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FACULTY OF ARTS

DEPARTMENT OF DEVELOPMENT STUDIES

**Research Topic: The Effectiveness of the
Goat Value Chain on Poverty Reduction
among Smallholder Farming Households in
Shurugwi District's Ward 9**

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i. Certification of the Dissertation

The undersigned certifies that they have read and recommended for submission to the department of Development Studies, in partial fulfilment of the requirements for the Masters of Arts Degree in Development Studies, this dissertation by Edwin Phiri

Supervisor Mr. P. Makaye Signed.....

Date...../...../.....

ii. Acknowledgements & Dedication

First and foremost I would like to acknowledge and express my heartfelt appreciation to my wife and partner in love Chipso. Without her continuous support, love and encouragement this product would not have been possible. I would also like to formally acknowledge the support of my employers Heifer International, my supervisor on this research project, the Department of Development Studies staff from Midlands State University and the Shurugwi District Aids Coordinator who supported me throughout this research process and without whose support this study would not have been possible. Lastly I would like to dedicate this study to my beautiful daughter Tinotenda Edwina, my son Ethan, development practitioners who dedicate their lives to fighting hunger and poverty and all the hard working rural smallholder farming households in all the four corners of the world.

iii. Abstract

Goat production has been argued to offer an alternative and potentially lucrative livelihood option to poor subsistent farmers in Southern Africa. Many small-scale farming families raise indigenous goats which are considered to be the poor-man's cattle due to their relative importance to the asset base of poor farming households. The practical implementation of poverty alleviation and reduction interventions at community level however often falls short of expectations and this study sought to complement and add to the emerging critique of these interventions, with a particular focus on the impact that the Goat Value Chain has had on poverty reduction. The study was informed by the Sustainable Livelihoods Approach and was delimited to Ward 9 of Shurugwi district where it explored the degree to which the Goat Value Chain has been effective in reducing poverty in view of the fact that it has been promoted as a means to support income generation among the rural, poor smallholder farming households.

Respondents that were interviewed were drawn from a total of 18 villages in the ward with both secondary and primary sources of data being utilized. The study's findings concluded that the Goat Value Chain has largely failed to make the expected impact on the lives of the rural poor smallholder farming households, though modest successes were recorded. This is supported by the evidence obtained which showed that there was inadequate information among the respondents on the existence of a lucrative market for goats and goat products with Goat Value Chain beneficiaries in the ward having failed to access external markets because of

a lack of business knowledge, skills and innovation. The limited knowledge of business and innovation skills displayed by the respondents casts grave doubts on the impact of the Goat Value Chain on poverty reduction within the area of study.

Key Words: Effectiveness, Value Chain, Value Chain Map, Value Chain Analysis, Goat Value Chain, Poverty Reduction

1. Introduction

One in five of the world's population live in abject poverty, in a world of growing material plenty. Eliminating world poverty is the greatest moral challenge facing the world today with Sub-Saharan Africa one of the regions with the highest rates of poverty in the world even though the region is relatively stable and has witnessed economic growth in the last few years. For many who live in the region, this growth has not translated into an end in hunger and poverty. At the same time, underlying drivers of vulnerability; HIV and AIDS, gender inequality, under-nutrition, unemployment and adverse effects of climate change continue to weaken the ability of poor, rural families to build up assets and cope with crisis. For the poorest and most vulnerable of households in the region, farming is the most durable livelihood strategy. Most engage in crop production as well as livestock farming. Common livestock species include small ruminants, pigs and/or chickens, with goats being particularly favored for their hardiness and value. For many of these families, livestock represents their greatest wealth and most important livelihood assets; protecting and enhancing its productivity is therefore critical to addressing rural hunger and poverty.

Goats are said to be a handy source of cash to quench household needs, especially during a crisis and goat rearing is argued to be an important component of mixed farming systems that contribute significantly to the rural economy. The Goat Value Chain has been said to play a pivotal role in income and employment generation, livelihood enhancement; food and nutrition

security among the poor, marginalized and disadvantaged groups. Several projects aimed at alleviating poverty through goat farming have thus been implemented by development agencies in various regions of the country including Shurugwi district's ward 9, which was one of the reasons why this particular area of study was randomly selected.

Smallholder farming families are faced with difficulties accessing markets as formal goat markets are poorly developed while strong informal markets exist where goats are traded. On the other hand retailers are faced with frequent shortages of goat meat in local markets in spite the increase in the goat population. The Goat Value Chain intervention has been rolled out in Shurugwi district's ward 9 in an attempt to reduce extreme poverty and this study was conducted in this ward with information being obtained by conducting household interviews based on a semi-structured questionnaire as well as through the use of secondary sources of data. The focus of this study was on the contribution that livestock value chains, goats in particular, have made towards improving social wellbeing among poor households as it has been argued that goats contribute to household food security and the generation of income and they have been increasingly prioritized as the animal species with the potential for poverty reduction. Consequently, governments and many non-governmental organizations have goat components in their development interventions.

1.1 Conceptualisation of Key Terms

Effectiveness is having an intended or expected effect. It is the degree to which objectives are achieved and the extent to which targeted problems are solved. Whereas efficiency means "doing the thing right," effectiveness means "doing the right thing."¹It is producing a desired effect² and the degree to which something is successful in producing a desired result; for example the effectiveness of a treatment³. The adjective for effective is successful. Effectiveness is hence the successfulness of a strategy in achieving the intended results⁴.

Poverty and Poverty Reduction: According to Ravallion (1994) poverty can be said to exist in a given society when one or more persons do not attain a level of well-being deemed to constitute a reasonable minimum by the standards of that society. The World Development Report (1990) defined poverty as the inability to attain a minimal standard of living. The traditional method of obtaining data to identify the poor and investigate poverty related issues is to conduct surveys that range from household expenditures and incomes to educational levels as well as anthropometric features of household members. Consumption expenditures or income levels have formed the basis of the measures of welfare that have been developed and

¹ Business Dictionary

² American Heritage Dictionary of the English Language, 2011

³ Oxford Dictionaries

⁴ Cambridge Dictionary

used to identify the poor. In many studies, the minimal standard of living has been proxied by the level of consumption expenditure that enables the household or individual to attain their basic needs. This usually means being able to purchase a basket of goods that contains the minimum quantity of calories and non-food commodities and all households that are not able to achieve this level of consumption expenditure or income are characterised as poor⁵.

The value chain can be defined as the set of different activities required to bring a product from the initial production phases to its final market destination⁶. At the heart of the **value chain analysis** is the idea of a chain, a metaphor for connectedness which highlights the point that most goods and services are produced by a complex and sequenced set of activities⁷. In many cases, these activities are split across a number of agents i.e. people, enterprises, cooperatives and how these different agents interact matters for development. A series of actors and activities are needed to bring a product from initial production to the final consumer and value chains are a chain of actors that operate like a system. The term value chain is used to characterize a system composed of different actors, activities and institutions, all functioning interrelatedly, so as to enable the accomplishment of a common goal.

Value chain analysis is essential to an understanding of markets, the risks, the added value in each step, the participation and organisation of different actors, and the factors that limit the

⁵ Oduro, 1999

⁶ FAO-CIHEAM Network on Sheep and Goats, 2015

⁷ Institute of Development Studies, 2010

income and competitiveness of farmers. Value chain analysis focuses on chain governance and power relationships which determine how value is distributed at different levels. Through the analysis of systems and power relations at different levels, value chain analysis enables a more comprehensive modeling of the effect of interventions at different levels, thus enabling better understanding of interventions aimed at poverty reduction⁸.

In that same vein ***The Goat Value Chain*** encompasses the full range of activities and services required to bring goat products and services from conception to sale in final markets. A value chain entails the addition of value as the product progresses from input supply to production to consumption. Value chains are also the conduits through which finance such as revenues, credit, and working capital moves from consumers to producers; technologies are disseminated and information is transmitted.

Sustainable Livelihoods: Livelihoods perspectives have been central to rural development thinking and practice in the past decade⁹. Sustainable refers to the long term and livelihood to activities which make up a living. A sustainable livelihood is commonly accepted as comprising the capabilities and assets including both material and social resources for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not

⁸ Legese, G. 2012

⁹ Scoones, I. 2009

undermining the natural resource base¹⁰. The origination of sustainable livelihoods as a concept is widely attributed to Robert Chambers of the Institute of Development Studies¹¹who defines a livelihood as comprising of the capabilities, assets and activities required for a means of living. Sustainable livelihoods are presented as linking the three concepts of capability, equity and sustainability.

¹⁰ Krantz, L. 2001

¹¹ Chambers, R. and Conway, G.R. 1992

2. Literature Review

The poor in sub-Saharan Africa are said to be mainly found in rural areas where they are largely involved in agriculture based activities. They are characterised as having very low levels of educational attainment, having limited access to basic services, tendency to live in large households and as having a lower health status than the non-poor. Poverty is used in two main senses: in its first, common usage in development, it is a broad, blanket word used to refer to the whole spectrum of deprivation and ill-being; in its second usage, poverty has a narrow technical definition for purposes of measurement and comparison. However poverty had to be given scientifically acceptable universal meaning and measurement and that is why it was defined as low income. It is often reported, recorded and analyzed as low consumption, which is easier to measure¹².

Poverty lines are used for comparing groups and regions, and often for assessing progress or regression. It is widely acknowledged that poverty is multi-dimensional, and that poverty reduction entails many different kinds of change. Being poor often means being voiceless, powerless and generally having less likelihood of breaking through the cycle of poverty unless one is empowered to do so through effective intervention strategies. Poverty is a multi-dimensional phenomenon with complex linkages which cannot be characterised by a single index. Poverty often works to discriminate against the aged, disabled, women and children

¹² Chambers, 1995

subsequently being revealed by various studies that it affects men and women in different ways. Not only are the mechanisms of poverty at the local level, but they also interlink in complex ways with national and international factors which may include government policies, international commodity prices, debts, unequal trading practices and conditional aid¹³.

There is general consensus that poverty reduction and alleviation should be the paramount goal of development assistance. Poverty reduction and alleviation is helping the very poorest of the poor to achieve a better quality of life and enabling the largest number of people to move beyond the poverty line. It entails helping improve people's lives and laying the conditions for future improvements. When the poor themselves are asked what poverty means to them, income is only one of a range of aspects which they highlight as there is also the tendency to include: a sense of insecurity or vulnerability; lack of a sense of voice vis-à-vis other members of the community; levels of health, literacy, education, and access to assets¹⁴. Basic needs perspectives go far beyond income, and include the need for basic health and education, clean water and other services which are required to prevent people from falling into poverty. More recently, poverty has been defined in terms of the absence of basic capabilities to meet these physical needs, but also to achieve goals of participating in the community and influencing decision making.

¹³ Chinake, 1997

¹⁴ Chambers, R. 1987

2.1 Background to the Study

Despite years of work, the development indicators relating to sub-Saharan Africa often disappoint. The highest incidence of undernourishment in the world occurs in sub-Saharan Africa where one out of every three people suffers from chronic hunger. Per capita food consumption in sub-Saharan Africa is on the decline¹⁵ and Sub-Saharan Africa is the only region in the world where the number of rural poor is on the rise¹⁶. 86% of Sub-Saharan Africa's combined population of 200 million relies on the agriculture sector¹⁷. Therefore, it is no surprise that this sector is looked upon to provide solutions to the issues of chronic poverty, food insecurity, and malnutrition as improvements here have the possibility of impacting millions. Livestock are a natural asset for the poor that can be liquidated when required. For the rural poor livestock are wealth and a sort of insurance substitute during times of crisis. This study looks at the contribution that livestock, small stock in particular, can make towards achieving food and nutritional security and improving social wellbeing.

Livestock systems represent a potential pathway out of poverty for many smallholders in developing world. The majority of world's rural poor, and a significant proportion of urban poor, keep livestock and use them in a variety of ways that extend far beyond income

¹⁵ Shapouri et al., 1999

¹⁶ World Development Report, 2007

¹⁷ van Rooyen et al, 2013

generation¹⁸. In many cases, livestock is a central component of smallholder risk management strategies. Livestock products have highly distributed production systems located far from consumer markets and they are highly perishable. Thus, they require more efficient marketing and processing systems along the entire value chain-from production to consumption-to realize their higher value. Marketing and processing activities are even more critical since most livestock producers are small, resource poor, and often unable to establish their own linkages with markets, processors, and consumers. Even after decades of planned economic development, marketing of livestock and livestock products remains largely unorganized, traditional, and fragmented, with a few exceptions.

Goats are one of the small ruminants which have been closely associated with human livelihoods since time immemorial and goat meat is among the most consumed meat. The goat has gained the reputation of one of the most important livestock commodities for poverty reduction, livelihood enhancement, food and nutritional security in many countries. It is associated with simplicity in maintaining compared to other livestock commodities especially to landless and resource poor farmers. Goat rearing is an important component of mixed farming system contributing significantly to the rural economy. It plays a pivotal role in income and employment generation, livelihood enhancement, and food and nutrition security of the poor, marginalized and disadvantaged groups.

¹⁸ Randolph *et al.* 2007

Goat herds are steadily increasing in most Southern African countries. Although goat markets are poorly developed within the region, local and significant export markets do exist. For example, in South Africa, an estimated 400,000 goats are slaughtered every year, producing approximately 8 million kilograms of goat meat. Most of these goats are slaughtered at a household level, often for ceremonial or religious purposes. Almost none of these animals are purchased through a formal and organized market and very little goat meat passes through any formal retail system. It is estimated that 1 million goats are sold into rural communities in KwaZulu-Natal Province each year with only one-percent of goat meat in South Africa being slaughtered in the commercial sector, indicating the importance of the live goat value chain.

Other countries, particularly Malawi and Zambia, are beginning to see the rise of informal traders who are private processors with an interest in processing goat meat, such as Nyama World in Malawi and Zambeef and Majoru in Zambia. In terms of exports, the main product is live goats, especially in Zambia through Kasumbalesa to Congo. In Malawi, there are informal exports on goat skins, where retailers sell skins to vendors in Tanzania. It is estimated that there will be an increase in the demand for animal-sourced food in Africa over the coming decades, according to a report from the Food and Agriculture Organization. By 2050, the meat market in the region is projected to be at 34.8 million tonnes and that of milk about 82.6 million tonnes, an increase of 145 and 155%, respectively, over 2005/07 levels. Over

this period, Africa's increase in volume of meat consumed will be on a par with that of the developed world with only South East Asia anticipated to register higher growth.

For poor people in poor countries, livestock farming offers income, nutritious foods, power for farming operations and a means of storing wealth and goats are considered to be the 'poor-man's cattle' due to their relative importance to the asset base of poor farming households. They are living, productive assets which for many, contribute to the ability of farming households to invest in the education of their children. Goats also represent the best opportunity for farmers to go beyond subsistence and begin to earn regular income. In Southern Africa, where the economy, particularly the economy of the poor, is highly dependent on agriculture, agricultural growth involving smallholder farmers is one of the most effective strategies for reducing extreme poverty and hunger

Goats have great adaptability to varying environmental conditions and different nutritional regimes. They can withstand heat stress and can endure prolonged water deprivation. They are the most prolific domesticated ruminants; producing offspring twice in one and half years with additionally great adaptability to adverse climatic and geophysical conditions, where cattle and sheep cannot survive. Moreover goats can efficiently utilize poor quality forage; with their peculiar feeding habits making it easier to meet their dietary requirements.

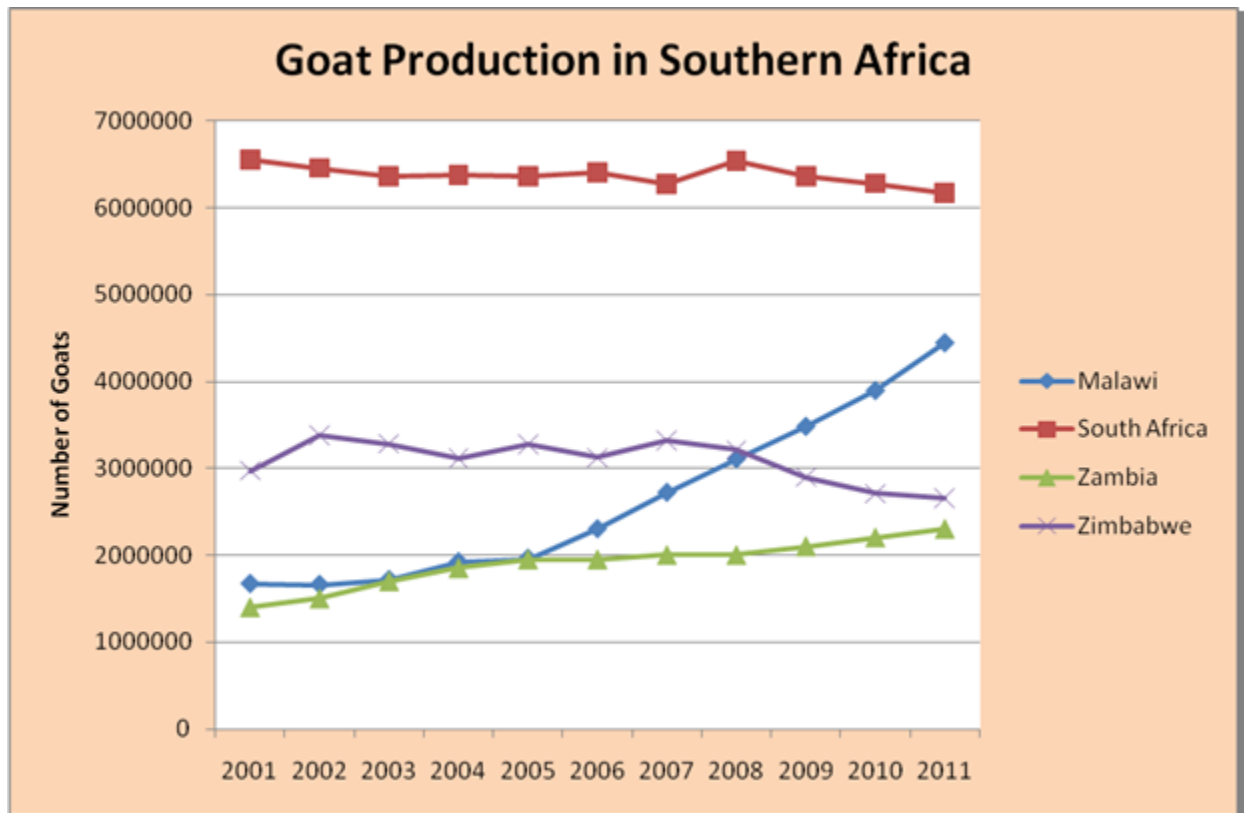
Even though the Southern Africa region has witnessed strong economic growth over the past decade, smallholder farming families still represent the majority of the most vulnerable households. In a region ravaged by HIV and AIDS, it is often rural families who carry the burden of looking after orphaned children, sick relatives and those with lost income. They are faced with difficulties accessing markets as goat markets are poorly developed although strong informal markets exist where goats are traded. Goat meat prices are often comparable to those of beef and many retailers indicate frequent shortages in local markets in spite of the fact that the goat population has been increasing in the region most likely as a result of their high intrinsic rate of increase, adaptability to various habitats and their relatively low purchasing prices compared to cattle. Goats also recover quicker aftershocks caused by droughts or diseases with households able to build goat herds faster than cattle herds.

Goat Value Chain interventions have been designed to address challenges faced by smallholder goat farmers by creating farmer-owned business hubs that are supposed to provide smallholder farmers with access to training, knowledge, inputs and basic veterinary services, through agro-veterinary stores, networks of trainers, lead farmers, community animal health workers and traders. These programmes are supposed to link farmers to markets, enabling them to earn fair, sustainable income through the goat value chain. As a result of this program, smallholder farmers should be able to engage more effectively in goat farming, improving productivity and breed quality with access to markets that enables them to earn sustainable income.

A strong and growing market for goats exists within the region, the African continent and internationally, particularly in the Middle East. At the moment, this market is poorly regulated; organized and largely inefficient. This Goat Value Chain program is supposed to facilitate the effective functioning of the market, driven by organized, self-managed producer groups, supported by Heifer International and other stakeholders, including national governments and the private sector. Through the market mechanisms of auctions and/or abattoirs, farmers are supposed to be able to earn fair and predictable prices, increase their ability to earn income and build up household assets and capital. Through better farming and animal management practices as well as access to inputs that will occur, families will be able to produce and consume a wider variety of foods. The increased income that will result because of this programme will also help to address production shortfalls. Agro-ecological practices that will be spread through training and the use of holistic farming methods will help to reverse the negative effects of environmental damage.

The programme is expected to address gender inequalities and the participation of women both as goat farmers and owners as a key priority. Women already play an important part in agriculture in Southern Africa and this programme further supports and formalize their role in order to ensure that both men and women, and their families, are able to enjoy the benefits of successful goat farming. Goat farming provides a source of income for women who are predominantly associated with small livestock rearing which will result in increased

food security as they can sell goats and use the income gained to buy food for the family. Goat production is also considered an easy to manage enterprise by women and youths which help them to develop social capital.



Graphic showing goat production trends in the Southern African countries of Malawi, South Africa, Zambia and Zimbabwe between 2001 and 2011: Source Heifer International Value Chain Study, 2014

Realizing the importance of goats at several programmes goat projects have been implemented in an attempt to alleviate poverty across the country. This has led to an annual increment in the

goat population with the average flock size increasing from 1-3 to 4-5 heads among smallholder farming households. However, efforts in the past were oriented primarily towards the poor and subsistence farming system and this approach seems inadequate to cater for the ever increasing demand of goats. Therefore, development agencies such as Heifer International have reoriented their programmes in multiple directions targeting the subsistence farming in one hand and promotion of commercialization on the other. Similarly, mobilization of community groups and cooperatives, capacity building, development of community based goat resource centers, intervention through package of practice, conservation and utilization of indigenous and exotic goat genetic resource, introduction and evaluation of promising breeds are some of the strategies adopted for by development agencies rolling out Goat Value Chain interventions. The outcomes anticipated to be achieved are import substitution of goat and goat meat, fulfillment of internal demand, commercialization, livelihood enhancement and national economic development.

Goats contribute to the livelihoods of millions of rural poor in most of the developing countries where 95% of the world's goat population is concentrated and also the majority of world's poor live¹⁹. Goats can efficiently survive on available shrubs and trees in adverse harsh environments with low fertility where no other crops can be grown. The goat is also known as the poor man's cow. Since goats can be sold at any time, it is popularly known as a living bank. Goats are multifunctional animals that play a significant role in the economy and nutrition of landless,

¹⁹ Bhawan, 2013

small and marginal farmers. They provide meat, milk and manure and goat meat is accepted by all communities.

Livestock production in the region needs to double to meet demand and a real opportunity lies with goats through the mixed farming systems that characterize the region; as there is a significant existing and growing local and regional demand for goat meat. Delivery of relevant and appropriate services to farmers is critical for the development of competitive goat enterprises and yet most support services operate below capacity with some not operational at all. The supply of inputs, technologies and information in Southern Africa has, to a large extent, been focused on the large-scale commercial producers of other livestock such as cattle and poultry.

Governments play a significant role in promoting the goat value chain. In Malawi for instance, there exists a unique government led program known as Drug Boxes Program and the Presidential Initiative on Small Stock Production where government supports goat production. In South Africa, the government provides livestock producers with free veterinary drugs and extension services while in Zimbabwe producers receive free extension services and free dipping services from the department of veterinarian services. Most of the agricultural policies in Southern Africa are biased towards crop production leaving out the livestock sector.

Major consumers of goat meat in Southern Africa include restaurants, hotels, institutions and locals/individuals in urban areas. Other huge end markets include; traditional ceremonies as well as holiday celebrations and festivities where live animals are the primary commodity. There are no clearly identified exports of goat products in the region with the little export that exists being mainly of live goats.

The goat value chain in Southern Africa is largely uncoordinated, with poor relations and governance leaving farmers with little bargaining power. The implication of poor chain governance is that the generation, transfer and diffusion of market information and innovations which would enable the goat value chain actors, especially small farmers and traders to upgrade their position in the value chain and sustain competitive advantage is hampered. There are no formal contracts between farmers and traders which present challenges to farmers as they are never assured of markets. The relationship between farmers and traders is very weak with low levels of trust. Goat farmers associations are required to bring together stakeholders who can articulate their needs and jointly get to build solid business relationships and a better organization of the value chain.

There are two categories of goat traders; small traders dealing with less than 10 goats per week and big traders managing up to 500 goats per week and trading is mostly done on verbal basis with no formal contracts. There are also two goat market segments; the informal one that is driven by demand for goats to use in traditional ceremonies and festivities and the formal one

which is driven by demand from the urban population. Goat products such as skins, milk and hooves attract little attention with these being seen as of no value and are normally thrown away due to lack of information on the value chain. In some areas there are no standard abattoirs and slaughtering is done in backyards with no attention to safe food handling practices. There are also no clearly identified processors who are specializing in goat products in the region with the existing meat processors mainly focused on beef and chicken products. Goat business is therefore a new and upcoming opportunity.

Traders are the immediate buyers of goats from the producers. In most cases, they are also involved as transporters of goats from the producers to the markets, retailing centers, etc. Some traders are well organized into associations while the majority operates individually. They buy live goats from farmers and sell to retailers who then slaughter the goats. There are two categories of traders: Local traders who are the majority and bigger traders. Local traders are also referred to as small traders and each transact less than 10 goats per week. Local traders target local markets, butcheries, and restaurants. They also supply to bigger traders. Bigger traders handle large numbers of goats each managing up to 500 goats a week. Some farmer groups also play a part as big traders by aggregating goats from members and transporting to distant markets though on a seasonal basis.

Retailers are operators who play a part in transforming the live goats into other products. There are many retailers that own butcheries in towns. Others operate roadside roasting of goat

meat. Retailers source goats from local traders and some link up with producers to supply them with goats. The major product at the retailing level is goat meat. Other products such as goat skins, goat milk and hooves attract little attention in the region. In Zambia for instance, products such as skins are considered valueless by many retailers and are normally thrown away. Value addition at retailing level entails slaughtering of goats, cutting them into specialized cuts, which are then sold as fresh meat. It is common in Southern Africa to sell goat meat based on weight. They cut the fresh meat into pieces, which are not weighed in any specific way. The pieces are just given random price tags. Retailing costs constitute transport costs, cooking oil, charcoal, tomatoes, onions, pepper, plastics, and detergents for cleaning, chilli, rent, licenses, and more.

Delivery of relevant and appropriate services to farmers is critical for the development of competitive goat enterprises. In Southern Africa the most common services that goat farmers seek is drug administration for their goats. This is mainly through veterinary officers, community animal health workers, para-vets or lead farmers who are trained by NGOs on drug administration. The key service providers to goat value chains in Southern Africa can be categorized into three groups namely: Inputs providers, NGOs and Research Institutions; and the Governments.

Traditionally countries in Southern Africa have tended not to have a deliberate strategy on goat value chain development as livestock policies have been crafted with cattle and sheep in mind

with laws and regulations articulated having not been revised and updated to respond to the emerging realities. As a result, the goat enterprise has largely remained at the periphery of policy development. Agriculture however remains high on the development agenda of the continent as it is considered critical for economic growth and poverty reduction. The 2014 Malabo Declaration, coming out of the 23rd AU Summit of Heads of State and Government in Equatorial Guinea, commits member states to implement a number of essential policy reforms toward ending hunger and cutting poverty in Africa in half by 2025. The Malabo Declaration shows a real commitment to smallholder farmers and rural communities across the continent. This declaration is a demonstration of African government's commitment to smallholder farming and food security as African governments appreciate that agriculture and agribusinesses are critical to the empowerment of people, especially women and youth and are looking at the practical actions necessary to achieve this, including modernizing and mechanizing agriculture.

The 2014 AU Summit of Heads of States and Government focused on agriculture and food security in Africa with AU leaders renewing their commitment to the Comprehensive Africa Agricultural Development Programme (CAADP) that was adopted in Maputo 10 years ago by agreeing on a concrete set of ambitious goals for agricultural development and food security to be reached by 2025. Prior to that, the AU Heads of State and Government at their previous summit in Addis Ababa, in January 2014 launched the Year of Agriculture and Food Security in Africa which endorses Africa's Accelerated Agricultural Growth and Transformation Goals for

2025. African governments have this year recommitted to principles and values aimed to steering agricultural growth committing to allocating at least 10% of public spending on agriculture. African governments have committed to eliminating hunger through (i) at least doubling agricultural productivity; (ii) reducing post-harvest losses by at least half, and (iii) improving nutrition – reducing stunting to 10%²⁰.

African governments have also committed to establishing and/or strengthening inclusive public-private partnerships for at least five priority agricultural commodity value chains with strong linkage to smallholder agriculture; and creating job opportunities for at least 30% of the youth in agricultural value chains²¹. The Malabo Declaration calls on stakeholders to establish and/or strengthen inclusive public-private partnerships for at least five priority agricultural commodity value chains with a strong linkage to smallholder agriculture and to strengthen the capacities of domestic apex private sector intermediary institutions for inclusive facilitation and coordination to ensure engagement of the private sector.

Southern African governments are beginning to appreciate the value of goats in the rural economy as a ready source of cash-income and food and social security. There is also an appreciation among governments, research institutions and breeding specialists that there is a great need for research into the constraints in livestock production so as to provide the basis to

²⁰ <http://ecdpm.org/talking-points/au-summit-malabo-moving-agricultural-development-food-security-forward/>

²¹ <http://www.cislacnigeria.net/posts/sotu-resources/>

lobby governments on policy development and strengthening. There are currently engagements and discussions taking place between stakeholders from development agencies, inter-governmental bodies and research institutions on areas of collaboration in research, policy development and strengthening.

Commercialization of the goat sector is of utmost importance for the socio-economic development of smallholder farmers. Access to cash is of critical importance to rural homes as most rural households in Zimbabwe are unable to grow enough staple food to meet their own requirements. They supplement what they grow with food that they buy and the source of this cash is often from the sales of livestock. Of all their farming activities, most small-scale producers say that animals are their most important source of cash. In particular, goats represent small discrete bundles of cash and farmers are more willing to part with them than their cattle. Families also need cash for school fees and medical expenses and this shows the direct contribution that goats can make to achieving food security, providing education, and improving human health²². Farmers also use their animals for their meat and milk and the manure for their crops – uses that have indirect impacts on food security, nutrition and poverty reduction.

It is widely acknowledged that goats fulfill multiple functions and can contribute to improved livelihoods for poor smallholder farmers. The goal of Goat Value Chain interventions is to

²² van Rooyen et al, 2013

provide platforms for reducing poverty by increasing rural household incomes and food security in a sustainable manner. Goat Value Chain interventions are designed to transform goat production and marketing from an ad hoc, risky, informal activity to a sound and profitable enterprise and business model that taps into a growing market, largely controlled by and benefiting women and other disadvantaged and vulnerable groups. However in a study from rural Zimbabwe that was conducted by Frost et al. (2007), a highly pessimistic vision is presented where they argue forcefully that livelihoods interventions in the study area have made no difference, and that people are stuck in a more fundamental trap which is palliative and very expensive.

This study encourages deeper and critical reflection which arises from looking at the consequence of development interventions at a local-level perspective, making the links from the micro-level and situating particularities of poor people's livelihoods to a wider-level framework. The emergence of the human development paradigm underpinned by Amartya Sen's framework²³ also broadens existing understanding of both poverty and development. The merits of this approach have been recognized by its rapidly widespread proliferation which consequently has placed human focused poverty reduction at the centre of global development agendas. Sen challenged existing commodity based understandings of poverty such as the human capital approach²⁴ and the concept of basic needs²⁵. Poverty is understood from a

²³ Sen, A 1999

²⁴ Laderchi et al. 2003

humanist perspective as the deprivation of one or more rudimentary capabilities²⁶ and these capabilities are essential for individuals to achieve minimum functioning within society²⁷ and subsequently access freedom to live the lives they value²⁸.

Advocates of the human development paradigm translated this people centred understanding of poverty into policy through configuration of the Human Development Index²⁹. Consequently this approach has furthered a broader, multidimensional and more contextual understanding of poverty. The utilization of participatory research methods has created a broader informational base on poverty and has allowed those living in poverty to become stakeholders in the development process rather than merely beneficiaries³⁰. This departure of economic growth as the sole criterion for development, has led to new insights in the understanding of poverty³¹. The capability approach has ascribed a human face to the field of development though the concepts have proved difficult for policy makers to operationalize. The human development approach addressed the limited scope and failings of previous economist interpretations of poverty by broadening definitions of ill-being to incorporate more than simply average income and consumption levels³².

²⁵ Fukuda-Parr 2003

²⁶ Sen, A 1999

²⁷ Banerjee et al. 2006

²⁸ Laderchi et al. 2003

²⁹ Mackie, E. 2012

³⁰ Chambers 1995; Streeten 2000

³¹ Gasper 2002; Fukuda-Parr 2003

³² Desai 1991

The dominant monetary and modernization approaches equated development with economic growth and top down market growth strategies such as the 1980's structural adjustment programmes pursued by the International Bretton Woods Institutions³³. These neoliberal policies directed by economists, formulated on Gross Domestic Product growth and household survey data on income and consumption, did not overcome issues of poverty³⁴. Instead, the impact of a largely human cost became apparent as a result of these free market programmes of privatization and deregulation³⁵. The social consequences of invoking theories that assumed economic growth would trickle down to overcome poverty led instead to widening inequalities in many developing states³⁶.

Poverty is now not measured by the yardstick of income alone but by a more comprehensive index that reflects life expectancy, literacy and command over resources to enjoy a decent standard of living³⁷. The human development approach constructively combines previously inadequate poverty measurements, such as household income and consumption, with a more generalized outlook of capability deprivation when investigating welfare and lends understandings of poverty considerable reach and depth³⁸. The broader and multidimensional nature of human development encourages research on poverty to penetrate much deeper than the level of household maximization of utility and rational distribution of commodities, which

³³ Wade 2004

³⁴ Srinivasan 1994

³⁵ Ruckert 2007

³⁶ United Nations Development Programme 2011; Banerjee et al. 2006

³⁷ United Nations Development Programme, 1990

³⁸ Alkire, S. 2005

cannot be uniformly assumed as has been typified under previous development frameworks³⁹. A more complicated yet realistic picture of poverty can be gained through a deeper understanding of household activities and the way income is shared and utilized. This allows the human development approach to focus on the life achievements of those in developing countries value as opposed to the basic needs assessment of poverty which simply identifies and classifies goods that households possess⁴⁰.

The capability approach takes an individualistic understanding of poverty and awards the accomplishment of capabilities as both the ends and means of development⁴¹. The approach further highlights the limitations of frameworks which rely on Gross Domestic Product and income in conceptualizing poverty as the utilization of income to gain basic material needs cannot be achieved without other capabilities like social, political and economic arrangements such as education, healthcare, political and civil rights⁴². This more representative approach allows evaluations of poverty to be multifaceted and carefully considers handicaps such as age, diversity, social exclusion and illness as these may impede the individual in achieving essential functionings like the conversion of income⁴³. It is necessary to realize a full capability set which enhances a person's choices and thus allows the achievement of freedom⁴⁴. In contrast to the human capital approach, where wealth expansion is the ends of all life activity, this freedom to

³⁹ Shaffer 1996

⁴⁰ Anand & Ravallion 1993

⁴¹ Gasper 2002

⁴² Sen 1999; Banerjee et al. 2006

⁴³ Sen 1999

⁴⁴ Laderchi et al. 2003

live the life one values is both the means and ends of development⁴⁵. Therefore, the reduction of poverty is understood in terms of individuals constructed realities, not by simply increasing household income by means which justify direct economic return as per the human capital approach but poverty is the deprivation of one or more capabilities because without these freedom cannot be attained⁴⁶.

The human development approach encourages a broadening of the informational base on poverty by investigating the deprivation of functionings and capabilities that create freedom in a framework that was generated with developing perspectives at its centre. The broader and multifaceted understanding of poverty that the human development approach advances is underpinned by contextually relevant frameworks, the recognition of diversity throughout the developing world and the incorporation of developing countries inhabitants' constructions of reality through a comprehensive participatory research methodology⁴⁷. The inception of the human development approach has witnessed the increasing use of participatory research methods which allow those experiencing poverty to be involved in conceptualizations of poverty and the proposal of their own interpretations of wellbeing in direct contrast to previous top down approaches⁴⁸. Actors making use of the human development paradigm have to seek the input of developing countries and communities in order to generate contextualized data

⁴⁵ Anand & Ravallion 1993

⁴⁶ Sen 1999

⁴⁷ Shaffer 1996; Chambers 1995

⁴⁸ Shaffer 1996

which reflect individuals' capabilities, interpretations and values they ascribe to in the face of adversities.

The participatory approach is a fundamental element to the human development approach and valuably aids understandings of poverty without imposing rigid dictated beliefs about poverty⁴⁹. The formulation of poverty reduction policies and understandings from a human development perspective therefore rests upon the granting of developing populations the freedom to become involved and shape, to an extent, the informational basis of their own development strategies⁵⁰. Consequently, through the employment of participatory research methods the human development approach has gained a greatly informed understanding of poverty by utilizing the limitless abundance of information that those deprived of basic capabilities have to offer.

The broadening of understandings of poverty and the innovative perspectives gained through extensive participatory research has allowed the field of human development to herald new insights of poverty, which in instances has been at odds with long established development approaches⁵¹. Through the expansion of poverty conceptions in regards to capability deprivation, the human development paradigm has stimulated the production of enlightening results about wellbeing by examining other indicators of poverty and not solely determining

⁴⁹ Shaffer 1996; Streeten 2000

⁵⁰ Gasper 2002

⁵¹ Sen 1999; Sen 2000

poverty through narrow conceptions of economic growth and the purchasing power parity of developing households⁵². Sen concludes that through the human development paradigm a more illuminating picture can be obtained from information on aspects of life which highlights the failures of narrow economic based approaches to development that do not pursue a highly detailed humanist approach when understanding and informing policy on poverty reduction⁵³.

The incorporation of participatory research and the deeper understandings of capability deprivation on an individual level have brought to light evidence that poverty reinforces gender inequalities⁵⁴. The flexible people centred framework of the human development approach allows greater insight of the different obstacles women face in overcoming inequality and delves deeper than previously economically favoured household survey data which did not consider divisions of labour, female consumption levels and the inequality reflected in the distributions of resources⁵⁵. The human development paradigm has successfully pressed the acknowledgment of the devastating human cost of poverty to the forefront of development agendas. The human development approach combines elements of previously dominant and useful approaches with participatory feedback from those living in and experiencing poverty to inform a representative and multifaceted understanding of poverty.

⁵² Banerjee et al. 2006

⁵³ Sen 1999

⁵⁴ Laderchi et al 2003; Shaffer 1996

⁵⁵ Mackie, E. 2012

On the other hand the livestock sector is said to be central to food security, not only for rural smallholder farming households but also for urban consumers, who benefit from affordable high-quality animal-based food. Livestock has been argued to play an important role in food security with most rural households, including the very poor, keeping livestock. The indirect role of livestock in supporting food security through income growth and poverty reduction is said to be crucial to overall development efforts with goat farming emerging as one of the important enterprises for poverty reduction and the improvement of livelihoods for smallholder farming households. The importance of goat farming is increasing as a promising vocation for addressing youth unemployment, enabling equitable profit distribution, ensuring gender equity and social justice, utilization of unused land and the productive use of remittances⁵⁶.

The goat has gained the reputation of being one of the most important livestock commodities for poverty reduction, livelihood enhancement, food and nutritional security in many countries. It is associated with simplicity in maintaining compared to other livestock commodities especially to resource poor farmers. The majority of farmers involved in goat farming are poor, marginalized and subsistent and integrating poor households into growing markets, empowering poor households to benefit from increasing globalization, economic growth and poverty reduction are the main reasons that have been used to promote the Goat Value Chain approach to agricultural development. Some rural households in Zimbabwe are unable to meet

⁵⁶ Food and Agriculture Organisation, 2009

their food requirements and they supplement what they grow with food that they buy with the source of cash often being the sale of livestock. Livestock is therefore an important source of cash with goats representing small discrete bundles of cash that farmers are more willing to part with than cattle. Rural families also need cash for school fees and medical expenses and this shows the direct contribution that goats can make to achieving food security, providing education, and improving human health.

2.2 Poverty in Zimbabwe

The prevalence of poverty among rural Zimbabwean households where agriculture is the dominant livelihood activity has been reported at 76% compared to 38% in urban areas⁵⁷. Despite good rainfall received during the 2013/2014 cropping season, national cereal production per rural household was reported to average 529.5 kilogrammes and for Midlands Province it was 676.6 kilogrammes. This production level did not however meet the average household of 6 persons' cereal requirement of 900 kilogrammes per annum which is based on the per capita cereal requirement of 151 kilogrammes per person meaning that the rest will have to be met through other options such as purchase. While the 2014 Zimbabwe Vulnerability Assessment Committee (ZimVAC) report shows that income levels improved from the previous year (average household monthly income for all rural households for April 2014

⁵⁷ Zimbabwe Vulnerability Assessment Committee Preliminary Report, 2014

was USD 111 up from USD 95 in April 2013, for Midlands province the average income was USD 66 in 2013 and USD 94 in 2014), the income is still low, and limits the capacity of households to invest in farming enterprises and to purchase adequate quantity, quality and variety of nutritious foods.

Key findings from the 2014 Multiple Indicator Cluster Survey (MICS) report show that 11.2% of children were underweight, 27.6% were stunted, 3.3% were wasted, and 3.6% were overweight. National assessments on dietary diversity highlight scope for improvement and a need to increase vegetable and protein consumption. According to the 2013 ZimVAC report, only 13% of the rural population consume food from the four food groups (protein, starch, dairy and fats) and 44% of the households mainly consumed food from two food groups; starch and protein. More recent statistics from the 2014 ZimVAC report show that 52% of the households eat two meals a day and 4% eat one meal a day while 35% of children between 6 and 59 months consume less than three meals a day. The prevalence of diarrhoea was reported as 18% and 19% among children under 5 according to the 2013 and 2014 ZimVAC reports.

Zimbabwe's statistical indicators for health and education were once among the best in Africa but political and economic crisis has brought rising poverty and social decline in its wake. The 2003 Poverty Assessment Study Survey showed a substantial increase in poverty; between 1990

and 2003 the poverty rate rose from 25% to 63%⁵⁸. As in most countries, rural households register a higher poverty rate than urban households. Most farm incomes and production are inadequate and food shortages are rising. Households rely increasingly on remittances and emergency aid. National infrastructure has deteriorated and about 40% of the road network is in poor condition, water and sanitation coverage is very poor, and railway freight traffic has declined by more than half since 1990, effectively isolating rural communities from markets. The prevalence of HIV and AIDS in Zimbabwe has declined, but the rate remains one of the highest in the world. The sharp decline in the country's population growth since the 1980s largely reflects the impact of the epidemic.

There are significant differences in poverty rates among the provinces. Matabeleland North has the highest poverty rate in the country, with 70 per cent of its inhabitants classified as poor or extremely poor⁵⁹. Poverty is also concentrated in the south-eastern provinces of Manicaland and Masvingo, which are among the driest and least productive areas in the country. With the rise in unemployment and consequent male migration away from rural areas, households headed by women are increasingly common. These households are nearly always the most disadvantaged. Other vulnerable groups in rural areas are families with small plots of land, or without irrigation in dry areas, or without access to animals for draught power.

⁵⁸ IFAD

⁵⁹ IFAD

Traditionally Zimbabwe's agriculture sector was dualistic; on the one hand there was the commercial sub-sector comprised of large-scale farms producing cash crops such as tobacco and grain, on the other the small-scale producers who grew food crops, especially maize. This food fed the country and there was even surplus for export to other countries in the region. The government's land reforms dismantled the existing system of land distribution and severely damaged the commercial farming sector, which was an important source of exports and foreign exchange, and which provided employment for about 400,000 people in rural areas⁶⁰. The old system was geared towards large-scale production and the transition to smallholder production has been slow and painful.

The economic crisis of the past decades has prevented substantial capital investment, and new enterprises have been slow to emerge. Agricultural production in general has suffered as a result of weak support services, lack of credit, and acute shortages of essential inputs such as seeds, fertilizer and fuel. In drier areas water scarcity is a major challenge for farmers. Productivity can be improved through investment in agriculture water management, particularly small-scale irrigation and water harvesting. Many smallholders are struggling to continue farming, and only a minority in some areas has been able to establish viable enterprises.

⁶⁰ IFAD

Drought has exacerbated an already difficult situation and has made it harder for farmers in dry areas to raise their productivity. Food insecurity continues to worsen both for urban and rural populations. Zimbabwe has become a net importer of food products and many millions of people are now dependent on food aid. The strained relationship between Zimbabwe and large parts of the international community has also restricted donor engagement in the country. It is estimated that at least 3 million Zimbabweans (over 20% of the population) have left the country since the economic crisis started in the late 1990s. This decline in human resources has also made it more difficult for the country to recover from the ongoing crisis, and has slowed down the delivery of social and public health services. Environmental challenges make farming increasingly difficult, including deforestation, land degradation and soil erosion.

Zimbabwe has become a net importer of food. The decline witnessed in overall national agricultural production can be attributed to adverse weather conditions, land disputes and smallholder farmers being unable to access inputs and credit. The population living below the Total consumption Poverty Line increased from 55% in 1995 to 72% in 2003 with 63% of rural households and 53% of urban households living below the Total consumption Poverty Line. There is feminization of poverty in the country as depicted by the higher prevalence of poverty among female-headed households which stood at 68% in 2003. There are higher levels of

malnutrition among children under 5 years of age as the incidence increased from 13% in 1999 to 17% in 2006⁶¹.

The increased number of people living below the Total Consumption Poverty Line in Zimbabwe, which stood at 72% in 2003, is likely to have since worsened due to the sharp economic decline between 2000 and 2008, which saw the GDP shrink by 40%. Additional factors such as the significant decline in agricultural production during the same period, droughts and inadequate availability of agricultural inputs have combined and accentuated the impact of a declining economy on human welfare. The 2007 MDG Mid-Term Progress Report showed that poor urban households increased from 45% in 1995 to about 61% in 2003, with the number of poor rural households increasing from 57% to 71% during the same period⁶². In addition to the effects of the worsened macro-economic situation, urban poverty was also directly affected by a rapidly shrinking manufacturing sector.

The Human Development Indicator (HDI) and Human Poverty Index (HPI) for Zimbabwe show significant declines. The indicators worsened between 1995 and 2009: the HPI fell from 24% in 1995 to 40.3% in 2005, but rose to 34% in 2009. The HDI fell from 0.654 in 1990 to 0.613 in 1995, to 0.541 in 2000, and to 0.513 in 2005. The rate of structural unemployment in Zimbabwe was 63% in 2003. Structural unemployment that same year was higher amongst females (70%)

⁶¹ UNDP

⁶² UNDP

than a male (56%) because of the latter's dominance in the agriculture sector and the informal economy. Rural areas had a higher structural unemployment rate (62%) than urban areas (35%).

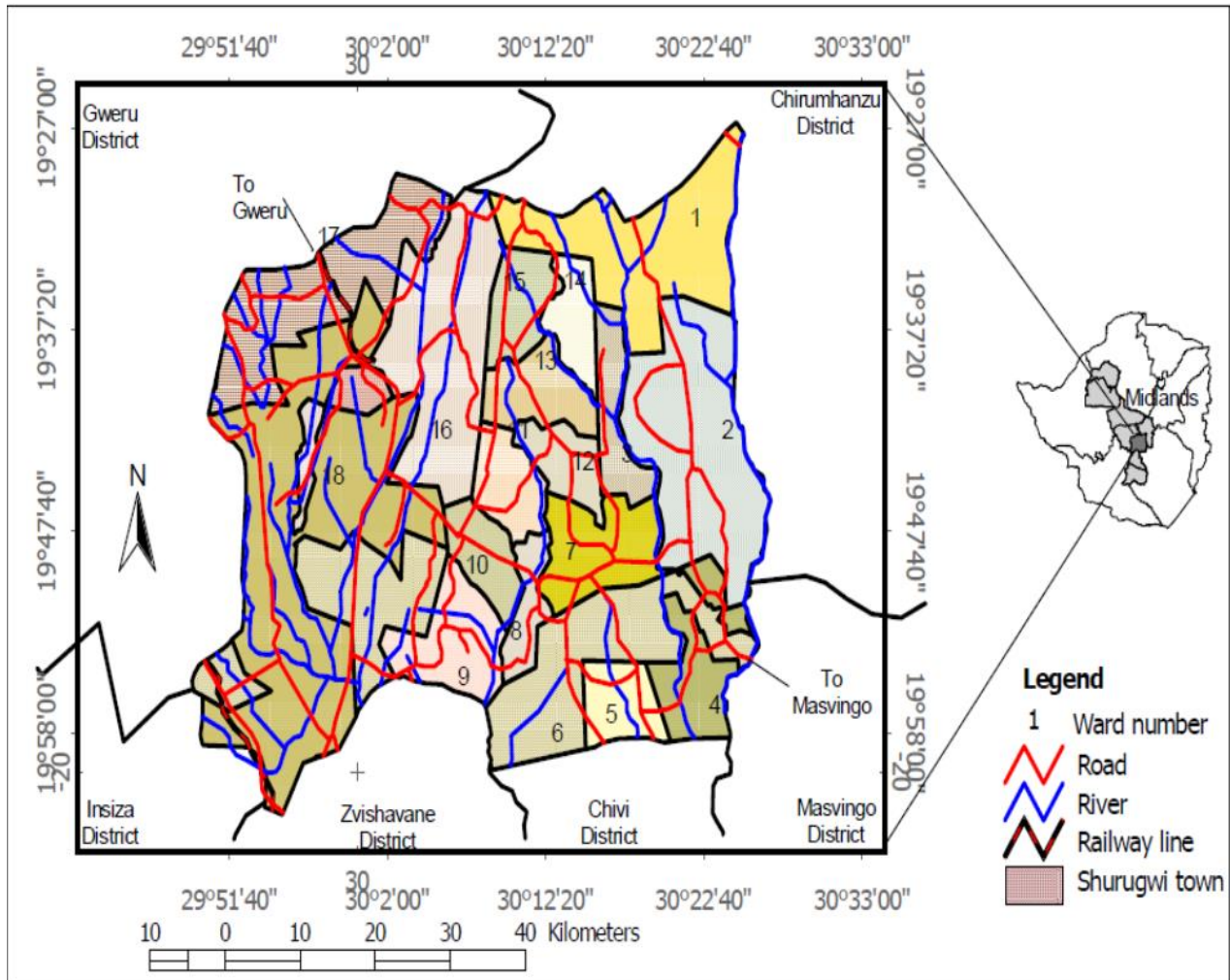
The national economy has lost its competitive edge and the ongoing investment climate has not been conducive to attracting new capital and investment. Additional external shocks and other vulnerabilities in the form of the food and fuel crises experienced during 2007 and 2008, as well as the 2009 financial and economic crisis and the impact of periodic droughts and floods, further increased this economic vulnerability. Following independence in 1980, Zimbabwe gave priority to human resource investments and support for smallholder agriculture. Smallholder agriculture expanded rapidly during the first half of the 1980s owing to improved technologies, increased land availability, and better government services and prices.

However, this success was not matched by inclusive economic growth which has failed to keep pace with population growth, and hence expectations for rising living standards have only partially been fulfilled. Employment growth has not been adequate to absorb the number of new entrants to the workforce. Moreover, the earlier gains in smallholder agriculture have not been sustained. The overwhelming majority of Zimbabwe's poor live in semi-arid communal and resettlement areas, but there has been very little economic growth in these areas since the mid-1980s. Even existing levels of production are now threatened by the environmental fragility of the natural resource base and the unsustainability of existing farming practices. Meanwhile,

population growth has continued at about 3 percent per annum. The lack of growth in small-scale agriculture and the slow growth in employment suggest that the improvement in social indicators has not been matched by a commensurate increase in the incomes of the poor.

Zimbabwe has experienced improved economic growth rates in the past three years, however, this has not translated to growth in productive employment and hence poverty reduction. This is likely due to weak connections between the growth sectors and other sectors of the economy. Individual poverty prevalence is 84.3% in rural areas compared to 46.5% in urban areas, while extreme poverty is 30.3% in rural areas compared to only 5.6% in urban areas. The decline in formal employment, with many workers engaged in poorly remunerated informal jobs, has a direct bearing on both poverty and hunger. In 2011, 94% of paid employees received an income equal to or below the total consumption poverty line (TCPL) for an average family of five, while three out of every four employed persons in Zimbabwe are classified as 'vulnerable employment'. The percentage of food-insecure rural households at peak (January to March) declined steadily following the onset of economic recovery from 15% in 2010–2011 to 12% in 2011–2012. However, due to a poor rainy season, the percentage of food-insecure rural households is projected to rise sharply, up to 32% for the period in 2013–2014, reflecting Zimbabwe's reliance on rain-fed agriculture.

2.3 The Study Area: Shurugwi District



Source: Ministry of Lands, 2004.

A baseline study was conducted by the Food and Agriculture Organisation, German Agro Action, Community Technology Development Organisation, Heifer International, We Effect and ICRISAT funded by the Department for International Development; in March 2015 covering selected wards of Gokwe South, Kwekwe and Shurugwi districts. A number of tools were used to gather information and these included focus group discussions and meetings with various stakeholders. Key informant interviews were also used and household information was obtained by conducting household interviews based on a structured questionnaire.

Some key findings from the study indicate that men and women farmers practise crop and livestock production mainly for food security and income generation. Livestock ownership is also a symbol of household wealth status. Agricultural activities contribute more than half of the total annual income for low income households earning with an annual cash income of less than \$750. Adult farming household members, mostly women, provide most of the production labour. However, the difference between the number of men and women household members providing full time labour is small. The study also found that female-headed households are more vulnerable to poverty than those headed by their male counterparts. Agriculture is dependent on rainfall and the economy of the district is susceptible to weather or climate variations such as droughts.

The region lies along the Great Dyke which has a high concentration of minerals such as gold, chrome, the platinum group of metals and asbestos with much of the rural communities made

up of poor sandy soils which support subsistence agriculture. Cattle are kept as a store of wealth and sold when there is need for cash in the household. Prior to the introduction of goat value chain interventions in the district by development agencies such as Heifer International, the district was in a dire situation due to persistent droughts that had drastically affected crop and livestock production resulting in a high rate of malnutrition among vulnerable groups of children under the age of five years, the chronically ill and the elderly. The majority of households were female headed as husbands tended to look for work in towns leaving mothers and the elderly looking after children and grandchildren, tending to crops and livestock.

In the just ended 2014/2015 cropping season, less than 20% of households had planted more than four crops⁶³. Decisions on which crop to be grown are made by both men and women members of the household. Maize yields for female headed households were found to be 10% lower than those of their male counterparts with more than 98 % of the sampled farming households aware of climate resilient crop management technologies, despite the fact that only 28 % are using them⁶⁴. 89.9% of the sampled farming households used animal draft power for land preparation. Land control is centred on land use, selection and allocation of crops to designated plots. In male headed households, land is controlled by both men and women, while in female headed household it is controlled by women and according to the Zimbabwe Vulnerability Assessment Committee's 2013 report, casual labour was the most common source

⁶³ EXTRA Project Baseline Report: 2015

⁶⁴ EXTRA Project Baseline Report: 2015

of income in the district followed by crop production sales and remittances. The prevalence of poverty in the district was estimated at 63% with 16% estimated to be in extreme poverty⁶⁵.

2.4 Statement of the Problem

How can poverty be best addressed is the central question that development actors have to grapple with and a commitment to tackling poverty has made the search for answers even more urgent. The majority of the poor rely on the agriculture sector and development actors look to this sector to provide solutions to the issues of chronic poverty, food insecurity, and malnutrition. Zimbabwe is currently facing a year of food insecurity following a poor harvest season. Based on extrapolations of the Zimbabwe Vulnerability Assessment Committee's results of 2015, approximately 1.5 million Zimbabweans are likely to be unable to meet their food needs during the 2015/2016 hunger season. This represents a rise of 160% compared to those facing food insecurity during the 2014/2015 hunger season⁶⁶. Drought has impacted the entire country and the lean season has commenced earlier than usual in a context of already high levels of chronic vulnerability. High proportions of households are likely to be affected by food insecurity which has predominantly resulted from a loss of production, mainly due to prolonged dry spells of over 60 days particularly in the southern and south-eastern parts of the country.

⁶⁵ ZIMVAC, 2014

⁶⁶ Zimbabwe Food Security Report: 2015

Hunger and poverty have been a persistent problem in the country and Shurugwi district is no exception. Despite years of work, the development indicators relating to the district often disappoint. For example, some of the highest incidences of undernourishment in the country occur in Shurugwi district where one out of every three people suffers from chronic hunger⁶⁷. Per capita food consumption in the district is on the decline and the number of the rural poor is on the rise.

Several projects aimed at alleviating or reducing poverty through goat farming have been implemented in various regions of the country including Shurugwi district by various development agencies. Mobilization of community groups and cooperatives, capacity building of goat farming groups, development of community based goat resource centers, utilization of indigenous goat genetic resources, introduction and evaluation of promising breeds are some of the strategies that have been adopted for goat development in the country with anticipated outcomes being the fulfillment of internal demand, commercialization, livelihood enhancement and economic development.

In light of all of these efforts and resources that have been spent to date, this study sought to explore the extent to which goat value chain interventions, within the area of study, have been effective in reducing poverty. Given the potential direct and indirect benefits of owning livestock and given that more than 85% of farming households own small livestock, this study

⁶⁷ ZIMVAC, 2013

sought out to explore why goat production has not made any significant impact in reducing poverty levels or improving food security in the area of study. The study sought to find out what the development community as well as government can do to make this intervention more effective in reducing poverty while enhancing its contribution towards food and nutritional security as well as social welfare.

The study was triggered by the need to have a clearer understanding of how effective development interventions that have been promoted by development agencies such as the Goat Value Chain have been at actually reducing poverty. Productivity in the smallholder farming sector of Zimbabwe varies among districts but is generally described as low because of biophysical and socio-economic challenges. Biophysical challenges include unreliable rainfall patterns, low and declining soil fertility, soil erosion, and pest and disease prevalence. Socio-economic challenges include input access, poor physical infrastructure, labour shortages, credit unavailability, poor extension services and poor access to output markets⁶⁸.

Concerning extension, public services are severely constrained by lack of resources with 95% of the current budget for agriculture covering salaries leaving very little for other activities. It is also estimated that 80% of the skilled personnel left the sector over the last decade⁶⁹. By addressing these key challenges and strengthening the extension system interventions can

⁶⁸ World Bank, 2007

⁶⁹Mandizadza, 2010

achieve improved food, income and nutrition security among smallholder farming households and their communities. Interventions can deliver this by supporting women and men farmers so that they improve farming practices and increase production in a wider range of commodities, and have improved and viable linkages to markets and a more nutritious diet.

3. Study Methodology and Approach

The study was conducted in Shurugwi district's Ward 9 and consisted of three main stages – (1) the preparatory stage (2) data collection and research and (3) the write up stage. The study applied qualitative research methods for obtaining information and both primary and secondary sources were used in the collection of data. The study adopted an approach that included review of available data, information, statistics and reports, collection of primary data and qualitative analysis of both primary and secondary data for drawing inferences, using the value-chain framework.

The preparatory phase involved design and development of data collection tools and research guidelines, and desk research. The desk research involved an examination of readily available materials on the Goat Value Chain, the market and the business environment in which it operates, as well as to identify sources for additional information. Information such as statistics on exports/imports and production figures was gathered from the internet and from documents shared by development agencies such as Heifer International and the Food and Agriculture Organisation among others.

At the data collection stage, interests of development agencies with the Goat Value Chain as a poverty reduction strategy shaped the research questions, design, sampling process and

identification of some primary sources of information. In order to mount an effective qualitative data collection process, the key actors in the Goat Value Chain were identified and mapped, and the type of information to be sought from each determined. Data collection was achieved through semi-structured questionnaires with smallholder farming households. The key respondents/discussants included local government technical officers, goat producers and service providers. The semi-structured questionnaire is presented as an attachment.

The development of the analytical sections of the report involved detailed data evaluation. A preliminary report was prepared soon after the field work and submitted for review and feedback.

3.1 Research Design

The research was designed as a cross sectional assessment of households that directly benefitted from Goat Value Chain interventions that were rolled out by Heifer International within the area of study while comparing and juxtaposing them to those that did not directly benefit from Goat Value Chain interventions. The research surveyed beneficiaries of Goat Value Chain interventions and none beneficiaries to provide a basis for comparison and was informed by the qualitative research paradigm. It was designed to answer the following set of questions;

1. Access the extent to which goat farming contributes towards smallholder farming household's livelihood strategies
2. Assess to what extent the goat value chain represents an effective pathway out of poverty for smallholder farmers
3. To what extent smallholder goat production enables equitable profit distribution among various goat enterprises; ensure gender equity and social justice and the utilization of land by smallholder farmers in the targeted research study areas?
4. Given the potential direct and indirect benefits of owning livestock and given that more than 85% of farming households have small stock, why has goat production not made any significant impact in reducing poverty levels or improving food security?

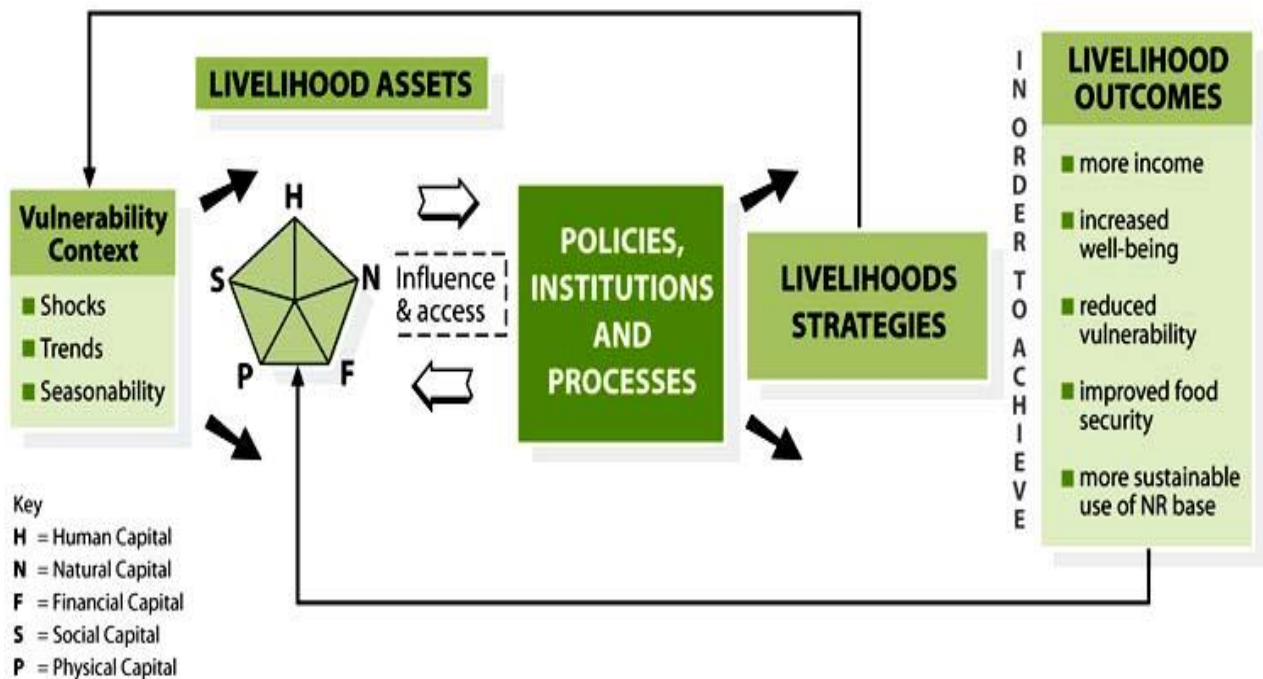
3.2 Limitations of the Study

During the course of the study, a number of challenges were encountered, and these included the following:

- i. The absence of farm recordings at household level, this gave rise to respondents giving an instantaneous estimate in responding to questions on production and consumption. As no formal recorded information was available on inputs, production and sales, figures agreed were estimates.

- ii. The findings are not necessarily representative and are specific to the study area. Though trends may apply, the information is not representative of all Goat Value Chain projects

3.3 Conceptual Framework: The Sustainable Livelihoods Approach



Source: Food and Agriculture Organisation

Livelihoods perspectives are central to discussions of rural development as they have offered a way of integrating sectoral concerns and rooting development in the specifics of different

settings, centred on understandings of what people do to make a living in diverse circumstances and differentiated social contexts. This perspective has contributed to a major change in aid programming and funding approaches and many agencies adopted various forms of a sustainable livelihoods approach. Underlying arguments of livelihoods analyses are relevant as they are an essential lens on questions of rural development, poverty and wellbeing, but need to be situated in a better understanding of the political economy of agrarian change.

The sustainable livelihoods framework is not intended to depict reality in any specific setting. It is, rather, intended as an analytical structure for coming to grips with the complexity of livelihoods, understanding influences on poverty and identifying where interventions can best be made. The assumption is that people pursue a range of livelihood outcomes (health, income, reduced vulnerability, etc.) by drawing on a range of assets to pursue a variety of activities. The activities they adopt and the way they reinvest in asset-building are driven in part by their own preferences and priorities. However, they are also influenced by the types of vulnerability, including shocks (such as drought), overall trends (in, for instance, resource stocks) and seasonal variations. Options are also determined by the structures (such as the roles of government or of the private sector) and processes (such as institutional, policy and cultural factors) which people face. In aggregate, their conditions determine their access to assets and

livelihood opportunities, and the way in which these can be converted into outcomes. In this way, poverty, and the opportunities to escape from it, depends on all of the above⁷⁰.

The framework identifies five types of capital asset which people can build up and/or draw upon: human, natural, financial, social and physical. These assets constitute livelihood building blocks. To a limited extent they can be substituted for each other. Thus, the poor may draw on social capital such as family or neighbourhood security mechanisms at times when financial capital is in short supply. Within this context, people are likely to pursue multiple activities and outcomes. They may, for instance, depend on their own farming, on selling their labour locally, or on migration, all within the same year. Outcomes will not be simply monetary, or even tangible in all cases. They may include, for instance, a sense of being empowered to make wider, or clearer, choices⁷¹.

Just as poverty is a dynamic process, with largely unpredictable changes in context, constraints and opportunities, so also are household strategies and activities. For instance, a household's long-term strategy may be to reduce its vulnerability to drought, and reducing rainwater run-off from farmland may be one set of activities within this strategy. However, some of the necessary labour may be diverted in response to new migration opportunities, or some of the capital

⁷⁰ Farrington et al, 1999

⁷¹ Farrington et al, 1999

needed may be diverted to respond to a medical crisis. In practice, the approach is therefore essentially concerned with the dynamic and, at times, iterative nature of livelihood strategies⁷².

Core concepts are flexible in application, but based on certain core principles. The livelihoods approach puts people at the centre of development. This is equally important at macro levels as it is at the micro or community level. This means that practical applications of concepts start with an analysis of people's livelihoods and how these have been changing over time; fully involve people and support them in achieving their own livelihood goals; focus on the impact of different policy and institutional arrangements on people's livelihoods; and, seek to influence these arrangements so they promote the agenda of the poor⁷³.

Holism concepts allow the identification of livelihood-related opportunities and constraints regardless of where these occur: it is non-sectoral and applicable across social groups; it recognizes multiple influences on people, and seeks to understand the relationships between these influences; it recognizes multiple actors (from the private sector to national ministries, from community-based organisations to newly emerging decentralized government bodies); it acknowledges the multiple livelihood strategies that people adopt to secure their livelihoods; it seeks to achieve multiple livelihood outcomes, to be determined and negotiated by people

⁷²Farrington et al, 1999

⁷³ Farrington et al, 1999

themselves⁷⁴. Ideas of where external interventions can best be made are formed holistically. But by contrast, the implementation of these need not be multi-sectoral: sustainable livelihoods approaches recognize that support can best be initiated in response to particular opportunities or needs, even within sub-sectors or within small areas, and then gradually expanded.

People's assets and aspirations form one pillar of the approach, and efforts to gather information on these – for instance, through participatory poverty assessments – are necessarily micro in orientation. However, many factors that affect livelihoods have distinctly macro characteristics. For instance, natural capital may be threatened by flash-flooding, which will be influenced by the design and implementation of policies to prevent deforestation further upstream; access to financial capital will be influenced by policies towards credit and the rural banking sector more generally; vulnerability may increase or decrease depending on, for instance, on how well emergency feeding and employment schemes are designed and implemented. Thorough sustainable livelihoods analyses seek to understand what such policies are, why they operate well or poorly in practice, and then to identify how the structures and processes through which they function can be improved⁷⁵.

⁷⁴ Farrington et al, 1999

⁷⁵ Farrington et al, 1999

Following the strong advocacy for sustainable livelihoods approaches in development from the 1990s by Chambers and Conway (1992) and later Scoones (1998), Carney (1998, 2002), Ashley and Carney (1999), many development agencies started to embrace livelihoods approaches as central to their programming⁷⁶. The sustainable livelihoods approach is a broad, multidisciplinary approach that aims to promote a better understanding of and response to the multiple dimensions of poverty. When taking shape in the 1990s, the underlying ideas of the approach were not new, but built from and combined ongoing development trends with concepts borrowed mainly from the fields of economics and ecology. These included Amartya Sen's capitals and capability framework and concepts from economics with regard to economic growth and development⁷⁷.

The sustainable livelihoods approach also incorporated the ecological system concepts of sensitivity and resilience, referring to the degree to which a livelihood system reacts to shocks or other types of stress (its sensitivity) and how well it can bounce back and recover from such shocks (its resilience). The sustainable livelihoods approach's vulnerability context relates to the concepts of sensitivity and resilience which are incorporated as factors related to poverty⁷⁸. The approach is generally considered to be a best practice interpreted and used in different ways. It was not designed to be prescriptive but to provide tools for holistic analysis and response⁷⁹.

⁷⁶ Scoones, I. 2009

⁷⁷ Allison and Horemans, 2006

⁷⁸ Allison and Horemans, 2006

⁷⁹ Kebe and Muir

After decades of only limited success in alleviating poverty, by the 1990s development workers and cooperation agencies started to rethink their strategies for working with rural communities. Building on research and experience, this approach emerged, putting people in clearer focus and emphasizing the need to work closely with rural communities to support them in building on their existing strengths to improve their lives in a sustainable manner. The many different dimensions of poverty were recognized as well as the impact of external shocks and trends, and the importance of the political and institutional environment and processes.

The concept of livelihoods, at individual, household and community level could be seen not just in terms of economic output and earnings, but in a broader sense of human capability, self-realization and empowerment. These shifts in perception lead to a recognition that, to achieve poverty alleviation, a participative, flexible and holistic approach for building sustainable livelihoods is needed⁸⁰. The sustainable livelihoods approach has subsequently become prominent in development programmes aimed at reducing poverty in rural communities and different forms of the approach have been widely used across sectors. The approach is a way to improve understanding of the livelihoods of poor people and offers a unique starting point for an integrated analysis of complex, highly dynamic rural contexts⁸¹.

⁸⁰ Kebe and Muir

⁸¹ Scoones, I. 1998

Drawing on diverse disciplinary perspectives and cutting across sectoral boundaries, livelihoods perspectives provide an essential counter to the monovalent approaches that have dominated development enquiry and practice. With more complexity, more diversity and more uncertainty about possible rural futures such an embedded approach is, according to Scoones essential.

This approach draws on the main factors that affect poor people's livelihoods and the typical relationships between these factors. It has been used in planning new development activities and in assessing the contribution that existing activities have made to sustaining livelihoods.

Two key components of the approach are:

- a *framework* that helps in understanding the complexities of poverty
- a set of *principles* to guide action to address and overcome poverty

The approach places people, particularly rural poor people, at the centre of a web of inter-related influences that affect how they create a livelihood for themselves and their households. Closest to the people at the centre of the framework are the resources and livelihood assets that they have access to and use which can include natural resources, technologies, skills, knowledge and capacity, their health, access to education, sources of credit, or networks of social support. The extent of their access to these assets is strongly influenced by their vulnerability context, which takes account of trends (such as economic, political, and technological), shocks (such as epidemics, natural disasters, civil strife) and seasonality (for example, prices, production, and employment opportunities). Access is also influenced by the

prevailing social, institutional and political environment, which affects the way in which people combine and use their assets to achieve their goals.

The sustainable livelihoods approach is used to identify the main constraints and opportunities faced by poor people, as expressed by them. It builds on these definitions, and then supports poor people as they address the constraints, or take advantage of opportunities. The framework is neither a model that aims to incorporate all the key elements of people's livelihoods, nor a universal solution. Rather, it is a means of stimulating thought and analysis, and it needs to be adapted and elaborated depending on the situation⁸². The approach has seven guiding principles which do not prescribe solutions or dictate methods but are rather flexible and adaptable to diverse local conditions. The guiding principles are:

- *People-centred*. The approach begins by analyzing people's livelihoods and how they change over time. The people themselves actively participate throughout the project cycle.
- *Be holistic*. The approach acknowledges that people adopt many strategies to secure their livelihoods, and that many actors are involved; for example the private sector, ministries, community-based organizations and international organizations.
- *Be dynamic*. The approach seeks to understand the dynamic nature of livelihoods and what influences them.

⁸² IFAD

- *Build on strengths.* The approach builds on people's perceived strengths and opportunities rather than focusing on their problems and needs. It supports existing livelihood strategies.
- *Promote micro-macro links.* The approach examines the influence of policies and institutions on livelihood options and highlights the need for policies to be informed by insights from the local level and by the priorities of the poor.
- *Encourage broad partnerships.* The approach relies on broad partnerships drawing on both the public and private sectors.
- *Aim for sustainability.* Sustainability is important if poverty reduction is to be lasting.

The framework does not work in a linear manner and does not attempt to provide an exact representation of reality. It rather seeks to provide a way of thinking about the livelihoods of poor people that will stimulate debate and reflection about the many factors that affect livelihoods, the way they interact and their relative importance within a particular setting. This should help in identifying more effective ways to support livelihoods and reduce poverty⁸³. The approach was in sync with wider shifts in approaches to development through the 1980s and 1990s; towards a focus on human-wellbeing and sustainability rather than economic growth. Its core commitment is to refocus development efforts towards the elimination of poverty and it encourages economic growth that benefits the poor through sustainable development targets

⁸³ IFAD

and policies that create sustainable livelihoods for poor people that promote human development while conserving the environment.

Scoones (1998) identified five assets or types of capital namely; natural-, human-, financial-, physical-, and social-capital that people rely on for their success. The five forms of capital do not share the same characteristics. Natural capital refers to the biophysical elements such as water, air, soils, sunshine, woodlands, minerals, etc. These are naturally occurring assets that are largely renewable. Human capital is perhaps the most important factor⁸⁴. It is the people who are both the object and subject of development. Financial capital is the medium of exchange and therefore central to the functioning of a market economy. Its availability is thus critical to the successful utilization of the other factors/assets. Not to be confused with natural capital, which is all physical, physical capital refers to man-made assets such as housing, roads, and other forms of physical or hard capital making up the built environment.

The approach has been widely deployed as a guiding principle for rural development practice in the past years. The sustainable livelihoods approach is firmly rooted in multidisciplinary sectors, which is why it has been applicable in multiple geographical regions and sectors. In addition to improving understanding of livelihoods, the framework has been used in planning new development activities and assessing the sustainability of existing activities⁸⁵. The approach

⁸⁴ Chivaura and Mararike, 1998

⁸⁵ DFID, 1999

encourages consideration of links between local issues, meso-level processes and wider concerns. It involves working in partnership with other stakeholders in the public and private sectors, and promotes a dynamic, adaptive and learning process that builds on strengths. Although development aims to reduce incidences of low incomes, poor health, lack of education, food insecurity, social exclusion, or vulnerability, the approach encourages ways of tackling these problems that make the most of peoples' existing capacities, and so potentially result in better and more effective development impact⁸⁶.

The sustainable livelihoods approach takes a broad view of sustainability and views economic, institutional, social and environmental dimensions as all contributing to sustainability. The approach makes these dimensions explicit and recognizes the dynamics of people's lives. Sustainability is viewed not in static, equilibrium terms but as the capacity of elements of a livelihood system to withstand shocks and adapt to change. The framework can help to clarify the relationship between assets and activities at individual, household and community level and the interacting social, economic and policy conditions that affect them, while guiding the consideration of short and longer term dynamic issues which affect livelihoods.

The framework can help to locate entry points for development interventions of various kinds, aimed at building capital assets, reducing vulnerability and enabling resource access. In development practice, it is often used as a process tool to enable participants in development

⁸⁶ Kebe and Muir

programmes who come from different sectors to work together with communities to identify key constraints and opportunities for development interventions. The framework draws attention to core influences and processes and emphasizes the multiple interactions between the various factors that affect livelihoods⁸⁷.

3.4 Sampling Frame, Size & Technique

Purposive sampling techniques were used which are described as non-probability sampling techniques. The sample chosen was targeted from a specified group, which in the context of the study were the Goat Value Chain project beneficiaries and non-beneficiaries. A total of 47 respondents were selected from Ward 9 with the assistance of the Ward Councillor who was briefed of the intended study, its aims and objectives as well as the characteristics of the required respondents. Respondents were then selected from a total of 18 villages in the ward and these were categorised into Goat Value Chain project beneficiaries and non-beneficiaries. The Ward Councillor's Assistant helped with mobilising respondents. The initial targeted total respondents were 70, but due to time and resource limitations only 47 were ultimately interviewed.

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Of the 47 respondents that were interviewed, 24 of these were non-project beneficiaries and 24 had benefitted from the Goat Value Chain project that Heifer International implemented in the ward. 66% (31) of the respondents were females whilst 34% (16) were males. Out of the 24 respondents from the non-beneficiary group, 15 (63%) were females while the remaining 9 (37%) were males whilst out the 23 respondents from the beneficiary group, 16 (70%) were females with the remaining 7 (30%) were males. Respondent's ages ranged from 19 to 70 years.

The sampling frame was drawn from farmers residing in Shurugwi district's ward 9. Purposive sampling was used and interviewees were drawn from the following villages in ward 9;

1. Gonye
2. Madera
3. Muposhi 2
4. Gwaunza
5. Mawarire
6. Chimwanda
7. Mukaratigwa
8. Mapani
9. Makanga
10. Marihoho
11. Gombingo

12. Maroora
13. Munyaka
14. Chandigere
15. Makanya
16. Matindi
17. Urayayi
18. Mudanga

3.5 Data Collection Methods

A structured questionnaire was administered to a set of two groups, one comprising of beneficiaries of the Goat Value Chain project that Heifer International implemented in Ward 9 and another of non-project beneficiaries using the same questionnaire for comparative analysis purposes. Data collection started with initial desk research and ended with targeted interviews. Secondary sources of data included official Heifer International and other development agencies reports, policy documents, publications, research papers and literature texts. Furthermore, the internet was exploited as another major source of information. Ethical considerations were of paramount importance. Therefore, respect was paid to social norms, culture, participant's concerns and questions. The language barrier was resolved by use of the

native Shona language in data collection and authority to reach informants was properly negotiated with the gatekeepers.

The structured questionnaire was administered to all sampled men and women farming households and the following issues were captured

- Demographic and characteristics of farming household heads and related household compositions
- Sources of farming and market information
- Field production and utilisation of resources
- Livestock production,
- Livelihood strategies and assessment of wealth,
- Access to credit and financial resources,
- Networks, mass organisation and social capital,
- Market Information and use agricultural inputs, and
- Land sizes, adequacy and utilisation
- Levels of education
- Livestock production challenges.

3.6 Advantages and Disadvantages of Research Methods Used

Qualitative research is a term that pertains to investigative methodologies and techniques described as naturalistic, ethnographic, field, anthropological or observer research. This type of research gives emphasis on the value of looking at variables in their natural setting. Data is collected by open-ended questions and the interviewer plays a vital role in the investigation.

Qualitative research is used in different fields or areas of disciplines. Qualitative data provides a rich, detailed picture that is built upon the reasons why people and/or agencies and systems act or perform in certain ways. However, it is important to be aware of the advantages and disadvantages of qualitative data analysis as this may influence the outcome of the research.

Qualitative research provides depth and detail; it looks deeper, analyzing ranks and recording attitudes, feelings and behaviours. It creates openness encouraging people to expand on their responses which can open up new areas not initially considered. It simulates people's individual experiences; a detailed picture can be built up about why people act in certain ways and their feelings about these actions. Interviews are not limited to particular questions and can be redirected or guided by researchers in real time.

The direction and framework of research can be revised quickly as soon as fresh information and findings emerge. The data in qualitative research depends on human experience and this is more compelling and powerful than data gathered through quantitative research. With this

type of research, the researcher has a clear vision on what to expect. They collect data in a genuine effort of plugging data to bigger picture. Qualitative research makes it easy for the researcher to gain a clearer understanding and with a clearer understanding; researchers can reach out to people even more. Since this type requires smaller scales, low cost is therefore another advantage.

The disadvantages of qualitative research are that usually fewer people are studied and collection of qualitative data is generally more time consuming than quantitative data collection and therefore unless time, staff and budget allows it is generally necessary to include a smaller sample size. Because fewer people are generally studied it is less easy to generalize the results to that of the population. It is difficult to make systematic comparisons: for example, if people give widely differing responses that are highly subjective. It is dependent on skills of the researcher: particularly in the case of conducting interviews, focus group discussions and observations.

The advantages of using semi-structured interviews are that a large amount of detail is generated; it is fairly flexible and sensitive; fairly reliable and easy to analyze. The disadvantages are that the researcher can't guarantee honesty of participants; cause and effect cannot be inferred; flexibility of interview may lessen reliability; open-ended questions are difficult to analyze and lastly it is difficult to compare answers.

The first advantage of using secondary data is saving of time⁸⁸. In the Internet Era, this fact is more than evident since in the past, secondary data collection used to require many hours of tracking libraries, the new technology has revolutionized this. The process has been simplified. Precise information may be obtained via search engines. The second one is accessibility. In the past, secondary data was often confined to libraries or particular institutions. The Internet has especially been revolutionary in this sense. Having a internet connection is frequently the only requirement to access. A simple click is sometimes more than enough to obtain vast amount of information. The problem, nevertheless, is now being able to see whether the data is valid.

Thirdly, strongly connected to the previous advantages is the saving of money⁸⁹. In general, it is much less expensive than other ways of collecting data. One may analyze larger data sets like those collected by government surveys with no additional cost. The fourth advantage is the feasibility of both longitudinal and international comparative studies. Continuous or regular surveys such as government censuses or official registers are especially good for such research purposes. The fact that they are being performed on a regular or continuous basis allow researchers to analyze the evolution of, to give an example, per capita income from 2000 to 2012. Censuses and other government studies tend to unify criteria all over the world or, at least, within certain geographical areas or among certain international organizations members.

⁸⁸ Ghauri, 2005

⁸⁹ Ghauri, 2005

Another advantage of using secondary data is generating new insights from previous analyses. Reanalyzing data can also lead to unexpected new discoveries. One can analyze the data and come up with new relevant conclusions or simply verify and confirm previous results.

Disadvantages include the inappropriateness of the data. Secondary data sources may provide vast amounts of information, but quantity is not synonymous with appropriateness. This is simply because it may have been collected to answer a different research question or objectives. The inappropriateness may be, for instance, because the data was collected many years ago or because the information refers to a different context. There are two possible ways to be used to eliminate the inappropriateness of secondary data 1) answering your research question partially with the subsequent lack of validity; 2) finding an alternative technique of data collection, such as survey or interviews. Lack of control over data quality is another disadvantage as government and other official institutions are often a guarantee of quality data, but it is not always the case and for this reason, quality of data must be verified.

3.7 Attempts to Avoid Bias

Research bias, also called experimenter bias, is a process where the scientists performing the research influence the results, in order to portray a certain outcome. Bias can occur in the planning, data collection, analysis, and publication phases of research. Understanding research

bias allows readers to critically and independently review the scientific literature and avoid treatments which are suboptimal or potentially harmful. A thorough understanding of bias and how it affects study results is essential. Some bias in research arises from experimental error and the failures to take into account all of the possible variables. Other bias arises when researchers select subjects that are more likely to generate the desired results. Bias is the one factor that makes qualitative research much more dependent upon experience and judgment than quantitative research.

The researcher accepts and acknowledges the bias that might have existed in the execution of this research as it is far easier to become attached to a certain viewpoint, jeopardizing impartiality. The main point to remember with bias is that, in many disciplines, it is unavoidable. The research design process involved understanding the inherent biases and minimizing the effects. Whereas in quantitative research, the researcher tries to eliminate bias completely, in qualitative research, it is all about understanding that it will happen⁹⁰.

Some bias is inevitable, and this researcher understands this, and tried his best to lessen the impact, or take it into account. Sampling bias occurs when the process of sampling actually introduces an inherent bias into the study. There are two types of sampling bias, based around those samples that are omitted, and those that are included. Omission bias is often unavoidable, so the researcher incorporated and accounted for this bias in the research design.

⁹⁰ Shuttleworth, 2009

Inclusive bias occurs when samples are selected for convenience. This type of bias is often a result of convenience where, for example, respondents are the only group available, and they tend to fit a narrow demographic range. There is no problem with it, as long as researchers are aware that they cannot extrapolate the results to fit the entire population. Procedural bias is where an unfair amount of pressure is applied to the subjects, forcing them to complete their responses quickly and this bias was avoided. In qualitative research, the scope for bias is wider and much more subtle, and the researcher must be constantly aware of the problems. Subjects are often extremely reluctant to give socially unacceptable answers, for fear of being judged. This can skew the results, and is one reason why the researcher used a combination of methods in order to minimize bias.

Performing the research usually has an effect on the behavior of the sample groups. This is unavoidable, and the researcher attempted to assess the potential effect. With interviewer bias, the interviewer may subconsciously give subtle clues with body language, or tone of voice, that subtly influence the subject into giving answers skewed towards the interviewer's own opinions, prejudices and values. The research design factored this into account to eliminate the worst effects. Conversely, response bias is a type of bias where the subject consciously, or subconsciously, gives response that they think that the interviewer wants to hear. The subject may also believe that they understand the study and are aware of the expected findings, so adapt their responses to suit. Again, this type of bias was factored into the design.

Reporting Bias is where an error is made in the way that the results are disseminated in the literature. The main source of this type of bias arises because positive research findings tend to be reported much more often. Increasingly, researchers try to publicize favorable findings as authors of several studies have recently been shown to have manipulated data. Use of qualitative research methods usually results in subtle and inadvertent bias that skews the conclusions of studies. In order to avoid this bias, a blind analysis was used where the findings were reported objectively and impartial without any manipulation of data. Use of a blind analysis helps the researcher to shift his or her hidden values and interests.

3.8 Research Ethics Considerations

This study adhered to important research ethical norms. Norms were upheld that promoted the aims of research, such as knowledge, truth, and avoidance of error. Ethical standards that promote the values that are essential to collaborative work, such as trust, accountability, mutual respect, and fairness were upheld at all times. The research adhered to policies and laws on research conduct and informed consent were sought at all times during the data collection and use phases. This research strived for honesty in all communications and the researcher honestly reported data, results, methods and procedures. The researcher strived to avoid bias in research design and in data analysis, data interpretation, review and other aspects

of the research where objectivity was expected or required. The researcher avoided or minimized bias or self-deception and disclosed interests that could have affected the research.

The researcher adhered to agreements; acted with sincerity; strived for consistency of thought and action. The researcher carefully and critically examined work, kept good records of research activities, such as data collection, research design and correspondences. The researcher was open to criticism and new ideas and honored patents, copyrights, and other forms of intellectual property. The researcher protected confidential communications and records obtained during the research and undertook this study to advance research and knowledge of agricultural value chains for poverty reduction in Zimbabwe. The researcher respected the research participants and treated them fairly, striving to promote social good and prevent or mitigate social harm. The researcher avoided discrimination on the basis of sex, race, ethnicity, or other factors that are not related to their scientific competence and integrity. The research avoided physical harm; respected human dignity, privacy, and autonomy; took special precautions with vulnerable populations; and sought to distribute the benefits and burdens of research fairly for research participants⁹¹.

⁹¹ Adapted from Shamoo and Resnik 2009

4 Data Analysis and Presentation of Findings

Data was analysed using a logical technique process that helps to describe, illustrate, condense, recap and evaluate data. This provided a way of drawing inductive inferences from data and distinguishing the phenomenon in the data. Patterns in observations were analysed throughout the entire data collection phase. Of the 47 respondents that were interviewed, 24 of these were non-project beneficiaries and 24 had benefitted from the Goat Value Chain project that Heifer International implemented in the ward. 66% (31) of the respondents were females whilst 34% (16) were males. Out of the 24 respondents from the non-beneficiary group, 15 (63%) were females while the remaining 9 (37%) were males whilst out the 23 respondents from the beneficiary group, 16 (70%) were females with the remaining 7 (30%) were males.

The average age of the household head was 53 years; female household heads were much older (57 years) than male household heads (51 years). The average years spent in school was seven years which shows that, at least primary level education was attained and literacy is not a major constraint. Farming households with low total annual income have agricultural activities contributing to more than half of the total income. Households with high income have other livelihood sources other than agriculture thus they pursue a diversified livelihood strategy. Respondent's ages ranged from 19 to 70 years with 1980 being the earliest reported year that respondents starting farming for a living. Respondent's average household was 4 with the average land size holding for the sampled households being 3 hectares. In terms of land

adequacy, 74% of sampled smallholder farming households confirmed that the land they own met their farming requirements.

More than 60% of the sampled households keep indigenous chickens, goats and cattle; however numbers are very low and mortality rates are high. Most of the income from livestock production is from cattle sales, goat rearing, egg production and lastly poultry rearing with average household income amounting to \$750 per annum. However, in terms of popularity, most farmers are engaged in poultry and goat rearing. The bulk of the interviewed households reported joint decision making between male and female household heads (with others even reporting the involvement of children) in making decisions with regards to how household income from the proceeds of goat production are spent and distributed within the household.

Findings from the study indicate that men and women farmers in the ward practise crop and livestock production mainly for food security and income generation. Livestock ownership is also a symbol of household wealth status. Agricultural activities contribute more than half of the total annual income for low income households. Adult farming household members, mostly women, provide most of the production labour. However, the difference between the number of men and women household members providing full time labour is small. The study also found that female-headed households are more vulnerable to poverty than those headed by their male counterparts. Farmers do not diversify crop production with less than 20% of the sampled households having engaged in more than four agricultural value chains in the last

farming season. Decisions on which value chains to engage in are made by both men and women members of the household. More than 98 % of the sampled farming households are aware of climate resilient farming management technologies, despite the fact that only 28 % less are using them. The slightest of droughts have seen farmers resorting to drastic coping strategies such as selling of livestock. Livestock loses have been immense with some households remaining with none after passing through a severe drought.

All of the sampled farming households use animal draft power for land preparation. Land control is basically centred on land use, selection and allocation of agricultural activities to designated plots. In male headed households, land is controlled by both men and women, while in female headed households it is controlled by women. More than 60% of the sampled farming households keep indigenous chickens, goats and cattle. Most of the income from livestock production is from cattle sales, goat rearing and poultry rearing. However, in terms of popularity, most farmers are engaged in poultry and goat rearing though the income is small. Cattle are kept as a store of wealth and sold when there is need for cash in the household. The housing structures for used livestock are largely the traditional housing and fodder production to supplement natural grazing is limited across the ward.

Family labour is crucial for agricultural production and this is usually provided by the adult members of the household. Children usually work on the farm on a part time basis however, with increase in age, the number of those who contribute fulltime to farm labour increases.

Women provide the bulk of agricultural labour and, a greater number of women contribute full time labour whereas more men provide part time labour at household level. The number of women contributing full time labour to the farm is slightly more than men but the difference is not big enough to justify the supposition that women are the backbone of agricultural labour among the sampled smallholder farmers. The most limiting factors in livestock production were lack of financial resources, poor skills and lack of inputs such as feeds, chemicals and drugs. Limited financial resource and farming skills accounted for more than 60% of the responses.

Farming households are presently getting their farming information mainly from the department of Agricultural Extension Services and other fellow farmers. These farming information sources are also the most preferred sources to farmers. The information which farmers require includes local weather forecasts, crop and livestock production tips through the season and market prices. On garden cropping, more than 50% of farming households grow leaf vegetables as their garden crops. The market information is rated as poor in terms of adequacy and timeliness. Information about quality requirements and prices is regarded as inadequate and farmers indicated that they do not get information about the buyers and the quality requirements in time. Farmer suggested that the existing market information could be useful to them if the information on prices is provided in time and made relevant to their areas. They wanted to know the actual prices they would receive and who would be buying their produce. The use information communication technology in delivering market information was suggested as a way of making the information accessible.

Livestock ownership varies by gender. Cattle, donkeys, and pigs are owned by household heads while spouses own goats, sheep, poultry, and rabbits. However in many cases livestock is owned by both male and female household members. In the case of female headed households, all livestock are largely owned by the household head and children. The livestock that are kept by more than 50% of households include cattle, goats, and poultry. The number cattle and goats owned per household ranges between 3 and 5 on average while for poultry it ranges between 8 and 12. There are few farmers that practice commercial livestock production. Only broiler production is practised on a more commercial basis but by a very small proportion of the sample farmers (less than 5%) with the Goat Value Chain in particular appearing to have largely failed to reduce poverty and in the cases where poverty reduction has occurred, improvements in household status were modest. There are no competitive marketing systems and structures which have led to breaks in the value chain. There was little evidence to suggest that a significant number of Goat Value Chain beneficiaries had managed to escape from poverty on a permanent and sustained basis.

The intervention appears to have largely failed to promote self-reliance and also failed to reach a larger group of the rural poor. Poor people in Shurugwi district's ward 9 are physically disconnected from market opportunities, through the inadequacy of basic infrastructure such as rural roads, electricity and telecommunications. There are poor horizontal linkages between actors in the goat value chain. Linkages and relationships within actors do not exist and the

majority operate on an individual basis. Goat farmers do not have strong cooperatives or marketing groups to either sell goats or buy inputs. As a result, their bargaining power is weak. Production is guided by goat farmers' subsistence needs rather than market demands.

Multiple taxation; seasonality of demand and supply, lack of high standard abattoirs as well as poor quality goats are among some of the challenges being faced by traders. There is no approved grading system for goat meat and this in turn contributes to the low value of goats. There are also inadequate numbers and capacity of veterinary technicians and community animal health workers are not enough with some of the existing ones lacking the required capacity in terms of knowledge and equipment. Traders are also faced with a lack of capital to expand their business and respond to increased demand for drugs, especially during the rainy season. This in turn results in low sales turnover and the expiry of drugs due to low purchases. The demand for high quality goats and goat products on the market exists and there are buyers willing to pay for high end products but the market's lack of regulated supply is an issue.

Goat production in the ward is not generally perceived as a commercial activity and producers are generally not organized into producer or marketing entities with the few that are being weak in terms of organization, strategic focus and leadership. The majority of producers are on communal land systems with others having embraced semi-intensive goat production. Most producers do not have goat production plans and do not keep records. They lack market and production orientation and use visual methods for determining the market value of their

animals without factoring in the cost of production and this has contributed to low returns on investment.

Goat producers in the study area have inadequate skills to improve goat production and management. They are not aware of improved methods of goat production and their breeding methods are traditional. There is no efficient delivery of goat health services and farmers use traditional treatment methods and practices. Extension agents also do not get enough training and capacity building on improved goat management, breeding and health care. Poor husbandry practices, poor goat nutrition, lack of feed supplements, poor goat shelters and lack of vaccination are also among some of the challenges goat producers are faced with. Communal lands are mainly shared and this poses the problem of uncontrolled breeding as well as the spread of diseases. Support services for goat production are generally very weak and limited to extension services such as animal health services.

Producers have no formal credit services for procurement of necessary inputs or to expand their enterprises. Farmers face problems when they need feeds, goat health services and breeding stock. Technologies and information have been focused on the large-scale commercial producers. Therefore, apart from a lack of knowledge and information, inputs such as vaccines and commercially produced animal feeds are not accessible to the small-scale producers, because of high procurement, transport and packaging costs. There is no knowledge and

information transfer between actors and the high costs of labour for goat production are beyond farmer's affordability.

Farmers have limited or no access to formal financial services, mainly depending on their own savings or loans from local village savings banks. Transport services to take goats to markets are often nonexistent, with farmers and traders currently using public means such as bicycles or walking the animals. Other services required by farmers include training on feed supplementation, marketing, entrepreneurship and efficient vet services. Farmers reported challenges in accessing essential services such as inputs (due to long distances to input dealers), lack of reliable goat transport means to markets, lack of improved animal breeds and high cost of fencing the compounds to control theft.

A reform of the approach is required to elicit institutional support and public and private investments to assist those smallholders who can compete in new markets. It is important to not just focus on production without ensuring that there is sufficient processing capacity to absorb increases or without ensuring that there is market demand and access to markets if the value chain is to significantly contribute to the reduction of poverty. Shortcomings in the value chain and related challenges must be addressed if the potential of the livestock sector to promote growth and reduce poverty is to be met in a sustainable way.

There was inadequate information on the existence of a lucrative market for goat meat and goat products. A significant majority of the beneficiaries failed to access financial services due to a lack of information, political reasons, lack of business knowledge, lack of innovation, poor drafting skills, and corruption. The limited knowledge of business and innovation displayed by the respondents casts grave doubt on the impact of the Goat Value Chain on poverty reduction within the context of the area of study. Goat producer's participation in the value chain is very minimal as goat sales are localized and no commercial and alternative goat markets exist within the ward. Modest successes in the qualitative improvement of the direct beneficiaries' quality of life were however also recorded as respondents reported slight improvement in the quality of their lives due to the Goat Value Chain intervention.

5 Conclusion & Recommendations

Strategies for exploiting potential for livestock sector growth need to be based on recognition of existing uneven development within the country. The development challenge is to capitalize on the potential for growth in livestock which entails elaborating a strategic framework for livestock sector development that would encourage movement towards a broad based and market oriented production system. The Goat Value Chain approach needs to take into consideration farmers' different capacities to participate in modern and industrialized value chains. Expanding markets for goat meat and products offers opportunities for improving the incomes of the rural poor who are engaged in goat farming. Smallholder farmers can leverage opportunities such as economies of scale through collective action in the form of cooperatives and various forms of contract farming. Such arrangements have the potential to incorporate smallholders into high-value supply chains from which they are often excluded. Contract arrangements also often involve the contractor supplying farmers with genetically superior breeds, feed, advice, support and a guaranteed higher end market.

Increased Goat Production and Productivity: improved goat husbandry, improved genetic make-up and improved access to veterinary services that in turn will reduce morbidity and mortality will all improve goat production and productivity.

Strong Market Systems: reliable market systems that ensure smallholder goat farmers of off-take and fair prices for their produce serves as an incentive to increase production and productivity. Furthermore, timely availability of critical inputs such as feed and veterinary drugs will ensure the sustainability of improved production and productivity.

Enabling environment: an enabling policy and business environment is essential for a well-functioning value chain program. In an effort to do that this program will identify policy bottlenecks that are posing challenges to the development of efficient goat value chains. The challenges need to be identified at regional and national levels and dealt with accordingly. There is need to deliberately identify key production, marketing and processing level policy challenges and advocate for policy changes.

Social inclusiveness: Social inclusion allows for full participation, accountability and equitable access to resources and services. It is important to ensure the equal participation of all segments of the community regardless of sex or socio-economic standing. Women and young people need to be deliberately targeted to ensure their access to productive assets, services and market. Inclusive social development will increase employment and eliminate poverty.

Private public partnerships (PPP): interventions of such a nature need to bring together the public sector, the private sector and the non-profit sectors to harness the expertise, efficiencies, authorities and resources that each partner brings. This is an arrangement in which

resources are blended to achieve the goal of the program. The PPP is expected to create synergies by avoiding duplication and ensuring coordination among the three sectors. A combination of policy change, technological and institutional innovation as well as increased investment in the value chain is required as building local capacity that enables more responsiveness to change. Significant and sustained innovation in the value chain is required and critical to support rural development. Innovations in production, processing, utilization and distribution usually take place when different players in the sector are well networked, allowing them to make creative use of ideas, technologies and information from diverse sources.

Agriculture based poverty reduction interventions need to pay more attention to leveraging the use of technology and other key economic actors, such as entrepreneurs and industrialists, which can create opportunities for growth and welfare. Goat farmers have the potential to be competitive and need to take advantage of the growth opportunities in the sector. They need to be supported in order to be able to participate effectively in increasingly globalized markets. Appropriate interventions need to support technological innovations that increase productivity and meet market standards; increased farmer access to capital and credit for investment; increased farmer access to input and output services and markets; and improved transportation and communication infrastructure.

Poor people who rely on livestock production require policies and institutional arrangements that reduce their vulnerability as livestock production is likely going to remain a key pillar of

livelihoods and safety nets for poor rural farming households for many years to come. Smallholder farmers need to be supported to take advantage of the opportunities provided by an expanding livestock sector and to manage risks associated with increasing competition whilst cultivating closer linkages with modern value chains. There is already a demand for goats and the demand for meat and milk in developing countries is expected to rise by 2.8% and 3.3% per year respectively to 2020⁹². Rural farmers need to be supported to capture these opportunities and maximize benefits from goat production.

New partnerships are required to create the necessary environment for farmers to begin to invest and improve production levels. The development of more efficient functional markets that reward quality will mean that farmers will invest more in their animals in order to benefit from the price premiums paid for high-quality products enabling households to have more cash to commit towards their food security and social welfare needs. Goats actually represent food security, enhanced nutrition, income and access to education and they need to be supported through better policies that enable them to have better entry points into value chains so as to achieve lasting impact and change. Strategic investment and the development of more inclusive and sustainable partnerships are all important changes to be made to the system so that farmers can realize greater benefits from their animals.

⁹² Ryan and Spencer, 2001

Globalization gives added urgency to the task of strengthening governance systems in developing countries. Effective governments and efficient markets are both essential if farmers are to reap the benefits of globalization and in ensuring that the process works for poor people. While the market fundamentalism of the 1980s to 1990s has been thoroughly discredited, it is now almost universally accepted that efficient markets are indispensable for effective development. But equally important are effective governments which are both competent in carrying out their basic functions and more accountable, responsive and democratic, with a bigger voice for poor people in the determining government policy.

Globalization also creates unprecedented new opportunities and risks. If the poorest communities can be drawn into the global economy and get increasing access to modern knowledge and technology, it could lead to a rapid reduction in poverty as well as bringing new trade and investment opportunities for all. In order to make globalization work for the poor there is need not just for strong and vibrant private sectors, but also effective governments and strong and reformed international institutions. There is need to work collectively to tackle the problems of conflict and corruption, boost investment in education and health, spread the benefits of technology and research, strengthen the international financial system, reduce barriers to trade, tackle environmental problems and make development assistance more effective.

Weak and ineffective states, with problems of corruption, inadequate infrastructure and cumbersome bureaucratic procedures, are not an attractive destination for private capital which is highly mobile and will go to where business can be carried out safely and where it can make the best return. By contrast, those countries that apply rules and policies more predictably, ensure law and order, invest in human capital and protect property rights, are likely to attract higher levels of inward investment and trade and to generate faster economic growth. The process of opening up to both trade and financial flows has to be carefully managed, to dovetail with the development of efficient and flexible markets, a strong government as well as supportive policies for private investment. While policies at the national and the international level play a vital role, the way in which government, institutions and markets function at the local level is of great significance too. Policy needs to work at all these levels if the potential benefits of globalization are to reach the poor and it is also essential in building a market economy which will work for the poor.

To achieve rapid advances in poverty reduction, interventions will need to be well targeted so they spur economic growth to which the poor contribute and benefit from. Agricultural productivity gains and/or diversification into higher value agricultural products are an essential means of raising rural incomes and improving food security. Economic growth is also necessary for poverty reduction, but the magnitude and speed by which growth can reduce poverty is strengthened and accelerated when income distribution is equitable, and when the poor can participate in the economic activities that experience expansion. For rapid poverty reduction it

is not enough simply to focus on rapid aggregate economic growth; attention must also be given to removing the types of inequalities that limit the poor's access to, and capacity to exploit, the opportunities for economic advancement.

For growth to be pro-poor, it must achieve income gains for the poor in an inclusive growth process that promotes demand and market participation. In agrarian communities such as the area where this study was undertaken, acceleration of poverty reduction efforts such as the Goat Value Chain requires the stimulation of economic activity where the poor people are located and in the economic sector in which most of them pursue their livelihoods, that is in agriculture. The strong poverty reduction impact of agriculture-led growth arises not only from the significance of agriculture in the overall economy but also from strong consumption and production linkages between agriculture and other sectors of the economy as it generates multipliers to other non-farm economic activities and the economy as a whole.

The improvement of farm productivity and income generation from crop and livestock production by smallholder farmers requires a holistic approach where synergies between improved agronomic and livestock production technologies, effective extension services, conducive market environments, investment in value addition/agro processing and off farm enterprises to improve income flows as well as public goods such as health and education are harnessed. Efforts that are made to improve productivity and health must take into consideration the rise in climate variability which has resulted in increased frequency and

severity of weather related hazards/disasters such as droughts. Increasing agricultural production and raising rural incomes requires sustained government investments in agricultural technology and extension, irrigation (where feasible), and market infrastructure. Government interventions in markets can be helpful for maintaining adequate price incentives for producers and protecting consumers from price spikes. Facilitating the development of private markets and liberalizing trade can also increase the effectiveness and lower costs of price stabilization.

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