therefore, it is possible that the percentage of reported food received is low because recipients of food from the North did not wish to divulge that they had received food contrary to the law.

6.2 Research objective 2

Examine the role of rural-urban migration and rural-urban linkages at the household level in magnifying or ameliorating the impacts of AIDS on urban household food security.

AIDS in and of itself does not appear to be a factor in relation to rural-urban migration, rural-urban linkages and urban household food security. A migrant who becomes sick, regardless of whether it is an HIV-related illness, wants to be wherever the family is, whether in the urban or rural household. It could be argued that the ability to return ‚home’ to the village and to be welcomed may be a result of the carefully maintained linkages between the urban and rural households.

According to Frayne and Pendleton (2001), HIV/AIDS is often characterized as an urban problem, with urban areas generally having higher prevalence rates than rural areas. They stated that when urban dwellers become symptomatic, they may return to the rural areas where they will eventually die. Migrants are involved in both spreading HIV to rural areas and caring for those infected. Migrants periodically visit their home regions and may infect rural dwellers with HIV that was acquired in urban areas. At the same time, migrants may make money available for the care of the infected in rural areas. This state of affairs, argued Frayne and Pendleton (2001), may lead to the decline in food production in rural areas, a situation that affects both rural and urban dwellers. The findings from the current study neither confirm nor deny these assertions.

The sub-sample of households that reported having a household member who is HIV positive is 22 (of 513). Five respondents offered that they themselves are HIV positive. Seventeen additional respondents said yes there is a member of their household who is HIV positive and identified: Partner – 1; Child – 5; Sibling – 7; Other relative – 4. Of these 17 people, 3 were reported as already deceased, leaving *a sample group of 19 HIV positive respondents, 15 of whom are receiving antiretroviral therapy.*

- **Key finding:** Of the 15 respondents on ART, almost three-fourths (11) said they are experiencing problems with insufficient food, and three also said they lack money for transport to the clinic.

Sixty percent (60%) of this sub-sample responded in the affirmative to the question, “Were there particular times in the past year when food security was poor?” Thus it can be deduced that the households with HIV positive members are less food secure than the general sample in which only 31% reported being food insecure.

Twenty (20) of the 22 households with HIV positive members reported rural linkages, but there was no correlation between these rural linkages and whether an HIV positive person “would stay here or go home.” The percentage of HIV positive household members who would stay here or go home reflects the responses of the general sample in that about half would stay here and half would go home. People who are sick want to be where there is the most support from family; they will stay in Windhoek if that is where family is, otherwise they will go home (unless they have specifically come to Windhoek for treatment).

In five of the 22 households with HIV positive members, the head of household self-disclosed being HIV positive, and the following demographics were noted, as shown in Table 17:

1. All heads of households are female
2. Ages are 25, 40, 40, 41, 49
3. All came to Windhoek for economic reasons; earliest arrival in Windhoek was 1979, most recent arrival was 2002
4. Four of five have linkages with the North, but only one receives food from this linkage
5. Three are employed, two receive grants for child maintenance
6. Two care for orphans (one is child, one is grandchild) and one of these orphans is also HIV positive
7. Two reported being food secure, two reported not being food secure and the fifth reported being food secure because she borrows money or food from neighbours (which is actually considered to be food insecure).

8. Four are on ART and two of them have problems (food and transport)
9. When asked, “If a member of this household were sick with HIV/AIDS, would they stay here or go home?” two said they would stay in Windhoek for care and treatment and the other three would go home.

➤ **Key point:** This data reinforces previous studies which indicate that women are more affected and infected by HIV and AIDS.

Self-disclosed HIV positive heads of household

Age	Linkages	Receive food?	Employed?	Food secure?	ART?	ART problems?	Stay here? Why?
E. 40	Relatives, rural Omusati	Yes, mahangu from parents,	No, grant	Yes	Yes	Lack transport \$ to clinic	Stay here Access to care and treatment
L. 41	Homestead, rural Omusati	No	Yes, domestic	No, when lost job	Yes	Insufficient food, Lack transport \$ to clinic	Stay here Access to care and treatment
K. 40	Relatives, urban Oshikoto	No	Yes, clerk	Yes	Yes	No problems	Go home Support from family
D. 25	No linkages	No	Yes, office worker	Yes, but borrow money or food from neighbour r	Yes	No problems	Go home Access to care and treatment
M. 49	Relatives, rural Ohangwena	No	No, grant	No	No	CD4 is still ok	Go home To die

Table 22 — HIV Positive heads of households

The relation between households with HIV positive members and those receiving food from outside of Windhoek was examined as shown in Table 23. It revealed that six households with HIV positive members (27% of HIV positive sub-sample) reported receiving food and 5 of these 6 households received food from family in the Northern regions.

Households with HIV+ members receiving food

From whom	From where	What	How often	HIV+ member	ART
Close relatives	Ohangwena	Vegetables, mahangu	Every month	Child	Yes
Children	Khomas farm	Vegetables, meat	Every month	Child	Died
Parent	Ohangwena	Commercial fruit, mahangu	Occasionally	Partner	No
Close relatives	Kunene	Meat	Few times yr	Sibling	Yes
Parent	Ohangwena	Mahangu	Few times yr	Other relative	Yes
Parent	Omusati	Mahangu	Special need	Self	Yes

Table 23 - Households with HIV+ members receiving food

Although no conclusion can be drawn about rural-urban migration relative to the urban household food security of AIDS impacted households, the data does show that rural-urban linkages remain intact for some of these households which receive food from family in the Northern regions. Furthermore, the food that is sent is of high nutritional value, especially mahangu. This is of particular importance given that the most food insecure were the respondents who were HIV positive, staying in informal settlements and on ART.

6.3 Research objective 3

Quantify the role that urban agriculture plays in meeting the food gap of urban households, and the extent to which AIDS influences this.

Urban agriculture does not appear to provide a significant food resource in Windhoek.

Although 82.5% of respondents said they know of vegetable gardens to which they would have access, only 8% reported having used these gardens. When asked if they would grow vegetables if there were an opportunity for them to do so, the responses were equally divided, with 46% affirmative, 42% negative, and 12% not willing to answer. Livestock (chickens) was reportedly kept by 3% of the respondents.

These findings are not surprising. There is generally insufficient land for individual gardens within the formal and informal settlements of the North-western townships of Windhoek (due to the densification policy of the Windhoek municipality as well as environmental conditions); communal gardens would have to be established.

Moreover, one must be aware that water is the scarcest resource in Namibia, particularly in the drier central and southern regions. Water security is a particular obstacle in Windhoek in terms of both availability and cost.

Urban and peri-urban agriculture producers in Windhoek are faced by numerous problems (Dima et al. 2002, p.12), such as shortage of water (41%), pest attacks (40%) and theft of the produce (31%). Other problems identified include the lack of information regarding the type of crops to grow, the chemicals to use, and the prices producers would receive for their products. Windhoek has stony soil which also interferes with urban agriculture. Mahangu could be grown in Windhoek because it does not need much water and or a very fertile soil, but there is neither support nor encouragement for people to do so (nor is there sufficient space).

Dima et al. (2002) proposed that in order to exploit the potential of urban agriculture to the full, the government, the municipalities and the private sector should be involved. A policy should be formulated to encourage the production of high value fruits and vegetables for the market. In addition, micro loans should be considered to enable producers to purchase inputs, including appropriate technology. The policy should also allocate responsibilities amongst the concerned authorities in respect of legal recognition, guidelines on the correct husbandry practices and the protection of the environment for sustainable production.

At present, government policies and regulations neither encourage nor discourage urban agriculture. However, it is critical to note that existing urban planning policies are pro-housing rather than pro-agriculture. This densification policy promotes urban sprawl rather than urban agriculture development. These current planning and governance policies do not promote mixed usage of land between agricultural and residential uses, thereby constraining the inhabitants from practicing urban agriculture. Section 6.4 following details this planning policy and the ramifications thereof.

6.4 Research Objective 4

Assess the policy environment's role in hindering or contributing to the urban food security of households (urbanization, economic, health – including AIDS - and education).

The policy environment in Windhoek regarding urban food security is absent; there do not appear to be any policies about urban food security. Indeed, there are other policies which may contribute to food insecurity in Windhoek. One example is the Veterinary Cordon Line which prohibits meat or livestock transfer from the Northern regions to Windhoek. People who stay in Windhoek may own cattle at their rural dwellings in the North but cannot make use of this resource as a result of transfer prohibitions. As indicated in section 6.3 regarding urban agriculture, there is a lack of encouragement and support by all levels of government (municipal, regional, national) for urban agriculture, as well as a lack of encouragement for innovative low water farming technologies, such hydroponic farming.

According to Dima et al. (2002), the authors contacted the Ministry of Agriculture, Water and Rural Development and the Municipality of Windhoek. It was established that there is no policy on urban and peri-urban agriculture. The Ministries of Health and Social Services and Environment and Tourism also do not consider urban and peri-urban agriculture as their responsibility. Thus, it can be assumed that the government has adopted a policy of *benign neglect* toward urban agriculture.

The majority of food available in Windhoek is imported from South Africa. The urban area of Windhoek relies on a good transportation and distribution system from South Africa. Food is available and accessible, presupposing that people can afford to buy it. Therefore, **food insecurity must be viewed in a larger context as a poverty problem.** Thus, it is not a stand alone issue; rather it is embedded in the entire socio-economic fabric of Namibia. Poverty has different dimensions, the most common being consumption-poor (Republic of Namibia, 2001). The Government of the Republic of Namibia classifies a household as being *relatively poor* if it devotes over 60% of its expenditure to food, and as being *extremely poor* if such expenditure exceeds 80%. Using this definition, 38% of Namibian households were relatively poor and 9% were extremely poor in 2001.

According to Lancet Series, 2008, as reported in the 2009 concept paper for Europe Aid on “Enhancing the EC’s Contribution to address Maternal and Child Undernutrition and its Causes” (p.16), Figure 4 provides a framework of the relations between poverty, food insecurity and other underlying and immediate causes to maternal and child undernutrition and its short term and long term consequences. As indicated, the basic causes of maternal and child undernutrition are set within political, social and economic contexts, which create the underlying cause of income

poverty. Such income poverty leads to household food insecurity, inadequate care and an unhealthy household environment.

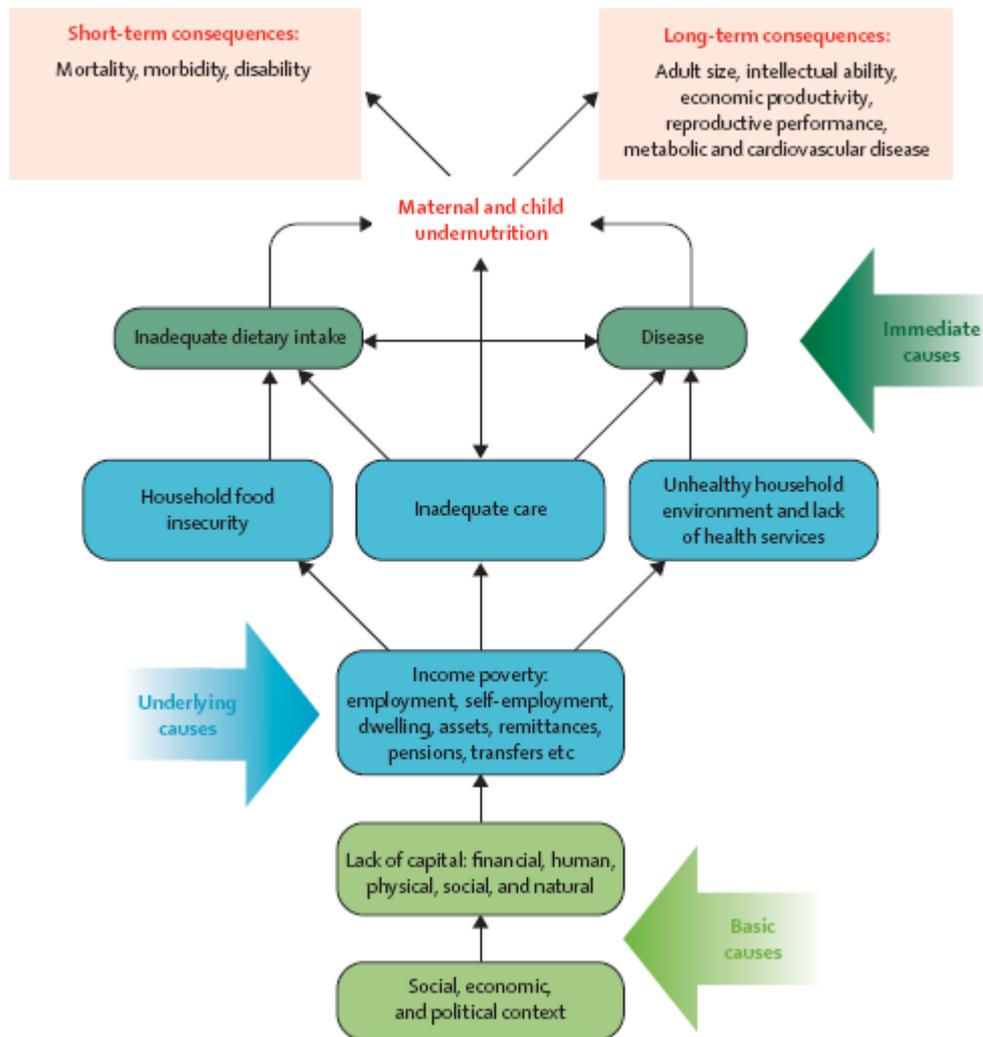


FIGURE 4 — framework of relations between poverty, food insecurity and maternal and child undernutrition

Certainly urban agriculture could contribute to urban food security, but formal and informal employment and income are even larger factors. Any discussion of food security cannot take place in the absence of understanding land affordability and densification issues and the municipal policies that promote densification. These municipal policies are land policies only which favour zero agriculture and have developed in the context of widespread poverty.

Seventy-one percent (71%) of Windhoek’s population is in the low-income North-western townships (Gold et al., 2001) with migrants continuing to arrive. As a result, the focus of the Windhoek municipality is pro-housing rather than pro-agriculture.

This is a densification policy which promotes urban sprawl rather than urban agriculture development. The necessary subdivision practice to accommodate this urban influx has been decreasing the plot size from 300 square metres (per GRN National Housing Policy) to 100 to 150 square metres. While this approach provides short-term housing opportunities, the medium-term implication of this approach is that it does not contribute to high land appreciation value. Hence, the plot of land in the informal settlement is too small for urban agricultural activities and it cannot be used as collateral for financing for some other peri-urban plot for increased urban agricultural opportunities.

There is a system of *development levels* that define the level of services provided. This analysis of affordability links family income to development of plots. Unfortunately, the lower the income, the fewer the services because the City of Windhoek “does not have access to regular state subsidies for land acquisition and bulk service supply, let alone the specific provision of infrastructure to the poor. Hence, while the city of Windhoek policies recognise the need to make services available, they also emphasise the need to find solutions in the absences of subsidies. Without subsidies, the City of Windhoek policy is to charge the residents the costs incurred in providing the services to the land” (Gold et al., 2001, p.26).

A *positive* outcome of densification has been the increase in informal sector economic activities. The relaxation and redefining of illegal squatters into informal settlement transit areas has promoted informal sector activities and has seen increases in *kapanas*. Additionally, the municipality has demarcated areas in which formal stall markets are available through local economic development initiatives. These local food stalls have a dual benefit – they provide income for the owner and reduced costs for the consumer. Not only are consumers reducing their transport costs into the city centre, but some foodstuffs which are acquired directly from the commercial farmer/producer can be sold for less, e.g., meat directly from the farmer.

6.5 Research objective 5

Identify policy and programming implications of the findings in the context of the triple challenge of migration, AIDS and food insecurity

The findings reveal that there is a significant influx of mainly young migrants into Windhoek from rural areas who are looking for employment and economic opportunities. This influx results in socio-economic challenges such as high unemployment, food insecurity and HIV/AIDS. The challenges require an integrated policy if they are to be tackled effectively, consistently and appropriately. The city of Windhoek does not have a policy directing migration. There is need for such a policy to guide and direct decision-making concerning the increased rural-urban migration.

Namibians have the right of movement guaranteed by the supreme law - the Constitution (Republic of Namibia, 1990). Therefore, there cannot be a public policy restricting movement of people. An internal migration policy should focus on supporting migration (Waddington, 2003). Waddington (ibid.,p.i) stated that internal migration policy should facilitates migrants' livelihood by

... developing mechanisms to provide information to prospective migrants about employment opportunities, facilitate the transfer of remittances, micro-credit schemes, supporting the most vulnerable migrants, providing childcare services for employed parents. For those who are vulnerable and whose migrant status bars access to basic social goods such as health and education, there is a strong case for migrant-targeted policies to improve access and services delivery ... Governments should concentrate on providing adequate shelter, water, sanitation and economic opportunities to the populations to which they are accountable.

The literature makes references to some factors pushing migrants from rural areas to urban areas such as unequal development and lack of land (Frayne and Pendleton, 2001); and that no other country in southern Africa has a large proportion of its urban population living in the capital (Dima et al., 2002). The implication here is that there is a need for developing rural areas. The findings reveal that the majority of migrants

are from the North, especially north central regions, where 45% of the national population occupies only about 8% of the land.

The regions in the north need to be made attractive so as to discourage rural-urban migration. It is worth repeating that the aim of internal migration policy should be to facilitate people's livelihood. According to Waddington (2003, p.i) internal migration policy makers should also concentrate on

... indirect policies that may impact upon migration flow
... Examples of indirect policies are: provision of public services and amenities (including infrastructure) in rural areas, administrative and industrial decentralizations, land reforms, inter-sectoral rural development programs, micro-credit schemes, development of rural non-farm sector, price support for agricultural products to raise rural incomes.

6.5.1 Policy and program challenges

Within the larger context, it should be recognized that the GRN line ministries do not provide support to migrants because their position is that migration into Windhoek is a municipal issue. Unfortunately, the municipality of Windhoek does not have any urbanization policies outside of its overall town plan. According to a City of Windhoek town planner, the municipality cannot afford to provide services for the high number of migrants due to financial as well as environmental constraints. As migrants continue to arrive in Windhoek, they require food, shelter, infrastructural services and employment, none of which the municipality can provide in sufficient quantity. The municipality's approach to manage this influx of migrants is by means of numbering the shacks constructed in order to control the development of new ones. In principal, there are supposed to be enforcers of these shack control measures, but there may not be sufficient logistical support (key informant interview, 2008).

Furthermore, the municipality is using densification as an emergency intervention to decrease the cost of providing infrastructural services (by putting two families per plot). This contradicts the previous GRN National Policy on Housing (1991) that a plot must be at least 300 square metres. Thus, in practice the city of Windhoek is violating the position of the GRN. Nevertheless, migrants continue to arrive and

request and require support from the local authority. There is the need to expand the availability of serviced plots which precludes the need for urban agriculture and increased food security.

Land tenure poses a major problem because the land belongs to the city of Windhoek, is not fully serviced and there is no security of tenure. UN-Habitat (Urban Land For All 2004, p.8.) summarizes the advantages and disadvantages of different types of tenure systems as follows in Table 23:

TENURE SYSTEM	CHARACTERISTICS	ADVANTAGES	LIMITATIONS
Freehold	Ownership in perpetuity	Provides a high degree of security. Freedom to dispose, or use as collateral for loans. Maximises commercial value, enabling people to realise substantial increases in asset values.	Costs of access generally high. Collateral value may not be relevant if incomes are low or financial institutions are weak. Property values can go down as well as up and may trap the unwary in properties worth less than they paid for them.
Delayed Freehold	Conditional ownership. Title is granted on the completion of payments or when developments have been completed.	This provides the same high degree of security as freehold, providing payments are made as required or developments have been completed. Freedom to dispose, or use as collateral for loans. Maximises commercial value, enabling people to realise substantial increases in asset values.	Failure to maintain payments or undertake developments may result in eviction and loss of funds invested. Collateral value may not be relevant if incomes are low. Property values can go down as well as up and may trap the unwary in properties worth less than they paid for them. Expectations of increased values can divert investments from more productive sectors of the economy.
Registered Freehold	Ownership for a specified period from a few months to 999 years.	As secure as freehold, but only for the period specified in the lease.	Requires legal framework. Costs of access generally high.
Public rental	Rental occupation of publicly owned land or house.	Provides a high degree of security providing terms and conditions of occupation are met.	Limited supply may restrict access. Often badly located for access to livelihoods. Terms often restrictive. Deterioration may result if maintenance costs not met.
Private rental	Rental of privately owned	Good security if	Open to abuse by

	land or property.	protected by legally enforceable contract. Provides tenants with flexibility of movement,	disreputable owners. Deterioration may result if maintenance costs not met.
Shared equity	Combination of delayed freehold and rental in which residents purchase a stake in their property (often 50%) and pay rent on the remainder to the other stakeholder.	Combines the security and potential increase in asset value of delayed freehold and the flexibility of rental. Residents can increase their stake over time, ultimately leading to full ownership.	Requires a legal framework and efficient management
TENURE SYSTEM	CHARACTERISTICS	ADVANTAGES	LIMITATIONS
Customary	Ownership is vested in the tribe, group community or family. Land is allocated by customary authorities such as chiefs.	Widely accepted. Simple to administer. Maintains social cohesion.	May lose its legal status in urban areas. Vulnerable to abuse under pressure of urbanisation. Poor customary leadership may weaken its legitimacy.
Religious tenure systems (e.g. Islamic)	There are four main categories of land tenure within Islamic societies. „Waqf’ is religious trust land and is potentially very significant in addressing landlessness, whilst „mulk’ or individual full ownership, is also protected in law: „miri or state owned/controlled land which carries „tassruf’ or usufruct rights, is increasingly common, whilst „musha/mushtarak’ is collective/tribal ownership.	Facilitates family / group tenures and accessible and affordable land management procedures.	Because they are outside the commercial land market, waqf lands are often inefficiently managed. Inheritance disputes can cause land conflicts.
Non-formal tenure systems	These include a wide range of categories with varying degrees of legality or illegality. They include regularised and un-regularised squatting, unauthorised subdivisions on legally owned land and various forms of unofficial rental arrangements. In some cases, several forms of tenure may co-exist on the same plot, with each party entitled to certain rights	Some of these non-formal categories, such as squatting, started as a response to the inability of public allocation systems or formal commercial markets to provide for the needs of the poor and operated on a socially determined basis.	As demand has intensified, even these informal tenure categories have become commercialised, so that access by lower income groups is increasingly constrained.

Table 24 - Tenure Systems and Their Characteristics

The City of Windhoek has developed seven service standards for the various target groups in conformity with affordability. Level 0 provides for informal accommodation with basic services, the tenure system for levels 1 and 2 is based on lease. Levels 3

to 6 have high standards of services and the land is for sale. Table 24 depicts the various development options and services standards developed by the City of Windhoek.

OPTION	SERVICE	DESCRIPTION
<p>Formalized Settlements</p> <p style="text-align: center;">LEVEL 1</p>	<p>Planning Surveyed Average Erf Size Water Sanitation Roads Refuse Removal Electricity</p>	<p>Formally planned Block surveyed 340m² Communal water supply (1 tap for 100 people) Owner to provide Surveyed road reserves Self (Central refuse collection site) None (no additional provision) Erf Cost: ± N\$2,550</p>
<p>Rudimentary Services</p> <p style="text-align: center;">LEVEL 2</p>	<p>Planning Surveyed Average Erf Size Water Sanitation Roads Refuse Removal Electricity</p>	<p>Formally planned Fully surveyed 340m² Communal water supply (tap at ablution block) Communal sewerage (ablution block 1 per 80 people) Surveyed road reserves Central refuse removal sites None (no additional provision) Erf Cost: ± N\$5,550</p>
<p>Partial Services</p> <p style="text-align: center;">LEVEL 3</p>	<p>Planning Surveyed Average Erf Size Water Sanitation Roads Refuse Removal Electricity</p>	<p>Formally planned Fully surveyed 400m² Full water supply Waterborne sewerage system Engineered and gravelled Door to door None (no additional provision) Erf Cost: ± N\$12,550</p>
<p>Fully Serviced</p> <p style="text-align: center;">LEVEL 4</p>	<p>Planning Surveyed Average Erf Size Water Sanitation Roads Refuse Removal Electricity</p>	<p>Formally planned Fully surveyed 400m² Full water supply Waterborne sewerage system Engineered and gravelled Door to Door Electricity to individual erven Erf Cost: ± N\$20,550</p>
<p>NHE Superstructure Core Houses (full cost recovery)</p> <p style="text-align: center;">LEVEL 5</p>	<p>Planning Surveyed Average Erf Size Water Sanitation Roads Refuse Removal Electricity</p>	<p>Formally planned Block surveyed 600m² Full water supply Full waterborne sewerage system All roads engineered and gravelled Door to door Full reticulation Cost: ± N\$41,000</p>

<p>Higher Housing Option</p> <div style="border: 1px solid black; width: 100px; height: 30px; margin: 20px auto; text-align: center;">LEVEL 6</div>	<p>Planning Surveyed Average Erf Size Water Sanitation Roads Refuse Removal Electricity</p>	<p>Formally planned Block surveyed 600m² Full water supply Full waterborne sewer system Engineered and tarred except access roads Door to door Full reticulation Cost: ± N\$58,000</p>
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Table 25 — Windhoek service levels
Adapted from Gold J., A Muller, D. Mitlin 2001

Table 26 illustrates the affordability and percentage of city population who are catered for by each development level.

Monthly income (N\$)	% of City Population	Development Level
0 - 166	22	0
167 - 666	32	1
667 – 1,202	28	2
1,203 – 2,814	14	3
2,185 – 3,436	2	4
3,437 – 4,505	1	5
4,505 +	1	6

Table 26 - Development Options in the City of Windhoek's Low-income Areas
Adapted from Gold J., A Muller, D. Mitlin 2001, p. 29.

As the above tables indicate, land is an essential requirement in order to produce food not only for family consumption but also for potential sale. Land would be particularly helpful for those infected by HIV and AIDS, who would like to enhance their food security. The tenure of land is important as investments in seeds and equipment have to be secured, at least until the harvest has been brought in. Migrants in urban areas face the problem of not having collateral to secure finances if they stay on land that does not belong to them. It is even more difficult to pay for the inputs of food production, e.g. rent for land and water, if they suffer from the effects of HIV or AIDS (especially in the absence of antiviral medication and support).

- **Key point:** The most important policy and programming implication must be to balance land affordability and densification with opportunities for urban agriculture.

6.5.2 Programming implications

It is clear from this study that local and national policies about migration, HIV/AIDS and food security are not coordinated to form the integrated policy and programming interventions required to address urban development needs. There is recognition that these three policy areas require integration, but not enough information exists to ensure the development of such an integrated policy with an effective implementation strategy.

Although there are national policies and strategies relating to HIV and AIDS, there is a conspicuous lack of a clearly articulated urban food security strategy, particularly a 'pro-poor' policy, as part of the focus of these HIV/AIDS policies. Moreover, the health services support structure for HIV and AIDS does not address food security as a focus of any policy. Nutritional support for people on ART is discussed at all levels, but in practice there is little in place as a continuing and accepted policy. The majority of HIV and AIDS programs in Namibia are dependent upon international donor funding, which, while essential, may or may not cultivate a sense of ownership of solutions to the continuing problem. HIV and AIDS is not only sub-Saharan Africa's problem; it is a global problem. Although it is a global problem, interventions must be – to a larger extent than now – locally financed and implemented.

The issue of capacity cannot be adequately considered without first addressing the policy issue; that is the need for an integrated policy. Although Namibia has many excellent policies about rural development and HIV and AIDS, the focus of these policies may make them difficult to implement, or they are not pertinent to the actual urban situation on the ground. Moreover, as a result of continued reshuffling and reorganization of ministry activities, the responsibility for these issues is shifted from one line ministry to another. This transfer of responsibility occurs administratively, and the ministry capacity may not be able to tend to the actual issues. Often when responsibilities for key issues and programs are shifted from ministry to ministry, capacity is not shifted and hence the programs cannot be implemented. The crucial factor in this discussion is the necessary integration of policy in order to make use of existing capacity, which must occur prior to determining if more capacity is needed.

This study has contributed to the understanding that there is a need to develop and integrate policies in these areas of the *Triple Threat*. This requires further study of Windhoek's urban land policy, land tenure and current migration patterns. One of the benefits of this current study has been the inclusion of stakeholders at all stages.

Such stakeholder involvement is critical to ensure that an integrated policy can be implemented. Broad stakeholder representation (rather than only Windhoek municipality) would achieve a great deal in understanding the implementation challenges. Stakeholders could include line ministries (such as Ministry of Health and Social Services, Ministry of Gender Equality and Child Welfare, Ministry of Regional and Local Government, Housing and Rural Development), CBOs, NGOs and tertiary research institutions

6.6 Research objective 6

Identify problems and challenges that are specific to orphans and vulnerable children as a critical element of society within the regional context of migration, AIDS and food security.

It must be understood that the sub-sample of OVC in this study may not be representative of the population of OVC in Namibia. These children are living with extended family members in an urban area which is the capital of the country while many of Namibia's OVC stay with grandparents or other caregivers in rural areas or are living unsupported on the streets. The problems faced by this sub-sample represent only some of those faced by Namibia's OVC – mainly hunger and lack of access to education (as a result of inability to pay school fees).

The National Plan of Action 2006-2010 for Orphans and Vulnerable Children (MGECW, 2007a) indicates that as of 2006 there were approximately 155,000 orphans and 95,000 vulnerable children in Namibia. The percentage living in the Khomas region (9.8%) is among the lowest, with the highest being Caprivi with 31.1% of OVC, followed by Oshana with 24.3%, Omusati with 22.7% and Ohangwena with 21.3%.

6.6.1 Definitions

According to the National Policy on Orphans and Vulnerable Children an **orphan** is “a child who has lost one or both parents because of death and is under the age of 18 years” and a **vulnerable child** is “a child who needs care and protection” (Ministry of Women Affairs and Child Welfare, 2004, p.1). This definition is further elaborated in the National Plan of Action for Orphans and Vulnerable Children launched in October 2007. The national monitoring definition for a “vulnerable child” in the National Plan of Action (MGECW, 2007)

- a child living with a chronically ill caregiver, defined as a caregiver who was too ill to carry out daily chores during 3 of the last 12 months
- a child living with a caregiver with a disability who is not able to complete household chores
- a child of school-going age who is unable to attend a regular school due to disability
- a child living in a household headed by an elderly caregiver (+60 years with no one in household between 18 – 59 years)
- a child living in a poor household, defined as a household that spends over 60% of total household income on food
- a child living in a child-headed household (meaning a household headed by a child under the age of 18)
- a child who has experienced a death of an adult (18-59 years) in the household during the last 12 months.

6.6.2 Policy Environment

Namibia has a very favourable policy environment in support of children. The African Report on Child Wellbeing 2008 (2008) ranks Namibia as the second most child-friendly government on the African continent. In the category of child protection Namibia ranks fifth out of 52 countries. Moreover, the country comes fifth for budgetary commitment to child-related services, 11th in the ranking for child-related outcomes, and 10th for overall provisions. After independence in 1990, Namibia was one of the first signatories of the Convention on the Rights of the Child. Since then, a number of national and sector specific policies have been developed to protect and enhance the development of children. A detailing of these policies is provided in Appendix 1.

The National Plan of Action 2006-2010 for Orphans and Vulnerable Children (MGEWC, 2007) targets five strategic areas requiring intervention. These areas are:

1. Rights and protection, with the target that all children have access to protection services
2. Education, with the target that an equal proportion of OVC versus non-OVC aged 16-17 years have completed grade 10
3. Care and support, with the target that 50 % of all registered OVC receive external support (economic, home-based care, educational, psychological)

4. Health and nutrition, with the target of 20% reduction of under-five mortality of all children and equal proportions of OVC to non-OVC aged 15-17 year olds are not infected with HIV
5. Management and networking, with the target of multi-sectoral coordination and monitoring of the improvement in equality of services to OVC

In the context of this study, the sub-sample of households with orphans reflects issues regarding education (caregivers reported not being able pay school development fund, thereby the OVC are denied access to education), care and support (caregivers report not being able to access social welfare grants) and health and nutrition (insufficient food).

6.6.3 Implementation challenges

Despite an extensive and favourable policy environment, the implementation of some policies has remained problematic. As is noted in the Education Sector Policy for Orphans and Vulnerable Children (MoE, 2008, [authored by Ashton, Haihambo, Mushaandja, Yates]), one of the major challenges facing caregivers of OVC is their inability to meet the educational needs of the children. OVC are turned away from school when they cannot buy uniforms, stationary or pay the school development fund (SDF). School fees at the secondary level are significantly higher than primary school fees and caregivers find it difficult to cover these for OVC, resulting in a higher drop-out rate for secondary learners. This is a double-edged issue because the school development fund monies cover all school operational expenses other than teacher salaries. Thus, this money is necessary in order for the school to operate. An Educational Development Fund (EDF) is in place to reimburse the schools which waive SDF for orphans and vulnerable children, but this EDF is only in the roll-out stages.

In all of the case study findings, caregivers reported not being able to pay school development fund. Those who do receive social grants reported that the amount is not sufficient. This does even begin to address the logistical difficulty of applying for these grants and often waiting years to receive them. Thus by default, OVC can be denied equal access to education in Namibia.

Orphans and vulnerable children may be especially at risk of not having their health needs recognized and addressed, which certainly affects their ability to optimally

benefit from schooling. These needs include receiving **sufficient nutrition** as well as immunization against and treatment of diseases, HIV and AIDS education, basic hygiene and sanitation. While the school cannot provide all of these services, it is well placed to identify children with health needs and refer them to the appropriate service providers. The national school feeding program (NSFP) provides an ideal vehicle for supplementing learners' nutrition, allowing them to benefit fully from educational opportunities. Unfortunately, due to insufficient funds, the National School Feeding Program can only feed OVC in very few schools.

Children can become vulnerable at any time during their childhood due to any number of circumstances. As a result, they may be unable to cope with the economic demands of simply caring for themselves, not to mention the emotional and psychological needs associated with their situation. In such cases, school is the only safe and supportive environment on which they can depend. It is, therefore, imperative that school be a place where these children can receive the educational and psychological support they require.

Schools should provide an accessible, safe and conducive learning environment, free of stigma and financial barriers, in which a legislated code of conduct guarantees a culture and gender-sensitive education. Moreover, schools should provide adequately trained teachers who can serve as role models; they must be trained and equipped to integrate Life Skills and Prevention Programs into their teaching and counselling.

7. Conclusions

In this section, the findings are reviewed in relation to the literature review from which initial hypotheses were developed. Additionally, gaps and limitations are noted.

7.1 Migration

"A rural home vs. an urban house" (Owuor, 2004) confirms the hypothesis that migration is a continuous process. Where the family is and where the roots are - that is home. The majority of migrants are from the Northern regions. The findings indicated that young, single and educated migrants are coming to Windhoek for employment and are keeping their rural linkages alive through monetary remittance to the North.

7.2 Food Security

Contrary to the initial hypothesis based on the literature review, which was that there would be a high degree of food insecurity among migrants, the findings of this study do not indicate that the majority of respondents are food insecure, nor is there a difference in food security based upon living in informal settlements (shack dwellers) or formal houses in the townships. Furthermore, although the study finds that there are very strong linkages to rural areas, particularly in Northern Namibia (defined as the seven political regions (1) Omusati, (2) Oshana, (3) Kunene, (4) Kunene, (5) Oshikoto, (6) Kavango and (7) Caprivi) where the majority of the population is living, reciprocity of remittances is unequal. It was hypothesized that food would be transferred from the rural areas; however the findings indicated that this type of transfer is limited, both by practice and by policy.

A small sub-sample of those who are HIV positive and living in formal settlements on ART are not food secure.

7.3 Urban Agriculture

Urban agriculture does not appear to provide a significant food resource and as shown in literature review, it is not a significant activity due to a variety of environmental constraints in Windhoek.

7.4 Health

Based upon the literature review, the hypothesis was that HIV positive migrants would go back home and that this would cause a spread of the disease. This hypothesis was not necessarily supported by findings. The findings showed that when people are sick they want to be with their families, thus going back home is only supported if that is where the family is. For example, one respondent said,

“People who are sick have the tendency of going back to their places of origin when they are weak, because they believe that if they die while in Windhoek, the cost of transporting the corpse for burial [should be buried in same cemetery as their relatives] is extremely high and many families who are poor find it difficult to raise the money of transport and other costs.”

The responses were approximately equal about wanting to *stay here or go back home* if one were sick.

There is a high level of knowledge about HIV and AIDS and people know about testing, know where to get it and how to live a healthy life. In practice, however, only 57% of respondents reported having been tested, which is considerably less than the 79% who know where to get tested and have heard of ART.

Again contrary to the literature review, migrants were not found to be more vulnerable to HIV. There were no risky survival strategies noted, food security was not a driver for risky behaviours, and there was no difference between those who live in formal or informal settlements in terms of vulnerability.

7.5 Orphans

When reviewing the sub-sample of households with orphans, 44% reported being food insecure (quantitative data). This is a higher percentage than the full sample, which was 31% food insecure. Of great note is that in the qualitative findings, 90% of the caregivers and 100% of the orphans reported that insufficient food is their biggest problem. The hypothesis that OVC would be food insecure leading to risky behaviours (stealing by boys and early sexual activity by girls) was not confirmed. It must be noted; however, that all the OVC in this study were staying with extended families where they generally felt loved and cared for. This study did not include street children who are likely to be much more vulnerable.

7.6 Gaps

The impact of HIV on rural food production and the concomitant impact on rural-urban linkages have not been addressed in this study. An understanding of the impact of HIV on rural food production is critically important for improving the current rural development policies and programmes, which are crucial in addressing productivity and employment in the rural areas of Namibia. The nature and the magnitude of this gap must be studied in order to complement the existing understanding of the relationship of urban food security, HIV and AIDS and migration in Namibia. Additionally, a detailed understanding of the migration/HIV vectors and the drivers concerning these vectors is necessary.

This study found that there is strong evidence of urban sprawl in the settlement formation of the transit areas of Windhoek. This sprawl is moving increasingly towards the mountainous areas northwest of Windhoek. Although, the *Windhoek*

Municipal Development strategic document and *Level of Service Guideline* for providing housing for the poor mention topography, socio-economic conditions and migration as key criteria for site selection for in situ development, the emphasis of the criteria is on residential township development. From a policy perspective, urban food security is only marginally encouraged, while urban sprawl is encouraged without understanding the implication of this sprawl on the environment. There is a need to understand the environmental impact caused by the sprawl in northwest Windhoek to in relation to urban food security and especially the feasibility of increased opportunities for urban agriculture.

Urbanisation in Namibia takes place in a haphazard way. There is neither a national policy nor are guidelines available to provide structure to the process. Therefore, crisis management is common, focusing on certain problem areas, such as the influx of migrants who cannot contribute to the payment of services, limited employment opportunities, and limited health services. This requires initiatives to enable those in need to produce at least some food to make them less dependent on aid.

7.7 Limitations

Only specific areas of Windhoek were investigated, which limited applied research into projects by government and NGOs involved in urban agriculture. Additionally, these government or NGO projects do not exclusively focus on those affected by HIV/AIDS, but on people living in poverty.

The needs of orphans in rural areas as well as OVC living on the street have not been addressed. These two groups of OVC are likely more at risk than the OVC in this sample and therefore the findings from the case studies should not be generalized .

The impact of HIV and AIDS on rural food production has not been considered in this study.

7.8 Final thoughts

The salient conclusion of this study is that migration, food security, employment and to some extent HIV/AIDS, are all interwoven in households in the North-western townships of Windhoek, regardless of whether the households are in formal or informal settlements. Food is available and accessible, presupposing that people

can afford to buy it. In order to be able to access food, one must first be able to access the money necessary, either through employment (formal or informal) or government grants. Therefore, **food insecurity must be viewed in a larger context as a poverty problem**. Thus, it is not a stand alone issue; rather it is embedded in the entire socio-economic fabric of Namibia. Although urban agriculture could be a component of increased food security (albeit minor due to some inherent problems of urban agriculture in Windhoek), formal and informal employment and income are even larger factors. Any discussion of food security cannot take place in the absence of understanding land affordability and densification issues and the municipal policies that promote densification. These municipal policies are land policies only which favour zero agriculture and have developed in the context of widespread poverty.

It is clear from this study that local and national policies about migration, HIV/AIDS and food security are not coordinated to form the integrated policy and programming interventions required to address urban development needs. There is recognition that these three policy areas require integration, but not enough information exists to ensure the development of such an integrated policy with an effective implementation strategy.

This study has contributed to the understanding that there is a need to develop and integrate policies in these areas of the *Triple Threat*. This requires further study of Windhoek's urban land policy, land tenure and current migration patterns. One of the benefits of this current study has been the inclusion of stakeholders at all stages. Such stakeholder involvement is critical to ensure that an integrated policy can be implemented.

8. General Recommendations

- The most important outcome of this study is the need for an integrated policy reflecting considerations and program interventions about food security in relation to HIV and AIDS and migration.
- It is urgent that local government offer more active support and training about urban agriculture, particularly the benefits of communal gardens in view of land tenure issues.

- Access to government services needs to be closer to the people who require the services, e.g., an office of MGECW should be in the townships so that grant applicants have easier access
- It is not sufficient to offer free ART if the recipients cannot afford transport to the clinic or nutritional support; this is self-defeating. Nutritional support to those on ART must be considered imperative. Additionally, there could be a transport service provided by the MoHSS for those who cannot get themselves to the clinic.
- The Ministry of Education must publicize widely the *Education Sector Policy for OVC* so that caregivers know that orphans are exempt from SDF. Being able to afford school fees should not be an obstacle for orphans in a country whose constitution guarantees access to education for all.
- Progress definitely has been made in increasing people's knowledge and understanding about HIV transmission and testing; however, information is available only in some of the townships and not as widespread as people would wish.
- The municipality of Windhoek, in collaboration with the relevant stakeholders, should develop internal migration policy stipulating clearly how to facilitate migrants' livelihood.
- If governments (local and central) were to support local initiatives, such as urban agricultural projects, cooperation with stakeholders active in communities should be supported. This assistance could range from training to funding to establishment of garden projects. Exchange of experiences between project members needs to be encouraged, in order to explore the limited potential for food production in Windhoek.
- The responsibility for urban agriculture could not be established, neither at the central nor local government level. This could be interpreted as requiring a policy to outline responsibilities and a strategy to promote urban agriculture.

9. Recommendations for further study

- Study food access for orphans and other vulnerable children who are not being cared for by a household.
- Study the impact of HIV and concomitant migration on food production and distribution patterns in rural areas.
- Study the feasibility of government food subsidies on mitigating the impact of HIV on food production and distribution.
- Expand this study into the regional areas from which the migrants come.
- Conduct more in-depth qualitative research with Windhoek migrants stratified by time in Windhoek and specific reasons for migrating, using a random sample with predetermined selection criteria.
- Conduct a situation analysis of existing urban agricultural communal projects in Windhoek and in Walvis Bay in order to obtain more insight into operational challenges and determine if a large coastal city (Walvis Bay) provides a favourable environment for future urban agricultural projects. Additionally, the potential of peri-urban agriculture should be included.
- Projects in the Southern African context should be visited to learn from these initiatives, e.g. the Sanitas wall in Botswana. These experiences could be valuable to other regions in Namibia, in particular where water and land is scarce or expensive.
- A longitudinal study would be required to determine whether young migrants will stay in Windhoek or whether, due to circumstances, they move to another area, or whether circular migration will be dominant.

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Appendix I: Namibian policies concerning OVC

Namibia has a very favourable policy environment in support of children. The African Report on Child Wellbeing 2008 (2008) ranks Namibia as the second most child-friendly government on the African continent. In the category of child protection Namibia ranks fifth out of 52 countries. Moreover, the country comes fifth for budgetary commitment to child-related services, 11th in the ranking for child-related outcomes, and 10th for overall provisions. After independence in 1990, Namibia was one of the first signatories of the Convention on the Rights of the Child. Since then, a number of national and sector specific policies have been developed to protect and enhance the development of children. These policies include:

The Constitution of the Republic of Namibia, 1990

Article 20 provides that:

- a. All persons shall have the right to education.
- b. Primary education shall be compulsory and the State shall provide reasonable facilities to render effective this right for every resident within Namibia, by establishing and maintaining State schools at which primary education will be provided free of charge.
- c. Children shall not be allowed to leave school until they have completed their primary education or have attained age sixteen (16) years, whichever is sooner, save in so far as this may be authorized by Act of Parliament on grounds of health or other considerations pertaining to the public interest (Republic of Namibia, 1990, p. 20)

The African Charter on the Rights and Welfare of the Child, OAU Doc. CAB/LEG/ 24.9149 (1990)

Article 11, No. 5 states that:

“State parties to the present Charter shall take all appropriate measures to ensure that a child who is subjected to school and parental discipline shall be treated with humanity and with respect for the inherent dignity of the child in conformity with the present Charter”.

The Namibian Educational Code of Conduct for Schools (Ministry of Education, Culture, Youth and Sport, 1990)

This document states that:

“Students have the right to be treated as individuals or groups and to have specific circumstances that affect their learning activities taken into account. However, they have the responsibility of informing school officials or teachers of any circumstances” (p. 5).

National Policy Options for Educationally Marginalized Children (Ministry of Basic Education, Sport and Culture, 2000)

These policies identify various groups as educationally marginalized and therefore are in need of other policy options to secure that they access education. These were: Children of farm workers; children in remote rural areas; street children; children in squatter areas and resettlement camps; children with impairments; children over-aged according to existing policies; children of families in extreme poverty (MBESC, 2000, p.3). Given the fact that most orphans and vulnerable children live in extreme poverty, policy options should apply. Some of the suggested options for children in extreme poverty were:

Affordable education for children from poor families

“The Ministry of Basic Education, Sport and Culture should insist on the implementation of its directives to schools regarding payment of school fees and the wearing of school uniforms. Neither of these is compulsory and school authorities should use their discretion in this case. For children who live too far away from school to walk on a daily basis, there is also a need for financial assistance for transport and/or boarding facilities” (MBESC, 2000, p.25).

School feeding program

“Learners, who have to walk a long distance to school, often without having eaten breakfast before leaving home in the morning, find it difficult to concentrate on school work during the day. For many children from poor families the school feeding program is the main incentive for attending school. Therefore, the school feeding program should continue or be introduced in poor communities. It should also apply to “informal hostels”, that is to learners who stay away from their families, near the school, often in huts built by the family” (MBESC, 2000, p. 27).

The Education Act No. 16 of 2001 (Republic of Namibia, 2001, p. 20)

Article 25 No. directs that:

(10) Subject to subsection (9) the school board may partially or fully exempt any parent from the payment of the school development fund contribution.

(11) If a parent is partially or fully exempted by the school board from the payment of the school development contribution, the school board may apply to the [Education Development] Fund for aid to pay such contribution.

The Education for All (EFA) National Plan of Action 2001 – 2015, Government of the Republic of Namibia (MBESC, 2001)

EFA Goal II (p. 30) reads as follows:

“Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality”.

The Namibian HIV and AIDS Charter of Rights (MoHSS, 2000)

Specifically prohibits all discrimination against children orphaned by AIDS. It states that such children are entitled to love, support and care and a nurturing environment that would enable them to realize their full potential, and that they should be cared for and supported within their communities. The Charter further requires that information on services, grants and benefits for AIDS orphans should be made freely available.

The National Policy on HIV and AIDS for the Education Sector (MoE, 2003)

Section on the needs of OVC emphasizes the need to disseminate information to schools, parents, and caregivers on exemptions from the payment of school funds and hostel fees, and promises that no learner shall be excluded from a government school, or from examinations, because of inability to pay school fund or examination fees, or to afford a school uniform. All education sector employees should be sensitised about the special needs of OVC, and should facilitate OVC's access to supportive and counselling services and, where necessary, to school feeding schemes. This policy also stresses the need for effective inter-school referral systems to minimize disruption and to provide support to learners when they have to be transferred after a parent or caregiver dies. Furthermore, vulnerable children are to be favoured in respect to hostel accommodation or community-boarding alternatives. Schools are also

encouraged to develop networks of support for OVC at each educational institution.

Namibia Vision 2030 (Republic of Namibia, 2004) includes an objective to “provide opportunities to disadvantaged children, including orphans, which will prepare them for and make them live, meaningful and happy lives.”

The Third National Strategic Plan for HIV and AIDS (MTP III) 2004-2009 (MoHSS, 2004)

considers orphans and vulnerable children both in terms of measures to prevent HIV infection in vulnerable groups and in mitigating the impact of HIV, especially on children through increasing access to community led interventions, social assistance, and education.

National Policy on OVC (MGECW, 2005)

“strengthening the capacity of children and young people to meet their own needs” (5.4) “keeping orphans and vulnerable children in school is central to strengthening their capacity to meet their own needs.”(5.4.1)

The Education and Training Sector Improvement Program (ETSIP) (MoE, 2007) includes specific attention to the educational needs of OVC. It suggests in the first phase 2006-2011:

- a specialized training package on OVC for caregivers in the field of Early Childhood Development (ECD), translated into local languages
- increased and more equitable access to pre-primary education for OVC
- increased educational and psychosocial support for OVC through the schools, through the use of specialized staff such as educational psychologists as necessary, by providing strengthened counselling services at schools and other education institutions, by utilizing Regional School Counsellors (RSCs) to train teachers in counselling skills and by establishing circles of support in all regions
- steps to protect OVC against stigmatisation, such as by means of a new national code of conduct for learners and students and revised hostel guidelines
- developing improved mechanisms for identifying OVC
- ensuring that all OVC of school-going age attend school and are not deterred from participation in formal education through school development fund or

other material contributions requested by schools, by ensuring that schools who exempt OVC from contributions are able to access the national Educational Development Fund for reimbursement

- providing a feeding program for OVC identified through the school counselling program around school clusters, operating under revised guidelines

The **National Policy on HIV and AIDS (Republic of Namibia, 2007)** contains a section devoted to orphans and vulnerable children. In addition to reiterating the goals on OVC stated in the National Policy for HIV and AIDS in the Education Sector, it also calls for:

- the revision of laws on social grants and the placement of children in need of protection
- an appropriate system for identifying children in need of assistance
- improved mechanisms for registering births and deaths and issuing identification documents, to facilitate the provisions of assistance to OVC
- awareness-raising campaigns encouraging parents to provide for their children by means of will, as well as other interventions to protect children's access to inherited property.

The **National Plan of Action for Orphans and Vulnerable Children (2006-2010) (Republic of Namibia, 2007)** identifies concrete actions in support of the goals of the National Policy on OVC. The Plan of Action provides targets and activities in five strategic areas: Rights and Protection; Education; Care and Support; Health and Nutrition; Management and Networking.