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***Exploring livelihood strategies after resettlement: A case study of
Chidzikwe resettlement area in Masvingo District of Zimbabwe.***

**A Research Project Submitted to Van Hall Larenstein University of Applied
Sciences in partial fulfillment of the Requirements for the Degree of Master of
Development, specialization AIDS and Rural Development**

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September 2010***

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ACKNOWLEDGEMENTS

Most sincerely, I thank my thesis supervisor, Robert Baars, for his commitment and guidance he offered throughout the research and documentation of this study.

I owe particular gratitude to my course coordinator, Koos Kingma, for the intellectual guidance she provided throughout my studies.

To my parents, for their struggle in making me what I am today.

To my siblings, for their inspiration throughout the course.

To my employer, AGRITEX, for allowing to pursue my studies.

To my friends, for their support and encouragement.

To my RDA classmates, for being good friends and supportive.

To all the farmers who spared their time and provided information during data collection.

Special thanks to the Netherlands Fellowship Programme for giving me the opportunity to pursue my studies in Holland.

DEDICATIONS

To my late friend

Charles Mahove, aka Fish.

You knew how we cared for each other.

You will always be remembered.

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ACRONYMS

AGRITEX	Agricultural, Technical and Extension Services
AIDS	Acquired Immunodeficiency Syndrome
ARV	Anti-retroviral
ART	Anti-retroviral Therapy
CADEC	Catholic Development Commission
CONEX	Conservation and Extension
DEVAG	Development of Agriculture
DFID	Department for International Development
FAO	Food and Agriculture Organization
GMB	Grain Marketing Board
HIV	Human Immunodeficiency Virus
IDS	Institute of development Studies
NAC	National Aids Council
PLWHA	People Living With HIV and AIDS

ABSTRACT

Information on livelihood strategies in newly resettled areas is not readily available. The department of AGRITEX lacks this information which they need in planning of programmes. This affects its extension delivery in newly resettled areas. It needs to know and understand these livelihood strategies so that service delivery can be enhanced to meet new challenges in newly settled areas. The objective of this study was to identify and analyse the livelihood strategies in newly resettled areas in order to generate insights for policy makers and development practitioners in enhancing service delivery in the resettlement areas.

The study had a qualitative approach based on empirical data and literature. It was conducted in Chidzikwe area in Masvingo District of Masvingo Province in Zimbabwe. A checklist for the interviews was developed. In this case study, four male headed households and four female headed households were interviewed. Four key informants were interviewed also. Two focus group discussions were held in the same village with each group having women only and the other one having men only. The rationale in splitting the respondents into two sets was because female headed households are now a common phenomenon in many parts of the country but at times they are left out of many programmes. The key aspects which this study focused on were assets, livelihood strategies and diversification, service providers in the area, livelihood outcomes and livelihood vulnerability.

Information collected was analysed using a conceptual framework adopted from the sustainable livelihood approaches. It was seen that female headed households have a higher dependency ratio than male headed households. Male headed households had more migrants in their ranks than female headed households. Household members moved to other areas in search of other livelihood opportunities. On land tenure, farmers had certificates of occupancy instead of title deeds which made it difficult for them when seeking loans. The resettlement land tenure showed no difference from that in communal areas and the land was still under state jurisdiction. Households reported having water problems as their community borehole was constantly breaking down. Social networks were evident in the village although villagers still maintained close social ties with their relatives and colleagues in their communal areas of origin.

Crop production was observed to be the main livelihood strategy in this area, with maize being dominant. Each household had access to 5 ha of arable land but male headed households had more area put under crop production as some female headed households had left part of their land fallow. Major crops grown in the area were maize, groundnuts, millet and sorghum. Constraints to agricultural production that were highlighted in this study include drought, shortage of inputs, and shortage of labour. The peak labour period for households spans from December to February when fields will need to be weeded. Farmers indicated little access to loans for agricultural production and women head of households had no confidence in the loan application system as they felt they would be looked down upon. Livestock diseases were noted as a major drawback especially for cattle production due to irregular dipping. Households indicated varying degrees of natural resource utilisation and female household were dominant in harvesting forest products such as mushrooms and wild fruits. Sale of livestock was the major coping strategy identified in this study. Household livelihoods were vulnerable to drought and the impacts of AIDS. Crop yields were reported to be low during the 2009/10 season due to erratic rainfall. Two female headed households had people living with HIV and AIDS. The government through its line ministries was identified as the major service provider in the area. The only NGO working in this area was a faith based organisation, CADEC, whose intervention was into sustainable agriculture and HIV and AIDS.

Recommendations that were made included supplementing rain fed agriculture by establishing community gardens, encouraging labour saving technologies such as conservation farming. There is need to diversify into cash crop production and growing drought tolerant crop varieties such as sorghum and millet. Mechanisms should be put in place to allow farmers access to loans for agricultural production. Cattle dipping should be given priority so as to control tick-borne diseases. Cross cutting issues such as gender and HIV and AIDS should be incorporated in development work.

CHAPTER 1: INTRODUCTION

1.1 Background

Zimbabwe gained political independence in 1980 and inherited a dual agricultural system. In this system, there was low-input and low-productivity in the smallholder communal areas and high-input and high-productivity in the commercial farming areas. These commercial areas had the most fertile soils in the country. It is against this background that the government of Zimbabwe, pursued a land reform and resettlement program premised primarily on the acquisition and redistribution of land (Zikhali, 2008). The land reform and resettlement programme can be put into two broad phases. The first phase was from 1980-1997, the second was from 1997 and can be considered to be on-going even now in 2010. At independence, the white minority (6000 farmers/15.5 million ha) owned 39% of prime agricultural land while the black majority (1 million households/16.4 million ha) had 41.4%. The white minority, below 3% of the national population, commanded nearly two thirds of the national income. The Lancaster House Agreement of 1979 established the “willing-seller”, “willing-buyer” principle as the basis of land redistribution with an expiration date of 1990. Under this agreement, emphasis was placed on rural development in the peasant sector, extension services, roads and marketing services. A limited amount of land reform took place during this phase. The second phase was characterized by the beginning of an official challenge to the market method and led to a real threat of compulsory land acquisition in 1997. During the third phase, the market method was abandoned and replaced by compulsory acquisition, which began in February 2000 following a pre-election referendum in which the proposal of the ruling party was defeated thereby signalling the “end game” for the liberation movement. The main objectives of the programme as originally stated were:

1. To alleviate population pressure in the communal areas;
2. To extend and improve the base for productive agriculture in the peasant farming sector;
3. To improve the level of living of the largest and poorest sector of the population;
4. To provide, at the lower end of the scale, opportunities for people who have no land and who are without employment and may therefore be classed as destitute;
5. To bring abandoned or under-utilised land into full production as one facet of implementing an equitable programme of land redistribution;
6. To expand or improve the infrastructure for economic production; and
7. To achieve national stability and progress in a country that has only recently emerged from the turmoil of war (Kinsey, 1999)

The agricultural sector is the backbone of the Zimbabwean economy, providing livelihoods for approximately 70% of the population, contributing for around 15-20% of the Gross Domestic Product (GDP) and 40-50% of exports. Smallholder agriculture has been the mainstay of Zimbabwe’s food security strategy. Farming is highly dependent on rainfall in Zimbabwe and most communal and resettlement areas are entirely dependent on rainfall for crop production. The agricultural sector has been experiencing challenging constraints such as droughts, deteriorating macroeconomic conditions and the HIV/AIDS pandemic which have drastically reduced output and productivity (FAO, 2007).

One emphasis of the land reform has been poverty reduction which has been operationalized through programme objectives that sought to allocate land to the poor.

Benefits from the agricultural sector are wide-ranging and extend to economic growth, food security, poverty reduction, livelihoods and rural development. Agricultural extension plays a crucial role in agricultural development and can help in improving farmers’ welfare and rural

development in general. Anderson (2007) defines the terms agricultural extension and advisory services as “the entire set of organisations that support and facilitate for people engaged in agricultural production to solve their problems and to obtain information, skills and technologies to improve their livelihoods”. In Zimbabwe, agricultural extension has several players both public and private. AGRITEX (Agricultural, Technical and Extension Services) under the Ministry of Agriculture is the government department in charge of agricultural extension.

1.2 Problem Statement

AGRITEX lacks information on livelihood strategies in newly settled areas. This affects its extension delivery in newly settled areas. It needs to know and understand these livelihood strategies so that they can be incorporated in service delivery.

1.3 Research Objective

To generate insight for AGRITEX policy makers and development practitioners on the livelihood strategies in newly settled areas. This will enable the existing strategies to be considered during programme planning.

1.4 Research Questions

1. What are the assets and livelihood strategies for households in newly settled area?
 - What is the asset base for households in newly settled areas?
 - What are the major on-farm livelihood strategies in newly settled areas?
 - What are the major off-farm livelihood strategies in newly settled areas?
2. What makes rural livelihoods vulnerable in newly settled areas?
 - What are the shocks and trends which have made livelihoods vulnerable in newly settled areas?
 - What have been the coping strategies in newly settled areas?
 - What is the role of service providers particularly AGRITEX, in newly settled areas?

1.5 Conceptual Framework - Sustainable Livelihoods

Livelihood is a concept that has been defined, and frameworks for analyzing it have been put forward by scholars in different but related forms. This research adopted the sustainable livelihoods framework as put forward by DFID.

The livelihoods framework offers a way of thinking about livelihoods that helps order complexity and makes clear the many factors that affect livelihoods. It also presents the main factors that affect people’s ways of living, and the typical interrelations between them. The framework is a people-oriented analysis that begins with simultaneous explorations of people’s assets, their objectives (the livelihood outcomes they are seeking) and the livelihood strategies they employ to achieve these goals. Feedback relations between these and the transforming structures and processes affect livelihoods. The framework identifies five important types of capital assets: human, natural, financial, social and physical (DFID 2000). A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets while not undermining the natural resource base. A livelihood is constituted by the capabilities, assets (both material and social resources and activities needed to earn a living (Scoones, 1998). Figure 1.1 shows the conceptual framework that was used in this study.

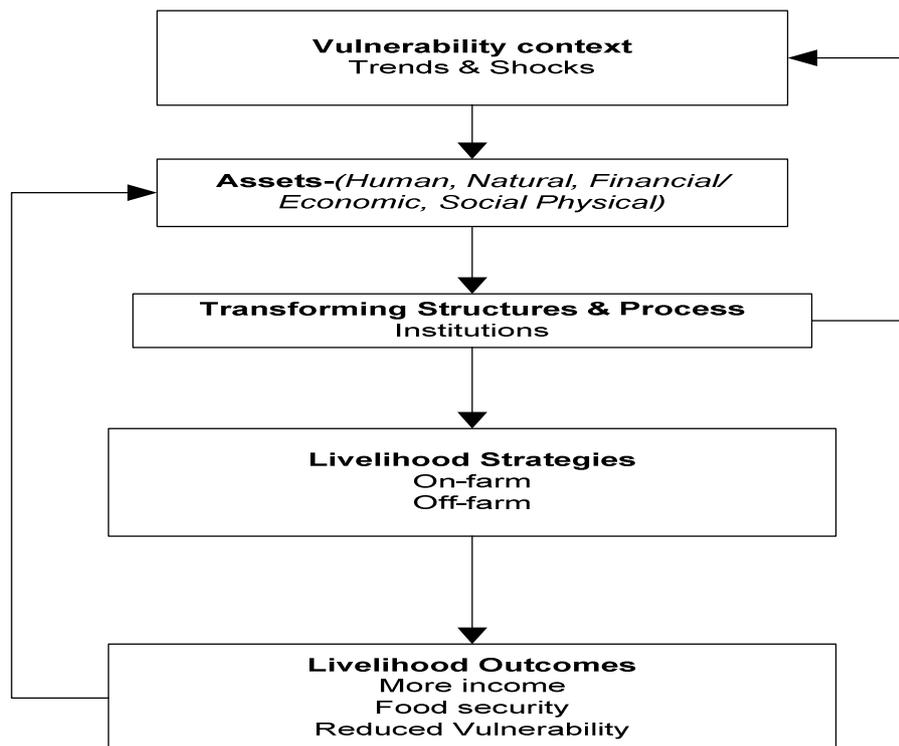


Figure 1.1 The Conceptual Framework

Source: Adapted from DFID Sustainable Livelihoods Guidance Sheet 2

1.6 Definition of Terms

Poverty is a condition characterised by deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information.

Food security refers to access and availability of enough, safe and nutritious food that. A household is food-secure when it has, at all times, access to food of a quantity and quality consistent with an active and healthy life.

Livelihood refers to the assets, the activities, and the access that jointly determine the living gained by an individual or household. (Ellis, 2000)

Vulnerability refers to a high degree of exposure to risk, shocks and stress.

Gender refers to the social attributes and opportunities associated with being male and female. This determines what is expected, allowed and valued in a woman or a man in any given context.

Land reform refers to changing the pattern of land ownership in a country by breaking up large holdings and distributing smaller parcels of land to a larger portion of the population.

Coping strategies are sequences of responses to a crisis.

CHAPTER 2: LITERATURE REVIEW

2.1 Land Reform in Zimbabwe

Zimbabwe inherited a skewed pattern of land distribution at independence in 1980 where the minority white commercial farmers owned most of the productive agricultural land and the indigenous black majority occupied mainly marginal areas with poor soils and low rainfall. The Zimbabwean Land Reform Programme has been a major issue of international discussion following the manner in which it was implemented. The marginalised admired this bold move, whilst some sections of society and international community sympathised with those perceived to be on the losing end of this programme. The resettlement objective set in 1980 guided the Intensive Resettlement Programme up to 1990 when they were revised in the new Land Policy of 1990 as follows:

- To resettle deserving and landless people;
- To extend and improve the base of productive agriculture in the small scale farming sector, through the provision of training and extension for the promotion of good husbandry and social development;
- To alleviate population pressure in the Communal Areas through an integrated linkage between resettlement and Communal Area reorganisation and development;
- To improve the standard of living of the largest and previously disadvantaged sector of the population through the provision of infrastructure and services and the execution of a resettlement programme that will ensure the attainment of sufficiently high levels of income (Chitsike, 2003)

Under this new National Land Policy, the Government established a strategic objective for the sizes of the various land tenure regimes. Four types or models of resettlement were used at the outset of the programme. The characterisation of these models revolved around the planning parameters, implementation procedures, tenorial arrangement, resource organisation, type of beneficiaries and their selection criteria. Some models have undergone several changes depending on operational experiences. Models that were adopted in land redistribution include the following:

Model A: This is also referred to as the intensive model on an individual basis. The village formed the nucleus where an individual got a residential stand and 5 ha of arable land with access to communal grazing. The state acquired land, mainly commercial farms, on the market. The settled farmers had to give up their land rights in communal areas they came from. This land was then subdivided into plots and distributed to the beneficiaries. Beneficiaries had to renew their annual land permits. Most of the resettled farmers were accommodated under this scheme, contributing over 80% of the beneficiaries in the 80s and 90s. This model was later subdivided into A1 and A2. The A1 model could be self-contained or villagised settlements. Households under the self-contained sub-model usually have access to larger arable lands than those under the villagised system. Under A2, thrust was on commercial production and can be further split into small-scale, medium scale, large-scale and peri-urban models.

Model B: This is also called the village settlement with cooperative farming. Acquired commercial farms were organised into cooperatives. Decision making was done through a committee. Thus the committee would access credit facilities and income allocated to individual families or allocated for farm development. Approximately 50 of these cooperative schemes were set up, although many subsequently folded.

Model C: This was an intensive model of resettlement in which state farms were given to out-growers around a core estate. Land for cropping was given on an individual basis, but where grazing was involved this was done communally. The estate provided the out-grower with certain services while the settlers provided labour. This model was not widely taken on board.

Model D: This model of resettlement was meant for raising livestock especially in the semi-arid and dry areas in the southern part of the country. The state purchased commercial farms closer to communal areas. Communal farmers would then purchase livestock from neighbouring trust areas and allowed to fatten on the acquired farm before marketing. The scope behind was to reduce stocking rate/grazing pressure on communal areas. This model was not widely taken on board.

Various pieces of legislation with regards to land were passed and in 2000 the government established a Commission to draft a new constitution. As cited by Chitsike (2003), the draft constitution contained provisions relating to the acquisition of land for resettlement and it also placed the onus for providing compensation for the acquired farms on the former colonial power, Britain in this case. This now exonerated the government from paying compensation for the acquired land except for infrastructural improvements. A referendum was held in the same year to allow people to either accept or reject the draft constitution. This draft was rejected in its entirety. With elections coming in the same year, the ruling party was now under pressure to deliver on the land question. Shortly after the verdict of the referendum, veterans of the liberation struggle began invading white owned commercial farms. Farm invasions started in Mashonaland East and this quickly spread over the whole country, with peasant farmers joining in. This marked the beginning of the Fast Track Land Reform Programme (FTLRP).

2.1.1 Achievements of the Land Reform

During the first phase of the land reform (1980-1997), it is estimated that over 80% of distributed land was to the most needy such as refugees, the internally displaced, the landless, and those with insufficient land. Distribution was random thereby resulting in mostly unrelated and strangers staying together in planned villages. Compared to the communal lands, resettled farmers got much more arable land with access to much more grazing land for livestock (Kinsey, 1999). During the first phase of resettlement, accompanying support services to farmers included access to credit, agricultural extension and veterinary services.

Table 2.1 Household characteristics for resettled and communal areas of Zimbabwe

<i>Means for 1996/7 – 1996/97</i>	<i>Resettled</i>	<i>Communal</i>
Total real household income	4442	959
.... of which		
.....real agricultural income	3771	546
.....real gross business revenue	197	36
.....real income from sale of livestock products	87	18
.....real remittances	151	270
.....real female income	189	99
.....real off farm income	46	30
Yield per hectare for maize (kg)	1890	1037
Maize hectarage	1.86	1.1
Total acreage cultivated	8.9	4.1
Number of residents in the household	11.6	6.1
Head of cattle	11.5	6.2

Source: Adapted from Kinsey (1999)

2.1.2 Problems of the Land Reform

In implementing the land reform, a number of challenges were met along the way. The government had limited resources for the provision of infrastructure and services as evidenced by its appeal to the international community for funds to support resettlement (Mbaya, 2004). The capacity of public technical wings such as AGRITEX, District Development Fund (DDF) and veterinary services was a great deal lower than the government was willing to accept. Limited services in the resettled areas has been equated to social exclusion which Mbaya (2004) alludes to as incorporating lack of social ties to the family, community and to the society in which an individual belongs. Once excluded, somebody's chances to earn an income, participate in labour markets, access assets or public services are greatly reduced. This social exclusion leads to exclusion from some of the basic rights of citizenship. This has resulted in some beneficiaries of the fast track land reform returning to their original communal lands where they had come from (Mbaya, 2004).

Wheat, maize and tobacco production by the commercial sector fell during the FTLRP. This reduction in performance contributed to the gradual decline in performance of the whole economy which again was not good for reducing poverty. This general low performance of the economy in association with the FTLRP had negative implications on investor confidence which saw the withdrawal of international institutions and their finances from the country.

HIV and AIDS is an issue that cannot be ignored in development circles including land reform. Zimbabwe has a high HIV prevalence rate in the world. HIV and AIDS has severe implications on economic growth, income and poverty. HIV and AIDS causes illness and premature death to individuals who are in their prime years of production. It is indiscriminate and can affect anybody. People of all groups are exposed to HIV and AIDS but the poor are the most affected. The FTLRP offered limited services such as health, information and education. This was a matter of concern as there were insufficient support services for those people who relied on such services (Mbaya, 2004). This greatly affected people living with HIV and AIDS who need medication.

2.2 The Fast Track Land Reform Programme.

The Fast Track Land Reform Programme (FTLRP) marked the beginning of the second phase of land reform and resettlement in Zimbabwe. This was a radical land reform based on compulsory land acquisition and distribution as cited by Moyo (2004) in Zikhali (2008). This was officially launched in 2000 as the FTLRP whose main objectives were:

- To speed up identification of land for compulsory acquisition for resettlement.
- To accelerate planning and demarcation of acquired land.
- To accelerate settlement by new land beneficiaries.
- To provide basic infrastructure and farmer support services (Moyo 2006 cited in Zikhali 2008)

The FTLRP targeted white commercial farms, private companies and absentee landlords. This programme used the A1 and A2 models of resettlement. The A1 model was meant to congest and release population pressure on communal lands. Production was meant to be mainly subsistence in A1 resettlement schemes. The A2 model was meant to create indigenous black commercial farmers by giving them bigger plots. The tenure agreement for A1 was a land permit while the A2 farmers were given 99-year leases with the option to purchase by the beneficiaries. However there is been issuance of different types of temporary licences for A1 settlers. This has been a source of tenure insecurity for farmers (Zikhali 2008).

2.3 Impacts of FTLRP on Agricultural Production

The second phase of the land redistribution and resettlement, the Fast Track Land Reform Programme (FTLRP), started in 2000 created an array of small-scale farms. This was characterised by change of ownership from minority commercial farmers to new indigenous farmers. However, this was accompanied by a significant drop in agricultural production and food availability (Moyo 2004). Commendable progress was realised in trying to achieve the mentioned resettlement objectives (see section 2.2), but with a lot of challenges. The FTLRP failed to provide in many cases decent infrastructure in newly resettled areas. Agricultural output from the commercial farms (maize, tobacco and wheat) fell during the FTLRP due to disaggregation of productive land, inexperienced and resource-poor farmers who had been resettled. The A1 farmers mainly produce maize, small grains, groundnuts and cotton. Low output in production of these crops has been realised despite an increase in area planted. Major crops under the A2 model are wheat, tobacco, soya beans and sugar cane. However they experienced low output levels as a result of reduced area under cultivation, low uptake and poor use of land, inexperience and lack of resources by the new farmers (Moyo 2004 cited in Zikhali 2008). The fall in wheat production reflected shortfalls by new farmers in using irrigation infrastructure. Soya beans were being produced with limited inputs. Maize yield was affected by recurrent droughts and reduced fertiliser use. The national herd size for beef cattle saw a reduction during the FTLRP due to slaughtering and sales especially from the large scale commercial farmers who were now leaving. Dairy production was also affected negatively as reflected by the shortage of milk and milk-related products in 2002-03 (Moyo, 2004). It was very difficult for small-scale farmers to use available technologies due to limited access to inputs such as equipment, seed, fertilisers and chemicals. New farmers lacked resources to hire existing and experienced farm labour. In these new farms, it meant increased demand for services such as agricultural extension, research and social services. Public service providers such as AGRITEX could not cope with increased demand for their services and at the same time they had limited financial resources. Normally such services are free for the peasant farmers but the government had no financial capacity to fund this (Moyo, 2004)

There was a loss of investor confidence which was evidenced by the withdrawal of international institutions and investors from the country.

The government together with non-state players has been supporting agriculture through provision of inputs. The government used to offer input loan schemes at subsidised rates while some NGOs gave these for free. Some private organisations would offer inputs under contract farming, e.g. cotton. However support by NGOs in resettlement areas has been limited or non-existent. A number of smallholder irrigation schemes have been established to supplement rain fed agriculture. This helped in raising farm incomes but it was not always rosy. A lot of farmers defaulted in recouping the loans, worse in drought years. Irrigation pumps would break down and funds to source spare parts were not forthcoming. Receiving inputs for free created a donor syndrome in most farmers.

Infrastructure development was given priority in the resettlement at the onset of the resettlement programme but progress has been limited. This included transport, water and sanitation, power, telecommunication and irrigation development. A good infrastructure helps in economic growth, hence rural development. Water is a problem in most newly resettled areas both for people and livestock. There are poor or no landline phones in the countryside, save for mobile operators, who are now penetrating this market. Efforts to electrify those rural areas have met their own share of problems which include low generation capacity, shortage of coal, vandalism including theft of electric cables which have a ready market on the black market, and a high staff turn-over.

2.4 Poverty, Gender and Land

When the resettlement programme was started, poverty was one of the most important criteria for inclusion (Kinsey, 2010). Poverty is one of the greatest limitations to development in developing countries. Poverty manifests itself through key characteristics such as lack of access to adequate food supplies or food insecurity. According to Mbaya (2001) it is now widely accepted that in most agrarian economies, lack of access and control over land is associated with low incomes and rural poverty. Access to and control over land is linked to food security and for rural people this is an important environmental concern which has a bearing on livelihood strategies and opportunities. Land holdings can be a determinant of wealth or well-being although rural peoples' primary concern is the ability to use land productively. Social networks are the basis of coping strategies for the poor and at times of stress (Mbaya, 2001). This is because land rights (holdings) are a function of social capital rooted in social relations such as networks of kinship, exchange and mutual obligations.

Incidence of female headship is believed to have increased in high proportions in both developing and developed countries and Horrel and Krishna (2006) postulate that the bulk of these are poor. Female headship in Zimbabwe is common and has been attributed to a number of factors. There are two types of female headship, namely de jure and de facto. A de jure female head of household is one who has no husband, such as a widow or a divorcee, and is answerable to decision making in the household. A de facto female head of household is usually in charge of the household when the spouse is away. Usually the husband could have migrated to look for wage employment. About 40% of rural households in Zimbabwe are female headed. The HIV and AIDS epidemic has resulted in many deaths, especially for the economically active age group, leaving grandmothers heading households. Female households are likely to have fewer breadwinners as compared to male headed households. However, de facto female headship for households can be associated with high levels of remittances (Horrel and Krishna, 2006).

Inequalities as a result of gender imbalances are poorly attended to in many African countries, irrespective of the role played by women in agriculture. In Zimbabwe, women beneficiaries in the land reform programme ranges from 5-20% depending on province and scheme (Moyo, 2004). Reasons for such discrimination are cumulative and multidimensional. These reasons emanate from pre-colonial, colonial and post-colonial combinations of customs, culture and by-laws. Women were not given priority on land

distribution as individuals because the dominant criteria was to give land holdings to households assuming that women in need of land are married, or need land in a family set-up. This explains why most land in Zimbabwe is under male ownership and control, with little attention being given to the question on women's access to and control over land. This is further supported by Goebel (2005) who acknowledges that women are the main farmers but their subordinate cultural and social position often curtails their production activities. The same author alludes to the importance of remittances from husbands' wages in supporting subsistence agriculture. Mandishona (1996) as cited Goebel (2005) estimated that in the 1990s, 70% of rural households in Zimbabwe were de facto female headed. Under such circumstances, the wife becomes the number one farm worker and household manager, with the husband just providing inputs. Women's entitlements to land and home in communal Zimbabwe come through marriage to a husband who has a claim to land in that same area. This can however be different for widows and divorcees who may get a plot as individuals. Traditional chiefs have less formal authority in resettlement areas as indicated by Goebel (2005). Resettlement schemes are not arranged following family lineage and have people with varying backgrounds and relations. However certain aspects of traditional culture are still common in the resettlement areas, e.g. appeasing the dead. Patrilineal control of land can be attributed to such practices thereby marginalising women from controlling land in their own right.

Poverty has many dimensions, but being income poor is the most salient although asset poverty can be equally bad. Assets simply can be thought of things of value which occur in various forms such as physical (infrastructure like roads and buildings), financial (savings, loans), human (number of people in a household), social (networks) and natural (land, rivers). These assets can be more vital than money for the household to meet its needs. It has been asserted that women's productivity in agriculture is hampered by lack of assets and access to resources and by being female, as cited by Boserup (1970) in Horrel and Krishna (2006). Gender inequality in access to productive, human and social assets has been implicated in low productivity, growth and output in sub-Saharan Africa as indicated by Blackden and Bhanu (1999) in Horrel and Krishna (2006). In rural Zimbabwe widowed households have slightly lower levels of most assets, with the exception of livestock, than male headed households. The same also applies to land where widowed households have lesser area for cultivation and usually have less farm tools and equipment than male headed households. Having limited access to these assets becomes a constraint to agricultural productivity.

In Zimbabwe, a mostly a patriarchal country, the Shona culture is dominant and inheritance and most power normally follow a male line. Land in communally lands is usually owned by men. However, widows can inherit land but in most cases it is given to the eldest son. The situation is different in resettlement areas where widows have been allowed to inherit land (Jacobs 2000 cited in Horrel and Krishna 2006). Remittances are essential in cushioning households against vulnerability to poverty. Members of a household who are away usually send money or goods to the household irrespective of the household headship. However, de facto female heads tend to get higher levels of remittances than de jure female heads.

2.5 HIV and AIDS in Zimbabwe

The HIV and AIDS epidemic in Africa has become one of the major impediments to sustainable development. Zimbabwe is one of the southern African countries which have been severely affected by this epidemic. HIV refers to Human immune virus whilst AIDS refers to the Acquired Immune Deficiency Syndrome. HIV is a virus that is transmitted between individuals through the exchange of body fluids such as semen, breast milk and vaginal secretions. Sexual contact is the most common way how this virus is transmitted. It can also be transmitted through blood transfusion as is the case when sharing needles when injecting drugs. When the virus enters the body, it reproduces and by that, it weakens the

human immune system and the body becomes susceptible to diseases and infection. So far there is no cure for AIDS. The first reported case of AIDS in Zimbabwe was in 1985 and by the end of the 80s the prevalence rate was 10%. This figure rose to a peak of 34% between 1995 and 1997. The HIV prevalence has been on the decline since then, making Zimbabwe one of the first African countries to record such a trend.

The most affected countries with the highest prevalence are clustered in Southern Africa. The prevalence rate in Zimbabwe since 2007 is shown in the table below:

Table 2.2 HIV Prevalence Rate in Zimbabwe

Year	2007	2008	2009	2010
Prevalence rate%	16.06	15.07	14.26	13.63

Source: National Aids Council 2009

Several factors seem to have contributed to the spread of the virus and the sustained high level of prevalence in the country. According to NAC (2009) there are six major factors that have been attributed to this high prevalence. These are: high prevalence of other sexually transmitted infections (STIs), low levels of male circumcision, multiple sexual relationships, traditionally low use of condoms and inconsistent use, settlement patterns(58%-rural, 32%-urban, 10%-other) and mobility and lastly poverty and low social and economic status of women.

2.5.1 HIV and AIDS in Development

HIV and AIDS has severe implications on economic growth, income and poverty. HIV and AIDS causes illness and premature death to individuals who are in their prime years of production. It is indiscriminate and can affect anybody. People of all groups are exposed to HIV and AIDS but the poor are the most affected. If the head of the household who is the breadwinner gets sick due to HIV and AIDS and succumbs to death, savings are eroded while seeking medication and in meeting funeral expenses. This means that the household will lose its savings and income. This pushes people into poverty thereby compromising the aim of the Millennium Development Goals, one of which is to reduce the proportion of people living in extreme poverty by 2015 (UN, 2001). With poverty resulting from HIV and AIDS, some household members will be forced into coping mechanisms, some of which are risky. This is likely to expose them to HIV infection, e.g. commercial sex work/transactional sex, dropping out of school and migration. There is a vicious cycle between poverty and HIV and AIDS as depicted in the Figure 2.1.

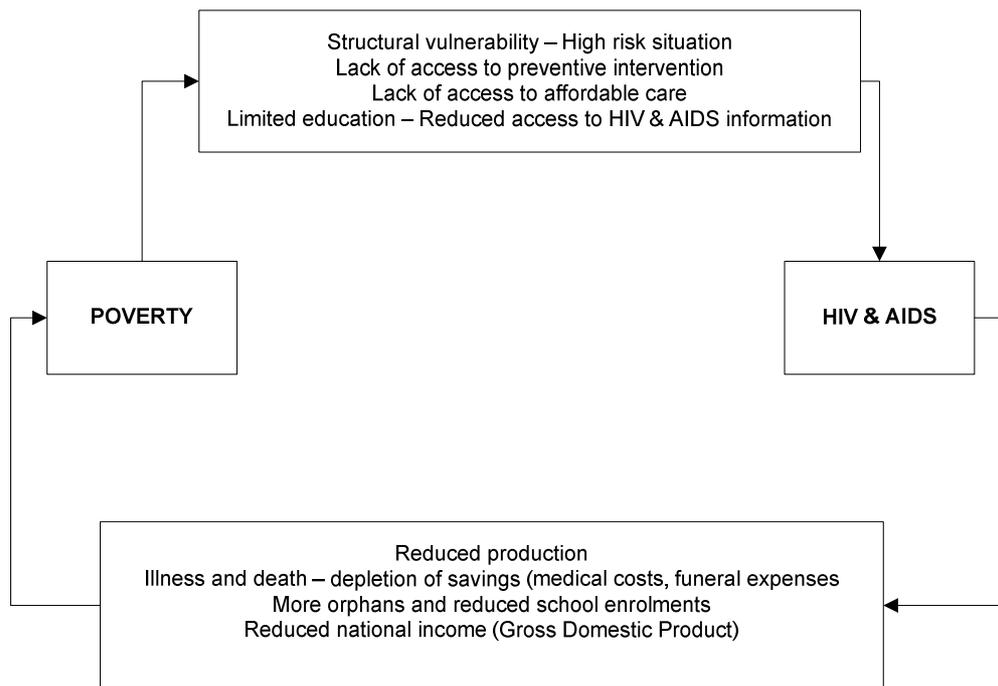


Figure 2.1 Vicious cycle between poverty and HIV and AIDS

Source: Adeyi 2001

If a household head gets sick and is out of work, income for the household is reduced, yet more of it is needed to cater for extra cost through medical expenses. Children may be forced to drop out of school and help in taking care of the sick or work so as to contribute to household income. Since household income is now limited, food expenses are reduced, resulting in poor nutrition. This disrupts normal physical and mental development of the children. Opportunistic infections such as TB and pneumonia normally capitalize on such scenarios because the immune system of the body will now be weak to fight diseases and infections. This leads to increased morbidity and death.

Governments stand to lose from HIV and AIDS because of loss in skilled manpower (death and illness), reduced tax and more social services in taking care of the orphans remaining behind. In all the sectors of the economy, there are cost implications due to HIV and AIDS resulting from the need to hire and train new personnel, insurance costs and absenteeism due to illness. Even those employees not living with HIV and AIDS will have their productivity reduced as they have to take time off to care for the sick, visit sick colleagues and attending funerals (Qamar, 2003). On an aggregate scale, this results in reduced gross national product (GDP). Social systems become strained, hindering other development activities.

2.5.2 Impact on Women

In the developing world, many countries rely on agricultural production for food and income. The majority of these come from rural areas. The majority of those people working in agriculture are women. On the involvement of women in farming, Morton and White (2005) state that, “Orphans teenagers, widows, and women are more generally now playing an increasingly critical role in heading households and securing livelihoods. Historically these social groups were excluded from agricultural support services, including government extension services.”

HIV and AIDS impacts on certain groups of people is disproportionate. Women and girls are at high risk of infection. They constitute almost 50% or 15.5 million people of the 33 million

people living with HIV and AIDS (UNAIDS, 2008). In 2007, women contributed 61% of adult people living with HIV. Women are more vulnerable and yet they shoulder the largest burden in the household. There are several reasons that increase the risk women to infection. They are normally submissive and often powerless about their sexuality, e.g. on decision to use a condom.. Even if they are married, they are still at risk of infection. In Uganda it was discovered that HIV transmission was highest among married women. In Zambia and Kenya, research revealed that married women are at risk if their husbands have extra-marital affairs or inject drugs or do not use condoms (UNAIDS, 2008).

Gender differences aid in worsening social, economic and cultural inequalities that define a woman's position in society. This has a bearing on how men, women, boys and girls are able to access basic needs. According to a population based household survey, women in sub-Saharan Africa are up to 1.35 times more times likely to be infected than men. This makes them more susceptible to HIV infection and more vulnerable to the impact of AIDS. (UNAIDS, 2004). Women are key to household economic food security as they control smallholder agriculture. Gender inequality and unequal access to resources make women more poor than men, hence they become more susceptible to HIV infection and vulnerable to the impacts of AIDS. Women's marginal low economic status, low income, high rate of unemployment and socio-cultural practices are contributory factors leading to risk sexual behaviors, such as commercial or transactional sex, making them more susceptible to HIV infection (Mano and Matshe, 2006). In their study Mano and Matshe (2006) also found out that women spend more time providing for the sick but get nothing from public funds to assist them in their communities and in their work of helping families affected by HIV and AIDS.

2.5.3 Impact on Agriculture and Food Security

Agriculture is the single most important sector in Africa, providing livelihood for at least 53% of the economically active population. In particular, about 84% of economically active women are engaged in the agricultural sector, while the remaining 16% is shared by all other sectors Zimbabwe has been suffering from severe droughts and food shortages. This situation has been made worse by the HIV and HIV epidemic. The chronic illnesses that accompany deterioration of the immune system deplete household assets, reduce labour and lead to reduced agricultural production. One survey concluded that agricultural output declined 50% among households affected by AIDS related sicknesses and deaths (Bollinger and Stover, 1999). A lot of productive time is lost attending funerals thereby affecting agricultural production. Women headed households are particularly vulnerable. In Zimbabwe women in rural areas are more likely to be infected than men, and they constitute the majority of the infections. This has a negative bearing on agricultural production as women provide the bulk of agricultural labour. Women usually care for the sick. Thus women in rural areas are faced with competing demands to maintain crop production, care for the sick family members and protect their own health. In some African cultures, when a husband dies, the remaining widow is often left without control over means of production and this makes it very difficult to support herself and the children. Many cases of property grabbing by the husband's relatives have been reported, and again they will abandon their responsibility to look after the surviving members (Muller,2005).There are some inequalities that will make it difficult for women to access education, employment, credit and information making them more vulnerable to the impacts of AIDS. HIV and AIDS stigma can be a barrier for widows in seeking community and extended family support which are crucial safety nets in rural areas. Death of adult family and community members lead to the loss of traditional knowledge of agricultural practices. This knowledge is supposed to be passed between families and from generation to generation but it disappears or becomes less widespread. This strains the rural system and makes it more vulnerable to further shocks (Barnett and Whiteside 2006 p. 248).When parents die it means that children are forced to take the place of adults in the

subsistence economy, thus increasing child labour and lowering productivity. It can be observed that, over time, HIV and AIDS can contribute to decline in land use, crop yields and diversity.

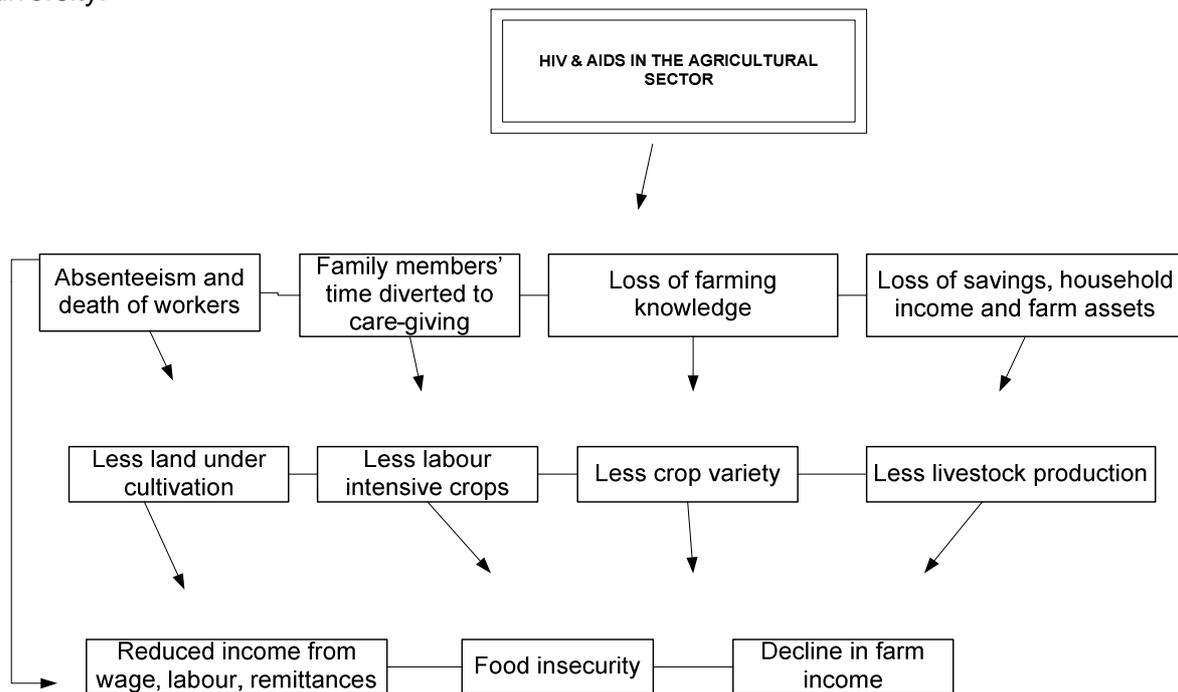


Figure 2.2 A conceptual framework of the impact of HIV and AIDS in agriculture

Source: Adapted from United Nations, Department of Economic and Social Affairs, Population Division

Alluding to the conceptual framework above, HIV and AIDS has been seen to result in absenteeism and death of workers. People will not go to work because of poor health and they will take this time to seek medication. The loss of a few workers at the crucial periods of planting and harvesting can significantly reduce the size of the harvest. In countries where food security has been a continuous issue because of drought, any declines in household production can have serious consequences (Bollinger and Stover, 1999)

2.6 Agricultural Extension in Zimbabwe

Agricultural extension was introduced in Zimbabwe in 1927 by Emery Alvord in Mashonaland East. He worked at first with nine agricultural demonstration workers. This later led to the formation of CONEX (Conservation and Extension) and DEVAG (Development of Agriculture) departments by the government (Hanyani-Mlambo, 2002). CONEX's mandate was to provide advisory services to white commercial farmers and black minority on small-scale farms and DEVAG serviced native smallholder farmers in communal lands. In 1980, after attaining political independence, these two departments were merged to form AGRITEX. During its infancy AGRITEX had its own fair share of problems, especially loss of experienced staff implying losing institutional memory. This new department had to recruit new staff most of whom had limited or no practical extension experience and knowledge.

Agricultural extension was initially considered to be the application of research and new technology to agriculture by educating and informing the farmer. However with times moving and the world being so dynamic, a lot has happened in the field of agricultural extension. With so many players involved, agricultural extension is now made up of a variety of communication and learning activities. Agricultural extension operates within a broader system that includes research and agricultural education. Anderson (2007) defines the terms

agricultural extension and advisory services as “the entire set of organisations that support and facilitate for people engaged in agricultural production to solve their problems and to obtain information, skills and technologies to improve their livelihoods”. In sub-Saharan Africa, post-independence focus of agricultural extension was to increase agricultural production and the major role being to spread technology and knowledge generated by research institutions through demonstrations, field visits and meetings (Zhou, 2008).

The fact that AGRITEX was a merger of two departments with different ideologies and experiences cannot be ignored. The first twenty years of its existence can be equated to years of experimenting and establishing itself as a service for all farmers especially the smallholder (Hanyani-Mlambo, 2002). AGRITEX is involved in linkages with other players in the development field. AGRITEX is used as a technical back-up in NGO-funded projects. The department plays a crucial role in farmer mobilization and helps in advising both project staff and farmers. The agro-services companies work hand in hand with AGRITEX when extending their services to farmers. This makes it a main principal actor in local extension.

Agricultural extension is made up many players in Zimbabwe, both public and private. A number of approaches have been adopted in agricultural extension. The following discussion focuses on these approaches.

The **Group Development Area Approach** was used in the 1960s and 70s where group development areas were formed in Mashonaland East. The idea was area development through community project participation. The local farmers provided labour whilst the government and donor partners provided inputs. Through the group development areas, extension services were able to enter previously inaccessible and difficult areas. However it was difficult to direct services to other farmer outside the group development areas. Heavy reliance on government and donors created a donor syndrome which made the projects vulnerable when the sponsors moved out due to budgetary constraints or any other causes. Lastly this approach made a blanket assumption of farmers being homogenous yet they lived in different environments and had different tastes.

The **Master Farmer Training** (MFT) programme was started in the early 1930s, and up to now, it is still being run by AGRITEX with the aim of developing competent farmers. The programme runs for two years and upon successful completion, farmers are given certificates and badges. Before 1980, this method was based upon a trickle-down theory of extension whereby few successful farmers received extension information which they were expected to pass on to other farmers through farmer to farmer learning. This programme enabled a high adoption rate of technology and knowledge such as use of hybrid maize seed. When the resettlement programme was mooted in the early 80s, priority was given to farmers from communal areas and had gone through this training successfully. Success in crop production was realised mainly for maize unlike other traditional crops because marketing surplus crops from subsistence production was difficult. After independence, AGRITEX introduced the Advanced Master Farmer Training (AMFT) programme which is a level above MFT. Until today, master farmer training remains one of AGRITEX's core businesses.

The **Media** was initially involved in passing extension information through the radio programmes but now televisions and newspapers are also used to pass extension information. Farmers would gather in groups and listen to radio programmes that address specific geographic areas and discuss extension issues raised and help each other in overcoming difficulties of before applying the programme's messages that are appropriate with their situation. The radio listening approach creates awareness and interest at relatively low per capita cost (Hanyani-Mlambo, 2002). TVs also play the same role and farmers can

even phone to discuss relevant issue concerning agricultural extension. There are a number of newspapers such as the *New Framer*, which pass vital extension information. However not all farmers can read and write. Some radio and TV broadcasts come at inconvenient times for farmers hence compromising the effectiveness of this extension approach

The **Training and Visit (T&V)** model of extension organization was promoted by the World Bank, from 1975 to 1995, as a national public extension system, ultimately with application in more than 70 countries (Anderson, 2007). The T&V approach in extension was aimed at improving the technical content of field extension activities and making extension agents closer to farmers. Proven agricultural practices, especially from international and national research institutes, were translated into user-friendly packages. These were then passed to extension organizations such as AGRITEX, whose subject matter specialists would then pass the information to extension officers who would then adapt the recommendations depending on their geographic areas before passing the information to village extension workers. The extension workers then passed the recommendations to extension groups. This method worked in a fortnightly cycle with the first week for training and the second week for evaluation of performance by farmers. These regular T&Vs were designed to facilitate linkages between farmers and extension, whilst the subject matter specialists acted as the interface between research and extension. T&V proved popular as an extension tool in irrigation projects which follow strict routines unlike dry land farming where its success was limited. However, this approach was abandoned due to limited resources. Farmers were seen to be more generalists in their activities and the biophysical environment did not allow following strict routines (Hanyani-Mlambo 1995 cited in Hanyani-Mlambo 2002). This approach followed a top-down orientation resulting in inappropriate and irrelevant technologies being passed on to farmers. Only a smaller number of farmers benefited from this approach and the rural poor who needed help most were not reached.

The **Farming Systems and Extension Approach (FSRE)** (FSRE) was formed as a response to failure of different approaches and the recognition that although some technologies were very good on paper, they were not relevant to what the farmers needed or were inappropriate to the agro-ecological conditions (Mettrick 1993 as cited in Hanyani-Mlambo 2002). The farmers' socio-economic circumstances were again a limiting factor for other extension approaches thereby prompting the adoption of the (FSRE) approach. This approach main thrust is centered on problem solving and it is interdisciplinary as it incorporates many players and it is farmer oriented with the same activities being done over and over again (Hanyani-Mlambo, 2003). This approach was co-ordinated by the DR&SS (Department of Research and Specialist Services). AGRITEX was active at the grass root level through mobilising and identifying trial farmers and monitoring on-farm trials. This approach also concentrated on local resource utilization including traditional knowledge. The problem was that it was less participatory and could not disseminate information at the farmer level and it emphasised more on crops than livestock.

The **Commodity-Based Approach** in agricultural extension is generally organised by parastatals and private companies/firms focusing mainly on cash or export crops such as tobacco, cotton, sugar cane and horticultural produce. Tobacco recorded little success due to poor uptake of tobacco production by farmers but cotton production has been boosted due to intensive research supported by an effective cotton extension programme which has established remarkable out-grower schemes. Private companies offer extension and milling facilities for sugar cane and this has seen more small farmers taking up sugar cane production especially after the land reform exercise. Although much has been achieved using this approach there are a number of setbacks encountered. It gives monopoly power to these parastatals (Hanyani-Mlambo, 2002), enabling them to make excess profits at the expense of struggling and poverty stricken farmers. This extension approach has a top-down

approach which does not give freedom to give freedom to farmers in their decision making. By merely focusing on one crop could be at the expense of other crops which could do even better in the same area.

A number of new agricultural extension approaches have emerged over the years. Practical examples include participatory approaches such as farmer-field schools and look and learn tours. In other new extension approaches, the extension agents' services depend on the farmers' requests and programmes. They normally visit the farmers when their services are on demand. Such bottom-up approaches empowers farmers by giving them the freedom to choose among different service providers. AGRITEX has experimented with some of these new approaches but it still remains to see how far they have been adopted at operational level (Hanyani-Mlambo, 2002). To assess the impact of these new approaches, it is crucial to understand the difficulties faced in the provision of agricultural extension. Feder, Willett and Zijp (2001) as cited by Anderson (2007) identified the scale, scope, and complexity of advisory activities caused by the nature of agricultural production; the associated problems of monitoring, evaluation and impact assessment as some of the limits the factors affecting the performance of the agricultural extension systems. These affect both private and public sector extension but public service extension is faced with additional challenges of addressing public issues which go beyond production-oriented agricultural knowledge and information transfer.

2.7 Agricultural Extension in the Face of HIV and AIDS

Most of the population hardest hit by the HIV and AIDS live in the rural areas and are either directly or indirectly engaged in farming. From all the service providers, it can be concluded that workers who have frequent contact with the small-scale farmers are field extension agents. By nature and character of extension services, they deal with traditional and sometimes illiterate rural households. Most of these extension workers have rural roots and they are in touch with many widows and widowers who need extension advice. They have opportunities of getting involved with multiple sex partners which increases susceptibility to HIV. Besides exposure to infection, extension agents are affected in many different ways. Some of them are already infected and/or are ill. They still have to sacrifice money, time, and energy to care for ill relatives, neighbours and colleagues. Others have lost their spouses and have the burden to look after children. This has led to some of their children dropping out of school. This leaves extension staff demoralised due to HIV and AIDS instead of motivating farmers. Extension time is lost attending funerals, in Uganda it was reported to be around 20-50% and in Central Province of Zambia, between 1991 and 98, sixty six extension staff died due to HIV and AIDS related illnesses (Qamar, 2003)

The epidemic is changing the composition of the extension clientele. In areas of high HIV prevalence, more women, children and the elderly are involved in farming due to death or illness of their spouses, parents or guardians. These newcomers into agriculture have relatively less experience and limited knowledge and capacity. This has a bearing on extension as current approaches could be inappropriate and outdated to suit the new entrants. When farmers visit the sick, and attend funerals and relevant ceremonies due to tradition, they sometimes have to walk long distances to surrounding villages. This distracts them from their farming operations and results in less contact with extension agents and associated activities. Today's farmers' questions are no longer restricted to farming; they have many queries about HIV and AIDS. If an extension agent has limited knowledge and has not received any training on HIV AIDS, he or she will feel embarrassed and helpless before the farmers because of failure to provide relevant information.(Qamar, 2003)

With the client base changing, extension is faced with the challenge of developing new technologies, equipment, and knowledge suitable for the new situation. It is important that extension agents understand the livelihoods of their clients before they can mainstream HIV and AIDS in their programmes.

2.8 Sustainable Livelihood Framework

A sustainable livelihood is a way of thinking about the objectives, scope and priorities for development, in order to enhance progress in poverty elimination. Figure 2.3 shows the Sustainable Livelihood Framework (SLF).

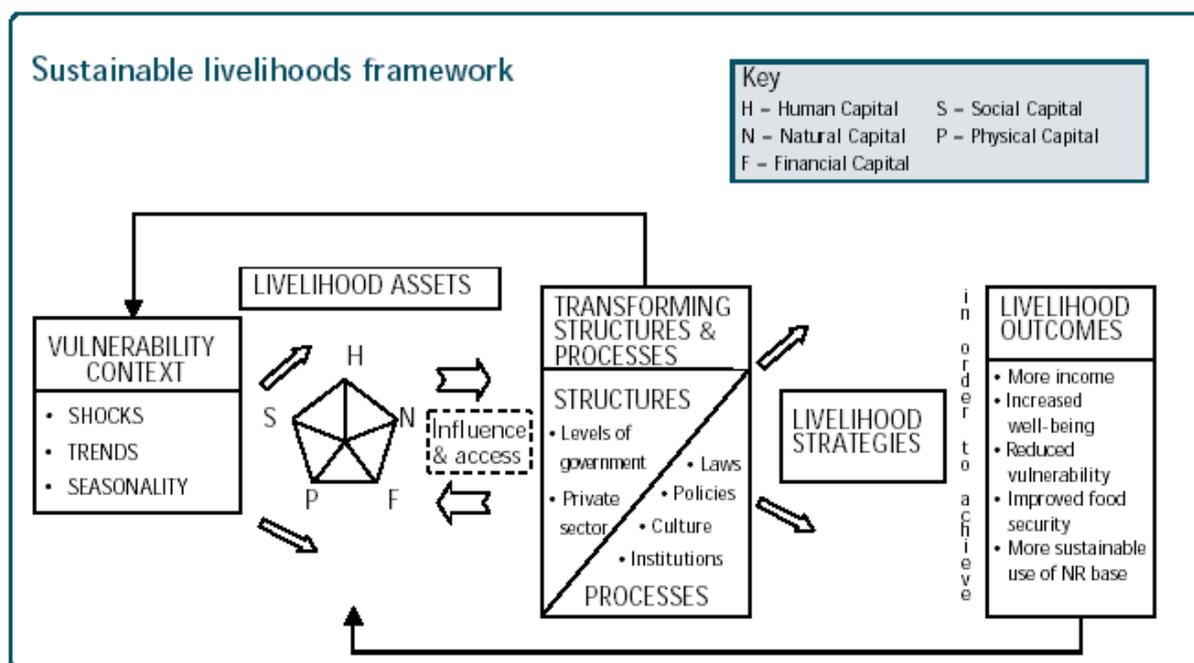


Figure 2.3 The Sustainable Livelihood Framework

Source: DFID Sustainable Livelihoods Guidance Sheet 2

Sustainable livelihoods aim to help poor people achieve lasting improvements against the indicators of poverty that they define. The premise is that the effectiveness of development activity can be improved through:

- Systematic – but manageable – analysis of poverty and its causes;
- Taking a wider and better informed view of the opportunities for development activity, their likely impact and ‘fit’ with livelihood priorities; and
- Placing people and the priorities they define firmly at the centre of analysis and objective-setting (Ashely & Carney 1999). Bebbington (1999), understands livelihoods in terms of;

“ peoples’ access to five types of capital assets (human, natural, financial, social, and physical); the ways in which they combine these assets in building up their livelihoods to meet their material and experiential needs; the ways in which they are able to expand these asset bases through engaging with other actors through relationships governed by the logics of the state, market and civil society and the ways in which they are able to deploy and enhance their capabilities both to make living more meaningful and more importantly to change the dominant rules and relationships governing the ways in which resources are controlled, distributed and transformed into income streams”

2.8.1 Vulnerability Context

The vulnerability context frames the external environment in which the people exist. Peoples' livelihoods and the availability of assets are affected by trends, shocks and seasonality. Shocks can destroy assets directly (e.g. floods, storms) and force people to leave their homes. Due to shocks, some people can be forced by circumstances to dispose of their assets as coping strategies. Trends refer to patterns or pathways which certain events take. This could be favourable or not but they are more predictable and have a bearing on livelihood outcomes. Seasonality implies change of a certain scenario due to change in time. This change could be in terms of prices, production and employment.

HIV and AIDS exists in the vulnerability context of the sustainable livelihood framework. Following earlier discussion in Section 2.5, it is now salient that this epidemic results in household labour shortages, loss of assets, reduced food production and the burden of caring for the sick. HIV/AIDS related mortality and morbidity undermine household capacity to produce food by primarily affecting labour. Quality and quantity of household labour is reduced in terms of productivity when an individual falls sick and when the supply of labour declines because of patient care and death (Topouzis 2003). The smallholder farming system predominantly relies on household labour which makes the system vulnerable to the impact of AIDS once the household experiences illness and death.

2.8.2 Livelihood Assets

The livelihood framework identifies five core asset or capital groups which act as pillars on which livelihoods are built. Assets can be considered to lie in the vulnerability context. The various forms in which assets appear can be related as shown by the shape of the pentagon as depicted on the sustainable livelihood diagram in Figure 2.1. Natural capital refers to the natural resources such as soil and water, and the environmental services from which resource flows and services are derived (Scoones, 1998) Financial capital could refer to cash, savings, credit or anything that can be readily converted into cash. Human capital include skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their objectives (O'Donnell 2004). Physical assets consist of the basic infrastructure to support livelihoods e.g. buildings and roads. Social capital includes networks, membership of formal and informal groups and relationships.

Natural Capital comprises of land, water and biological resources used by people to generate means of survival. Such assets are sometimes referred to as environmental resources and are neither static nor their use restricted to gathering activities (e.g. collecting mushrooms and wild fruits). Natural capital occurs in a gradient between low and high agro-ecological potential as cited by Swift (1998) and Scoones (1998) in Ellis (2000). Natural capital can either be renewable or non-renewable but in most rural development contexts, emphasis is much more on renewable assets/resources which can replenish themselves overtime (e.g. trees for firewood).

Physical Capital refers to capital that is brought about as a result of economic production processes. This includes roads, buildings, tools and equipment. These can be referred to as producer goods as opposed to consumption goods. Consumer goods are solely for consumption whereas producer goods are meant for to create a flow of output or benefits into the future. Physical or 'man-made' assets can replace natural capital in many ways (e.g. water pipes for open canals to reduce leakages and loss to evaporation. Infrastructural assets such as roads facilitate livelihood diversification as they facilitate movement of people

between places offering different income generating opportunities, they link markets and are important in transfer of information between rural centres and urban centres (Swift 1998 cited in Ellis 2000).

Human Capital as defined by Ellis (2000), is labour available to a household. Human labour here is thought to be the chief asset possessed by the poor. Important aspects of human labour are education, skills and health. Human capital is enhanced through investment in education, training and skills obtained from one or more occupations. A household that is free of illness or incapacitating health problems is likely to have more access to labour as an asset than a household with an illness and/or any health weakness. Household composition is not static and is prone to change due to internal demographic causes such as birth, death, marriage, migration and children growing older. It can also change due to deliberate restructuring to meet unexpected eventualities such as marriage and absorption of orphans from the extended family. Investment in education and health is likely to raise the level of human capital for future livelihood security.

Financial Capital refers to the stocks of money which a household has access to, such as savings and credit/loans. Money savings and credits/loans are not productive assets but they are crucial due to their convertibility. They can be converted to other forms of capital or directly into consumption. If people do not have functional financial markets or lack trust in the existing financial markets, they hold their savings in other assets forms such as livestock. In most rural sub-Saharan Africa, livestock is a store of wealth and insurance against unforeseen bad times. The same applies to other forms of assets which can be readily converted into cash if need arises. In smallholder subsistence production, crops play an important role as a source of income, mainly utilised in household consumption rather than sales. Different households have different sources and levels of financial capital.

Social Capital looks at the community and wider social claims on which individuals and households can draw on through belonging to social groups. Moser (1998 cited in Ellis 2000) defines social capital as “reciprocity within communities and between households based on trust deriving from social ties”. Social capital is based on networking with friends, relatives and colleagues irrespective of the spatial setting. Berry (1989; 1993) as cited in Ellis (2000) emphasises that time and resources devoted to developing and nurturing such networks should be viewed as an investment in future livelihood security by rural households.

These assets combine in various forms to come up with positive livelihood outcomes. This could be through sequencing or substitution. Sequencing looks at what the starting point is in establishing a successful livelihood strategy, and also to which asset is more important than others for subsequently gaining access to other assets (Ellis, 2000).

2.8.3 Transforming Structures and Processes

Transforming structures and processes are institutions, policies and legislation which shape livelihoods. They determine access to capital, livelihood strategies and decision making bodies, terms of exchange between different types of capitals and returns to any given livelihood strategy. Structures can be seen as a hardware that set and implement policy and legislation. They draw their legitimacy from basic governance. These structures can be government (e.g. ministries and the judiciary) or private (e.g. NGOs and civil society organisations) and these do exist at various levels of authority. Now that structures have been seen as the hardware, the processes become the software which determines the way in which structures and individuals interact and operate. Such processes could be policies, legislation, institutions, culture and power relations (DFID).

2.8.4 Livelihood Strategies

These denote the range and combination of activities including choices made by people to fulfil their livelihood objectives. These can be put into three broad groups which are agricultural intensification/extensification, livelihood diversification and migration. Intensification result in more yield as a result of increased capital investments on a small piece of land. This involves use of advanced crop varieties, fertilisers and chemicals. Under extensification a larger piece of land is put under production so as to obtain more harvest. Diversification refers to new ways adopted by people to raise their incomes. Ellis (2000) defines diversification as a process by which households construct an increasingly diverse portfolio of activities and assets in order to survive and to improve their living standards. Livelihood diversification includes both on- and off-farm activities which are undertaken to generate income additional to that from the main household agricultural activities, via the production of other agricultural and non-agricultural goods and services, e.g. the sale of waged labour, or self-employment in small firms, and other strategies undertaken to spread risk (Hussein and Nelson, 1998). Diversification broadens people's options, allows spatially diverse transactions, increases cash in circulation and promotes human capital by providing those who diversify with new skills and experiences. Migration is another form of diversification whereby people move from one place to another in search of other livelihood options.

2.8.5 Livelihood Outcomes

The livelihood outcomes are the achievements of the livelihood strategies. If positive, it involves improved food security, more sustainable use of natural resources, increased well-being (including health, education, self-esteem, security, sense of control, political enfranchisement, maintenance of cultural assets), strengthened assets (e.g. increased income and physical assets) and reduced vulnerability (Meinzen-Dick, 2003). There are five key components of these outcomes as depicted in Figure 2.1. The first three focus on livelihoods and the last two looking at sustainability. More income is obtained when a particular livelihood strategy is able to generate employment either on the farm or off-farm. Improved earnings could normally imply better livelihoods. Increased income also relates to the idea of the economic sustainability of livelihoods (DFID). On improved well-being, it can be observed that added to income and what money can buy, people attach value to non-material things. Reducing vulnerability is important when looking at livelihoods as poor people often live uncomfortably without any cushion against impacts from the vulnerability context, hence the need to improve their social sustainability. A livelihood should be food secure and if people are food insecure, then they are more vulnerable. The sustainable livelihood framework seeks to improve the food situation of the people. In pursuit of different livelihood strategies, people normally derive utility from the use of natural resources. Sustainability of the natural resource base is not catered for in other livelihood categories and is now included in the livelihood outcomes under the sustainability context. Benefits of sustainable use of natural resources are normally realised more in the long-term than in the short term.

CHAPTER 3: METHODOLOGY

3.1 Study Area

This research was done in Chidzikwe (Summerton) Resettlement area of Zimbabwe area of Masvingo Province in Zimbabwe. This area is in Masvingo District of the same province. The province has seven districts. The study was carried out in Village 3 of Chidzikwe. This is a formerly white owned commercial farm known as Summerton which was acquired by the Government of Zimbabwe for resettling people. The area was chosen for this study because its proximity to Masvingo town and being a new resettlement area. This area is to the western part of Masvingo and by road it is close to 20km from town. The area is bound between two major highways in the country. These roads will be both linking with Masvingo town, with Harare road to the east and Bulawayo road to the south. In a normal season, this area receives an average annual rainfall of 600-800mm. The area has a high agricultural potential as it has fertile soils for crop production and the veld is good for livestock grazing. This resettlement area was chosen for purposes of this study because of its proximity to Masvingo town.

3.2 Research Design

This research was qualitative and it stood to reason to opt for a case study to explore rural livelihoods in resettled areas. This research sought to examine contemporary real-life situation in the resettled areas with regards to livelihoods. Through a case study, it was possible to explore and capture vital information from the respondents with emphasis on a qualitative analysis. This qualitative method has a merit of using subjective information and participant observation in a natural setting. It seeks to widen understanding of the whole situation (Keys, 1997). A checklist with key points for discussion was designed to guide in data collection (See Annex 1 and 2). The study focused on livelihood strategies in resettled areas. A pre-visit was made to the study area before data collection to get used to the area and meet community leaders to get their blessings for the study to be carried out in their area. They were informed about the purpose of the study and conducive times to meet key informants were suggested. The village head was very instrumental in selecting respondents for household interviews. From the village register she identified households as being male headed or female headed, and then respondents were randomly selected. And appointments were made with the respective respondents. Information was collected through household interviews, interviews with key informants and focus group discussions.

3.2.1 Household Interviews

In this case study, eight households were selected. These were split equally into four male and four female headed households separately. The village head played a part in identifying households as to whether they were male or female headed. From the register respondents were randomly selected. These households were representative of the larger population in the village. After identifying these households, appointments were made for data collection. Since it was during the dry season, it was not difficult to fix the times with the respondents as they had less field work to occupy them.

3.2.2 Focus Group Discussions

Two focus group discussions were held at village level. This was participatory to ensure that respondents identified with the study. The focus group discussions helped in building consensus on issues under discussion and allowed group ownership of views on issues that affected them as a community. The sexual composition of the group was put into consideration, hence having men and women in separate groups. Each group was made up of eight people. This was done to facilitate free discussion as women will normally be quiet

and say nothing or in the presence of men, especially their husbands. Women and men again face life differently as determined by their gender roles. The focus group discussions were used to complement household interviews, especially for triangulation (Morgan 1988 cited in Gibbs 1997) and validity checking. This allowed exploring controversial topics through valuable and spontaneous questions in a short period of time.

3.2.3 Key Informant Interviews

The key informant interviews helped in complimenting focused group discussions. These were done to obtain information from residents/individuals with broad knowledge and experience in the study area and were in a position to know the community well. Four key informants were interviewed as listed below:

- *Village head* - Knows and understands the local customs, behaviours and beliefs.
- *Agricultural extension agent* – Insights on land-based livelihoods.
- *Health worker* – Insights on the health situation in the community.
- *Councillor*- Representing the local authority.

3.2.4 Secondary Data

Secondary data on land reform was reviewed from government documents, NGO documents, academic papers and conference/seminar proceedings. This was done to so as to capture information on previous studies that have analysed land reform. This information was important as cross reference on analysing study findings.

Table 3.1 Summary of respondents

Number of respondent	Category of respondent	Method of collecting data
8	Household Heads	Individual interviews , discussions
4	Key informants	Individual interviews , discussions
8	Women community members	Focus group discussion
8	Men community members	Focus group discussion

3.3 Data Analysis

Using the conceptual framework on sustainable livelihoods, a matrix for analysing data has been developed. This matrix looks at the parameters set in the framework for both male and female headed households.

Table 3.2 Data analyses guide

Component of the SLF	Aspects considered in data analysis
Assets	<i>Human</i> – Household composition <i>Physical</i> – Productive assets, livestock <i>Natural</i> – Land, water <i>Financial</i> - Savings, loans, income sources <i>Social</i> - Group membership, social networks
Livelihood strategies	On-farm activities Off-farm activities Migration
Livelihood outcomes	More income Food security
Vulnerability Context	Trends Shocks
Transforming structures and processes	Service providers

CHAPTER 4: RESULTS AND DISCUSSION

4. 1.Assets

Throughout this whole chapter households are denoted by letters *a-d* and this will be constant for both male headed households (MHHs) and female headed households (FHHs).

4.1.1 Human Capital

This section presents the demographic composition from the interviewed households. For MHHs it should be noted that both spouses were alive and living together, whereas for FHHs all the heads of households were widows. The table below indicates the household composition with regards to whether one is adult or a child.

Table 4.1 Household composition among respondents in Chidzikwe

<i>Composition of household members by age</i>							<i>Dependency Ratio (Children: Adults)</i>	
No	Male-Headed Households(MHHs) N=4			Female Headed Households (FHHs) N=4			MHHs N=4	FHHs N=4
	Adults (>15 yrs)	Children (<15yrs)	Household size	Adults (>15 yrs)	Children (<15yrs)	Household size		
A	5	2	7	3	4	7	0.4:1	1.33:1
B	3	7	10	4	5	9	2.3:1	1.25:1
c	6	2	8	6	6	12	0.33:1	1:1
d	6	3	9	4	3	7	0.5:1	0.75:1
Mean	5	2.5	8.5	4.25	4.5	8.75	0.7:1	1.06:1

Key- a-d denote households

It was assumed that children were under the age of 15, whilst adults were at least 15 years. The average number of adults in reproductive (15-64 years) was considered to be the pool from which a household can draw its agricultural labour and other productive activities. In all the households interviewed, there was nobody above the productive-age group, and all the heads of the interviewed households were full-time farmers. The household size and composition are important aspects of human capital availability for smallholder agricultural households. The dependency ratio refers to the ratio of children to adults in a household. From the table it can be seen that generally there were more adults than children in MHHs whilst it was the reverse in FHHs where we had more children than adults. From another angle, it was observed that the FHHs had more members than MHHs. The household size ranged from 7-12. However the household with more members (12) had a dependency ratio of 1.1. The household size ranged from 7-10 in MHHs and the household with 10 members had a dependency ratio of 2.3:1 i.e. more children than adults.

Some households had members who were said to be absent during this case study. These were considered to be migrants. Some households had orphans and people living with HIV and AIDS (PLWHAs). A migrant in this instance was considered to be someone who has been away from the household for at least three continuous months at any point in time. An orphan was taken for a child with at least one dead parent. PLWHAs refer to those people who had been open about being HIV positive. All the female headed households had at least one orphan whereas for male headed households only one had an orphan. The orphans were both boys and girls, and all going to school. Thus female headed households had more members than male headed households after absorbing orphans in their households. It was also found that widowed and divorced daughters returned to their natal homes thereby contributing to a larger household size in female headed households. This could mean more burden for FHHs as they had more mouths to feed and send to school. Although all the households tried as much as they could to send children to school, two households had

children who had withdrawn from school because they could not afford to pay the required school fees. This inability to educate children affects their development and limits their future livelihood options to lead better lives. Male headed households had more migrants than female headed households. PLWHAs were found only in two female headed households. All the PLWHAs in this study turned out to be women and had come out in the open about their HIV status and were on anti-retroviral therapy (ART). For the migrant members of these households, some had gone to nearby towns to look for jobs while others had gone to neighbouring countries in search of other livelihood options. Some were married men who have left behind their wives or were not yet married and had not been weaned as household members; hence they always referred back to the household.

Study findings show a clear variation in average family size and adult labour supply between male-headed households and female households. Female-headed households had less labour available than their male counter-parts. In male headed households there are more adults than in female headed households. Due to this labour shortage some female headed households could not start their crop planting early when the season began leaving them lagging behind.

4.1.2 Natural and Physical Capital

Chidzikwe resettlement was planned into a village set-up. The village is a linear settlement with each household having access to and control of an acre where they built their houses, with the remainder portion being devoted to crop production. For the arable land each household owns 5 ha of land under the AI Model of resettlement (See Section 2.1) In terms of entitlements, the villagers indicated that they had certificates of occupancy that they were given by the government through the Ministry of Lands. The fields are on the eastern side of the village. The grazing land is communally owned but there is no strict control as to the number of livestock each household should have. The natural water source available and accessible to the farmers is a river which is about 10 km away. This source of water is very helpful during the dry season as farmers drive their livestock, mainly cattle, to this river for watering.

For all the observed households, none had its own water source. They got water from a nearby borehole. This water was normally for domestic purposes. The borehole was said to be continuously breaking down and it usually took time to repair due to logistical problems such as getting expertise and the required spare parts. Most of the households in this case study had basic equipment needed for agricultural production. Table 4.2 below shows some of the major assets owned by the households.

All households had decent houses for accommodation. Results in the table have been put according to ranking in terms of number of household owning one. For example, a plough is owned by all households. The reason why this is the case could be that this is basic tillage equipment which every household cannot do without especially for turning the soil during land preparation. Further probing revealed that some farmers had brought some of the equipment with them from their communal lands upon resettlement. MHHs had more tillage equipment than FHHs. Some had benefited from the farm mechanization programme which was implemented by the central bank in collaboration with the Farm Mechanization department in the Ministry of Agriculture. This programme mainly provided tillage equipment and scotch carts. Only two households had water carts and both are MHHs.

Table 4.2 Material Assets for respondents in Chidzikwe

Item	Male Headed Households (MHHs) (N=4)	Female Headed Households (FHHs) (N=4)
	No	No
House	4	4
Plough	4	4
Hoes	4	4
Harrow	4	3
Wheel barrow	3	4
Axes	4	3
Scotch cart	4	2
Cultivator	4	2
Bicycle	2	1
Water cart	2	0

Fetching water is considered women's work in this locality. Usually they use buckets but when it comes to using the water carts, men play a central role as it involves harnessing and handling animals which is considered a man's job. The water cart is fitted with a drum that can contain up to 400l of water. This means that women in MHHs with water carts have a lesser burden in terms of fetching water as compared to their female counterparts in both MHHs and FHHs without water carts. However those with wheelbarrows can rely on them to fetch water but quantity fetched will be lower as compared to water carts. Most of the observed assets are now old and will soon need to be replaced.

4.1.3 Financial Capital

In addition to natural and physical capitals, the following financial capitals were identified: remittances from relatives, savings, crop sales, livestock sales, forest products (wild fruits and mushrooms), trapping mice, loans.

Table 4.3 Financial Assets

No	Male-Headed Households(MHHs) N=4	Female-Headed Households(FHHs) N=4
	No	No
Crop sales	4	4
Livestock sales	4	4
Remittances	4	3
Forest products	1	4
Loans	2	1
Trapping mice	2	3
Savings	2	1

Livestock sale, crops sales and remittances were the main sources of income. All households at one point had been engaged in crop and livestock sales but this depended on one's production and number of livestock that an individual had. The major crop marketed was maize and some farmers indicated that they sold it to the Grain Marketing Board (GMB)

in order to pay back the loan that they had obtained from the parastatal. For livestock, they mainly sold cattle and the lucrative market was in town which is 20 km away. Goats and chicken were also sold to get money but the market was usually on a local level. Forest products that were identified were mushrooms and wild fruits, although on a lower level of participation from male headed households than in female headed households. More female headed households were involved in exploiting forest products to get money as they had more members in their household to look after. However these forest products were not always there as they are seasonal in nature. Mushrooms are only available during the rainy season which coincides with the cropping season. This can again be the reason why fewer male headed households were involved in harvesting forest products as their household members were occupied in field work. The female headed households have more members to do the gathering especially the children.

Few households used the formal credit facilities to obtain loans for agricultural input purchase. For the few that did, it was all from the GMB for crop production; only two male headed households and one female headed household had utilised such loan facilities during the 2009/10 cropping season. The reason cited for shunning this was that the formal credit facilities were in town and some had no information on how to go about it. There was reluctance to apply for a loan due to uncertainty on the payback arrangements associated with the fear of the repercussions if the crop failed and you are unable to pay back the loan. Some female heads of households indicated their need for credit, but were reluctant to apply as they believed that their applications would be turned down simply because they were women. Mice are a delicacy which generated income for those who trapped and prepared them for selling. This was more common in female headed households than in male headed households.

On savings, two male headed households indicated to have some savings as compared to only one female headed household. However, they might have had no savings in cash but others indicated that it was better to have their savings in other forms such as cattle rather than cash. It was noticed that the same households which accessed loans were the same households where the head of the household had a bank account. For those who had no savings, some did not even have a bank account. This whole scenario was attributed to inflation which had eroded their savings in Zimbabwean dollars. Foreign currency was now being used in domestic transactions and this type of money was hard to get. Even if they got this money, saving it was very difficult due to other competing demands such as food and school fees.

Livestock ownership is considered to be a sign of wealth and can imply a person's status in the community. In this study, interviewed households showed varying degree of ownership in terms of livestock types and numbers as shown in the table below.

Table 4.4 Household Livestock Ownership among respondents in Chidzikwe

Livestock Type	Male Headed Households					Female Headed Households				
	a	b	c	d	Average	a	b	c	d	Average
Cattle	30	10	14	41	23.75	2	4	8	8	5.5
Goats	8	2	9	16	8.75	0	2	6	2	2.5
Chicken	33	40	8	45	31.5	9	13	7	11	8

a-d - Households

From the above table it can be seen that in terms of numbers villagers keep many chicken than any other form of livestock. These birds are kept on an extensive system normally referred to as free range. This conforms to what Ayele et al (2009) said about keeping poultry in an African set up. They state that "As in other African countries, small-scale

household-level poultry (also known as backyard or village-level poultry) in Ethiopia is defined as having low feed input (primarily scavenging), low input of veterinary services, and almost no investment in housing and hence minimal level of bio-security, high off-take rates, and high mortality rates.” Generally male headed households had more chicken than female headed households, with a household average of 31.5 birds and 8 birds respectively. This is against what Mapiye and Sibanda (2005) found out in Rushinga where female-headed households had higher chicken flock sizes and lower mortalities than male-headed households. In Chidzikwe, this difference was due to the fact that female headed households had limited income sources yet with more people to look after unlike in male headed households. They then resorted to selling some of their assets to meet pressing financial obligations such as paying school fees. Assets that would normally be targeted first were smaller ones such as chicken.

Goats were the major small ruminants kept by the interviewed households. Male headed households had an average of 8.75 goats per household. For female headed households the average number owned by each household was 6 goats, the lowest had 2 and one household had none. This household said they had sold the last goats which they had so that they could get cash to pay school fees. Most households said they kept goats to provide them with meat and income when they are sold. Comparing cattle with goats, it is clear that cattle are primarily used for their flow products (milk, draft power and manure) whereas goats are a major source of cash income and meat, adding to household nutritional security (van Rooyen and Homann eds., 2008)

All the households were seen to have at least two cattle. Male headed households dominated the charts with beasts per household. For the female headed households the average herd size was 2.5 beasts per household. Generally male headed households had more cattle than female headed households. This made them less vulnerable to future shocks as compared to female headed households. Cattle are also viewed here as a sign of wealth in this part of the country.

4.1.4 Social Capital

The identified aspects of social capital are listed in Table 4.5. The main social capital identified were farming groups, political parties, friends neighbours and relatives. Other forms of social capital in this village were village and school committees.

Table 4.5 Social capital and groups

No	Male-Headed Households (MHHs) <i>N=4</i>	Female-Headed Households (FHHs) <i>N=4</i>
	No	No
Farming group	4	4
Political party	4	4
Friends, neighbours and relatives	4	4
Village committee	1	4
School committee	1	4
Church	1	3
Home based care	0	1

All the households in this case study indicated that they belonged to a farming group where they would meet and assist each other to discuss their community problems and issues. This was usually coordinated by the village committee. In this village, they assisted each other in agricultural production work especially during the cropping season. If a villager has some

work that needs to be done but cannot complete it in time, what this villager would do is to brew beer and have enough food and refreshments and other villagers would then come and assist in the task beforehand. Normally this was said to be common during land preparation (ploughing) as villagers would be racing against moisture content in the soil. Two female household heads attended a master farmer training scheme under auspices of the local agricultural extension worker.

Female heads of households indicated subscribing to a church organization within the village for worshipping more than male heads of households as indicated in Table 4.5. Besides spiritual satisfaction, they indicated that the church helped them a lot especially in time of need such as illness and death of a household member. The assistance would normally be in cash and food. Such assistance in stressful times was shown to also come from other village members, irrespective of church membership.

Households in this case study indicated a high level of network involving friends, neighbours and relatives. Friends and relatives were mainly from the same village and its environs. They indicated strong with relatives and colleagues in the communal areas where they had moved from. Assistance which they rendered to each other involved borrowing money, sharing food and comforting each other during stressful times.

Only one member from a female headed household was involved in voluntary home based care for the chronically ill. She did this after realising the need for such a service when her late daughter had the same fate. This home based care was initiated by a faith based organization working in the area. The work involved in this home based care was making sure that the chronically ill take their medication and giving them spiritual and moral support so that they won't feel neglected.

4.2 Livelihood Strategies

The major livelihood activity in the Chidzikwe area is rain fed crop production and livestock production. Maize is the major crop grown in the area. Other crops grown include groundnuts, roundnuts and rapoko. Besides crop production households try to diversify into other activities to earn a living. Migration is another special form of diversification that was noted in the study area

4.2.1 Crop Production

As mentioned above, crop production is central to the peoples' livelihoods in Chidzikwe. Arable land devoted to crop production is summarised in the table below.

Table 4.6 Major Crops (Ha) among respondents in Chidzikwe in 2009/10 season

Crop	MHHs					FHHs				
	a	b	c	d	Average	a	b	c	d	Total
Maize	3.5	3	4	3	3.38	2	3	3	2	2.5
Groundnuts	0.5	0.5	0.25	0.5	0.44	0.5	0.5	0.5	0.5	0.5
Roundnuts	0.5	0.5	0.25	0.5	0.44	0.5	0.5	0.4	0.1	0.38
Millet/Rapoko	0	1	0.25	0.5	0.44	0	0.5	0.5	0	0.38
Sorghum	0	0	0.25	0.5	0.19	0	0.5	0.5	0	0.125
Other crops	0.5	0	0	0	0.125	0	0	0.1	0	0.025
Fallow	0	0	0	0	0	2	0	0	2.4	1.1
Total (Ha)	5	5	5	5		3	5	5	2.6	

MHHs - Male-Headed Households

FHHs - Female-Headed Households

a-d - Households

From the table above it can be clearly seen that most of the arable area was devoted to maize production. For maize, an average of 3.38 ha per household was grown by male headed households and it was 2.5 ha for female headed households. This could be because maize is regarded as a male crop. Groundnuts and roundnuts had both an average area of 0.44 ha per household in male headed households. Female headed households had more area put under groundnut production as compared to male headed households. This could be because groundnuts are considered to be a female crop. For roundnuts, female headed households had an average area of 0.38 ha per household. The same scenario of engendering agricultural production as is the case for maize, also applies for roundnuts. For the small grains, (rapoko and sorghum) occupied more area in male headed households than in female headed households.

What has been indicated as other crops from the table above include sunflower and pulses (beans and cowpeas). Sunflowers were grown by one male headed household at an area of 0.5 ha whilst beans and cowpeas were grown by one female headed household, both these crops occupying a total area of 0.1 ha. Two out of four female headed households could not put all their land under crop production and left some portion fallow. They cited shortage of labour and late acquisition of inputs as the main reasons for leaving part of arable land idle. Male headed households cultivated all their fields but two female headed households left some portion fallow. Of the available 5 ha, one left 2 ha and the other 2.4 ha fallow.

From the above observations it can be seen that all households grew maize. This is because maize is considered as the staple crop. Male headed households dominated over female headed households in maize production. This could be because maize is considered a male crop in Zimbabwe. Since maize is a staple crop, under the same conditions it can be assumed that male headed households produce at a larger scale and are likely to have access to more staple food than female headed households. This fact can be strengthened by the fact that the dependency ratio is higher in female headed households than in male headed households.

All households grew groundnuts and female headed households had a larger area put under production for this crop than male headed households. This could be because groundnuts are considered to be a crop associated more with women than men. The same could be said for roundnuts. For the small grains, most of the households indicated that they grew these as precautionary measure if the rains become erratic. The small grains are found to be drought resistant and can do well when rainfall is low unlike maize. Thus they can act as substitutes for maize as a staple food. Furthermore these small grains are an important ingredient in beer brewing which happens to be a major activity in this community. Only one male headed household grew sunflower which is a cash crop and one female headed household grew beans and cowpeas which are both food crops rich in protein. From this scenario it can be concluded that men are more worried in cash and women are more concerned with food. A point to note is that this female headed household had a PLWHA, hence growing pulses which have a high nutritional value. The female headed households that left their lands fallow indicated that it was due to shortage of seed and labour to till the land. The households that had PLWHAs did not leave any land fallow. This could be attributed to the fact that these PLWHAs were not bed-ridden and could do field work. It has already been mentioned that these PLWHAs are on ARV therapy. Foregoing production, by leaving the land fallow, implied reduced agricultural output, which compromised household food security.

4.2.2 Livestock Production

Livestock production is another livelihood strategy as indicated earlier (see Table 4.4). From focused group discussions and key informant interviews it was established that besides cattle, chicken and goats, other forms of livestock in this area also included sheep, donkeys, and guinea fowls. Cattle provided them with milk, manure and income after cattle sales. Rarely does a household kill these beasts for family consumption, except on special occasions such as weddings and funerals. Cattle and donkeys were indicated to be major sources of draft power, with donkeys mainly used on carts. Some people offered draft power services for a fee. This was said to be common during the cropping season when tillage/ploughing would be on demand. For smaller livestock like goats, sheep and chicken, yes they did provide manure but they were mainly kept for their meat and people and income after selling these animals.

4.2.3 Livelihood Diversification

Instead of relying only on farm production for their survival, households in Chidzikwe Village 3 indicated to be involved in some other activities as other livelihood pathways. What came out has been tabulated below.

Table 4.7 Livelihood Diversification among respondents in Chidzikwe

	Male-Headed Households (N=4)	Female-Headed Households (N=4)
Beer-brewing	3	3
Migration(Remittances)	3	2
Petty trading	0	4
Hired labour	0	3
Building	1	2
Trapping mice	1	3

From the household interviews, it came out that beer brewing is the most common activity done besides farming. In her studies, Bryceson (2002), identified beer-brewing as a source of income for African rural families. Only two households were not involved in this activity, one male headed household and one female headed household. It has been pointed out that small grains (millet and sorghum) are central to beer brewing. It was observed that the households that did not brew beer had not grown any of these small grains. The female headed household that had not grown either sorghum or rapoko could not till all the land and had left some portion fallow due to shortage of labour, seed and draft power. These small grains are eaten by quelea birds upon maturity and needed to be constantly guarded from sunrise to sunset, especially after tasselling. So labour became a constraint to have somebody shoeing these birds away for the whole day until harvesting.

All the households that indicated having migrants revealed that these household members were sending some remittances. Remittances could be money or goods sent to households back home by people working away from their communities. Although these remittances could not meet all their obligations, they had proved to be a financial relief to the household and contributed to agricultural production in the purchase of inputs.

Petty trading was indicated as another major activity especially by the female headed households. No male headed household indicated any petty trading but in all the female headed households it was reported as an activity. This included items such as fruits, used

clothes and sweets. This involved buying and selling of commodities. In order to earn money or to be paid in kind, all the female headed households indicated that at least one member was involved in hiring out labour. Usually payments within the community were made in kind and in most cases it was grain or chicken.

One male head of a household was a builder. However he was saying that jobs were hard to come by these days. His reason was that maybe it was because building material was too expensive for people to afford and also people had no money to build new/better structures. If harvests improved, maybe building can be revived, so he suggested.

The community borehole used to offer residents with water to do their gardening but this was no longer the case. The garden had ceased to exist as there was no sufficient water from the borehole which had constant breakdowns. One female headed household had a small backyard garden which it watered using waste water from domestic use. From the focused group discussions some additional forms of diversification were identified in this same village and these were barter trade, cutting and supplying thatch grass, cross-border trading, thatching, shoe repair and carpentry.

4.2.4 Constraints to Livelihood Strategies

Households in Chidzikwe are dependent on rainfall for their cropping. The country has been experiencing drought over the years as rains have been erratic. This affected crop production by the farmers. The 2009/10 cropping season was no better as it did not receive enough rainfall for farmers to realise their full potentials. Those farmers who had planted with the first rains managed to get a better harvest than those who planted later. For maize, the average yield that they reported was 2.5 tonnes per hectare but in a normal season they would get as much as 4 tonnes per hectare. Those farmers who did not plant with the first rains indicated that it was due to shortage of seed, labour and draft power.

Draft power is an important capital in this community as all households depend on ox-drawn ploughs for tillage. Those without draft power had to rely on neighbours or hire the service from those who had the draft power. Some villagers indicated that even if they had the money to hire tillage services, those who had the draft power had to first finish ploughing on their plots before they could hire out this service. Hence farmers lost on time as the moisture content in the soil went down and could not permit any planting whilst the season was progressing. Tractor tillage services were said to be expensive and most villagers could not afford.

In the past, farmers indicated that they used to rely on loans from the Grain Marketing Board (GMB) for cropping inputs but the parastatal had been experiencing overwhelming demand and could not supply enough inputs to meet demand. The loan package included seed, fertilisers and chemicals. Major inputs of concern to farmers were seed and fertiliser. Retailers did provide this but the prices they offered were too high. Farmers highlighted that the inputs were available on the 'black market', but very expensive. Labour was found to be another limiting factor in this area. Some families could not meet all their labour demands. Those who could afford ended up hiring extra labour during the peak labour period which is from December to end of February. During this time weeding will be the major activity. From the sustainable livelihood framework it can be observed that by hiring in labour, financial capital was converted to human capital.

Although female headed households had a more constrained labour pool than male headed households (See section 4.1.1), information obtained from the household interviews and focus group discussion showed demand for farm labour was at its peak from December to February. This is the time when a household has to pull all its labour resources to fight

weeds in the fields. In a normal farming season, this is the time when most rainfall is concentrated and weeds will be competing with field crops for survival. Only two male headed households indicated to hiring extra labour for weeding during this time, hence the conversion of financial assets to meet labour demands as discussed in Section 2.6.2 (Financial assets).

For their livestock, farmers indicated that watering their animal was bad news during the dry season as they have to drive them to a distant river. Livestock diseases such as heartwater and blackleg were reported in the area. Cattle dipping chemicals were said to be the solution to some of the diseases but the chemicals were not being supplied. The department concerned could not supply enough to meet demand. Veld fires also destroyed the pasture leaving the animals with nothing to graze on.

Farmers indicated shortage of capital (money) as a hindrance to their production. This was made worse by the fact that the country was using foreign currency for its domestic transactions; hence money was in short supply. Transport was an issue of concern in this village. There was no transport operator servicing the area. This affected them when they needed to go to Masvingo town to market their produce or to secure inputs for production. Referring to the sustainable livelihood framework, limited services can be equated to an act of social exclusion. This is further supported by Mbaya (2004) who indicates that once excluded, an individual's chances to earn income, participate in labour markets or access public services are greatly reduced.

4.3 Livelihood Outcomes

From the information obtained in the area, most households are producing enough to feed their families, but for the 2009/10 season, only two male headed managed to get surpluses for selling unlike in a normal season where almost all farmers get surplus for sale. This reduced their earnings as they could not market much. For their maize, they marketed it through different channels but the most common one is through the GMB. The problem with this parastatal as indicated by farmers was late payment after produce has been delivered to them. By July, those who had delivered their produce in May to the GMB had not yet obtained their payment (income).

All the head of households interviewed were satisfied with the way how they had settled in the area but they had a number of items which they felt need attention. Having access to land for production, both crops and livestock was a sign of well-being. Most of these farmers came from communal areas which were overcrowded such as Charumbira, Chivi and Nyajena. Their children could go to nearby schools as the village is closer to a primary and a secondary school. The village is closer to a clinic and this made the residents feel secure. According to one villager, when they first settled in this area, stock theft was rampant, no schools, no clinic, no transport and no shops. Stock theft was reduced in the area when the police established a police post within this resettlement area. However transport still remains a problem as villagers have to walk a distance of 12km to the main road so that they can link up with transport to Masvingo town.

It has been indicated that agricultural production was low due to poor rains. This greatly affected farmers, as their livelihoods are dependent on rain fed agriculture. Reduced production implied reduced income which can again mean reduced food security. Households have been shown to have limited diversification, and migration to other places has been reported. This mentioned set-up will make the villagers more vulnerable.

4.4 Household Vulnerability

This study identified activities and factors that make livelihoods vulnerable. Identified trends and shocks were drought and diseases for both human beings and livestock. Looking at the

constraints identified on livelihood activities such as drought, shortage of labour, draft power and seed. These had the effect of reducing production and productivity, implying ultimate reduction in household incomes.

Reduction in income made households more vulnerable as they had less to spend on basics such as food, medication and education. If parents have less to spent, children are likely to drop out of school. This had negative impact on their development as they are likely to be engaged in risk behaviours such as early or forced marriages and child labour. When food production is limited and the household cannot meet its dietary needs, incidences of malnourishment manifest themselves. Once there is malnutrition, the immune system gets weakened and the body cannot fight diseases and infection. Two households left part of their arable land fallow (see Table 4.6) and this again made these households more vulnerable as they had limited food stocks to rely upon. With reduced incomes households are left with little to spend on buying or accumulating assets which are important for them to meet livelihood objectives.

Households were vulnerable to the impact of AIDS through death and illness. Two female heads indicated that they had PLWHAs in their households.

4.4.1 Coping Strategies

Households respond to crises differently and in this study a number of responses were noted as shown in Table 4.8. These coping strategies aimed at maintaining a minimum level of consumption in the presence of unfavourable changes due to trends and shocks.

Table 4.8 Household Coping Strategies in Chidzikwe

	Male Headed Households: N=4	Female Headed Households: N=4
Sale of livestock	4	4
Piecework	3	4
Consumption of wild fruits	2	4
Food handouts/Food aid	1	3
Credit	4	4
Reduced number of meals	3	4
Withdrawal of children from school	0	2
Migration	3	3

The information collected on the coping strategies employed by households did not show any significant difference between male headed and female headed households. Faced with such a situation households ended up in distress sale of assets as shown in this study, hence the importance of assets in smoothening household consumption and risk management. All households reported to sale of livestock when facing some crises. Sale of livestock was done in a sequencing order depending on the magnitude of the crisis. Usually smaller livestock such as chicken were targeted first. One female headed household head revealed selling an ox when one of its members was in hospital and needed money to meet the medical expenses. This reduced this household's draft power as the beast sold helped in

providing draft power for this household. At some point in time all households, except one under male headship indicated that some household members were engaged in piece jobs so that they could get income to buy food and solve their immediate needs. Payment within the community was usually in kind using maize and chicken. Through social networking, all households reported to have borrowed food/or cash from neighbours and friends. Food hand-outs or donations from well-wishers were an important coping strategy especially for the female headed households. Households reported to have reduced the number of meals to an average of two meals per day especially during the times when drought had inhibited proper harvests.

After poor harvests due to drought and death of head of the household who was the major breadwinner, one female household had withdrawn one child from school. This leads to an insecure future livelihood for this child due to lack of education. Migration was high in both male headed and female headed households. Household members migrated to other areas to seek livelihood opportunities which would enable them to earn income to meet household requirements. Some were reported to have crossed international boundaries to neighbouring countries, mainly Botswana and South Africa. Migration meant that the household supply was reduced and employment was not guaranteed in the new areas where they had migrated. What also made these household members more vulnerable was that some did not have proper travelling documents and crossed the border illegally.

4.5 Transforming Structures and Processes

4.5.1 Land Tenure

When these villagers were settled in Chidzikwe, they were given certificates to occupy the land (occupancy certificates). This certificate is different from a title deed. This only gives you access, control and not ownership of the land. Farmers cannot use this as collateral when seeking loans from financial institutions.

4.5.2 Local Leadership

In Zimbabwe chiefs fall under local government and Chidzikwe resettlement area lies under Chief Zimuto in Masvingo. Political boundaries demarcate areas into wards and each ward fall under an elected councillor. The ward under which this resettlement falls has a female councillor. The same applies to the village head who happens to be a woman, unlike in most communal areas where a village head is normally a man. Zimbabwe is a patriarchal society and village headship is passed between male relatives of the same lineage. Since villagers came from different backgrounds, they had to elect a head instead of following pre-determined routes of becoming a village head because you are male and belong to a certain family. This on its own showed some element of women empowerment. The village head coordinates development community activities together with other community elders such as the village secretary. During the data collection period the Department of Social Welfare was collecting information concerning orphans and vulnerable children. The village head and the village secretary were seen busy gathering this information.

4.5.3 Role of Service Providers

The major service provider in this area is the government through its line ministries. Identified public service providers include personnel from ministries of agriculture, health, police, education and social welfare. GMB was the only parastatal which was identified to have greater influence on household livelihoods. The only NGO working in the village was CADEC (Catholic Development Commission).

The department of AGRITEX is involved in agricultural extension whereby the local extension worker is involved in passing knowledge on good farming practices to farmers so

as to enhance their production. The mission of the organisation is to facilitate increased agricultural production, improve peoples' livelihoods, food security, income generation, poverty alleviation and sustainable socio-economic development. The goal is to provide excellent extension in agricultural technologies, technical and support services

Major activities by AGRITEX in Chidzikwe included Master Farmer Training, trials and demonstrations on new crop varieties, helping in organising agricultural shows and field days. The department worked in collaboration with other stakeholders such as CADEC, which supported conservation farming in the village by providing inputs to farmers. Conservation farming is a labour saving technology as it involves minimum soil disturbance. In giving farmers information to improve farm production, the department plays a role in reducing vulnerability. However on the HIV and AIDS component the extension indicated that AGRITEX was not involved in any way. Further inquiry however revealed otherwise.

The Zimbabwe Agricultural Sector Strategy on HIV and AIDS coordinated by the Ministry of Agriculture, supported by FAO, sought to mobilize financial and human resources in response to the epidemic. The ministry had established a management information system to monitor issues related to health and service delivery, and assess the cost of HIV and AIDS to farming communities and the extent to which agricultural sector employees are vulnerable to the epidemic. AGRITEX had appointed focal persons but they were not capacitated and lacked resources. However the department had neither a clear policy and strategy nor a budget specific for the response.

The Ministry of Health provided its services through the local clinic which was responsible for treating minor ailments, and for complicated cases, they referred patients to Masvingo Provincial Hospital where there are specialist services. The clinic provided information and education on HIV and AIDS through reading material and posters. Staff at the clinic worked in collaboration with CADEC in providing assistance to the home-based care programme. Condoms were also available at the clinic and were distributed to the local community through focal persons. The clinic also offered maternity services to pregnant mothers and it is here where expecting mothers got a compulsory test for HIV. If positive, they were put on a programme that will prevent mother to child transmission of the virus. They also offered VCT to the community. According to a nurse at the local clinic, more women were coming for testing than men.

The Zimbabwe Republic Police (ZRP) was there to combat crime. Crimes that were reported to be common in the area were theft, child abuse, and domestic violence. Rape and stock theft were said to be major crimes before the police post was established but now their incidence were reported to be on the down scale.

Ministry of Education was represented in this community by two schools one primary and one secondary. Besides their formal curricular, these schools offered co-curricular activities such as sports (soccer, netball and athletics) and life orientation subject such as AIDS education. This was done to raise awareness on the part of children about HIV and AIDS.

Department of Social Welfare had just began just began getting into the area with the aim of assisting orphans and vulnerable children. However they were still establishing their database. Their aim was to see how this group of people would benefit from the social dimension fund.

The only NGO identified in the area was CADEC. The projects that they were implementing were on sustainable agriculture, community food security, HIV and AIDS and orphan care. Sustainable agriculture hinged on natural soil fertility management (organic farming) and they provided beneficiaries with seed for maize, sorghum and cowpeas. They provided Open

Pollinated Varieties OPVs) for maize. Harvested maize can be retained for use as seed which is characteristic lacking in hybrid seeds. They trained farmers in the aspects of organic farming. Community food security programme gave food aid to the elderly and orphans. The HIV and AIDS and orphans programme catered for home based care irrespect age or sex. This was linked to palliative care which they offered from testing up to death. In schools they held sessions about child abuse where they incorporated both orphans and non-orphans so as to minimize or eliminate stigma and discrimination.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

This research analysed the livelihood strategies of households in Chidzikwe area which is a newly settled area in Masvingo District of Zimbabwe. From the findings, it has been shown that:

Research Question 1

Assets

- ❖ Male headed households have more labour available than female headed households. In other words female headed households have a higher dependence ratio than male headed households. This resulted in two out four female households leaving some portions fallow.
- ❖ Male headed households have more migrants than female headed households. This migration was mainly because people moved to look for employment to other areas.
- ❖ Male headed households have more livestock than female headed households. This could be because men have a comparative advantage over women when it comes to tasks that are outside the home. Animal handling, especially for larger livestock types such as cattle can be a minus as to why female headed households had fewer animals.
- ❖ Female headed households had more PLWHAs and orphans than male headed households. This gives them more burden of caring for the sick and at the same time ensuring household economic and food security.
- ❖ On access and control of land, farmers have certificates of occupancy instead of title deeds which makes it difficult for them when seeking loans. Investment and sustainable livelihoods depend on property rights. More secure property rights encourage investment and increase chances of getting loans. The resettlement land tenure is the same as that in communal areas and the land is still under state jurisdiction.
- ❖ Farmers mainly derived their income from crop production but had limited access to official loans/credit facilities. Female head of households had the impression that they had less chances of getting the loans than their male counterparts. This resulted in farmers being risk averse when it came to applying for the loans.
- ❖ Water supply for domestic purposes is affected by constant breakdown of the one and only community borehole.
- ❖ Social networks do exist in the village among neighbours and friends. Villagers still maintained strong links/contacts with their relatives in the communal areas where they lived before resettlement.

On-farm Livelihood Strategies

- ❖ The major livelihood strategies in the area are rain fed cropping and livestock production. Major crops grown are cereals, groundnuts and roundnuts. Cereals form the staple diet especially maize. Both male and female headed households mainly focused on food crop production on a subsistence level with little attention being given to cash crop production. Thus crop diversification was limited in the area.

- ❖ .Agricultural production was constrained due to drought, shortage of inputs (seed, fertiliser). This was because households had limited financial resources to acquire the inputs.
- ❖ Livestock production, especially cattle, is threatened by disease outbreaks. Some of these diseases are tick-borne which is associated with to irregular dipping of cattle in the context of erratic supply of dipping chemicals.
- ❖ Household crop production is affected by leaving the land fallow due to shortage of labour and inputs. Two out four female headed households had left their arable land fallow which meant a reduction in crop production.

Off-farm Livelihood Strategies

- ❖ Beer brewing is the major livelihood diversification in the area. This is because of a ready supply of small grains which are used in the brewing and it brings in quick money as the demand for the home brew is high.
- ❖ Migration is a common phenomenon in the area as people move to other areas in search of other livelihood opportunities in other areas.
- ❖ Coping strategies such as reducing the number of meals and withdrawing children from school make households more vulnerable. Two female headed households had children who had withdrawn from school as they could not afford the required fees. Three out of four male headed households and four out four female headed households reduced number of meals per day in the face of food shortage.

Research Question 2

Shocks and Trends

- ❖ Drought impacted negatively on agricultural production resulting in farmers getting reduced crop yields. In between the cropping season, rainfall is erratic and crops get stressed due to low moisture content in the soil.
- ❖ Households are vulnerable two the impacts of HIV and AIDS. Two female headed households had PLWHAs.

Coping Strategies

- ❖ Livestock sales is common as a coping strategy but this resulted in farmers getting low prices as they would be under pressure to solve immediate problems.

Service Providers

- ❖ There were very few service providers in the area .The government was the major service provider and only one faith based organization operated in the area.

5.2. Recommendations

The recommendations presented for consideration by AGRITEX and other development practitioners are based on the need to improve asset base, promote diversification and improve the food security through enhance production.

- Supplementing the rain fed agriculture by promoting community/nutrition gardens. This is achievable when the community or households have reliable water sources.
- Use of labour saving technologies such as conservation farming and early planting especially for female headed households who are more labour-constrained than male headed households. Farmers should be encouraged to use herbicides to ensure timeliness of weeding operations.
- Diversification into cash crop farming for income generation. Crop diversification spread the risk of crop failure in the case of drought, hence the need to encourage drought tolerant crops such as small grains (sorghum and millet).

- Promotion of OPVs which are suited to the area. The merit in using these OPVs is that the harvested crop can be used as seed for the next cropping season unlike hybrid seed.
- Efforts to address productivity should focus on availability and accessibility of inputs in time. Mechanisms should be put in place that will allow farmers easier access to loans for agricultural production. Women should be encouraged to apply for these loans.
- Control of animal diseases can be enhanced by regular dipping, the need to make dipping chemical readily available.
- Capacitating extension staff on the ground should be prioritised to ensure effective dissemination of agricultural knowledge and information.
- Continuous farmer training on good farming practices and new technologies and ideas.

Having cited the above recommendations, it is important to highlight the importance of collaboration in rural development which is central to the success of programmes and projects. Collaboration and networking enable organizations to extend, and in so doing they improve their outreach abilities in bringing their services to their intended target groups and individuals.

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ANNEX 1- Checklist for Household Interviews

A. Capitals

1. **Human**
 - i. Household composition.

2. **Natural**
 - i. Farm size.
 - ii. Land-use pattern.
 - iii. Water sources.

3. **Physical**
 - i. Household assets.
 - ii. Farm equipment.
 - iii. Housing.

4. **Social**
 - i. Community group membership.
 - ii. Friends and relatives in the community.

5. **Financial**
 - i. Origin and access to credit.
 - ii. Income by source.
 - iii. Savings.

B. Livelihood strategies

- i. On-farm.
- ii. Off-farm.
- iii. Other activities (diversification).
- iv. Risks/ problems/ constraints.

C. Institutions

- i. Organizations.
- ii. Roles.

D. Household Vulnerability

- i. Shocks, stresses and trends.
- ii. Coping strategies.

ANNEX 2 - Checklist for Focus Group Discussions

What is a bad year?

What are the ways of earning a living in the area?

What are the constraints to these strategies?

What could be probable solutions?

What shocks, stresses and trends have been experienced in the area?

What has been the impact of these shocks, stresses and trend on livelihoods?

How do people respond to these shocks and trends?

Changing pattern of food security through different months?

List community groups and their roles.

What are the major tasks for men, women, boys and girls?

Any women in power structures?

Organizations that work with the community and their roles (public, private)