

**THE IMPACT OF THE RURAL INFRASTRUCTURE SUPPORT PROGRAMME ON
POVERTY ALLEVIATION PROJECTS AT GREATER GIYANI MUNICIPALITY,
MOPANI DISTRICT, LIMPOPO PROVINCE**

by

BASAMBILU EUNICE NKANYANI

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DEDICATIONS

This work is dedicated firstly to the almighty God who gave me the strength to carry on and to continue with my studies even in times of trials and tribulations. Secondly, I dedicate it to my late mother Mabel Nkanyani who motivated me from my childhood to continue studying and never give up on education. I also dedicate it to my sister Rirhandzu Ngobeni for her continued support through thick and thin.

DECLARATION

I declare that the Impact of the Rural Infrastructure Support Programme on Poverty Alleviation Projects mini-dissertation hereby submitted to the University of Limpopo, for the degree of Master of Development has not previously been submitted by me for a degree at this or any other university; that it is my work in design and in execution, and that all material contained herein has been duly acknowledged.

Nkanyani BE (Ms)

Date

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ABSTRACT

Rural areas of South Africa are characterised by high levels of unemployment and poverty resulting from lack of economic infrastructure. This led to the initiation of the Comprehensive Rural Development (CRDP) in 2009 to address poverty and lack of development in rural areas. Infrastructure provision to rural communities was identified as one of the main priorities of government. It was piloted in Muyexe village of Limpopo Province due to its lack of basic infrastructural services. This study was undertaken to investigate the impact made to cooperatives through the utilization of the infrastructures in terms of income generation and poverty alleviation. It also aimed at determining how sustainable the programme will be in the long-term. The key research questions asked were to determine if infrastructure provision could contribute to poverty alleviation and to determine how sustainable such programmes may be. Again, the study had to evaluate how the programme was implemented, to identify challenges faced and the gaps. It also recommends the solutions for future implementation of the programme. The study used a quantitative survey questionnaire which was administered to 30 beneficiaries of the projects. The findings of the study revealed that infrastructure for farming, brick laying, arts and craft and cosmetics manufacturing were provided to the cooperatives depending on their needs. The infrastructure provision programme contributed to improving the working conditions of the cooperatives but the impact made in terms of job creation, income generation, improving livelihoods and poverty alleviation is limited to a number of households. The programme had loopholes during its implementation due to lack of integration between the spheres of government and also lack of proper consultation. Cooperatives are still faced with a high challenge of lack of infrastructure because the infrastructure supplied was insufficient. The study recommends that proper consultation must be done to ensure that there is maximum participation by all concerned stake holders including the community. Effective mechanisms for training, supervision and designing of monitoring tools must also be done. Due to time, a larger sample could not be done and future research needs to be undertaken on a larger sample and also on the management of infrastructure provided to ensure that there is accountability amongst cooperatives.

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LIST OF ACRONYMS

CRDP	Comprehensive Rural Development programme
CASP	Comprehensive Agricultural Support Programme
DTI	Department of Trade and Industry
EPWP	Extended Public Works Programme
FAO	Food and Agriculture Organization
IFAD	International Fund for Agricultural Development
IDP	Integrated Development Plan
ILC	International Labour Conference
ILO	International Labour Organization
IRDP	Integrated Rural Development Programme
MDG	Millennium Development Goals
MIG	Municipal Infrastructure Grant
NSNP	National School Nutrition Programme
MTSF	Medium Term Strategic Framework
PICC	Presidential Infrastructure Planning Commission
Stats SA	Statistics South Africa
SA	South Africa
UYF	Umsobombvu Youth Fund

CHAPTER ONE INTRODUCTION AND BACKGROUND

1.0 Introduction

Rural areas in South Africa are characterised by lack of social, economic infrastructure and poor maintenance of existing infrastructure (Wall 2007:26-27). Rural areas in South Africa are known to have poor roads, mud houses, land degradation and poor use of resources. Rural areas have a potential for rural development but they have been neglected as compared to the Metropolitan areas. SA has high shortages of water with limited amount of available water resources and there is insufficient capacity and quality of the infrastructure required to capture and distribute water to households and industries (Budget review 2012). The government established the Free Basic Services Policy in 2001 committing to provide free basic services to poor households; the services included 6kilolitres of water per household per month with 200m of the household, a ventilated improved pit sanitation facility, solid waste management and electricity for 50 kWh per month (Adam 2010).

Industries like Agriculture, Mining and Electricity depends on large volumes of water for their day to day operations, therefore the government has put more investment on the Trans Caledon Authority as a state-owned entity responsible for project financing and construction, they will be responsible for implementing the Komati water scheme that will supply water to Eskom's power stations, while the Lesotho high land water project will supply water for domestic use in Gauteng and industries, the Oliphant's River water resource development project will provide water in semi-urban and rural areas in Limpopo and also support new mining projects that boost economic development (Budget review 2012).

The government also acknowledges that infrastructure development is the main driver for job creation, economic growth and inclusivity. To address the challenges, the government has established the Presidential Infrastructure Coordinating Commission (PICC) to oversee that there is proper coordination, integration and implementation of infrastructure projects.

Again, the government in an attempt to address the challenges of social and economic infrastructure in rural areas established the Comprehensive Rural Development (CRDP) and piloted it in Muyexe village in 2009. According to the Integrated

Development Plan (IDP) (2010-2011) of Greater Giyani Local Municipality, the village was underdeveloped in terms of its lack of basic infrastructural services including water, housing, electricity, and economic infrastructure, educational and recreational facilities. The programme was expected to provide economic infrastructure to different projects in the community, the projects ranged from agriculture, construction, enterprises, arts and craft. It was believed that through the provision of infrastructure the projects will create jobs and improve livelihoods and also contribute to poverty reduction in the community.

Infrastructure provides basis for social and economic development, including access to clean water (Kehler, 2013). No life on earth can survive without water and therefore proper infrastructure has to be developed and maintained to ensure that sufficient access and use. Kehler further argues that the level of access to basic services in rural areas does not predict economic and social development only but also predicts the level of poverty. Lack of basic services such as clean water, electricity, roads, clinics and all services required to sustain livelihoods can contribute to increase in poverty. Ozgen and Minsky, 2007 state that low levels of social and physical infrastructure in rural areas hinders access to credit, input, technology and information about markets and results. In constraints for entrepreneurial development, their belief is to promote entrepreneurship as a strategy that can be used to fight poverty in developing countries. Businesses in rural areas tend to fail due to lack of access to markets, poor roads and poor infrastructure.

Rural areas depend on agriculture as a means of food production and employment, poor quality infrastructure and lack of electricity is seen as a factor that affects rural no-farm, income and employment (Gibson & Olivia 2010). According to the 2012 World Bank report, access to infrastructure empowers communities; it provides lights to the streets, provides gases to homes and contributes to society having access to tap water and proper sanitation. The use of electricity at household level promotes sustainable development because it reduces the use of fire wood and the environment is also preserved because deforestation will be reduced. It is acknowledged that there have been major shortcomings in the delivery of rural infrastructure services in SA (PICC 2010). Backlogs in infrastructure delivery are still very high and particularly in rural areas that receive less attention despite efforts made to self-finance their infrastructure in the past (Wall 2007).

1.1 Background of the study

To understand the relationship between infrastructure and poverty, the thesis assesses the impact of infrastructure provision on poverty alleviation projects implemented through the CRDP. The study attempts to assess how infrastructure such as construction of enterprise infrastructure, improving irrigation systems and provision of farming inputs and other farming infrastructure to households and cooperatives could have contributed to poverty alleviation.

People living in rural areas are vulnerable to poverty due to lack of social, physical and economic infrastructure. According to Babier (2010) rural people depend on agriculture as a means of production and income, therefore, lack of access to services such as, water facilities, roads /transport, telecommunications and electricity hinders production and access to markets. The Government of South Africa through the Comprehensive Rural Development Programme took an initiative to support rural communities to have access to basic infrastructure such as housing, electricity, water, sanitation and economic infrastructure (DRDLR 2009).

The main aim of the CRDP was to reduce poverty by creating vibrant, equitable and sustainable rural communities. The Department of Rural Development is the facilitator of the integrated development and social cohesion through partnerships with all sectors of society. Their main objective is agrarian transformation which is aimed at social mobilization to enable rural communities to take initiative of their own development and sustainable settlements with access to basic services and economic opportunity, meeting of basic human needs and infrastructure development. It also aimed at establishing cooperatives and enterprises for economic activities, wealth creation and productive use of assets. The pilot project started in Muyexe village where selected households within the community were provided with fencing infrastructure for household gardens to encourage food production and income generation at household level. JoJo tanks for water harvesting were also distributed with the hope to reduce water scarcity while rural cooperatives such as Macena Community garden benefited through the construction of a storeroom, nursery construction and irrigation infrastructure improved through the Comprehensive Rural Development since its launch in 2009 to date (DRDL, 2009).

1.2 Problem statement

Poverty is regarded as a global problem which nations are facing; its occurrence in rural areas is linked to lack of economic infrastructure. Infrastructure plays a major role in both economic and poverty alleviation (Aboudou & Ousseinni 2011). In South Africa poverty remains a serious challenge (Motswiane 2009). Even though the report released by Statistics South Africa (2014) confirms a reduction in poverty between 2006 and 2011. It was found that 4.75 million people were still living below the poverty line.

Poverty in rural areas is often caused by the high rate of unemployment resulting from lack of economic infrastructure. People living in rural areas depend mostly on farming as their source of income and food security. According to Aboudou and Qussenini (2011) poor infrastructure hinders communication. It is difficult for rural people to access information due to lack of international communication technology, poor roads also have a negative impact on agricultural inputs and markets. Infrastructure affects the production of both commodities and health (Agenor 2010).

Poor infrastructure reduces the economic potential of rural areas and results with the high rate of migration to urban areas. These exert too much pressure on urban infrastructure and results with service delivery protests due to lack of basic service such as water, sanitation and housing. Most people who migrated to urban areas find themselves trapped in poverty due to lack of these basic service and they find themselves dwelling in informal settlements because they cannot afford decent housing in the city.

Lack of finances to increase infrastructure investments also contributes to the increase in poverty. It is supported in literature by (Hanjra, Ferede & Gutta 2009), they argued that lack of access to finance and human capital to improve irrigation systems and constructing rural infrastructure together with agricultural technology and inadequate access to markets constraints progress towards poverty reduction.

Rural people depend on agriculture and lack of infrastructure for agricultural production and non-farm production contributes to the level of poverty in the community. The Greater Giyani Municipality IDP (2011-2012) indicates that most of its population lives in rural villages with limited economic activities and access to urban infrastructure. These communities are situated far apart from each other, which makes

infrastructure development expensive. These areas also lack proper roads, and during rainy seasons it is difficult for emergency services to access these areas.

According to Patterson (2008) Local Economic Development Policy and guidelines are well documented at national level and yet the issue of funding remains a matter to be addressed. Local economic development as a policy tool has been introduced in South Africa for local government to use as a tool towards economic development of the citizens at the municipal level. Local Economic development initiatives have failed to address the issue of poverty due to its poor implementation and lack of integration between the three spheres of government. However, South Africa has not given up on fighting poverty in rural areas, poverty alleviation programmes in the form of food security projects have also been implemented through different government Departments but they also seem to have little impact.

Currently the government has since 2009 introduced the Comprehensive Rural Development Programme which is implemented in an integrated way through different government departments, it promotes participatory development through which infrastructure support programmes are being used to assist farmers and people living in rural areas to encourage food security. Infrastructure provision to poverty alleviation projects is one of the key priorities identified through needs assessment and community based planning. The main objective of government was to encourage rural communities to tackle poverty and unemployment. The question is does provision of infrastructure really assist the poor to fight poverty, are they really using the infrastructure? Are they able to maintain the infrastructure provided? In what way has this infrastructure have contributed to the sustainable livelihoods of the poor?

1.2.1 Status of poverty in South Africa

According to the Poverty Report released by Statistics South Africa (2014), it was found that poverty has decreased at individual level between 2006 and 2011. The report also indicates that in 2006 half of the population estimated at 57, 2% were living in poverty. A marginal decline of people living in poverty was reported at 56, 8% in 2009 while in 2011 less than half 45, 5% of all South Africans were living below the poverty line. This reflects a 20% reduction in poverty from 2006 to 2011. At household more than two out of every five (42.2%) households in South Africa were reported to be living below the upper-bound poverty line in 2006. While the level of poverty was

found to be very similar in 2009 at 42, 7%, there was a decline in households living in poverty in 2011 with approximately a third 32, 9% of all households below this level. This showed a significant reduction in the proportion of poor households in the country from 2006 to 2011(Statistics South Africa 2014). However, given the results of Census 2011, this still translates into approximately 4, 75 million households in South Africa were living below the poverty line.

1.2.2 Poverty in South Africa differs across Provinces

According to the report of Statistics South Africa released in 2014, the majority of households in four of the nine provinces in 2006 were living below the upper-bound poverty line. Limpopo was reported to be the most vulnerable Province with regard to households living in poverty where six out of every ten households were found to be living in poverty, it was also estimated that 59, 8 % of households in Limpopo were living in poverty which indicates that the Province had the highest number of people living in poverty as compared to other Provinces. The report further indicated that Limpopo was not the only affected Province but it was followed by the Eastern Cape which was reported to have had 55, 8% of households living in poverty. Mpumalanga and Kwazulu- Natal had a lower number of people living in poverty as compared to Limpopo and the Eastern Cape because they were reported to be at 51.3%. Households in poverty in the Western Cape were reported to be 27, 0% while Gauteng was 22, 6%. The reduction in levels of poverty from 2006 to 2011 was highest in Western Cape, which saw a 34% decline in the proportion of poor households, while the decline in Mpumalanga was 29% and 28% in Gauteng. In contrast, the reduction in poverty levels was far less in the poorest provinces of Limpopo and Eastern Cape, which each only saw a 15% decline in the proportion of poor households. The results clearly indicate that South Africa is still facing a major problem in reducing poverty.

According to Motswiane (2009) South Africa is still experiencing severe poverty especially in the rural areas where majority of the population is found. Strategies have been put in place to help local governments to realise the government mission of economic growth, however poverty level seems to be increasing, the level of unemployment is also high and skills shortage is severe especially in the rural communities.

1.2.3 Concepts and measurement of poverty

Poverty has been debated by many researchers and it cannot be defined by one indicator because it is multidimensional (Namara, Hanjra, Castillo, Smith & Van Koppen 2010:520-527). Literature reveals that other researchers believe that poverty can be defined by the economic status of some members in society as compared to others (Hallerod & Larsson 2008:15-25). In society rich people are able to meet their household's basic needs and they are regarded as poverty free people while those that are unable to meet their household's needs are classified as poor. Classifying people according to their income capabilities do not necessarily mean that they are not deprived in other dimensions.

The concept of poverty is linked to various variables: income, health and education, time, environment. Lack of access to one of the variables indicates deprivation because it requires that a human being must have a balanced access to the variables to be able to escape poverty. In society, some members are regarded as poor and living in poverty because they lack the means to achieve or meet their basic needs for food, shelter and clothing, they tend to suffer social exclusion because they are unable to participate in decision making process due to their low level of living in society (Merz & Rathjen 2009).

1.2.4 Poverty deprivation measures

There are different measures that determines areas of deprivation, an individual can be deprived in terms of lack of access to certain asserts, lack of access to health care, lack of time to participate in social life, lack of income and poor environment. The areas of deprivation are discussed in details as follows:

1.2.4.1 Asset Deprivation

Asset poverty is about the ability of a household to own assets that are required to meet its basic needs without losing some of the assets in time of hardship (Iceland & Bauman 2007: 376-396). Asset deprivation is not found amongst adults only but it also affects the children, children living in rural areas are multiple deprived if they are living in a family which does not own a TV, radio, fridge, poor house, unhealthy living environment. According to Barnes, Noble, Wright and Dawes (2009: 181-191) 81% of children experience income and material deprivation nationally, while 50% suffer

employment deprivation, 77% experience environment deprivation and 25% experience adequate care deprivation. Lack of land and environmental degradation also contribute to poverty because without land those who depend on agriculture cannot cultivate the land and if it's degraded it cannot be productive. The poor tend to be vulnerable to high crime rate and unemployment.

1.2.4.2 Health Deprivation

Deprivation from good health -an individual is regarded as poor if he/she does not have access to basic health services such as good health, clean water and proper sanitation. Lack of finance and access to information hinders access to basic services, when health services are required and are delayed, people's health conditions worsens resulting with higher health costs and loss of income. Poor health systems and lack of access to basic health care affects education enrolment because if people are sick they are unable to attend school.

1.2.4.3 Education

The poor lack good educational opportunities, again trapping their children in a cycle of poverty (Barret 2008). Education is regarded as one of the indicators of human development, although South Africa has improved its access to basic education at primary level by ensuring that each child gain access in enrolling yet the quality of education in South Africa is still poor. According to a study conducted in Pakistan by Awan, Malik, Sarwara and Waqas (2011:6) they found that poverty and education are interrelated, the higher the number of educated population the lesser the number of poor people. Poverty affects education enrollment due to lack of finance especially tertiary education enrolment, poverty also affects concentration for students from poor families, and it contributes to the deterioration of the institutions teaching standards due to poor performance.

Again they found that poverty affects countries at macro and micro level, the difference between the two was that at macro level it was generally assumed that poor countries have low levels of education while at the micro level the assumption was that children from poor families do not attend schools. The cause of children from poor families to be absent from school was due to economic and non –economic challenges, the example given was that male children were considered as providers of

income in the form of child labor while girls assist their mothers in raising younger children's in the families.

1.2.4.4 Time poverty deprivation

Poverty is not about being poor because an individual lacks the means to fulfill their basic needs, but they can be rich and lack the time to do other things. A person can be time poor because they work long hours without a choice due to fear that their household will fall into poverty if they reduce their working hours (Harvey & Mukhopadhyay 2007:57-77), (Bardasi & Wodon 2010:45-78). Women are rated to be time poor as compared to man because they spend most of their time participating in household activities and others in labour market. Education also increases the level of time poverty between male and females, those who did not managed to pass secondary stage of schooling tend to suffer time poverty because they will have to work more hours as compared to those who obtained a university degree and enter normal hour's formal jobs.

1.2.4.5 Income Deprivation

According to Statistics South Africa (2015), poverty is defined by uni-dimensional measures such as income or expenditure. Income is regarded as an indicator of people's purchasing power and one of the indicators of poverty. People with high incomes are able to afford consumer goods and services that improve their wellbeing, and people with low income cannot afford basic goods and services which can make them poor. Infrastructure has a good /negative impact on income, increasing infrastructure investment on roads, irrigation and electricity can increase farmers' income and traders due to high productivity and improved market access, poor roads leads to poor produce being delivered to the market because it will take too long for the produce to reach the market.

1.2.4.6 Living standard

Poverty in a household can be measured by collecting data of consumption and income as an indicator of standard of living through household survey (Smith, Dupriez & Troubat 2014). In South Africa people living in rural areas and informal settlements/peri-urban areas are the most vulnerable to poverty.

1.2.5 Strategy to fight poverty in rural areas of South Africa

The government has tried so many strategies in an attempt to reduce poverty since democracy emerged in South Africa in 1994. The strategies used were Reconstruction and development which aimed at reducing poverty for the majority of South Africans and also redressing inequality and the injustice of apartheid, followed by Growth, Employment and Redistribution (Kumo 2012). In the year 2006 the Accelerated and Shared growth Initiative of South Africa was launched, it was believed that the initiative will reduce poverty, unemployment and also increase economic growth. The country was hoping to achieve its development goals of halving poverty and unemployment by 2014 and also raise economic growth by 6% between 2010 and 2014. The outcome of the initiative was not good because economic growth did not increase much it was found to be 2.8% during the year 2010 and it was also believed that it might remain below 4% for the remaining period set (Kumo 2012).

According to the report of the Department of Rural Development and Land Reform published in 2009, the Office of the President launched a Comprehensive Rural Development Programme (CRDP) with the hope to respond to challenges facing rural communities to fight poverty and food insecurities. Its main purpose was to promote community participation in development projects that could create employment and generate income. The community was mobilised and community based planning was conducted, community needs were identified and lack of economic infrastructure was found to be amongst their priorities. Community members organized themselves into different groups of cooperatives and they became actively involved in their own development.

According to the national development plan version 2030, South Africa plans to eradicate and half poverty by 2030. The country has embarked on poverty alleviation programmes that will lead to the achievement of objectives that are on the National Development plan. Infrastructure has been identified as one of the major challenges South Africa is still facing, in rural areas of South Africa there is inadequate infrastructure, lack of economic infrastructure and poor maintenance.

1.2.6 The cooperative model as a driver of rural economic development

Cooperatives have long been used in South Africa even before democracy, the reason cooperatives are still being used is that they play a major role in supporting emerging

farmers and marginalized groups (FAO 2012). In South Africa cooperatives are supported through the government by establishing the Department of Trade and Industry where cooperatives are assisted to register as legal entities. Cooperatives contribute to poverty alleviation through small holder producers who participate in food production. In rural areas, agricultural projects, construction projects, arts and craft projects are used as means for creating jobs and poverty alleviation. In literature, cooperatives are found to have contributed to the creation of millions of jobs around the world (ILC 2007).

Again cooperatives have contributed to food security through diversified production and marketing (IFAD 2010). They also contributed to human development through education because they provided opportunities for raising income where members were able to afford school fees for their children (Develtere, Pollet & Wanyama 2008). Cooperatives has also been identified as having an advantage in achieving the sustainable development goals which includes ending extreme poverty including hunger, they have the pros of identifying economic opportunities for the poor (ILO 2014). The debate of poverty alleviation through cooperatives has a long history and in South Africa cooperatives are known to have had a tendency of being unsustainable but yet the government continues to promote the cooperative model, despite the efforts made through government initiatives and funding, the question still stands are cooperatives in the pilot project of Muxeye village able to provide opportunities to generate income and sustainable livelihoods?

1.3 Motivation of the study

The study attempted to assess the infrastructure intervention programme on poverty alleviation. Rural households and rural cooperatives received infrastructure support through the Comprehensive Rural Development since its launch in 2009. The study aimed to assess how the programme benefits were distributed among the different households and rural cooperatives. It also aimed to determine how infrastructure support programme could have contributed to poverty alleviation. Assessing the current situation and the livelihoods of beneficiaries to determine poverty status and unemployment rate within the community, Poverty remains a challenge despite the infrastructure support programmes implemented and the study seeks to find out if the programme had any impact in the community.

1.4 Aim of the study

The main of the study is to assess the impact of the infrastructure support programme on poverty alleviation. In particular, it aims to determine the sustainability of the programme as a lasting solution to poverty alleviation. The study examines the causes of poverty, poverty alleviation strategies and its implementation in rural areas. To find answers to the key research questions, does rural infrastructure provision contribute to poverty alleviation?

1.5 Objectives of the study

The study has three main objectives, namely:

- I. To examine the nature of the infrastructure support and how it was administered and managed.
- II. To assess how the infrastructure support programme has contributed to poverty alleviation on households and cooperatives in the community.
- III. To determine the sustainability of the programme in the long-term.

1.6 The key research questions are:

- I. What kind of infrastructure support has been provided and how was it administered and managed?
- II. Do rural infrastructure support programmes to cooperatives and households contribute to poverty alleviation?
- III. How sustainable are such programmes?

1.7 Significance of the study

It was expected that the study would provide insights on how public support initiatives such as the CRDP infrastructure support programme impact on poverty in communities. Findings may inform policy design and implementation in future.

1.8 Definition of concepts

1.8.1 Infrastructure

Infrastructure refers to the basic services or social capital of a country, or a part of it which makes economics and social activities possible by providing transportation, public health and education services and buildings for a community (Spring, 2007), (Smith & Da Lomba 2008). Literature reveals that infrastructure generally refers to the services and facilities that are an integral part of human life. Infrastructure includes facilities for transportation, communication, power, water supply, education, health care, irrigation, drainage, as well as all other types of public utilities. The role of infrastructure in economic development is complex and its effects are indirect (Sanzidur 2014:275).

According to Jahan and Mcleery (2005) in Ogun (2010) the impact of infrastructure on economic growth and poverty reduction takes the form of first-round effects, followed by subsequent impacts. In the first round, infrastructure development produces two initial effects that could lead to poverty reduction through economic growth. These two initial impacts are the supply side and demand side impacts. The development of infrastructure improves the supply side of the economy by reducing cost, enhancing the business climate, thus making room for better access to market opportunities and opening up new opportunities.

These supply side effects attract domestic and foreign investment, increasing employment and national output. According to the Asian Development Bank (2012), many studies have been conducted to understand the relationship between infrastructure and growth that lead to poverty alleviation, but the results are not inclusive. However, infrastructure comes in many ways and influences growth and poverty reduction in different ways. Infrastructure promotes inclusive growth which can reduce poverty directly or indirectly because infrastructure development creates jobs and economic activities.

1.8.2 Infrastructure sustainability

Development of infrastructure projects usually receives a huge amount of capital investment in any country; however the main challenge facing the provision of physical infrastructure is meeting the growing demand for new infrastructure, while maintaining,

upgrading or replacing aging infrastructure (Alusam & Maohamed, 2011). Sustainable infrastructure is one of the main concepts of sustainable development (Cheng & Zhang, 2012). The infrastructure provided should be designed in a way that it is environmentally friendly to promote sustainability and social inclusion. Strong monitoring, efficient and effective use systems should also be implemented (World Bank Group 2009).

In South Africa infrastructure projects implemented in rural areas are in the form of irrigation schemes, smallholders farmers receives support from government in terms of agricultural inputs, fence, irrigation systems and boreholes, the challenge facing the beneficiaries is maintenance of the infrastructure provided. According to Fanadzo (2012:1956-1969) most of the irrigation systems collapsed due to dilapidated infrastructure. Beneficiaries are unable to repair infrastructure when it is worn out. The government procurement systems and procedures used to assist the beneficiaries takes a long time to respond to the needs of the beneficiaries resulting with collapsing of the projects. According to Mbaku (2013) effective maintenance of infrastructure in African Countries is caused by poor planning in Government, corruption, failure to make allowance for depreciation and other forms of political opportunism.

1.8.3 Rural development

Rural development is about enabling rural people to take control of their destiny, thereby dealing effectively with rural poverty through the optimal use and management of natural resources. It is a participatory process through which rural people learn over time, through their own experiences and initiatives, how to adapt their indigenous knowledge to their changing world (DRDLR 2009). SARDQ (2004) defines rural development as the positive advancement of people living in rural areas through the improvement of rural institutions and systems, extending of rural infrastructure and rural economic activities growth for better quality of rural life. World Bank (1997) defines rural development as a process that leads to sustainable improvement of the quality of life of the people living in rural areas.

1.8.4 Co-operative

According to the Co-operatives ACT 14 of 2005 a cooperative is defined as an autonomous association of persons united voluntarily to meet their common economic and social needs and aspirations through a jointly owned and democratically

controlled enterprise organised and operated on co-operative principles. Cooperatives are a form of business organization that operates according to explicit guiding principles, just as principles define sole proprietorships, partnerships of various kinds, corporations of great variety, and companies with mixed characteristics (Baarda 2006).

1.8.5 Poverty

Poverty is the condition where people's basic needs for shelter, food and clothing are not met. Poverty is a multi-dimensional phenomenon. It is not only about lack of income, but it is also about human deprivations in areas of health, education, participation and security (Namara et al. 2010). For example, lack of adequate food, shelter, education, health, and vulnerability to natural disasters such as floods and droughts are part of this phenomenon. World Bank (2009) identify dimensions of poverty and they are: lack of adequate income or assets for generation of income, physical weakness as a result of under-nutrition, disability or sickness, physical or social isolation that affects access to goods and services, vulnerability to risks and “voicelessness” or exclusion from decision-making processes (often through abuse of power) within the existing economic, political, cultural and social spheres.

According to UNDP (1997) in Cook (2011), traditionally, poverty has been understood through its connection with inadequate levels of income and consumption, identified either in terms of inadequacy of food availability and consumption, insufficient fulfilment of basic needs or inadequate levels of income to meet basic needs. The minimum requirements, which were originally considered solely in terms of calorie-intake or food requirements, are now considered in terms of basic needs, which take into account both food and non-food requirements for the minimally acceptable fulfilment of human needs. Based on this concept of basic human needs, poverty is considered a deprivation of the minimum necessary level of material requirements including food, as well as basic health, education, and essential services required in order to prevent people from falling into poverty. Poverty as a multi-dimensional index is adopted for the study.

1.8.6 Poverty Alleviation

According to McKugue, Wheeler and Karnani (2015:129-145) poverty alleviation requires an integrated approach between the private sector, government and civil

society. The government's role in poverty alleviation is to facilitate the private sector involvement including social entrepreneurs to address poverty by ensuring that infrastructure such as roads and transport, water, electricity, communication and sanitation systems are established and maintained, providing public services, facilitating job creation and regulation of markets. It requires the involvement of the poor as sources of information, suppliers, employees and distributors as well as potential customers. The greatest contribution to poverty alleviation results from engaging poor people as producers and employers of local small and medium-sized enterprises because they employ a large number of people and have a great potential to employ low-skilled and low-income workers.

1.9 Ethical Issue

According to Johnson (1999:335-348) acting ethically has the advantages of making a particular program to be implemented in the community to be more effective, it cements the Researcher and implementing agents standing in the community and also allows them to occupy the moral high ground when arguing the merits of the program. It promotes moral leadership in the community and it assures that they remain in good standing legally and professionally.

The researcher requested permission to conduct research from the Local Traditional leaders of the community. Project members and households were also informed and their permission was requested to conduct interviews. They were not forced to participate but it was their choice to participate and they were also assured to remain anonymous and their confidentiality was taken into consideration. Participants were given an informed consent form to sign as proof that they agreed to be interviewed. The study was conducted after the approval of the proposal and no letter from the University of Limpopo's ethics committee was required.

The researcher proceeded with the study according to ethical standards set out by the University. Considering the importance of systems of meaning in the community that include customs, norms, beliefs and social attributes. The researcher behaved ethically to prevent risking credibility of the Institution. The researcher agreed with participants on ethical standards for primarily ethical issues of confidentiality and disclosure.

1.10 Research limitations

Research limitations are believed to be weakness in the study that could be out of the researcher's control (Simon 2011). In this study, time is one of the limitations identified by the researcher; time taken to conduct a study was too short as the researcher is an employee who works far away from the community. The researcher had to travel long distances from Polokwane to Muyexe Village to conduct the study.

Lack of participation or withholding of information as some of the leaders might be benefiting from the programme. Households may be reluctant to reveal their income. Since this is a small study within a particular municipal area, the results cannot be generalised. Another limitation is that the project intervention has not been in operation for a long enough time to make an impact. Thus, the study should be viewed as an interim evaluation of effectiveness which should be useful none the less in terms of informing future directions.

1.11 Summary

The chapter introduced poverty as a problem that is facing South Africa. It described the relationship between poverty and infrastructure. Lack of economic infrastructure was identified as the major cause of poverty. The chapter continued to describe how the provision of infrastructure through the Comprehensive Rural Development Programme could have contributed to the reduction of poverty in rural households and cooperatives of Muyexe village. The status of poverty in South Africa was also outlined with reference from the report of Statistics South Africa and how poverty varies across provinces. Poverty was conceptualised and discussed in terms deprivation measures such as income, assets, time, education and living standards.

The strategies of poverty alleviation in South Africa since 1994 were discussed together with the cooperative model as a driver of rural economic development. The key research questions were stated and also the negative and positive hypothesis. Different concepts such as poverty, infrastructure, rural development, sustainability, etc. that are linked to the study were defined. Ethical considerations were clearly stated to prevent jeopardising the study. The assumptions of the research limitations were also stated.

1.12 Outline of the Study

The dissertation is structured into five chapters. **Chapter 1** Introduces the nature of the problem and gives the theoretical background of how the study was under taken and the reasons why research was conducted. It also indicates the objectives of the study, the research questions and its positive and negative hypothesis.

Chapter 2 presents literature review. It indicates the desktop research about the problem and to find out existing body of literature relating to the research topic under investigation. To find out how much the topic has been researched, which theories were used and how the researchers concluded their results. It identifies the gaps and the contribution of the current study towards filling those gaps.

Chapter 3 describes and justifies the data collection methods and procedures. The methodology of the research was described in detail. Data was collected by identifying the types of infrastructure in the community, interviewing those who were participating in projects supported by the programme. Stakeholders were also interviewed.

Chapter 4 focuses on analysing data; the formulated research problem was examined in a logical manner paying attention to the theoretical foundations and empirical evidence in the literature. Tables were used and information was statistically processed. Graphs were also used.

Chapter 5 Presentation and interpretation of the findings .The chapter presents and interprets the key findings of the study

CHAPTER TWO LITERATURE REVIEW: INFRASTRUCTURE DEVELOPMENT AND POVERTY ALLEVIATION

2.0 Introduction

Infrastructure provision has a role to play in the economy and livelihoods of the population, adequate and access to infrastructure is seen as a means to improve the population's access to goods and services and thus as a means to reduce poverty.

Communities without access to good quality infrastructure are characterised by high levels of poverty and municipalities tend to focus on delivering two key infrastructures, the provision of basic needs municipal services which is water, sanitation, electricity and waste removal (Smith & da Lomba 2008). The focus is also on the maintenance part of infrastructure such as roads. This chapter describes a desktop review of the available information relating to the topic: "impact of infrastructure programmes on poverty alleviation", it seeks to determine what previous researchers' results have found and what gaps can be filled with the current study. It also describes how infrastructure can influence economic growth and livelihoods. It also reviews how other countries have achieved the Millennium development goal of poverty reduction and the strategies they used. It further reviews the South Africa's poverty reduction strategies post 1994, its poverty alleviation success strategies, failures and recommendations

2.1 The state of infrastructure in South Africa

According to the Medium Term Strategic Framework (MTSF) 2009-2014, South Africa's main objective and mission is to set the country on a higher and sustainable growth trajectory by the end of the mandate period of 2014 with an expanded and more diversified economic base; with unemployment and poverty having been halved as compared to 2004 and with greater equity and social cohesion. This includes universal access to electricity, water and sanitation in decent community settlements. The government has set 10 strategic priorities to achieve its mandate. The South African government has embarked on massive programs to build economic infrastructure and social infrastructure.

According to the Presidency report (2012), South Africa has been on a mission since democracy has emerged in 1994 to address the challenges of infrastructure deprivation

for its people. The country has managed to address social infrastructure by meeting the basic needs for electricity, water, health, although sanitation is still a challenge. According to Garr (2010) infrastructure such as electricity, transport, irrigation and water are regarded as major vehicles for poverty reduction. Backlogs for economic infrastructure still persist in South Africa due to failure of many public entities to plan and execute the infrastructure budget (National Treasury, 2012). In terms of road transport, the state of roads in South Africa is good on National and Provincial roads, Local roads are dominated by gravel roads. Road networks are important for transportation of goods and services.

According to Rico (2011), effective modes of transport including roads, railways, air ports and airways enables entrepreneurs to take their products to the market on time and effectively without risking quality and loss of the product. The majority of poor people in South Africa live in rural areas dominated by inadequate access and poor infrastructure (IFAD, 2008:1). The cost of living is very high in rural areas because they have to travel long distances to access some of the services. Lack of development opportunities accounts to the increase of poverty, there is assumptions that if economic infrastructure can be provided to rural people it will contribute to poverty reduction.

2.2 The role of infrastructure on economic growth

Literature reveals that Infrastructure development is regarded as the main contributor to improvement of living standards of households and increase in economic growth. It is believed that access to infrastructure is regarded as the most important criteria for social development including access to clean and safe water (Kehler 2013:41-43). Several researchers conducted studies debating about the relationship between infrastructure and growth as both the quantity and quality affect growth. Infrastructure affects growth through a number of channels both direct and indirect. Public Infrastructure investment is important for a country because it aims at economic growth, sustainable development and the reduction of poverty (Spring 2007). According to the Local Government Engineering Department, People's Republic of Bangladesh (2010), construction of project facilities and post-construction maintenance generates jobs for the poor and thus raising living standards.

The importance of investment in infrastructure to the socio-economic advancement of a nation cannot be overemphasized. Again investment in infrastructure is crucial to promote

the rural non-farm economy and revitalization of rural towns, as well as to facilitate the integration of less-favoured rural areas into national and international economies (Pinstrup-Anderson & Shimokawa, 2010).

According to the Presidential Infrastructure Coordinating Commission (PICC, 2012), infrastructure is critical in promoting balanced economic development, unlocking economic opportunities, promote mineral extraction and beneficiation, address socio-economic needs, promote job creation and help integrate human settlements and economic development. The impact of infrastructure on economic growth and poverty reduction takes the form of first-round effects, followed by subsequent impacts. In the first round, infrastructure development produces two initial effects that could lead to poverty reduction through economic growth. These two initial impacts are the supply side and demand side impacts. The development of infrastructure improves the supply side of the economy by reducing cost, enhancing the business climate, thus making room for better access to market opportunities and opening up new opportunities.

According to the state of infrastructure in South Africa (2012), infrastructure contributes to economic growth, through both supply and demand channels, by reducing costs of production, contributing to the diversification of the economy and providing access to the application of modern technology, thus raising the economic returns to labour by reducing workers' time in non-productive activities or improving their health. These supply side effects attract domestic and foreign investment, increasing employment and national output. According to the Asian Development Bank (2012), many studies have been conducted to understand the relationship between infrastructure and growth that lead to poverty alleviation, but the results are not inclusive. However, infrastructure comes in many ways and influences growth and poverty reduction in different ways. Infrastructure promotes inclusive growth which can reduce poverty directly or indirectly because infrastructure development creates jobs and economic activities.

2.3 Impact of infrastructure on poverty measures

2.3.1 Impact of infrastructure on livelihoods

According to the World Bank report (2012), access to infrastructure empowers communities; it provides lights to the streets, provides gases to homes and contributes to society having access to tap water and proper sanitation. The use of electricity at

household level promotes sustainable development because it reduces the use of fire wood and the environment is also preserved because deforestation will be reduced. Insufficient or poor infrastructure limits citizens' access to markets, as well as livelihood opportunities and services such as clean water, education, health, transport and communication. (Ozgen & Minsky 2007:49-79) argues that low levels of social and physical infrastructure in rural areas hinders access to credit ,input, technology and information about markets and results in constraints for entrepreneurial development , their belief was to promote entrepreneurship as a strategy that could be used to fight poverty in developing countries. Businesses in rural areas tend to fail due to lack of access to markets, poor roads and poor infrastructure

According to an ILO report, although infrastructure development is not identified as a direct Millennium Development Goal (MDG) target or indicator, without it many of the targets will not be met and that sustainable infrastructure is not only an essential standard. According to Haggblade (2007) in (Moorman & Gezahegn 2011) generating rural nonfarm employment is a strategic priority for many developing countries during their economic transformation from an agricultural to an industrial society part in improving the livelihoods of the poor, it also provides opportunities for creating jobs during development, operation and maintenance ILO (2010) in Kumo (2012).

Rural areas depend on agriculture as a means of food production and employment, poor quality infrastructure and lack of electricity is seen as a factor that affects rural no-farm, income and employment (Gibson & Olivia 2010:712), (Aliber 2009) , (Jacobs, Aliber, Hart & Donovan 2008).Infrastructure development is important for poverty alleviation and employment creation in poor countries. But rapid modernization of infrastructure is indispensable for sustainable development of advanced economies as well. Well-developed infrastructure ensures better living conditions for the general population and improves the competitiveness of private businesses.

For instance, the latest enlargement of the European Union highlighted the importance of bridging the infrastructure gap between the old and the new member states. It is argued that without the creation of good basic infrastructure in the new member countries in sectors such as electricity, gas, water, telecommunications, postal services, local

transport and waste disposal, the vision of a modern Europe with favorable living conditions in all regions will only remain a dream (Euractiv 2010) in (Kumo 2012). A study was conducted to determine how urban green infrastructure can directly benefit the urban poor, it was found that with prioritization and desire, and with increased funding and a heightened awareness of the direct poverty reducing benefits of green infrastructure, cities can achieve two important goals, a healthier environment and a more stable, prosperous, and healthy citizen(Dunn 2010)

2.3.2 Impact of infrastructure on Income

According to the study conducted by Garr (2010), income of people is regarded as an indicator of their purchasing power and probably one of the indicators of poverty. People who earn high incomes are able to stay out of poverty because they can afford consumer goods and services that improve their wellbeing and living standard, while people with low income can be trapped in poverty because they are unable to afford basic goods and services. Investment in infrastructure such as roads, irrigation, and electricity can lead to high incomes for farmers and traders through increase in productivity and access to markets. Similarly, roads and electricity can lead to the creation of non-farm jobs that leads to high incomes for rural people (Straub 2008:7) in Garr (2010).

According to Pillay and Bass (2008), Infrastructure development creates opportunities for employment but the question is are they sustainable? during the construction of stadiums for hosting the world cup 2010, more jobs were created but unfortunately many people who were employed that time were temporary, employment resulting from developing roads and bridges also contribute to short term solutions for unemployment. In terms of alleviating poverty, infrastructure does not have much impact because only a few jobs can be sustained for maintenance of the infrastructure created.

2.3.3 Impact of infrastructure on health

According to Agenor (2008), infrastructure affects not only the production of goods but also the supply of health services. In a community where there is no health clinic poverty can cause serious disease outbreaks. Poor roads can also delay mobile emergency services to reach the community and also result with people having to walk a distance to access health services to the nearest town.

2.4 Conceptual Framework

2.4.1 The concept of Infrastructure

There is no specific definition of infrastructure, however it is broadly defined. It refers to all basic inputs and requirements for the proper functioning of the economy. According to Fulmer (2009), there are many attempts that have been made to define infrastructure by Provinces and States, Professionals, National Agencies, Trade organizations, Municipalities, the financial community, Academia and dictionaries. The definitions are inconsistent and are based on the sector describing it, but they often have a common understanding through various definitions. All definitions of infrastructure have similar characteristics and define it as interrelated systems, physical components and societal needs.

This is supported in literature by The American Society of Civil Engineers (2009), that defines infrastructure as a tool that supports human activities, it includes complex and interrelated physical, social, ecological and technological systems such as transportation and energy production and distribution, water resources management, waste management, facilities supporting urban and rural communities, communications, sustainable resources development and environmental protection.

According to Weisdorf (2007), infrastructure is defined as the essential facilities and services that promotes the economic productivity of a community or as assets that an organization depends on. It includes assets that are involved in the movement of goods, people, water and energy. Chambers (2007) classifies infrastructure as assets that include transportation structures such as roads, bridges, tunnels, railways, airports and seaports, energy and utility companies, communication entities and social services such as educational facilities.

2.4.2 What is Poverty?

Although the level of poverty has dropped between 2006 and 2011, South Africa still faces high levels of inequality. The poverty trends report measures inequality in terms of a Gini coefficient which is a number ranging from 0 to 1 where 0 indicates total equality and 1 indicating total inequality STATSA (2014).

Poverty is defined as the condition where people's basic needs for shelter, food and clothing are not met. Poverty is a multi-dimensional phenomenon. It is not only about lack

of income, but it is also about human deprivations in areas of health, education, participation and security Namara et al (2010). For example, lack of adequate food, shelter, education, health, and vulnerability to natural disasters such as floods and droughts are part of this phenomenon. World Bank (2009) identify dimensions of poverty and they are: lack of adequate income or assets for generation of income, physical weakness as a result of under-nutrition, disability or sickness, physical or social isolation that affects access to goods and services, vulnerability to risks and exclusion from decision-making processes (often through abuse of power) within the existing economic, political, cultural and social spheres.

Garr (2010) described poverty as people living under conditions characterised by low income or unstable source of livelihood, lack of shelter, no drinking water and sanitation, lack of health care, lack of access to education, information and security, social exclusion and lack of opportunities.

According to UNDP (1997) in Cook (2011), traditionally, poverty has been understood through its connection with inadequate levels of income and consumption, identified either in terms of inadequacy of food availability and consumption, insufficient fulfilment of basic needs or inadequate levels of income to meet basic needs. The minimum requirements, which were originally considered solely in terms of calorie-intake or food requirements, are now considered in terms of basic needs, which take into account both food and non-food requirements for the minimally acceptable fulfilment of human needs. Based on this concept of basic human needs, poverty is considered a deprivation of the minimum necessary level of material requirements including food, as well as basic health, education, and essential services required in order to prevent people from falling into poverty.

2.5 Is there a link between infrastructure and poverty alleviation?

According to Pouliquen (1999), infrastructure acts as a catalyst for development because it promotes the impacts of interventions that enable the poor to have access to assets such as human, financial social and natural assets. Infrastructure has a role to play in poverty alleviation in rural areas by improving access to goods and services, if public investments on roads are increased; it helps farmers to set up small rural nonfarm businesses such as food processing and marketing enterprises. The farmers income is increased and also productivity and thereby contributing to poverty reduction because

more nonfarm employment is created. If the roads are poor it causes constraints on agricultural production process in rural areas, the cost of transporting inputs and the harvested crop becomes very high.

Based on the literature review, the researcher argues that there is a relationship between poverty and infrastructure. Infrastructure alone cannot reduce poverty but it requires other stimulants such as education, health and finance. Education and health indicators are the necessary components for human development which helps people to be productive and improve their standards of living (Awen, Malik, Sarwar & Waqas, 2011). When people are healthy they are able to participate in development projects through effective use of natural resources, technology and skills. Education contributes to poverty reduction through higher earnings, educated people have the opportunity to enter the labour market with higher salaries and this result with affordability of all basic needs and materials required to escape poverty line.

According to Bradshaw (2006) who described the economic theory of poverty as the poor who lacks the means to improve their conditions. Infrastructure has a serious negative and positive impact on livelihoods and businesses. For businesses in rural areas to contribute to poverty alleviation, it requires support through economic infrastructure that can improve their businesses to generate more income and employ more people .The researcher agrees that lack of economic infrastructure can cause poverty but through the provision of economic infrastructure together with skills and financial support poverty can be alleviated. It is believed that the construction of a road in a rural area can contribute to poverty alleviation due to more people benefiting from jobs that can be created (Khandker, Bahkt & Koolwal, 2009). Access to roads has a market advantage for agricultural business, farmers are able to take their produce to market without delays and it also reaches the market in good condition because quality would not be compromised due to poor roads.

The types of infrastructure differ across businesses and its purpose. In an agricultural business, it is believed that improving irrigation system can contribute to poverty alleviation through increased food production and income. Electricity is also regarded as the most important element for any business to function effectively, therefore electricity supply in an economy is very crucial, without electricity there would be loss of income and firms will be forced to retrench employees contributing to high unemployment and leading

to poverty. Electricity can contribute to faster production that leads to increased growth.

2.5.1 Link between roads infrastructure and poverty

According to Ndebele (2010), road construction is not only important because of the income impacts during construction but it is also important for its developmental consequences of providing isolated rural areas with easier access to markets and health services. Ndebele further states that road construction contributes to poverty alleviation in two ways, firstly it serves as a platform on which further infrastructure and economic development can take place. They open access to markets for agricultural produce, allow access for tourism and other forms of industry thereby stimulating the local economy. Secondly, by making use of local resource, some of the funds directly stimulate the local economy.

2.5.2 Electricity access and poverty alleviation

Improving access to electricity has a strong impact on poverty alleviation, rural electrification raises the use of irrigation and improves the performance of small businesses and technology and it also lessen their vulnerability to shocks. According to Khandker, Barnes and Samad (2009), improving access to modern energy is very important for rural people because it enables them to increase their production, improving their standard of living and income. Small businesses in rural communities tend to be less productive without electricity because lack of electricity restricts them from using technology such as machinery and ICT. The functionality of these businesses is limited to day time operations only because at night they don't have light. Access to electricity can help small business to increase their production through operating night shifts which might results with increased income, employment and entrepreneurial opportunities.

Brennemen and Kerf (2002) states that lack of enough electricity services in a country has a negative impact on the economy. Business owners will not locate their businesses in areas where there is no electricity because their production will be limited to manual labour; inability to use electrical machinery will delay their production. Areas without electricity tend to have lower education and health levels of workers and poor standard of living. The businesses that are already in existence in areas without electricity will not be able to grow and expand beyond customer bases. Agricultural production is also affected by lack of electricity, the use of wood and other natural resources as fuel also has a

negative impact on agricultural production. Supplying communities and industries with adequate electricity services can contribute to raising the GDP, productivity and employment.

According to Adam (2010:9), the South African government acknowledges that there is a link between access to electricity and poverty alleviation, the government took an initiative to develop a policy framework on free basic services including electricity. Niez (2010:91) states that the Integrated National Electrification Programme in South Africa has contributed in the creation of 32, 995 jobs. Electricity access impacts on the poor directly through self-employed activities and indirect through the provision of the poor with socio-economic activities that benefit them. Ijeoma and Okafor (2014) argues that increased access to electricity does not directly alleviate poverty and economic development but sees electricity access as a vital means to achieve such conditions. Both domestic and other small scale activities achieved through electricity access improves living conditions of the poor, indirect benefits of electricity access results with improved health-care provision, efficiency in school activities, reduction in indoor air pollutions and fire incidents resulting from the use of firewood.

2.5.3 Water access and poverty alleviation

According to the human development report (2006) lack of access to water is one of the causes of poverty and inequality. Water is regarded as a limiting factor in the success of food production and energy security. In South Africa, rural areas are characterised by lack of adequate water resources. Improving access to irrigation infrastructure and household water taps can increase food production in irrigated fields and household food production. According to Mweso (2014:3) poverty reduction requires that serious consideration with regard to access to water that goes beyond domestic use be given more attention to ensure that there is proper infrastructure to supply water to ensure that households are able to engage in small-scale farming that includes growing crops and earning an income. This would contribute significantly in impacting the living standards of people living in rural areas.

As stated in chapter 1 of this study, the SA government established the Free Basic Services Policy in 2001 committing to provide free basic services to poor households; the services included 6 kilolitres of water per household per month within 200m of the household, however rural areas are struggling to access clean water, many cases are

reported on the news on television where people find themselves fetching water from rivers where animals drink water.

2.5.4 Link between ICT and poverty reduction

According to Chilimo and Ngulube (2009), Information and communication technology such as computers, telephones and the Internet are important tools for socio, economic development and poverty reduction in developing countries. This is supported in literature by the World Bank (1998) and UNDP (1999) who stated that ICT have the potential to improve the welfare of the poor by providing opportunities that increase social capital, improved availability of market information, creating new economic opportunities, improved economic efficiency and competitiveness, provide better access to health and education and education facilities. Lack of proper communication infrastructure in rural areas can cause low levels of investment because investors will not be interested in locating their business in areas with poor communication infrastructure, they will opt to locate their businesses in areas that have sufficient, proper access and affordable access to ICT services because it improves access to markets and information. It is very difficult to start, develop and expand a business that employs the poor in area where there is lack of information. Businesses that lack adequate information about products and markets often pay higher prices than market prices for inputs and often sell their finished goods at a lower price.

According to the World Bank (2001), ICTs have a potential of creating earning opportunities through access to information, it improves access to basic services. It also serves as a tool which the poor can use to request government support and reform.

2.6 Review of how different countries used infrastructure investments for poverty alleviation.

According Seetanah, Ramessur & Rojid (2009), the study for 73 rural areas in the Philippines on road infrastructure investments, the results states that infrastructure proved to be the strongest successful predictor of successful poverty reduction. Again the study of 25 Provinces in Indonesia proved that government investments in irrigation, roads, health, science and technology contributed to a decline in poverty. According to Park and Wang (2010:790-799), China established the three main government poverty investment programs and was administered by different government agencies. The first program that

was used is the subsidised loan program and it provided cheap credit to households and enterprises for income generating projects, it was administered by the Agricultural Bank of China and it was supported by the Ministry of Finance by paying interest subsidies. The Second program used by china was the Food- for –Work program and its purpose was to finance rural infrastructure projects by paying for material costs while villages contributed with labour, this was done by the National Development and Reform Commission. Initially the program focused on roads and drinking water projects but it was expanded over time. The third program used is the budgetary grant given to local governments by the Ministry of Finance to finance different public investment projects in poor areas. It was found that lack of coordination between different government agencies was difficult because they were reluctant to release authority over the resources they control.

Lack of inter-agency coordination resulted with investment plans with budgets that exceeded the actual investment financed. Planning was done to fulfil the mandates of the agencies and not the needs of the community. Ozgen, & Minsky (2007:49-73) conducted a study based on the Rural poverty world report 2001 which emphasised the need for policies that supports rural poverty. They used a strategy that promotes rural entrepreneurship as an effective tool for alleviating rural poverty in developing countries.

Khandker, Bahkt and Koolwal (2009:685-722) believes that a rationale for public investment in rural roads is that households can better exploit agricultural and nonagricultural opportunities to employ labor and capital more efficiently. Significant knowledge gaps persisted as to how opportunities provided by roads actually filter back into household outcomes as well as distributional consequences. The gap led the Author's to conducting a study that examined the impacts of two rural road-paving projects in Bangladesh using a new quasi-experimental household panel data set surveying project and control villages before and after program implementation. They used a household panel fixed effects methodology to control the initial area conditions and to estimate the impact of paved roads on household and individual outcomes and also to account for potential bias in program placement at the village level.

The results states that rural road investments were found to reduce poverty significantly through higher agricultural production, lower input and transportation costs, and higher agricultural output prices at local village markets. Rural road development has also led to higher secondary schooling enrollment for boys and girls, as compared to primary school

enrollment. They also found that road investments have also benefited the poor, meaning the gains were significant for the poor and in some cases disproportionately higher than for the non-poor. Sawada, Shoji, Sugawara and Shinkai (2010:1-28) investigated the role of irrigation infrastructure in mitigating poverty dynamics in Sri Lanka. The findings indicate that irrigation reduces chronic poverty by enhancing permanent income and that it also eliminates the negative impact of transient poverty by reducing the downside expenditure risk.

A study was conducted in Bangladesh on the Economic and social impact of rural electrification program, it was found that rural electrification has a significant impact on the reduction of income poverty and other dimensions of human poverty including health, education and women empowerment (Barkat 2002) .It was also found that electricity access in rural areas has a high impact on agricultural development, industries and businesses. According to Chawdhury (2006), electricity provision in rural areas has a major role to play in rural development. Electricity can impact social and economic livelihoods for rural population. The impact will be for households to be able to light their houses, food processing and refrigeration.

India used the Integrated Rural Development Programme (IRDP) which was meant to increase the income for emerging farmers and labours who did not own land (Yesudian 2007). They were provided with subsidies for loans, skills and infrastructure to improve their ability to generate income. The programme was found to be ineffective because it attempted to develop entrepreneur out of the labourer who had neither skills nor experience to manage an enterprise. Projects were found to be unviable and it led to collapsing of the projects.

According to Phoya and Haupt (2008:72-90), Tanzania adopted the labour base technology which was known to have been used by International Labour Organization, United Nations Development Programme and the world Bank to address poverty, unemployment and infrastructure provision in informal settlements. The authors conducted a study to determine the potential of poverty alleviation and employment creation through labour base technology revealed that the participation of beneficiaries in infrastructure development creates jobs during construction and the use of income received results with improved quality of life and contributes to sustainable development and poverty alleviation. The Labour base technology also plays a major role in human

development because it provides a room for training and acquiring of technical expertise on the job training during construction which enables communities to be empowered and to obtain better jobs.

Sri Lanka used two anti-poverty strategy by means provision of loans to the beneficiaries, the Sarmudhi and Gimidiriya programs (Samaraweera 2010:60-65). The Sarmudhi programme is known to be controlled by the Central bank and it has high interest rate while the Gimidiriya was known to be the people's organization and has low interest rates, it was found that beneficiaries of Gimidiriya were able to increase their income by 32% while those of Sarmudhi could raise their income to 20%. 100% of the borrowers were reported to have used the money for income generation activities. A positive impact was found under the Gimidiriya programme where rural communities were empowered through provision of knowledge, skills enhancement and capacity building of communities, the programme contributed to village development, poverty reduction and reduced dependency by improving leadership ability, increasing social values and encouraging self-reliance.

2.7 Poverty alleviation strategies in South Africa

As stated in chapter one of this study, the government have tried so many strategies in an attempt to reduce poverty since democracy emerged in South Africa in 1994. The strategies used were Reconstruction and Development which aimed at reducing poverty for the majority of South Africans and also redressing inequality and the injustice of apartheid, followed by Growth, Employment and Redistribution. In the year 2006 the Accelerated and Shared Growth Initiative of South Africa was launched, it was believed that the initiative will reduce poverty, unemployment and also increase economic growth. The country was hoping to achieve its development goals of halving poverty and unemployment by 2014 and also raise economic growth by 6% between 2010 and 2014. The outcome of the initiative was not good because economic growth did not increase much it was found to be 2.8% during the year 2010 and it was also believed that it might remain below 4% for the remaining period set (Kumo 2012).

The provision of the state grant is seen to be the most effective against the fight in poverty alleviation (Jacobs, 2008).The government provides grant to the old age, pensioners, disabled, Orphans and children. Households receiving grant spends more on food and education, thereby contributing to human development and well-being indicators. Other

programmes implemented were the National School Nutrition Programme (NSNP), Extended Public works (EPWP) Programme was established to create short term employment for unskilled labour and also improve existing infrastructure, the Municipal Infrastructure Grant (MIG), Umsombvu Youth Fund (UYF) to encourage youth to become entrepreneurs, Land reform and agricultural support programmes such as the Comprehensive Agricultural Support Programme (CASP) were also implemented to support poor farmers and to encourage food production (Jacobs, Aliber, Hart & Donovan, 2008)

According to the report of the Department of Rural Development and Land Reform published in 2009, the Office of the President launched a Comprehensive Rural Development Programme (CRDP) with the hope to respond to challenges facing rural communities to fight poverty and food insecurities. Its main purpose was to promote community participation in development projects that could create employment and generate income. Participatory development promotes that people should be actively involved in their own development and be able to make informed decisions that will shape their destinies ILO (2015). Community participation is the main key to the success of poverty alleviation projects. The CRDP started as a pilot project in Muyexe in Greater Giyani and Riemvasmak in the North Cape. The communities were mobilised and community based planning was conducted, community needs were identified and lack of economic infrastructure was found to be amongst their priorities. Community members organized themselves into different groups of cooperatives and they became actively involved in their own development.

The Government of South Africa encourages rural communities to participate in their own development by mobilising rural communities to organise themselves as groups of cooperatives to be able to access funding and to share the scarce resources. The groups are found in the agricultural sector, construction, arts and craft and manufacturing. According to the national development plan version 2030, South Africa plans to eradicate and half poverty by 2030. The country has embarked on poverty alleviation programmes that will lead to the achievement of objectives that are on the National Development plan. Infrastructure has been identified as one of the major challenges South Africa is still facing, in rural areas of South Africa there is inadequate infrastructure, lack of economic infrastructure and poor maintenance

2.7.1 Cooperatives as an anti-poverty strategy in South Africa

According to Sagter (2007) cooperatives are known to have existed during the 20th Century amongst white agricultural commercial farmers and they have contributed to the development of South Africa's economic foundations. The cooperatives were formed with a purpose of developing and empowering the white community, they were empowered to such an extent that they managed to emerge as powerful huge businesses that owned agricultural produce, markets and processing industries in rural areas (dti 2012).

During the Apartheid era, cooperatives were used as features that contributed to the economy and were from the financial sector and agricultural sector. Cooperatives owned by white commercial farmers received a lot of support from government who established the Land Bank in 1912 to provide financial support; they were also supported through legislations such as the 1913 Land Act which privileged white people in owning the land while denying black people the opportunity to own the land. Black people's cooperatives did not receive much support by then and it led to collapsing of their cooperatives.

The cooperatives Act No14 of 2005 was established, in South Africa different forms of cooperatives are used, they range from agricultural cooperatives, construction, bakery, self-help groups, mutual cooperatives and consumer stores. In rural communities cooperatives are well known or referred as projects. They are owned by members and they are democratically controlled. Cooperatives are used in SA as institutions for community development for sustainable livelihoods.

The advantage of using cooperatives is that more families benefit from the project. It is also easy for the three sphere of government to fund the projects because more families are employed by the project and in addition contributes to the job creation model. Funding cooperatives benefits more families within a community and contributes to participating in poverty alleviation programs through sharing of scares and available resources. Allahdadi (2011) gave a summary on the description of how cooperatives can be defined in poverty alleviation, agricultural cooperatives are seen as contributors to sustainable growth processes, again they create a more equitable growth and they also tackle poverty through the provision of opportunities to rural people.

Most cooperatives in South Africa are found in the agricultural sector, and are used mostly in rural areas. Cooperatives unlock the potential of rural communities because it promotes self-help organizations whereby people with same goals are actively involved in their own

development by realising the wealth of their communities through the use of natural resources, Cooperatives promotes and encourages entrepreneurship and it also empowers rural people (Ghiasey, Hosseni & Malekmohammadi 2009:1170-1176).

Agricultural cooperatives are regarded as role players in the economy of a country because they can contribute significantly to sustained economic growth (Kwapong & Korugyendo 2010). Farmers organised into cooperatives can agree on various stages of production and distribution to get a better deal .They can be able to negotiate better prices, arrange collective transport and storage facilities. Cooperatives promote value chain and market access. Cooperatives creates real economic benefits for families depending on farming through increasing the stability of the farming sector, improving market access for their products and strengthening the farmers' position in the agri-food chain (Alladadi 2011).

2.7.2 Challenges facing cooperatives participating in poverty alleviation projects

2.7.2.1 Poor management

Management is an effective tool that determines the performance of a business, it is about planning, controlling resources, preparing work plans, monitoring and evaluating the success of a business or company (Hamel 2008). Poor management is a serious challenge facing cooperatives participating in poverty alleviation projects. Cooperatives tend to operate in large groups; they face a challenge of poor leadership and lack of commitment amongst its members. Poverty alleviation projects collapse due to lack of proper management of allocated resources and they always fail to comply with the Cooperatives Act which requires them to submit financial statements every financial year. It was found in literature that enterprises tend to fail due to poor planning, improper financing and poor management (Bowen, Morara & Murethi, 2009). They are unable to work independently and they have a dependency syndrome of seeking handouts from government all the time. The government tries so hard to assist them to initiate their own businesses but they lack the capacity to run the business without supervision.

2.7.2.2 Politics

Politics affect poverty alleviation projects implementation because they are used as short term political tools (DFID 2010). When new leaders are elected in government they come

with their own mandate, they tend to influence policies to favour their term (Bunkanwicha & Wiwattankantang 2009). This creates confusion between planners and local councillors at the ground because they hold different mandates, planners are there for a long time while politicians are there for a short term. Development projects are planned to fulfil the mandate of the ruling party and often there is a mismatch.

2.7.2.3 Corruption

According to Aidt (2009:271-291), corruption is seen as a catalyst that can speed up the process for helping entrepreneurs to access funds and create wealth fast. On the other hand corruption is seen as an obstacle for development. Following a study conducted by Osei-Tutu, Badu and Owusu-Manu (2010:236-256) with a purpose to examine corruption practices in procuring infrastructure for projects in Ghana, they found that conflict of interest, bribery, tender manipulation were dominant in the delivery system of infrastructural projects. They also recommended that procurement policies be developed to improve procurement systems, in order to enforce good governance, promote corporate social responsibility, transparency and accountability. Corruption affects economic growth of a country because if the state has a culture of corruption dominating it loses investments (Johnson & Yamaik 2011). According to Omololu (2007:028-037) a corrupt state faces high levels of poverty, inadequate public utilities and infrastructure, it also faces challenges such as social tensions, violence and high crime rate.

2.7.2.4 Lack of Finance

Cooperatives tend to fail to grow their enterprises due to lack of access to funds. They are unable to access loans or credit to help them expand their businesses because they lack the means to pay back the credit (Bowen, Morara & Murethi 2009). Cooperatives depend on government funding for financial assistance, government departments are faced with a challenge of budget constraints and it is difficult to assist the projects continuously, the government always strives to establish but sustainability and maintenance is an issue they are failing to address.

2.7.2.5 Lack of skills

Education is one of the factors that is critical against fighting poverty; it impacts negatively and positively in the growth and success of a business. Poverty alleviation projects tend to fail because members lack the technical knowledge, access to new technology, training in

business and leadership skills. Access to markets beyond their locality is another constraint that hinders the success of the projects. Education is important in democracy because it gives people opportunities to talk in governance; it also unlocks opportunities for citizens to take advantage of new economic growth opportunities.

2.7.2.6 Mortality

According to the Department of Trade and Industry (2012), cooperatives are facing a major challenge of collapsing in all sectors, the report recommended that there is a need to intervene depending on the sectors. Although the government has tried so hard to support cooperatives through infrastructure and funds, most cooperatives in rural areas especially in the agricultural sector have collapsed. Cooperatives collapse due to lack of governance amongst members; they are unable to work together. There is no value chain coordination and it results with difficulty to access markets. Cooperatives have been found to have contributed to food security through diversified production and marketing (IFAD, 2010).

Primary cooperatives prefer to operate in silos, they fail to organise themselves into primary and secondary cooperatives. The dti report further stated that the most vulnerable cooperatives to mortality were found in trading with the highest percentage of 98, 2, followed by multipurpose and transport with mortality rate of 94%, and the third sector was services at 91, 1%.

Despite the cooperatives facing challenges of collapsing, as stated in chapter 1 the government still continues to use cooperatives as anti-poverty strategies, because the government believes that cooperatives contribute to poverty alleviation through small holder producers who participate in food production. In rural areas agricultural projects, construction projects, arts and craft projects are used as means for creating jobs and poverty alleviation. Although literature reveals that cooperatives have been found to have contributed to the creation of millions of jobs around the world (ILC, 2007). In South Africa, the model is not working because the cooperatives are not sustainable and they are unable to create jobs. The same members who started the cooperatives find themselves to be caught in the same level of poverty due to failure of the cooperative to generate income that can lead to payment of salaries and sustaining the cooperatives. According to the ILO report (2014) cooperatives have been identified as having an advantage in achieving the sustainable development goals which includes ending extreme poverty

including hunger, they have the pros of identifying economic opportunities for the poor. They also contributed to human development through education because they provided opportunities for raising income where members were able to afford school fees for their children (Develtere, Pollet & Wanyama, 2008). In South Africa, cooperatives are faced with a high level illiteracy and lack of skills to run business that can contribute to raising incomes that can contribute to paying funds for university studies of their children. Table 2.1 one below indicates the mortality and survival rate of cooperatives study conducted by the Department of trade and investment.

Table 2.1: Mortality rate and survival of cooperatives per sector

Type of Co- ops	CIPC 2009 data	the data baseline study	Survival Rate (%)	No. of dead Co-operatives	Mortality rate (%)
Food and Agriculture	6086	671	11%	5 415	89%
Services	4209	357	8.5%	3 852	91.5%
Textiles	1247	272	22%	975	78%
Multipurpose	3160	187	6%	2973	94%
Construction	1280	202	16%	1078	84%
Manufacturing	1093	137	12.5%	956	87.5%
Arts and crafts	340	103	30%	237	70%
Social	311	90	29%	221	71%
Other	328	89	27%	239	73%
Home Industry (Baking)	334	83	25%	251	75%
Transport	856	50	6%	806	94%
Trading	2708	47	1.8%	2661	98.2%
Financial/Credit Services	233	36	15%	197	85%
Housing	78	25	32%	53	68%
Burial	65	19	29%	46	71%
Mining	78	12	15%	66	85%
Consumer	128	11	9%	117	91%
Recycling and Waste Management	85	7	8%	78	92%

Source: CIPC Register: 1922 – 2009 and the DTI Baseline Study

2.8 Challenges facing South Africa in implementing poverty alleviation programs

2.8.1 Lack of integration between the spheres of government.

According to section 40 of the Constitution of South Africa, the government is divided into three spheres namely: the National, Provincial and Local government. They are interdependent and interrelated with respect to administration and legislation. When it comes to implementing projects and rendering public services the three spheres of government are competing and there is no inter-governmental relation between them. They hold the same mandate of developing and reducing poverty in rural communities but they operate in isolation, they both service the same community without consulting each other resulting with duplication of services and over budgeting and wasteful expenditure. This is supported in literature by (van der Waldt 2014:844-862) who conducted a study on infrastructure project challenges in Dr Kenneth Kaunda Local Municipality and found that 63% of the respondents indicated that lack of integration between the Municipality, Provincial and National government resulted in duplication of infrastructure projects. There is also lack of private sector participation in poverty alleviation programmes. According to Kroukamp (2006), for Local Economic Development to be effective and to make an impact in creating high local economies and inclusive growth there should be high levels of intergovernmental relation amongst all spheres.

2.8.2 Top down approach

Poverty alleviation projects are difficult to implement at grassroots level because most of the decisions and projects that are implemented in communities are planned at national level. Decisions that are taken from the national level often do not match with local community needs and those who implement find it difficult to execute their tasks properly (Ozgen & Minsky 2007:62). Development projects are implemented to fulfil the mandate of the implementing agent. Even though needs analysis can be conducted through community based planning, households profiling and surveys, those needs are often not prioritised. Indigenous knowledge is often ignored.

According to the study conducted by Tshitangoni, Okorie, and Francis (2011:1005-1012) on the performance of poverty alleviation projects in Vhembe District of Limpopo province, it was found that in most of the projects implemented the members were not involved in choosing the projects they desired, the projects were not addressing the member's needs.

There is also lack of consultation of the local authorities. Development planning requires involvement of the local authorities because they have greater influence on the community. They are very good in ensuring that there is participation and effective accountability for local infrastructure and social service delivery for the poor. Local authorities also play a major role in coordinating better communication between the National government, citizens and the private sector. If the Local authorities are not involved, development projects might fail because they have the power to influence decisions taken upon their communities, they own the land and the people, and therefore no development activities can take place without their approval. Very often sub-national levels of governments are not involved in consultations on poverty reduction strategies or economic and infrastructure development policies. Nor are they given the mandate or institutional and financial capacity to plan and deliver local development interventions such as social services, local infrastructure, local economic development initiatives and natural resource management (Nyakor 2007)

According to Tabellin (2010) Culture is regarded as the most important feature often mentioned as a driver of economic development and is the conviction that individual effort is likely to pay off. If individuals are highly motivated to succeed and view economic success as related to their deliberate choices, they are more likely to work hard, to invest for the future, and to innovate and undertake new economic initiatives. Conversely, if individuals regard success as due to luck or to uncontrollable external events, they are more likely to have a passive, resigned, and lazy attitude towards economic activity.

Local community participation is downplayed due to a greater interest in realizing efficiency rather than access on the part of citizens. Some question as to whose values are influencing development decisions often are guided by middle class values of the government officials and consultants. The assisting group does not always have a full understanding of the community.

2.8.3 Governance

There is lack of accountability within the public sector; public money is not managed effectively and efficiently. The poor always suffer because of misusing of funds, wasteful expenditure within government. The tendering system that promotes Black Economic Empowerment contributes to misuse of funds, bidders charge higher prices for rendering their services and this leads to corrupt supply chain officials and bid committee members.

2.9 Summary

A review of literature was conducted and revealed that there is a relationship between poverty and infrastructure. Infrastructure has been found to have both negative and positive impacts to economic development and social development. Poverty was defined multidimensional as people who lack basic means for shelter housing, food, income, and lack of access to health services, lack of social and economic infrastructure and lack of education. A review of poverty alleviation strategies for different countries has been conducted and found how countries like China failed to implement poverty alleviation projects within set time frames and allocated budgets due to lack of integration among different stakeholders. The researcher also discovered that it is possible to achieve poverty alleviation through government support such as loan subsidies and infrastructure investments and skills transfer by reviewing poverty alleviation strategies for India, Tanzania and Sri Lanka. The chapter further discussed South Africa's poverty alleviation strategies and its implementation challenges and how the country continued to promote cooperatives as drivers of economic development in rural areas, despite the mortality and unsustainability of cooperative.

CHAPTER THREE RESEARCH METHODOLOGY

3.0 Introduction

The chapter introduces the research design chosen and how appropriate it was for the study. It also describes the area where the study was conducted as well as the population of the study, sampling method and the size of the sample that was used. It further explains the data collection methods and the variables as well as how data collected was analyzed.

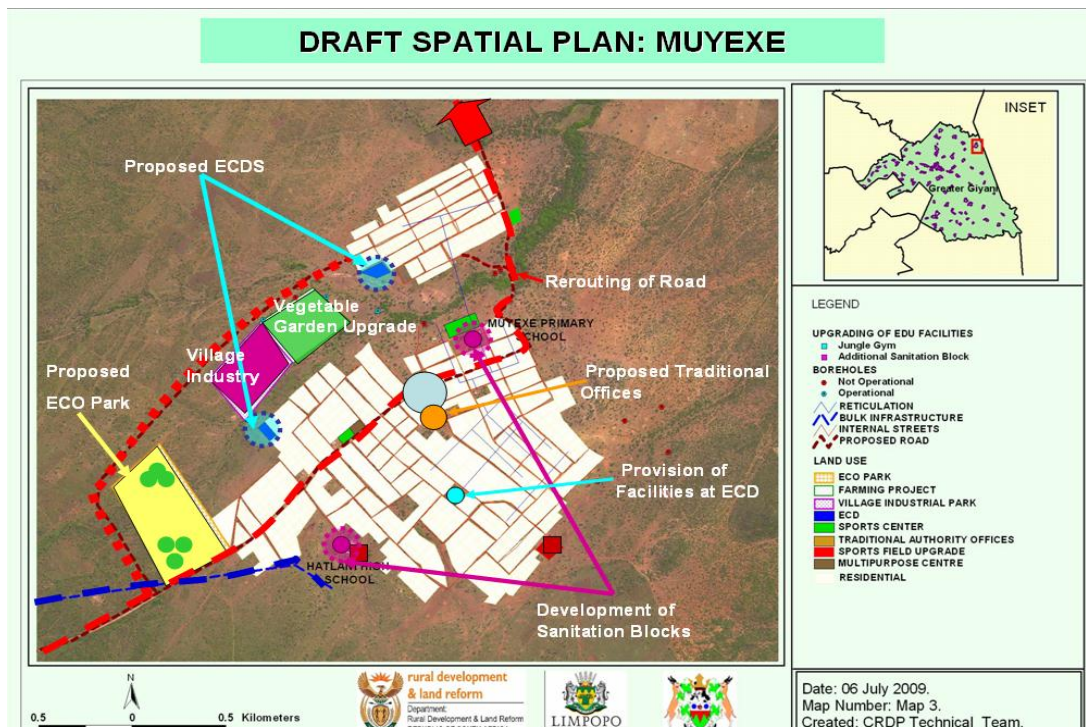
3.1 Choice and rationale of research design

A case study method seemed appropriate for the study due to the nature of the study that was conducted in the field and it provided flexibility for the researcher about the programme evaluated and the people's perceptions about their needs in specific situations. The objective of the study was to assess the impact of infrastructure support programmes on poverty alleviation, households were provided jojo tanks, fencing for back yard gardens and agricultural inputs while members of projects were provided irrigation systems and pack house construction, while others were provided modular buildings with furniture, brick laying machines and construction of store rooms.

Both structured and unstructured questionnaire were used because it was believed to be appropriate for the study and it was also a convenient method of data gathering which had low costs. A survey using questionnaire seemed to be the easiest method that was administered to the respondents who participated in the study. The research questions focused on those who participated in infrastructure support programs aimed at poverty alleviation and was compared to those who did not participate on poverty alleviation projects. A list of households who were provided with infrastructure was obtained from the Department of Rural Development and Land Reform; participating projects were identified in the community through the assistance of local institution called Council of stake holders responsible for development activities in the community. The study aimed at gaining knowledge and personal understanding of poverty and how participation in such programmes improved livelihoods and income of members.

3.2 Study area

The study was conducted in MUYEXE Village in Greater Giyani Local Municipality in Limpopo Province. MUYEXE village is situated 40km outside Giyani Town. The map below indicates a draft spatial plan for MUYEXE infrastructure projects that were implemented after the site was declared a Comprehensive Rural Development in 2009.



Source: CRDP Progress report 2009

Figure: 3.1 Map of MUYEXE

The Village was declared a Comprehensive Rural Development Programme (CRDP) site in 2009 due to its lack of development. According to the Integrated Development Plan (IDP) (2010-2011) of Greater Giyani Local Municipality, the village was underdeveloped in terms of its lack of basic infrastructural services including water, housing, electricity, and economic infrastructure, educational and recreational facilities. Stakeholders such as government Departments, state owned Enterprises and NGOs made commitments to support and fund some of the projects in terms of their mandates. The programme was expected to run for two years since its launch in August 2009 under the leadership of Department of Rural Development and Land Reform. Most of the rural communities in Greater Giyani Municipality depend on agriculture and dry land farming is most dominant

in the area. During rainy seasons they plant maize. The CRDP initiative was to support rural people with irrigation infrastructure to promote food security through the establishment of back yard gardens, community gardens and non-agricultural projects.

3.3 Population of the study

The population of the study included all cooperatives (agricultural and non-agricultural) that were supported with infrastructure for food security and infrastructure to develop their enterprises and income generation, households supported with infrastructure for backyard gardens were excluded because their gardens were not functional due to lack of water in the community. 30 members of the cooperatives were interviewed. According to Yount (2006) population includes all people that you are interested in studying. The researcher identified cooperatives as the population of the study that was relevant to the study because they were still actively involved and considered them as the ones who were suitable for evaluating the programme effectively. Six cooperatives were identified in the community ranging from agriculture, arts and craft, bricklaying, cosmetics and poultry. The results were compared between agricultural and non- agricultural cooperatives for their variation with regard to their impacts on the livelihoods for members. The study was also not extended to Thomo village because there was no cooperatives found to be participating on the programmes. The reason why the population was chosen was to determine the impact of the support given and to find out from the beneficiaries' point of view if there was improvement in their livelihoods. What were the challenges facing people participating on the projects? Like what informed stakeholders to provide such service? What were the gaps? What can be done to improve the programmes?

3.4 Sampling method

For this study, stratified random sampling and simple random sampling was used to select project members who participated in infrastructure support programs, the reason for stratifying was because cooperatives in the community were not having the same characteristics and they were very few. The cooperatives ranged from agriculture, arts and craft, cosmetics and bricklaying. According to Onwuwgbuzie and Leech (2007), stratified random sampling symbolises a research selection method which is used to sub-divide a population into small groups to ensure that members of each sub-population are represented in a sample as they appear. After dividing the sampling frame into strata, a random sample must be selected from each strata sample In order to obtain a stratified

random sample, the sampling frame is first divided into sub-populations, or strata (Burns, Duffet, Meade, Adhikari, Sinuff & Cook 2008), (Hebert Sherr & Evans 2013), (Brink & Eva 2009). In order to obtain a representative sample, all the cooperatives were identified in the community through the assistance of the chairperson of the council of stakeholders leading development in the community and the number of beneficiaries was verified per project.

3.5 Sampling size

According to Noordzij, Tripepi, Dekker, Zoccali, Tanck and Jager (2010), Den scombe (2008:141) ,Depoy and Gilson (2008: 234-235) a sample size is the number of people or other experimental units included in a study and it is regarded as a first step required in answering the research question as well as the design of the study. The sample size was drawn amongst 6 cooperatives with a total of 50 beneficiaries. A representative sample of 30 beneficiaries was drawn and 5 members per cooperative were interviewed. The reason for selecting 30 participants was because it was a manageable number and since this was a mini dissertation, time and budget constraints also contributed to selecting a smaller sample.

3.6 Data collection method

Data collection is a process of gathering and measuring information on variables of interests in an established systematic manner that enables one to answer the stated research question, test hypothesis and evaluate outcomes (Chaleunvong 2009). Both qualitative and quantitative research methods were used to assess the programme's impact on households in the project area, the study examined the changes in key household and project member's characteristics before and after project interventions. It proceeded to assess the probability of a household that moved into a non-poor category in order to identify key characteristics which affected the move (Setboonsarng 2008).

Primary data was collected using survey questionnaire which was administered face- to - face with the participants due to high level of the participants. Newman (2003:146) states that qualitative research provides an opportunity for the researcher to interact with members, to listen to their views, interpreting their situations and finding out how they felt about their situation and the programme. The respondents were cooperatives members who participated in poverty alleviation projects supported with infrastructure. They were

interviewed on the types of infrastructure support received or provided to find out which ones they were utilizing, to determine whether participation in such programmes increased their income, were they able to meet their household needs. How have they been living before participating in this programme? The researcher used both structured and open ended questions to allow participants to give their personal views of the study (Creswell & Morales, 2007) (Tong & Craig 2007:351).

3.6.1 Variables

The variables listed on the table 3.1 appears to be relevant to the research question, they were used to design an instrument for collecting information amongst different age groups of participants to determine their views and experiences about the infrastructure support programme and to find out how they responded to the questions. They were used to measure the impacts of the infrastructure support programme on poverty alleviation. Depending on their use, variables may be classified as dependent or independent (Battacherjee, 2012). In this case, the infrastructure programme was regarded as an independent variable because it was implemented to see if it created change or improvement in the lives of the participants. The dependant variable was the outcome of the programme.

Table 3.1: List of variables

Demographics	Age, gender, marital status, education, size of the house hold.
House hold profile	Head, employment status
Cooperative	Type, member, income, produce, income & expenditure, number of days worked, market access
Infrastructure support	Irrigation pipes, fence, modular building, water tank, pack house
Assets	Own house, TV, radio & Fridge, sanitation, ploughs, tractors, goats, chickens, livestock.
Quality of life	Access to water, sanitation, electricity, housing
Health	Nutrition, medication

3.6.1 Validity and Reliability

To determine validity and reliability of the questionnaires used for interviewing, the researcher conducted a pilot study. Reliability refers to a measuring instrument's ability to yield consistent numerical results each time it is applied, it does not fluctuate unless there

are variations in the variable being measured (Babier 2007:143). According to Barker (2003: 327-328) in (de Vos, Strydom, Fouche & Delport 2011) a pilot study is defined as a procedure for testing and validating an instrument by administering it to a small group of participants from the intended population. The researcher obtained permission from the Chairpersons of all projects or cooperatives in the community to conduct the interviews with the members using the questionnaire. The chairperson of each project was requested to communicate with the project members about their voluntary participation and after an agreement was reached. A pilot study was conducted with two members from each project to test the questionnaire to determine whether the methodology, sampling, instrument and analysis were adequate and appropriate. In this case a questionnaire was administered face- to-face with the participants due to the high level of illiteracy. The main reason was to determine whether it answered the research question and achieved its main objective. The pilot study was undertaken to help the researcher to make corrections to the instrument to ensure smooth enquiry in the main enquiry (Battacherjee, 2012). The researcher completed the pilot test and after proving the success of the instrument the researcher proceeded with data collection using the sampled population.

3.6.3 Coding of data collected

Coding is a process of assigning numbers or numerical codes to all possible responses to all questions on a questionnaire as stated by Lutabingwa and Auriacombe (2007:528-548). A score sheet was created to indicate the values on how the responses gathered in the questionnaires were coded. The gender of the respondents was recorded as values 1-2, the male respondent was allocated the value of 1 and the female respondent was allocated 2. The age of the respondent was recorded in years and allocated values from 1-5.

3.7 Data analysis

According to Battacherjee (2012) data analysis is the process of analysing and interpreting data for the purpose of drawing conclusions regarding the research question of interest.

After data collection process has been completed, the collected data was checked, edited and coded for proper entry into the computer programme for analysis. Data was analysed using Statistical Package for the Social Scientists software to evaluate the programme

impact; this was conducted to report the distributions of a sample across a wide range of variables. The main aim was to get answers to the research question in order to draw conclusions and produce the scope of such distributions through frequency. To measure effectiveness and efficiency, organizing and interpretation of data was done to determine if the objective has been met and to evaluate whether maximum results of the intervention has been achieved through the allocated resources. Frequency tables were used to group data indicating the number of observations in each category. Graphs and tables were also used to present the status of cooperatives before support, income generation before and after receiving support. Number of males and females who participated. Monthly income. Access to markets. Status of members in their households before and after participating. Was there improvement in their living conditions, type of assets owned before / assets bought after participating? Access to nutritional food and affordability.

3.8 Summary

The Chapter discussed the case study research design using survey questioners chosen and how appropriate it was for the study. It also described the area where the study was undertaken as well as the population of the study, sampling method and the size of the sample that was used. It further explained the data collection methods and the variables as well as how data collected was analyzed.

CHAPTER FOUR DATA ANALYSIS RESULTS

4.1 Introduction

The previous chapter discussed in what way the research was undertaken. The purpose of this chapter is to present and interpret the empirical findings of this research. In interpretation, the immediate results are translated into integrated and meaningful statistics and findings. The findings are proved to be related to the objectives of the research. The success of this study is assured through both the data analysis and interpretation which are carried out in an orderly manner. The research was based on analyzing the types of infrastructure provided to different cooperatives in the Muyexe village, to investigate how they are utilizing it and the impact it made to their lives in terms of poverty alleviation.

4.2 Results and discussions

Data obtained from the questionnaires was analyzed and interpreted. The results are illustrated, using tables, graphs and charts. This chapter reveals the responses on a question-by-question basis. Results from all sections of the questionnaire are also compared to existing empirical evidence to assess consistency.

4.5 Descriptive statistical analysis

Data was summarized and presented by making use of descriptive statistics. Tables, charts, graphs and percentages were used in the presentation of the findings. The mean, standard deviation, minimum and maximum values for all scaled questions were also computed and used in the explanation of the findings.

4.4 Demographical information

The purpose of collecting demographic information was to enable further analysis to determine the linkages between these characteristics and beneficiaries utilisation and benefit from infrastructure improvements in the area.

4.4.1 Gender of respondents

There was a need to determine the gender of respondents in order to enable the researcher to make demographic inferences concerning the respondents. Figure 4.1 on the next page depicts gender of respondents.

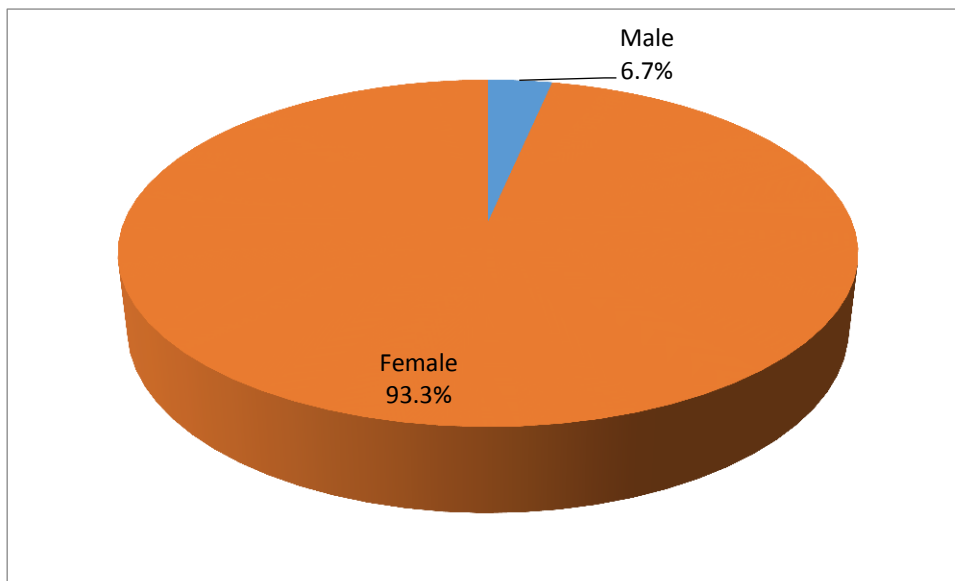


Figure 4.1 Gender of respondents

The pie chart above shows that male participants constitute 2 (6.7%) of the respondents while their female counterparts constitute the remaining 28 (93.3%). It is clear that there is still a huge gap between male and female participants with regard to participation in the programmes mainly designed for poverty alleviation. The reason why males are not participating is because they are working for their families in the cities; traditionally males have to work and support their families while women stay at home and look after the children.

4.4.2 Age of respondents

It is very important to be aware of the age distribution of the respondents. This will enable the researcher to know whether respondents are old or young (Zindiye, 2008:150). The age of the respondent also plays a role in determining how different age groups utilise infrastructure and values the importance of the programme and how it impacts their lives. Table 4.1 below shows the age categories of the respondents.

Table: 4.1: Age of the respondent (n=30)

Age	Per cent
18-35	6.7
36-45	20.0
46-55	40.0
56-69	30.0
69 / above	3.3
Total	100.0

The above table reflects that 2(6.7%) of respondents are between the ages of 18 – 35 years; 6 (20%) between the ages of 36 – 45 years; 12(40%) between 46-55 years; 9(30%) and 1(3.3%) between the ages of 56-69 and 69 and above years old respectively. This proves that there is a huge gap for youth participation in the programme. The reason youth is not participating is that they want quick access to money, it takes a long time to earn an income from the cooperatives and it is too little to afford buying fast cars, cell phones and advanced technology. The youth prefers to seek greener pastures in urban areas and most of the youth in the area are participating in the Extended Public Works Programme and the National Rural Youth Service Cops Programme where they receive stipends. Older people believe in farming and other community activities that will keep them next to their homes and families.

Lack of youth participation in the projects will negatively affect the sustainability of projects in the long-run due to the fact that older people will have to retire at some stage and there will be no one to look after the projects.

4.4.3 What is your marital status?

Determining the marital status of the respondents was for the purpose of comparing the difference between married and single participants, to find out if married participants are independent or dependant on their spouse's income or believes in working to earn their own income. The results clearly states that the majority 56% of the respondents were married and 30% were single, while 6.7% were divorced and widows. The chart below indicates the marital status of the participants. It is clear that married women believes on being financially independent and they also play a role in contributing to the families financially responsibility.

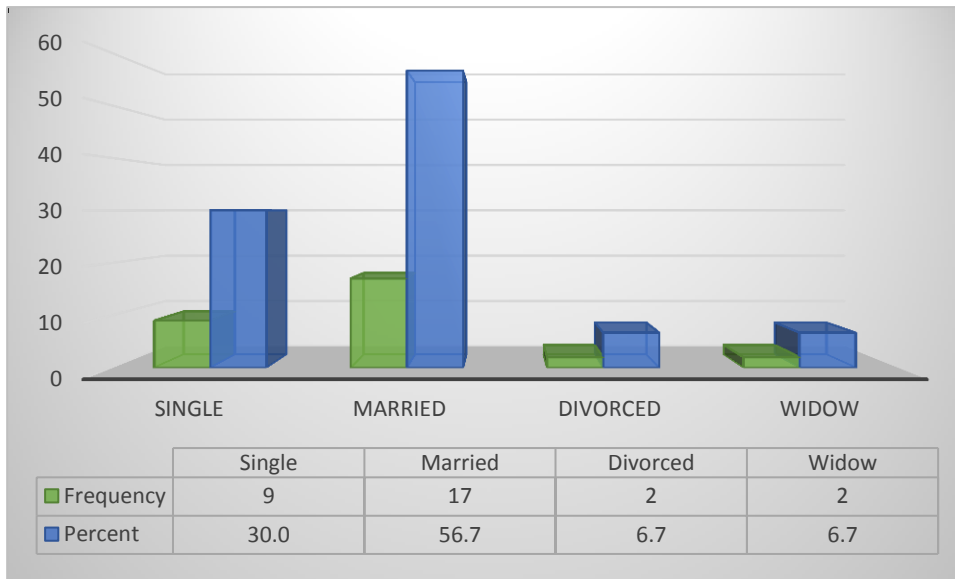


Figure 4.2 Marital statuses of the respondents

4.4.4 What is your position in the cooperative?

The researcher found it very important to determine the positions of participants in the cooperative to ensure that each category is represented. According to the results of the field survey as indicated on the pie chart fig.4.3. It is clear that all categories participated in the survey questionnaire.

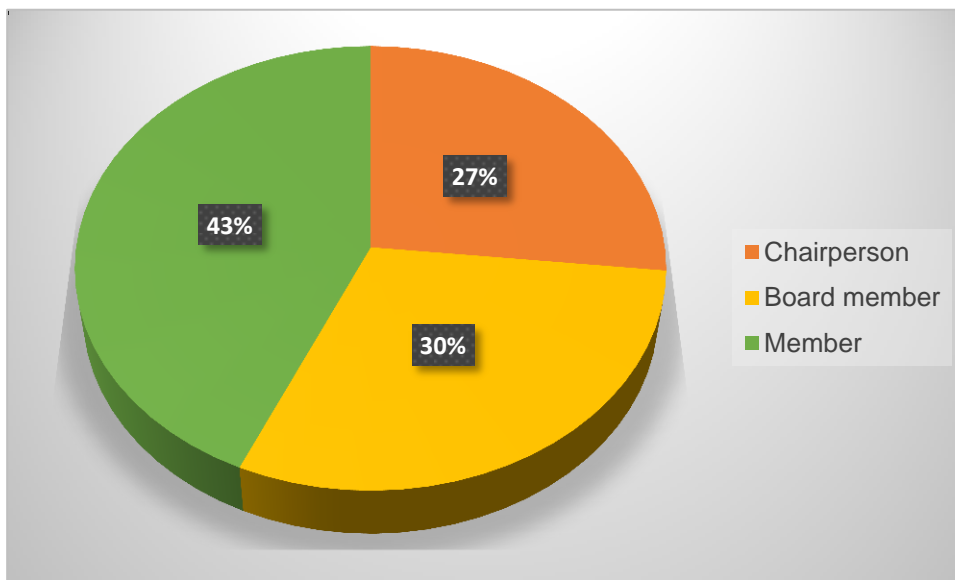


Figure 4.3 Positions of respondents in their respective cooperatives

The results of the pie chart above prove that 27% of the interviewed participants were Chairpersons, 43% were members and 30% were board members. The results clearly indicate that all categories were fully represented.

4.4.5 What is the position of the respondents in their families?

Determining the position of the respondents in their respective families/ households seemed very important for the study and the researcher to be able to determine the role they play and to find out if there is a difference between mothers, fathers and children participating in the programme. The result of the chart fig 4.4 indicates that 6.7% of the respondents were fathers, 90% were mothers and 3.3% were children.

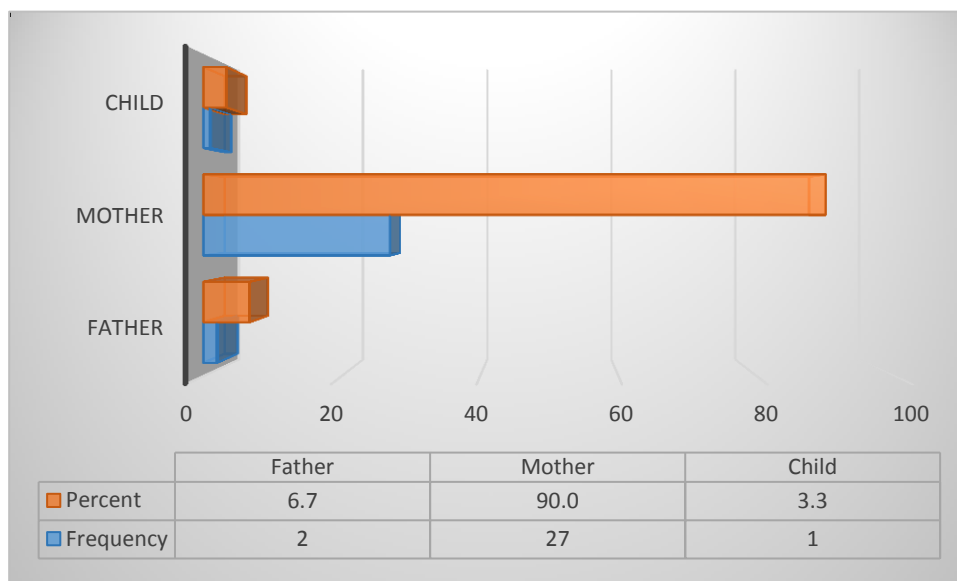


Figure 4.4 Positions of respondents in their families

The reason why mothers were found to be dominating in the programme is because women have been denied the rights to access productive resources such as land before, males were privileged to have access to the land. Women were expected to stay at home doing domestic work and looking after the children while men migrated to urban areas and mines in search for better living conditions. The programme was aimed at up lifting rural women and the youth to empower themselves and also tackle poverty without depending on men.

4.4.6 Employment status

Unemployment is a serious challenge facing rural communities and the country as whole. Unemployment is one of the causes of poverty and it results with other social challenges such as crime, drug abuse, teenage pregnancies, etc. Table 4.2 below indicates that the respondents in the study area were facing a serious challenge of unemployment.

Table: 4.2: Employment statuses of the respondents

Employment status	Frequency	%
Self employed	30	100.0

The above table reveals that the interviewed participants indicated that they were unemployed and poverty had stricken them in such a way that they decided to form cooperatives to create self-employment.

4.4.7 Highest level of education

Education plays a very important role on the success of projects and programmes implemented. Low levels of literacy have a negative impact on the programme because if the beneficiaries are unable to neither read nor write they will experience problems with governance in the project.

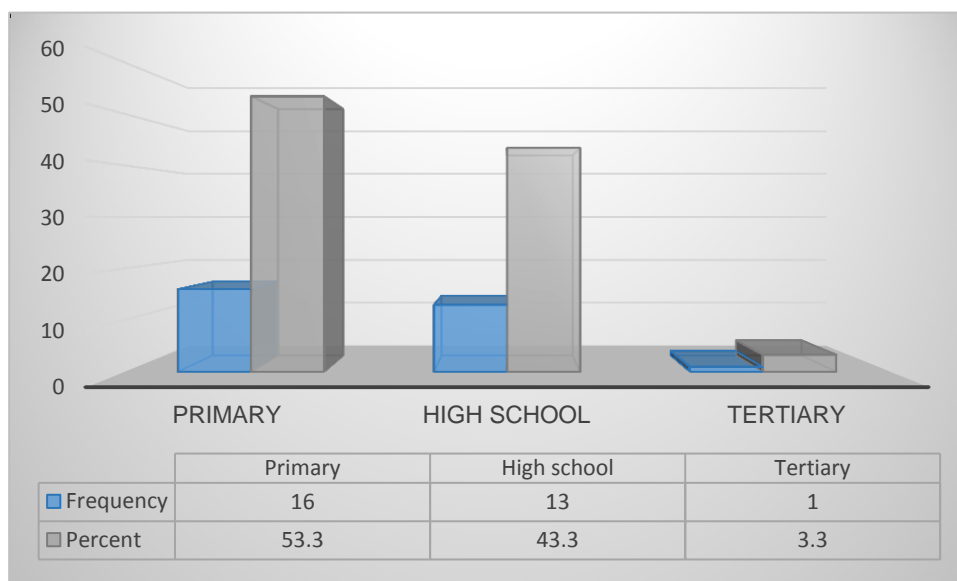


Figure 4.5 Educational levels of the respondents

The above chart reflects that the projects in the study area are dominated by people with low levels of education, 53.3% of the participants interviewed attended primary school while 43.3% attended high school and 3% had been to tertiary education. Low levels of literacy has a negative impact on the functionality of the business, record keeping is one of the major principle required to comply with the cooperatives act. The majority of the project members cannot read nor write especially when it comes to interpreting financial statements, they find it difficult to hold their management accountable of their finances. Increased education attainment and enhanced private capital stock are associated with income gains (Fullerton, Thomas, Carlos, and Morales Walke 2014:5-22).

4.4.7.1 Is there a correlation between level of education and income?

The income of beneficiaries as indicated by the chart fig: 4.6 below proved that low levels of education have a negative impact on income. The income of 73.3% of the beneficiaries ranges from R500-R1000.00, while 23.3% indicated that they were not receiving income and only 3.3% indicated that they receive an income between R2000-R2500 through purchasing of extra own additional materials to design craft in their own time at home to make extra cash. In a cooperative all members have equal share.

There is no correlation between level of education and income because there is no difference between those who have formal education and non –formal education, this is due to the fact that in a cooperative all members have equal share and therefore level of education does not have an impact on the income as they are all entitled to receive equal income. 3.3% of beneficiaries who acquired a formal qualification indicated that they don't receive income, the income of 43.3% with high school is the same as the 53.3% with primary knowledge. Low levels of education affected the incomes of beneficiaries because they were unable to acquire high levels of education and this resulted with their inability to participate in the formal job market. High levels of unemployed graduates also contributes to low income but the percentage of the graduates who participate in the programme is very low, only 3.3%.

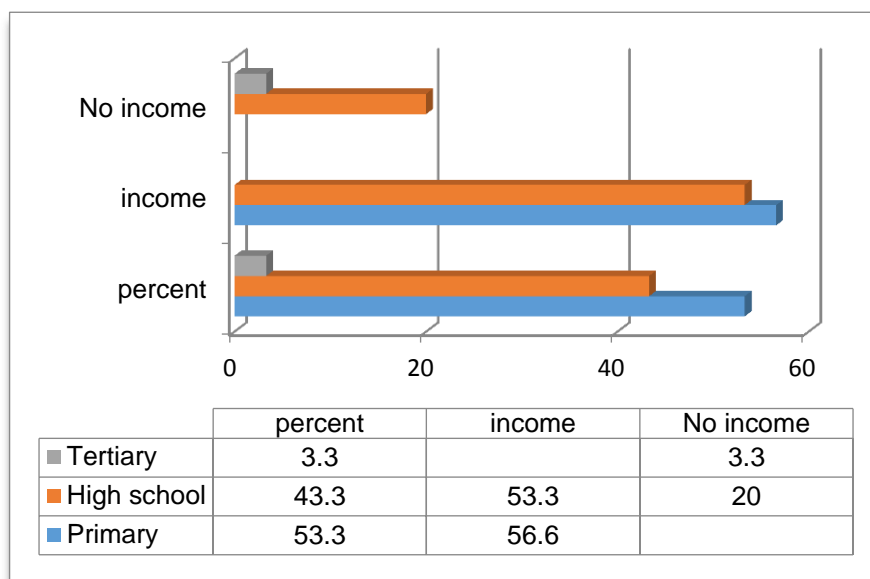


Figure 4.6 Level of education and income

4.5 Training of beneficiaries

Table 4.3 below indicates that 100% of the beneficiaries received training required to function effectively within their cooperatives.

Table: 4.3: Training of beneficiaries

	Frequency	Per cent
Yes	30	100.0

According to table 4.4 below the results indicate that the beneficiaries were trained on different types of skills. To address skills development for beneficiaries different government departments dedicate their budgets to improving skills in rural communities. The beneficiaries indicated that the Department of Rural Development had appointed a service provider to train them on designing of crafts, book keeping, marketing, Business plan, financial management and manufacturing of cosmetics. The Department of Agriculture also contributed in addressing skills development for small holder farmers by providing agricultural extension support and training, agricultural cooperative members who participated indicated that they were trained on production planning, soil preparation, planting, weed control, harvesting and marketing.

The Department of social development also contributed to the training of bricklaying cooperative members, the beneficiaries stated that they were trained on how to mix

cement and also laying of bricks. Beneficiaries indicated that before they received trainings they were operating with their indigenous knowledge.

Although the respondents indicated that they were capacitated on different types of trainings to help them to function effectively in the absence of their funders. The cooperatives were found to be facing challenges of keeping records due to poor writing and reading skills. They are unable to utilise the skills transferred to them because they were not capacitated enough to fully understand the importance of business and financial management. Another reason is that trainings are done through the appointment of a service provider for few days, the time allocated is not enough to fully capacitate the beneficiaries.

Table 4.4: Different types of trainings provided to respondents

Type of training	Frequency	%
Book keeping, Designing of crafts, financial management and business plan.	1	3.3
Book keeping, financial management, marketing and mixing of cement.	2	6.7
Book keeping, marketing, Business plan, Cooperative governance and designing of crafts.	1	3.3
Brick laying, mixing cement, book keeping, financial management.	1	3.3
Crafting, financial management and marketing.	1	3.3
Crop production, pest control, book keeping, financial management and marketing.	4	13.3
Crop production, pest control, book keeping, financial management, marketing and weed control.	1	3.3
Designing of crafts.	1	3.3
Designing of crafts, book keeping and financial management.	3	10.0
Designing of crafted bowls, Business plan, book keeping, financial management, marketing.	2	6.7
Financial management, book keeping, marketing, plant production and pest control.	1	3.3
Manufacturing of perfumes, camphor and aloe vera products.	1	3.3
Manufacturing of perfumes, book keeping, financial management and marketing.	1	3.3
Mixing cement, Brick laying, book keeping, financial management, marketing management.	7	23.3
Plant production, crop protection, book keeping, financial management and marketing.	1	3.3
Plant production, pest control, book keeping, financial management, marketing and business management.	1	3.3
Plant production, pest control, book keeping, financial management and marketing.	1	3.3
Total	30	100.0

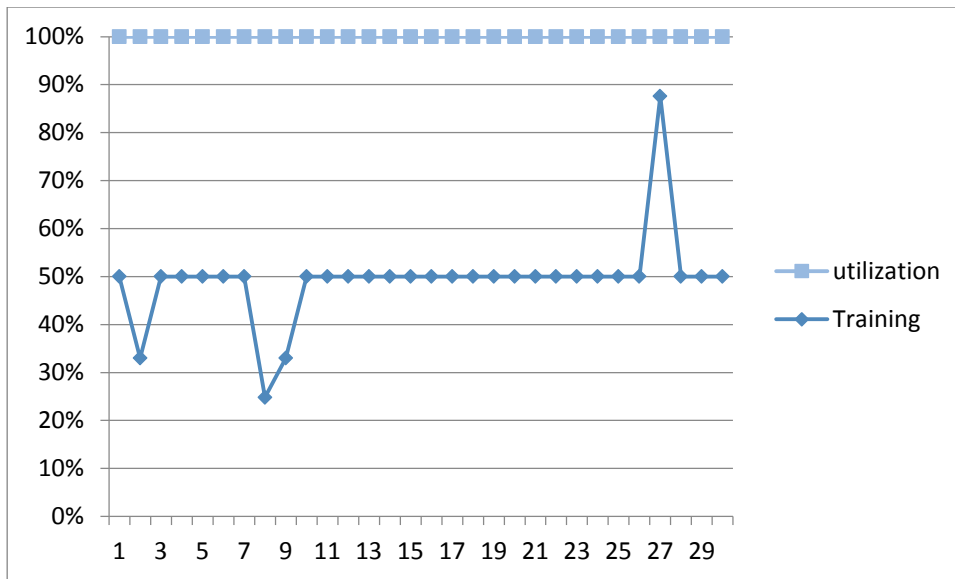


Figure 4.7 Relationship between training and utilization of infrastructure
CORREL =0.131

A correlation function in excel was used to determine the relationship. Training and infrastructure has a positive effect on the performance of cooperatives (Mohammed, Puspa, Zainudin, Izah & Nor 2015). In this case the respondents received different types of trainings but the use of infrastructure is not related to the types of trainings received because most beneficiaries were not utilizing the trainings due to high levels of illiteracy.

4.6 Type of cooperative

The researcher had to identify the types of cooperatives that were involved in the activities of poverty alleviation in the study area in order to select the relevant sample and population. The cooperatives that were identified ranged from agriculture, construction, arts and craft and other cooperatives were from manufacturing of cosmetics. The number and percentage of participants interviewed from the different types of cooperatives is represented by the chart fig 4.8 below.

The results indicates that 30% of the respondents were found to be participating in the agricultural activities where they spent most of their time ploughing and planting vegetables, 33% are in the construction industry in the form of brick laying, 30% participated from the arts and craft and the other cooperative was found to be

engaged in the manufacturing industry where they specialise in the manufacturing of perfumes.

The huge participation in agriculture, construction and crafting is dominated by older women because the youth do not like working with hard labour, they prefer jobs with high paying salaries and without hard labour.

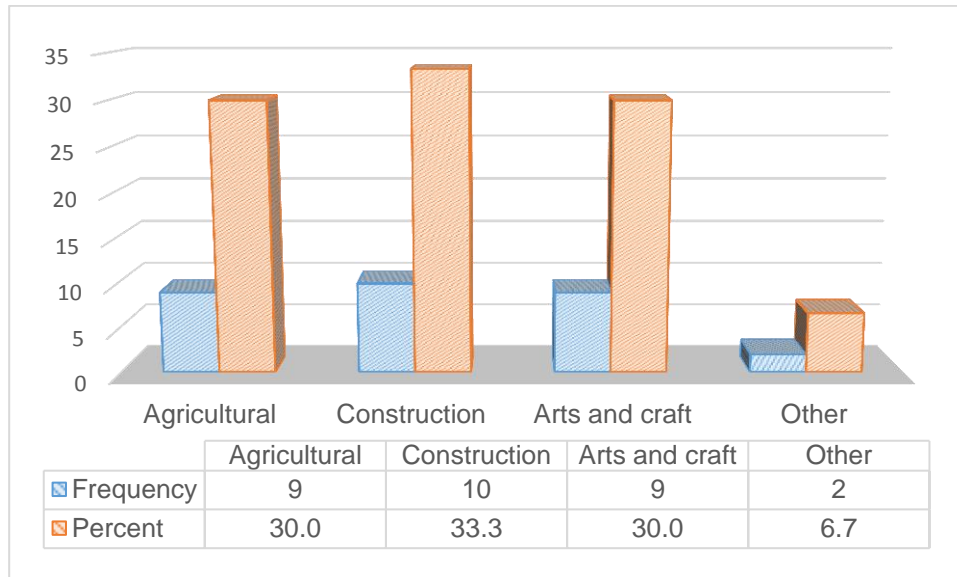


Figure 4.8 Types of cooperatives participated in the study

Hence there is a low participation in the other cooperatives such as manufacturing of cosmetics because they struggle to find a market for their products, young people are impatient and they like quick access to money and if they don't receive income they abandon the projects to seek green pastures elsewhere.

4.6.1 Is there a difference in performance of cooperatives in terms of income generation?

Yes there is a difference in performance of cooperatives in terms of income generation, 26,7% of the respondents in the arts and craft cited that their cooperatives generates between R1000-R2000.00 income per month, 2% in the cosmetics business cited to be generating R2000-R4000.00 per month, agricultural cooperative cited that they were generating R6000-R8000 per month and the construction cooperative cited that they generated R4000-R6000 per month.

According to the chart on the next page fig 4.9 it is clear that the cooperatives are not generating enough money to be able to pay monthly salaries. The most contributing factor is that they are too many in the cooperative and it is difficult to pay themselves with the little income generated e.g. in the agricultural cooperative they are about 34 beneficiaries. The reason they struggle to make more money is due to market constraints, they do not have reliable access to markets and they end up limiting themselves to planting fewer crops which results with less money being generated. The inability of the cooperatives to generate more profit makes it difficult for the participants to afford the good life they wish to live. They are unable to save money due to reinvesting it back to inputs to continue working. According section 3(e) of the cooperatives Act 2005, one of the principles of cooperatives is to ensure that at least 5% of the surplus is set aside as a reserve in a reserve fund and is not divisible amongst its members. In this case the cooperatives are failing to comply with the requirements of the Act.

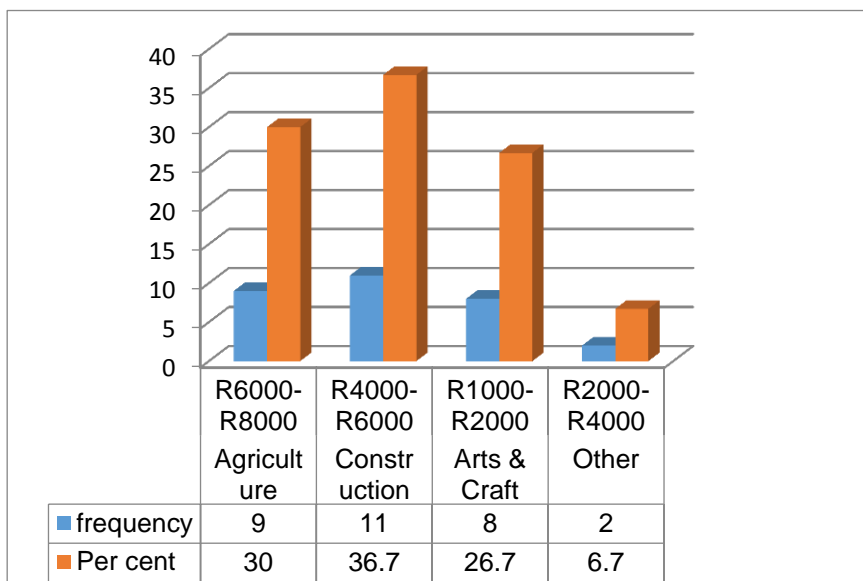


Figure 4.9 Income generation per cooperative per month

Agriculture seems to have a maximal impact because their income generation is higher as compared to the other cooperatives followed by construction.

4.7 How long have you been a member of a cooperative?

Respondents have been participating in their respective cooperatives for more than three years, it proves that they have experience with respect to running their

cooperatives. Experience contributes to more understanding of the business, ability to understand customers, marketing strategies and identifying opportunities for growth. According to the results of the chart fig 4.10. 20% of the participants have been in the cooperative from three to four years while 76, 7% have the experience of five years and above.

The number of years also determines how long the cooperative has been operating and also to evaluate the success and failures of the cooperative for those years in operation. If the cooperative has been operating for five years and more and still there is no difference or improvement in the business and live hoods of the members it proves that it is unsustainable. In this case, all cooperatives have been operating for more than 3 years to five years and above but they are still struggling to generate profit and income. Despite the free resources provided to them, they are still dependent on the government for support. The sustainability of these projects is also not guaranteed because if government stops the support the projects will collapse. These cooperatives were supposed to be independent by now but due to dependency syndrome created by government there is still no improvement on the cooperatives status after these years.

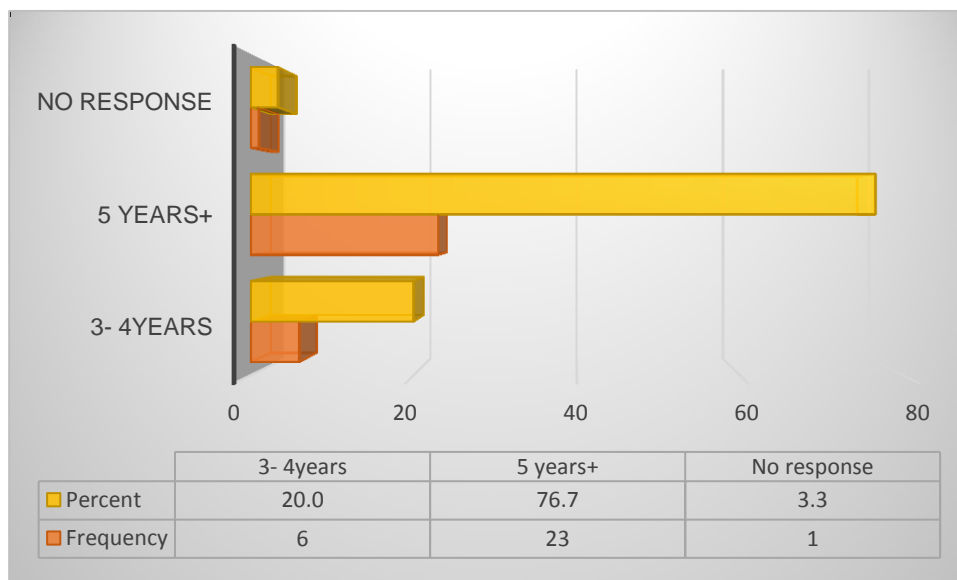


Figure 4.10 Number of year’s respondents participated in the cooperative

4.7.1 Is there an association between number of years and income generation?

Considering the income generation of cooperatives below, it is clear that there is a negative impact with regards to the relationship between income generation for cooperatives, income for beneficiaries and the number of years in operation. All cooperatives have been utilizing the infrastructure provided to them for more than three years and five years above but there is no significant change with regard to the incomes generated. Incomes generated by cooperatives are still very low, they were supposed to have improved since they did not spend a single cent with regard to the initiation of projects. Although agriculture and construction cooperatives seem to perform better than the others the gap is not huge because all cooperatives struggle to pay monthly salaries for beneficiaries.

Table 4.5: Income generation per cooperative compared to number of years in operation and income for beneficiaries

Type of cooperative	Members	Income generation/coop	%	Utilization of infrastructure	Years	Income for beneficiaries	%
Cosmetics	10	R1000-R2000	6.7%	100%	3	R500-R1000	6.6%
Arts & craft	10	R2000-R4000	26.7%	100%	5	R500-R1000	26.6%
					5	R2000-R2500	3.3%
Construction	12	R4000-R6000	36.7%	100%	5	R500-R1000	33.3%
Agriculture	34	R6000-R8000	30.0%	100%	5	R500-R1000	30.0%
		Total	100.0	100%			100%

The number of members per cooperative was not included because the study selected a representative sample and it focused on those respondents who were representing cooperatives.

4.8 Why did you join the cooperative?

According to the survey, the participants joined cooperatives for many reasons depending on the individual's point of view. Table 4.6 below indicates how they responded. It is clear that they had different motives for joining the cooperatives. The most frequently cited reason for joining the cooperatives was unemployment and poverty. They believed that jobs would be created and it will improve their financial status.

Table 4.6: Motive for joining the cooperative

Why did you join the cooperative?	Frequency	%
Heard will be designing world cup vuvuzela, I love arts and craft.	1	3.3
Job creation.	1	3.3
Lack of employment.	6	20.0
Passion for arts and also to make money.	1	3.3
Passion to learn about arts and craft, unemployment.	1	3.3
Passion for farming, producing of food to reduce poverty and unemployment.	1	3.3
Poverty and unemployment.	17	56.7
To participate in activities of development in the community, unemployment.	1	3.3
Unemployment, interested in acquiring crafting knowledge.	1	3.3
Total	30	100.0

4.9 Do you earn a monthly income in your cooperative?

Table 4.7 below indicates that 70% of the participants received income while 30% said they do not receive income.

Table 4.7: Distribution of frequency and percentage of respondents receiving income

	Frequency	%
Yes	21	70.0
No	9	30.0
Total	30	100.0

The majority of the people who receive income are found in the agricultural cooperative and construction. Agriculture has a potential of making more money by planting crops such as tomatoes and sweet potatoes and they also have a market with Spar, and bricks also has the potential of generating money and they also have support from the local community which has a high demand for bricks due to construction of houses. Those who said they were not receiving income they were found to be in the art and craft and this is due to the fact that they are designing products which locals are not familiar with, marketing of the products poses a serious challenge. They market their products in exhibitions and in Durban through the service provider appointed by government. The art and craft cooperative struggles to make profit because the middle man sets prices for them. Those who are manufacturing cosmetics such as perfumes also find it difficult to market their products because they

are not SABS approved, although they are registered as a formal business without approval from SABS they cannot take their products to the local shops.

4.9.1 How much is your monthly income?

As stated in Chapter 1, income is regarded as an indicator of people’s purchasing power and one of the indicators of poverty. People with high incomes are able to afford consumer goods and services that improve their wellbeing, and people with low income cannot afford basic goods and services which can make them poor. The chart below fig 4.11 indicates the income gaps between respondents and cooperatives.

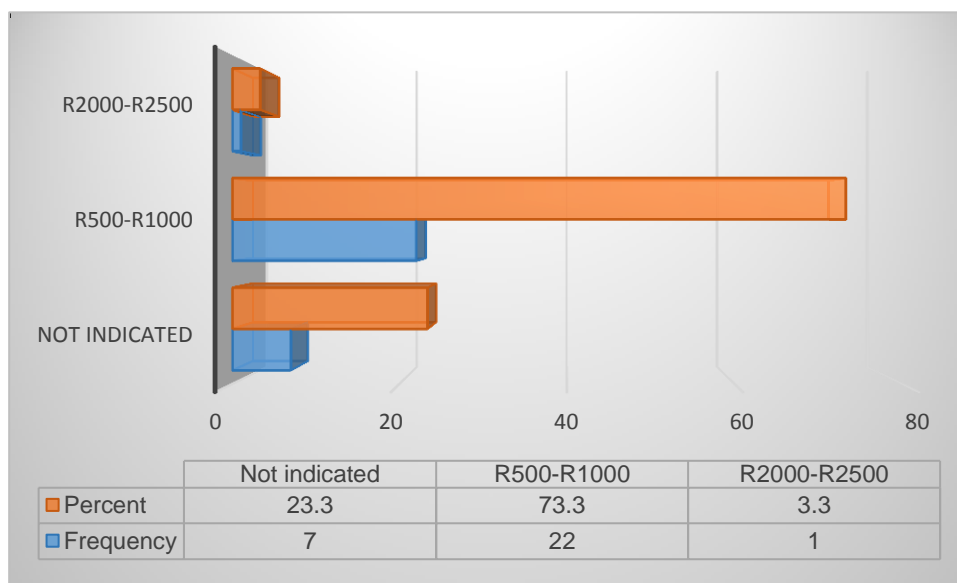


Figure 4.11 Income gaps of the respondents

The above chart indicates that 23.3% of the beneficiaries cited that they were receiving a monthly income in their cooperatives, while 73.3% of the beneficiaries indicated that they sometimes received an income between R500.00-R1000.00 and 3.3% stated that they received income between R2000.00- R2500.00. Their income is determined by their monthly sales, if they don’t get enough sales they also don’t pay themselves. The results proves that the cooperatives are still struggling despite the support given, this shows that the members are still trapped in poverty because the programme is not helping them to solve their need for income.

The results above proves that the respondent’s motives for joining the cooperatives as listed in table 4.5 have not been achieved, looking at the income earned by the cooperative members it is clear that the programme did not create sustainable jobs.

4.10 How many hours do you work per week?

The beneficiaries who spent 10-20h per week in the project were 10%, while 3% of the beneficiaries spent 30-40h and 86% of the beneficiaries spent 40h+. It is clear that some members lack commitment to their work and it disadvantages the members who spent most of their time working in the project. The chart below fig 4.12 indicates the gap between participants in terms of their commitment to the project

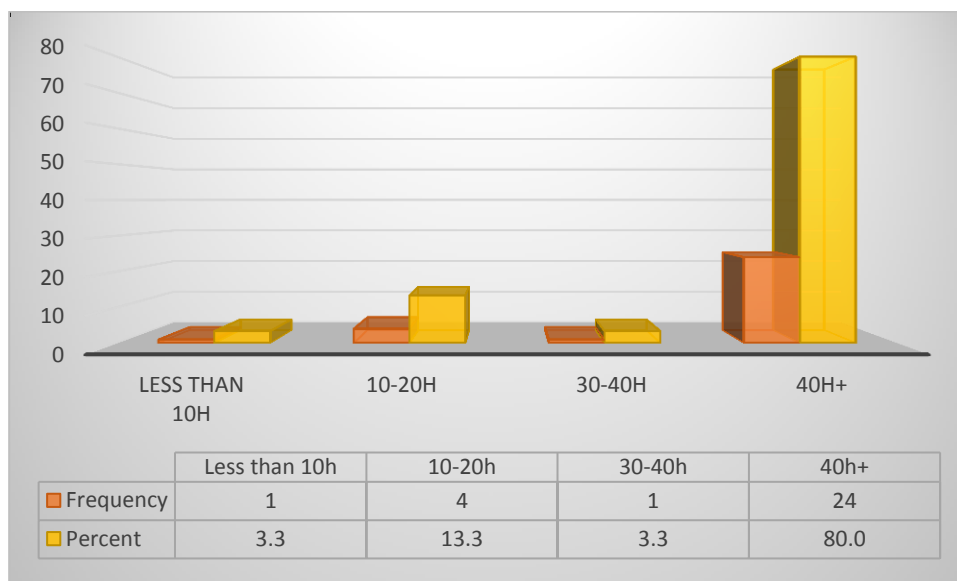


Fig 4.12 Number of hours worked/week

Lack of commitment to the project causes conflicts and collapsing of projects. Most participants abandon the project in search for green pastures. Some members are participating on the Community Works Programme where they receive some monthly income and they are only available after hours. They don’t have enough time to participate in their cooperatives after hours because they also have to rush to their homes to look after their children and also do the domestic chores of the household. Full participation and ownership of the projects by beneficiaries is very important to ensure that the projects are sustainable in the long-term. In this case, there are members who are not fully committed to the projects and it forces the full-time

beneficiaries to work independently causing them to break the principles of the cooperatives. These affect the finance of the projects because they are unable to save money in the account of the project.

4.11 Assessment of the types of infrastructure provided by government to the cooperatives in Muyexe village

The initiation of the pilot project was aimed at reducing poverty in the community of Muyexe by insuring that they participate in their own development and take charge of their destiny through the use of the available resources. Upon implementation, the government realised that there was a need for provision of infrastructure, capacitating the community and providing them with productivity assets which could contribute to job creation and improving their living standards. Different types of infrastructure were provided in relation to the needs of the project/cooperative. The table below indicates that 100% of the respondents acknowledged receipt of the infrastructure support from government.

Table 4.8: Distribution of frequency and percentage of government support

Government Support	Frequency	%
Yes	30	100.0

4.11.1 Infrastructure provided to the Agricultural cooperative

Two boreholes were drilled to assist the small holder farmers with irrigation of their planted crops. According to Babier (2010) as stated in Chapter 1 rural people depend on agriculture as a means of production and income, therefore, lack of access to services such as, water facilities, roads /transport, telecommunications and electricity hinders production and access to markets. The provision of water to the cooperative has improved the production of crops and it has reduced the distance which the farmers use to travel to fetch water using wheelbarrows in order to irrigate their crops.

Fence was constructed to secure the land and to prevent theft, the respondents stated that before they were ploughing their crops without security and animals were troubling them due to the fact that they were accessing the crops easily; ever since they received the fence they are no longer worried about the animals. They were also supplied with drip irrigation pipes that helped them to move from furrow irrigation and it

also contributed to reduced labour and also saving of water. A nursery was also constructed and covered with a shade net to prevent seedlings from being damaged by the sun. Two water tanks were provided to store water and a store room was constructed to store the equipment. Electricity was also installed in the project.

4.11.2 Infrastructure provided to Arts and craft & Cosmetics cooperatives

Both cooperatives received the modular building to operate their businesses. The building improved the working conditions of the cooperatives because they were operating under the trees and some were working from home. During rainy conditions they were unable to work and were forced to carry their products to their homes. The respondents stated that they are now able to store their materials and products in the modular building.

4.11.3 Infrastructure provided to the construction cooperative

A bore hole was drilled, yard fenced, store room and office constructed, brick laying machine provided, electricity installed, water tank provided, equipment's such as spades, wheel barrows, etc. and a shade net was provided. The respondents appreciated the support given to them and they cited that they are now able to generate profit and are sometimes able to pay themselves an amount between R1000-R2000.00. Although they feel that they are not generating enough money to enable them to pay themselves on a monthly basis, they are able to meet their basic needs at home. The table below indicates the response received from the respondents when they were asked to cite the types of the infrastructure they have received.

Table 4.9: Distribution of types of infrastructure received: 1=fence 2=tank 3=pipes 4=modular building

Types of infrastructure received	Frequency	Per cent
1, 2, Office, borehole, equipments, electricity.	1	3.3
1, 2, Office, borehole, equipments, electricity and shade net.	1	3.3
1, 2, 3, Borehole, equipment, electricity, shade net.	1	3.3
1, 2, 3, Borehole, electricity, shade net.	1	3.3
1, 2, 3, Store room, borehole, shade net, electricity.	1	3.3
1, 2, 3, Borehole, electricity, office, shade net and equipment.	1	3.3
1, 2, 3, Office, borehole, electricity and store room.	1	3.3
1, 2, 3, Office, borehole, electricity, shade net, equipment.	2	6.7
1, 2, 3, Pack house, shade net, bore hole.	1	3.3
1, 2, 3 Office, borehole, shade net, electricity.	1	3.3
1, 2, Office, borehole, electricity, equipments, shade net.	8	26.7
4	11	36.7
Total	30	100.0

4.11.4 Utilization of the infrastructure provided

All the respondents indicated that they are utilizing the infrastructure supplied by the government. The infrastructure provided is still in good condition and the beneficiaries are utilising it efficiently and effectively. Depending on the cooperative industry infrastructure is widely used, when respondents were asked questions they cited infrastructure provided to be the most important tools for their day to day operation.

Table 4.10: Frequency and percentage of utilising infrastructure

	Frequency	%
Yes	30	100.0

Table 4.11: Distribution of how the infrastructure was utilised

	Frequency	%
Brick lying under the shade net.	1	3.3
Brick laying, office and store room.	2	6.7
Fence for security, bore hole water for irrigation.	1	3.3
Fence for security, Equipment's for brick laying, Office for administration purposes, borehole water for mixing cement, electricity for pumping water.	1	3.3
Fence to secure the production land, Tanks to store water, Irrigation of crops, pack house to sort and pack the produce, shade net to protect seedlings in the nursery.	1	3.3
Irrigation of crops, nursery plants protected with shade net, store room, electricity for pumping water to tanks.	1	3.3
Irrigation of crops, planting and office administration.	1	3.3
Office and store room.	3	10.0
Office and ware house.	3	10.0
Office and warehouse.	2	6.7
office for administration and store room.	1	3.3

Office for administration and store room for storing equipment.	1	3.3
Office for administration, equipment for brick laying, shade net for protecting members while laying bricks.	1	3.3
Office for administration, equipment for brick laying, shade net for protecting members while laying bricks, Electricity for pumping water to mix cement and for drinking.	1	3.3
Office for administration, store room, brick laying	1	3.3
Office for filling records, machines are used for brick laying.	1	3.3
Office, holding meetings, storeroom, brick laying	1	3.3
Office, store room.	1	3.3
Ploughing, irrigation of crops, office administration, store room.	1	3.3
Ploughing the field, irrigation of crops, pumping water to tanks.	1	3.3
Ploughing, irrigation of crops, protecting of seedlings with a shade net.	1	3.3
Ploughing, irrigation of crops, protecting of seedlings with a shade net and pumping water.	1	3.3
Storing materials and office administration.	1	3.3
Ware house.	1	3.3
Total	30	100.0

4.11.5 Do you share the infrastructure with other cooperatives?

33% of the respondents cited that they are sharing infrastructure while 66% cited that they were not sharing. The sharing respondents were identified within the arts and craft cooperatives.

Table 4.12: Distribution of frequency and percentage of respondent sharing infrastructure

Sharing of infrastructure	Frequency	%
Yes	10	33.3
No	20	66.7
Total	30	100.0

Sharing of infrastructure was caused by the initiation of the Comprehensive Rural Development which encouraged people to come together and work as groups and to share the available scarce resources, amongst the groups identified, eight arts and craft cooperatives were brought together to form one secondary cooperative called Muyexe arts and craft. They were supplied with one modular building which is not enough to accommodate all the cooperatives.

4.11.6 Challenges of sharing infrastructure

The results of the table 4.13 below indicate that 16, 7% of the respondents stated that they do face challenges due to sharing of infrastructure. 83, 3% said that they were not experiencing challenges.

Table 4.13: Distribution of challenges faced by cooperatives

Challenges	Frequency	%
Yes	5	16.7
No	25	83.3
Total	30	100.0

Those who are not sharing infrastructure are respondents from the agriculture and construction cooperatives because they work independently. The arts and craft cooperatives respondents face challenges because they work individually, although they are legally registered as a secondary cooperative they still operate as primary cooperatives and each and every cooperative has its own board members. It is difficult for the eight cooperatives to operate on the same building with different Chairpersons and members, there is no team work. The types of challenges faced by the cooperatives are represented on the pie chart below fig 4.14

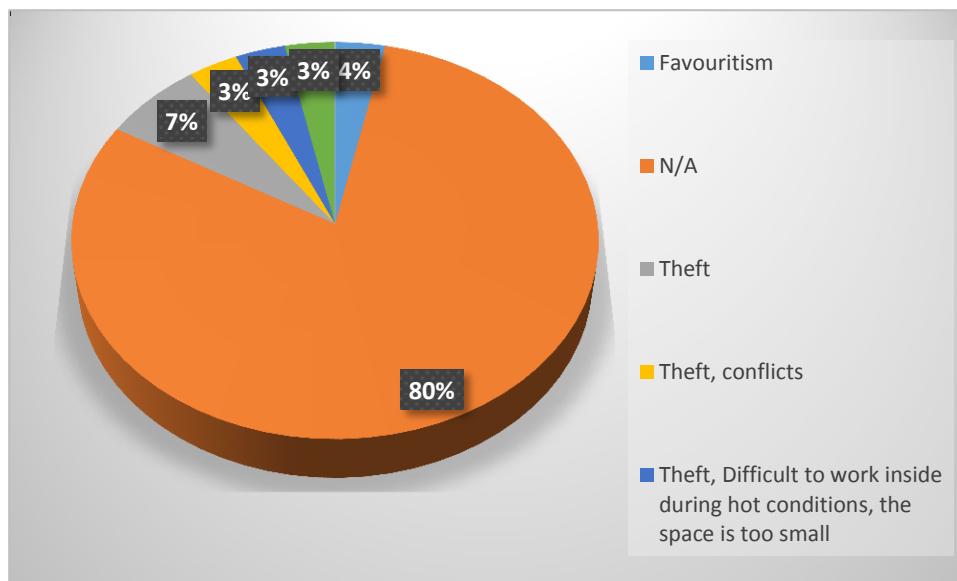


Figure 4.13 Types of challenges faced by cooperatives

The results of the pie chart above clearly indicate that 80% of the respondents cited that they were not sharing the infrastructure and therefore they do not experience challenges. 7% of the respondents indicated that they experience challenges with respect to sharing infrastructure, challenges such as theft and conflicts were cited the

most, favouritism was also stated as another challenge contributing to conflicts because they are not equally treated. The products manufactured are based on the materials distributed by their chairpersons and they are not equally distributed, the favourites are supplied with materials to design big products which results to them making better profits while others design small products with low profit.

Another challenge is that the modular building supplied by government is too small for all members to work inside and it is too hot, the working environment is not conducive due to lack of electricity to use air conditioners. They are forced to work outside the modular building and their working hours are reduced due to lack of electricity, they are unable to work at night. Again during rainy seasons they are forced to stay away from the project due to the fact that the modular building cannot accommodate all members.

4.12 Maintenance of the infrastructure and challenges faced by cooperatives.

All the respondents stated that they were maintaining their infrastructure, they are not getting any assistance from government when their infrastructure breaks or worn out. 10% of the respondents stated that they experience challenges with regard to maintenance of the infrastructure while 90% said that they do not experience any challenges. Challenges were identified within the agricultural cooperative due to the fact that their operations requires the use of water on a daily basis and they pump water more often, the borehole motor sometimes breaks and the cost of repairing is too high. This affects their production because without water they cannot plant crops nor irrigate.

Electricity bill was also cited as one of the challenges faced and the cost of repairing worn out lights is also high. They indicated that they were unable to afford maintaining the infrastructure due to the fact that profit was invested back to inputs and it takes time to get back the money for repairing the infrastructure on time.

4.12.1 Who maintains the infrastructure?

The results presented on table 4.14 below indicate that the beneficiaries were responsible for maintaining the infrastructure; they don't receive any assistance from government. The reason why the beneficiaries had to be responsible for maintenance of the infrastructure was to promote accountability and efficient use. Beneficiaries of

projects tend to be irresponsible and lack accountability knowing that they will always receive hand outs.

Table 4.14: Distribution of who maintains the infrastructure

	Frequency	%
Beneficiaries	30	100.0

The results of the table above indicates that all cooperative members are responsible for ensuring that they repair their infrastructure in case it was broken or worn out.

4.12.2 Are there any problems with respect to maintenance of infrastructure?

10% of the respondents indicated that they experience challenges with regard to the maintenance of the infrastructure, while 90% clearly stated that they don't experience challenges.

Table 4.15: Distribution of experiencing problems with respect to maintenance of infrastructure.

	Frequency	%
Yes	3	10.0
No	27	90.0
Total	30	100.0

Table 4.15 above indicate that some of the cooperatives experience challenges with respect to maintenance of the infrastructure. The causes of the challenges were experienced in the construction and agricultural industries due to the fact that their day to day operation requires the use of equipment's and electricity. Equipment's tend to break and worn out and without them their operations stops.

4.12.3 Challenges of maintaining the infrastructure

According to the respondents challenges mentioned on the table 4.16 below, the cost of maintaining the infrastructure is too high, this is due to the fact that they are not making enough profit to able them to cover all the project expenditure.

Table 4.16: Distribution of types of challenges of maintaining infrastructure

Challenges	Frequency	%
Cost of maintenance is too high	1	3.3
N/A	28	93.3
The borehole motor breaks and they are unable to replace/repair in time due to high cost. Maintaining electrical equipment and lights is also difficult.	1	3.3
Total	30	100.0

4.12.4 Do cooperatives require any other infrastructure in addition to what has been provided?

The study asked a question about additional infrastructure needs by cooperatives. The questions asked were closed with an option to cite additional infrastructure. 100% members of the cooperatives interviewed cited that they required additional infrastructure. This clearly indicates that there was still a dependency syndrome; they are unable to work independently and grow their business without continuous support from government.

Table 4.17: Distribution of requiring infrastructure

	Frequency	%
Yes	30	100

4.12.5 Additional infrastructure required by cooperatives

The cooperatives stated that they appreciated the infrastructure provided to them but it was not enough and they still required additional infrastructure, such as transport, tractors, buildings, electricity, etc. Table 4.18 below indicates the respond of the participants in terms of the infrastructure required. Lack of transport was cited as the most hindering factor to accessing markets. The absence of reliable transport is a challenge to the cooperatives because it poses a negative impact on the marketing of produce and products and also delivering of good quality. Muyexe village is situated 40 km outside Giyani town, lack of transport increases the transaction costs of the cooperatives due to the fact that they have to hire private transport to purchase inputs and again transporting the final product to the market. The respondents cited that if they can receive transport they will reduce the cost of hiring transport and will also access markets easily.

Table 4.18: Distribution of types of additional infrastructure required

Types of infrastructure	F	%
Bakkie, tractor, hand hoes.	2	6.7
Bakkie, tractor.	1	3.3
Building.	1	3.3
Building and electricity.	2	6.7
Building and materials.	1	3.3
Building structure because the modular building is too small, few people fit and when it rains they are forced to stop working and some chose to work from home.	1	3.3
Building, electricity and water.	1	3.3
Building, electricity, computer and water.	1	3.3
Building, land, water, electricity.	1	3.3
Building, stationery, electricity and Office furniture.	1	3.3
Furniture, computers, building and electricity.	1	3.3
Materials, building and electricity.	1	3.3
Tractor, bakkie, hand hoes.	1	3.3
Tractor Loader Backhoe(TLB), truck, shade net, additional electrical machines	1	3.3
Tractor, bakkie, Hand hoes.	4	13.3
Transport, TLB, Shade net, equipment like spades, additional machines with larger capacity	1	3.3
Transport, TLB, large capacity brick lying machines.	2	6.7
Tractor and delivery vehicle.	1	3.3
Truck, bigger machine for brick lying, TLB.	1	3.3
Truck, additional machines, sand, cement, TLB and shade net.	1	3.3
Truck, additional machines, and, cement, TLB and shade net.	1	3.3
Truck, shad net, TLB, Machines.	1	3.3
Truck, TLB, Shade net, additional bigger machines. Because currently they have 1 and it is too small.	1	3.3
Truck, TLB, additional machines and shade net.	1	3.3
Total	30	100.0

4.12.6 How will the cooperatives utilise the infrastructure

The results of table 4.19 below indicates how the respondents cited the way they were going to utilise the infrastructure. The utilization of infrastructure depends on the different industries, but the common one was electricity especially in the art and craft because they do not have electricity unlike agriculture and construction that have access to electricity. Arts and craft indicated that access to electricity could help them increase working hours, currently they operate during the day and if provided with electricity they can also operate during the night. Transport was also reported to be the most required infrastructure and they will use it to transport their products and produce to markets. Lack of transport infrastructure compromises quality of agricultural produce, it is difficult to arrive to the market on time with good quality

produce with public transport. Implements such as tractors were also cited as a need for ploughing the land and to increase the production land and produce, without a tractor it is hard to work the ground with manual labour and it takes time to finish preparing the land.

Respondents believe that if they get an opportunity to receive a tractor they can save the costs of hiring tractors and also the costs of hiring labour and again it will also save them time. TLB was also reported to be in demand for the construction respondents due to its ability to help them to dig and load river sand and bow sand into the truck, they believe that if they can be afforded a chance to be funded with a TLB they will make profit because currently they buy sand and it is expensive, a TLB will make their lives simple because they will be able to collect sand on their own.

Table 4.19: Distribution of how the additional infrastructure was to be utilised

Utilization of infrastructure	F	%
Crafting, storing of materials and increased working hours especially at night due to electricity access.	1	3.3
Delivering of bricks to buyers, Collecting sand from the river without paying transport, TLB to load sand in the truck, Machines to increase production.	1	3.3
Delivering of bricks to buyers, Collecting sand from the river without paying transport, TLB to load sand in the truck, Machines to increase production.	1	3.3
Electricity will help to increase working hours and also use ICT equipment to access the internet.	1	3.3
Filling in the computer, storing of materials and products, electricity will enable beneficiaries to work night shifts.	1	3.3
Increased hours of working.	1	3.3
Increased production, marketing of bricks, collecting sand on their own instead of buying.	1	3.3
It will reduce the cost of hiring transport, quick delivery to customers, increased production.	1	3.3
Loading sand, cement and delivering bricks.	1	3.3
Marketing and ploughing.	1	3.3
Marketing of bricks, TLB for loading sand, Transport to load cement from the hardware to reduce the cost of hiring transport.	1	3.3
Marketing of bricks, TLB for loading sand, Transport to load cement from the hardware to reduce the cost of hiring transport.	1	3.3
Office and storing of products.	1	3.3
Ploughing and marketing.	1	3.3
Ploughing and marketing of produce.	1	3.3
Ploughing and marketing,	1	3.3

Storing of products.	2	6.7
Storing of materials and crafted products.	1	3.3
The building will be used as a ware house and office.	1	3.3
The land will be used for planting of essential oils to produce oil required for manufacturing perfumes. Water for irrigation, and the building for storing and manufacturing.	1	3.3
The tractor will be used to plough the field to save time and reduce labour, the bakkie will be used to transport produce to the market. Hand hoes will be used to control weeds.	1	3.3
The tractor will reduce labour and makes it faster to plough.	1	3.3
The tractor will reduce ploughing time, bakkie will be used to market produce, hand hoes for weed control	1	3.3
The truck will be used to deliver bricks to buyers, collect sand from the river, transporting cement from the hard ware to the project. Hiring costs will be reduced. Additional brick laying machines will increase production of bricks.	1	3.3
The truck will help with delivering of bricks to buyers; Machines will increase the production of bricks.	1	3.3
Tractor for ploughing, bakkie to transport products to market and hand hoes for manual hoeing and weeding control.	1	3.3
Transport/truck will help with delivering of bricks, collecting of sand from the river instead of buying, TLB will load sand, transporting of cement stock from the hardware.	1	3.3
Truck for delivering bricks, Machines to increase production, TLB for loading sand.	1	3.3
Total	30	100.0

4.13 Status of the cooperative before the infrastructure support?

The state of infrastructure for all the cooperatives was very poor; some were operating under the trees, while others had no fence to secure the land. The quality of products and produce was also very low due to lack of proper production equipment's. They even stated that they were relying on their indigenous knowledge for arts and craft, cultural agriculture and lying of bricks without machines. They had no professional skills and it affected their production due to poor quality produce and products, this resulted with low profit and less income. Market accessibility also contributed to less profit and income generation, they had no market to sell their products.

Table 4.20 below indicates the results of likert scale questionnaires which were used to assess the state of infrastructure before the cooperative received support from the government. The respondents were requested to rate their level of agreement or disagreement with regard to what they believe their cooperatives were before they received support. It is quite clear that the state of infrastructure was very poor due to the fact that all the respondents disagreed that the state of infrastructure was good

before they received support. The cause of poor infrastructure was due to lack of services in the area, the community had no access to basic services such as electricity, water and sanitation until in 2009 when the government came to its rescue and declared the area the Comprehensive Rural Development site where all government departments came together and bring different types of services such as building of schools, houses, clinic, and providing infrastructure support for creating economic opportunities.

Although the cooperatives were engaged on different types of economic activities such as farming, traditional crafting, bricklaying, etc. They were facing serious challenges with regard to the quality of the produce and products, they were of poor quality due to lack of skills and advanced productive methods and technology. The cooperatives were also not generating enough money due to lack of productive resources and security for their products. It was also difficult to gain access to markets because they did not have the skills on how to approach markets and drawing up of contracts.

Table 4.20: Rating of the state of cooperatives before receiving infrastructure

Questions	Disagree	Disagree somewhat	Neither nor disagree	Agree somewhat	Agree
State of infrastructure was good.	30(100%)	0(0%)	0(0%)	0(0%)	0(0%)
Quality of produce/product was high.	27(90%)	0(0%)	0(0%)	3(10%)	0(0%)
The members had skills.	27(90%)	0(0%)	0(0%)	3(10%)	0(0%)
The cooperative was generating less money.	5(16.7%)	0(0%)	0(0%)	2(6.7%)	23(76.7%)
The cooperative had access to market.	29(96.7%)	0(0%)	0(0%)	0(0%)	1(3.3%)
Members were earning an income.	30(100%)	0(0%)	0(0%)	0(0%)	0(0%)
Record keeping was good.	29(96.7%)	0(0%)	0(0%)	0(0%)	1(3.3%)

The results of the table above clearly indicate the high level of disagreement of the respondents with regard to the state of the cooperatives before receiving the infrastructure. They disagree that their cooperative's working conditions were good.

4.14 Status of the cooperative after receiving the support

96.7% of the respondents agreed that after receiving the support the working conditions of the cooperatives improved. They indicated that instead of working under the trees and storing their products in their households they now have the infrastructure such as modular buildings to use as warehouse and offices, those who are in the agricultural activities indicated that their production is no longer affected by animals due to the available security fence. The quality of their products also improved due to the capacity building workshops and trainings provided. The knowledge imparted to them is useful because new skills and new knowledge helped them to improve their produce and products and also improved their market access and marketability of the final products.

Despite the trainings received by beneficiaries and improved quality of products that are produced, the cooperatives still face a challenge of generating enough profit and improving income, only 10% of the respondents agreed that they are able to generate profit but monthly income for members has not improved.

Table 4.21: Rating of the state of cooperatives after receiving the infrastructure

Questions	Disagree	Disagree somewhat	Neither nor disagree	Agree somewhat	Agree
State of infrastructure has improved.	0(0%)	0(0%)	0(0%)	1(3.3%)	29(96.7%)
Quality of produce/product improved.	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)
Trainings received.	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)
The cooperative generates more money/profit.	1(3.3%)	0(0%)	0(0%)	26(86.7)	3(10%)
Monthly income for members has increased.	22(73.3%)	0(0%)	1(3.3%)	6(20%)	1(3.3%)
Access to market has improved.	2(6.7%)	0(0%)	0(0%)	17(56.7%)	11(36.7%)
Ability to procure stock/materials/inputs.	3(10%)	1(3.3%)	0(0%)	5(16.7%)	21(70%)
The cooperative can operate on its own(no support)	4(13.3%)	0(0%)	1(3.3%)	2(6.7%)	23(76.7%)
The cooperative employs more people.	9(30%)	1(3.3%)	0(0%)	9(30%)	11(36.7%)
The number of youth participation has increased.	8(26.7%)	0(0%)	1(3.3%)	8(26.7%)	13(43.3%)
The number of women participation has increased.	6(20%)	0(0%)	1(3.3%)	8(26.7%)	15 (50%)

The results of the table above proves that there is no significant difference with income before receiving the infrastructure and after because there is no change,

beneficiaries seem to be still struggling with paying of salaries. The problem lies with the beneficiaries themselves because they are unable to identify new opportunities for growth and strategies to grow their businesses. They received the best infrastructures but they do not put enough efforts to improve, they always blame the government.

4.15 Ability of cooperatives to create employment for others

According to the results of the surveyed cooperatives in table 4.22 below it is clear that the cooperatives were still struggling to create permanent employment for other community members because most of the people that were being employed were found in the agricultural sector and the jobs created were seasonal.

Table 4.22: Number of people employed by cooperatives

Type of cooperative	Women	Men	Youth	Disability
Agriculture	30	5	20	1
Arts & craft	0	0	1	0
Cosmetics	0	0	0	0
Construction	5	5	5	0

The reason why other cooperatives are not creating employment for other community members was caused by lack of demand in the products they produce/ manufacture. Agriculture creates more jobs during planting and harvesting seasons, more labour is required to assist with removing the ripened crops from the field quickly to prevent spoilage and compromising quality. Community members participate in seasonal jobs because they know that even if they don't receive income they will receive the harvested crops as payment for their hard work and it assists them with improving the nutritional status of their households.

4.16 Do you see your business as growing or struggling?

The results on table 4.23 below clearly indicate that 43% of the respondents believe that their businesses were growing while 56% of the respondents said their businesses were not growing.

Table 4.23: Distribution of business growing or struggling

	F	%
Growing	13	43.3
Struggling	17	56.7
Total	30	100.0

4.16.1 Reasons for believing that the businesses were growing

According to the respondents who believe that their businesses were growing, they cited a number of reasons on table 4.24 below. They believe that their ability to purchase new stock without help from government was growing their business. The arts and craft also believe that marketing of their products internationally also contributes to their growing business; some believe that planting crops like tomatoes increases their income because they make a lot of money out of tomato harvest.

Table 4.24: Respondents perceptions for seeing their businesses growing

	Frequency	%
Ability to manufacture crafts and export.	1	3.3
Ability to supply international markets.	1	3.3
Ability to generate profit.	1	3.3
Damaged crafted bowls has been reduced; more designs are crafted and sold.	1	3.3
Income increases due to type of crop planted e.g. tomatoes have more money.	1	3.3
Increased income generation.	1	3.3
Increased production and access to international and local markets.	1	3.3
Increased production, Exporting of products.	1	3.3
Increased profit depending on the crop planted and harvested.	1	3.3
It is growing because the business is no longer the same like before; there is continued support and high demand of bricks from the community.	1	3.3
N/A	17	56.7
Production on a daily basis, bricks are in high demand in the community.	1	3.3
The cooperative has a bank account and is able to save money and share sometimes.	1	3.3
The cooperative is able to purchase stock.	1	3.3
Total	30	100.0

4.16.2 Reasons for believing that the businesses were struggling

The respondents who said their businesses were struggling cited a number of reasons on table 4.25. They see their businesses struggling because they are unable expand and to create job opportunities for other community members.

Table 4.25: Respondents perceptions for seeing their businesses struggling

	Frequency	%
Difficult to expand the business and create more employment.	1	3.3
Inability to create permanent jobs.	1	3.3
It increases and decreases due to lack of finance.	1	3.3
Long term goals & needs are not achievable without support from government.	1	3.3
N/A	13	43.3
No bank account.	1	3.3
Profit is too little due to the costs of buying sand; salaries are not for every month.	1	3.3
Profit is too little; salaries are not for every month.	1	3.3
Some members have left, others are professionals. There is no commitment. Salaries are not for every month.	1	3.3
The business is struggling because long term needs are not met due to lack of finance.	1	3.3
The cooperative have many years in operation and still is unable to create permanent jobs and long term goals are not fulfilled.	1	3.3
The cooperative is struggling to expand production, Unable to create permanent jobs.	1	3.3
There is a middle man for selling the products, they export products and return the money in SA rands instead of dollars sold outside the country.	1	3.3
The products crafted cost are sold at a lower price because they are too small.	1	3.3
Unable to expand due to lack of tractor to plough the lager field, difficult to create permanent jobs.	1	3.3
Unable to expand the business.	1	3.3
Unable to expand the project, unable to employ more people.	1	3.3
Unable to pay temporal workers, they are given vegetables, long term needs not met.	1	3.3
Total	30	100.0

4.17 Will the cooperative be able to operate on its own for the next 5 years if the government can stop the support?

All the interviewed respondents said yes when asked the question above, they strongly believe that their cooperatives could operate on their own for the next five years and more due to number of reasons cited in the table 4.26

Table 4.26: Reasons for believing cooperatives can operate on their own

	Frequency	%
Members Committed	7	23.3%
Members can work independently	3	10%
Cooperatives can buy their own stock of materials	8	26.7%
Members have skills and experience	5	16.7%
Demand for products is high e.g. bricks	2	6.7
Cooperatives can generate income	2	6.7
Training received is enough	2	6.7
There is progress in the cooperative, they operate non-stop.	1	3.3

Total	30	100.0
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4.18 Challenges experienced by cooperatives

The respondents indicated that they do experience challenges within their cooperatives, lack of finance was cited as the biggest challenge hindering progress and growth of the projects, followed by lack of access to markets and transport. The table below indicates the results of the challenges experienced by different cooperatives.

Table 4.27: Challenges experienced by cooperatives

Types of challenges experienced	Frequency	%
Not indicated.	1	3.3
Cost of hiring transport to deliver stock is high, profit is reduced.	1	3.3
Lack of commitment by members, poor attendance.	1	3.3
Lack of commitment by members, Lack of market, Salaries are not for every month, based on commission.	1	3.3
Lack of enough capital, lack of reliable market.	1	3.3
Lack of finance.	1	3.3
Lack of finance and lack of transport.	1	3.3
Lack of finance and lack of transport.	1	3.3
Lack of finance, lack of commitment, only two members are fulltime in the project.	1	3.3
Lack of finance, lack of delivery transport, the cost of cement and sand is very high.	1	3.3
Lack of finance, lack of transport, high cost of materials, less profit generated.	1	3.3
Lack of finance, lack of transport, salaries are not for every month.	1	3.3
Lack of governance, no holding of meetings.	1	3.3
lack of market.	1	3.3
Lack of market, Lack of transport, salary fluctuations.	1	3.3
Lack of materials to design crafts.	1	3.3
Lack of materials to design crafts, poor attendance due to lack of space for operation.	1	3.3
Lack of transport, Lack of market, lack of equipment, reservoir is too small.	1	3.3
Lack of transport and lack of equipment.	1	3.3
Lack of transport, lack of equipment.	1	3.3
Lack of transport, lack of market and lack of a tractor.	1	3.3
Lack of transport, lack of ploughing equipment.	1	3.3
Lack of transport, lack of tractor.	1	3.3
Lack of transport, Lack of market, lack of equipment, The reservoir is too small.	1	3.3

Lack of transport, Lack of market, lack of tractor delays ploughing and planting time.	1	3.3
No transport, no market, lack of equipment's.	1	3.3
No reliable market, they wait for community members to place their orders.	1	3.3
No salaries.	1	3.3
There is a middle man to marketing of products.	1	3.3
Unequal treatment, they don't craft equal products, they craft individually and the products are sold individually.	1	3.3
Total	30	100.0

4.19 Is the support enough to able the cooperative to achieve its goals?

10% of the respondents said yes the support given to them is enough to enable the cooperative to achieve its goals. 90% of the respondents said no the support is not enough to enable cooperatives to operate on their own. This proves that even if the government can provide all the resources required by cooperatives, they are unable to work independently, they still want to depend on government and it is not easy to seek opportunities for growth while knowing that the government will always come to their rescue.

Table 4.28: Frequency and percentage for support enough/not enough

	Frequency	%
Yes	3	10.0
No	27	90.0
Total	30	100.0

4.19.1 Reasons for believing the support provided is enough to enable the cooperatives to operate on its own.

3% of the respondents believe that due to the level of skills acquired through trainings and capacity buildings, the cooperatives can operate on its own. They also indicated that they are able to procure production inputs and also make profit.

Table 4.29: Distribution for reasons for believing support provided is enough

	Frequency	%
Beneficiaries have skills to work independently.	1	3.3
N/A	28	93.3
Skills gained is enough to able the cooperative to operate on its own, able to procure seeds plant and make profit.	1	3.3
Total	30	100.0

4.19.2 Reasons for believing that the support is not enough and the cooperatives cannot operate on their own.

Most of the respondents still have the dependency syndrome, they believe that without government support they cannot operate on their own. Despite the efforts from government support, they still find it difficult to achieve their long term goals. Lack of infrastructure such as markets and transport is also contributing to their failure to operate on their own due to their inability to access markets, transporting their products to markets on time. The cooperatives are struggling to pay members' salaries and they are unable to expand their projects to create more jobs for other community members. Table 4.30 below indicates a number of reasons cited by members who still believe that they cannot operate on their own.

Table 4.30: Distributions for reasons cooperatives cannot operate on their own

	Frequency	%
Difficult to achieve long term needs.	1	3.3
Financial support from government is still required.	1	3.3
Going overseas Increased food affordability.	1	3.3
Inability to pay salaries.	1	3.3
It is difficult to expand.	1	3.3
Lack of space for operation because the modular building is too small.	1	3.3
Long term goals not achieved.	1	3.3
Long term needs are not fulfilled due to financial constraints.	1	3.3
Money generated is not enough to able the cooperative to purchase a delivery truck.	1	3.3
More finance is required to build a structure, buying of machines, and computers.	1	3.3
N/A	2	6.7
No salaries earning is based on commission, Unable to transport products on our own, we rely on government transport.	1	3.3
The cooperative is unable to meet its own needs without continued support from government.	1	3.3
The cooperative have needs which they are unable to fulfil and it requires government intervention.	1	3.3
The cooperative is not expanding, it is unable to create jobs for the community. Unable to pay themselves every month.	1	3.3
The cooperative is not in a state to pay monthly salaries, sometimes they don't pay themselves, unable to expand, temporary jobs are created instead of permanent once	1	3.3
The cooperative is unable to expand.	1	3.3
The cooperative is unable to fulfil its long term goals.	1	3.3
The cooperative is unable to meet its long term goals.	1	3.3

The cooperative is unable to meet long term goals.	2	6.7
The cooperative is unable to meet long term goals of expanding the project and employ permanent workers.	1	3.3
The cooperative needs more funding to fulfil their needs, they cannot meet them on their own.	1	3.3
Unable to expand the business.	2	6.7
Unable to fulfil long term needs of the cooperative.	1	3.3
Unable to procure materials, No monthly salaries.	1	3.3
Unable to procure stock.	1	3.3
Unable to procure stock, lack of nearest available place to procure materials. The materials are procured from Durban and the cost of transport is too high.	1	3.3
Total	30	100.0

The results of the table above clearly indicate that the respondents are not ready to operate on their own. Even if more funding can be provided they will still require more from government. They were assisted to start projects to enable themselves to participate in their own development to create jobs and generate income for themselves. The members were unable to utilise the resources provided to them in such a way that it could have helped them to sustain their projects. Their inability to pay themselves proves that they are not generating profit, and if they are not making profit there is no way they can sustain themselves.

4.20 How did your participation in the cooperative change your life?

The respondents cited a number of reasons indicating how their lives were changed through participating in the programme. Some stated that they were unable to support their families and they were unable to meet basic needs, but their participation contributed to ability to purchase food and pay school fees for their children.

Table 4.31: Distribution of how lives were change through participation in the programme (n=30)

	Frequency	%
Not indicated.	3	10.0
Ability to buy food and support the family.	1	3.3
Ability to purchase food.	2	6.7
Ability to support the family.	1	3.3
Able to purchase food at household.	3	10.0
Able to support the family and take children to school.	1	3.3
Access to food has improved.	2	6.7
Afford to purchase food at household.	1	3.3
Affordability of food at household.	1	3.3

Food affordability in the household.	1	3.3
Gained independence and can work on my own.	1	3.3
Increased food consumption and affording of basic needs for food in the household.	1	3.3
Increased household food affordability.	1	3.3
Increased nutritional food at home, ability to buy food.	1	3.3
Job created house hold status for food affordability improved.	1	3.3
No change.	1	3.3
Poverty and unemployment is reduced, able to purchase food at household.	1	3.3
Reduces unemployment.	1	3.3
Reduced poverty in the family and food affordability has improved.	1	3.3
Reduced unemployment, food consumption and affordability increased.	2	6.7
Skills imparted to start own business.	1	3.3
Unemployment is no longer a problem, ability to purchase food.	1	3.3
Unemployment reduced.	1	3.3
Total	30	100.0

4.20.1 Were you able to support the family before participating in the cooperative?

The results indicated on table 4.32 shows that 23.3% of the respondents were able to support their families before joining the cooperatives while the 76.7% which was the majority of the respondents clearly stated that they were unable to support their families before joining cooperatives.

Table 4.32 Ability to support families before joining cooperatives

	Frequency	%
Yes	7	23.3
No	23	76.7
Total	30	100.0

4.20.2 Are you able support your family with the income from the cooperative?

90% of the respondents are now able to support their families through income received from the cooperatives while 10% of the respondents are still struggling to support their families. Income received is too little to support families with more members.

Table 4.33 Ability to support families with income received

	Frequency	%
Yes	27	90.0
No	3	10.0
Total	30	100.0

4.21 Acquisition of assets from income earned from participation in the projects.

The questionnaire was designed in such a way that it had to ask respondents if they managed to acquire assets with income received from the cooperatives, the questionnaire was closed with an option to cite other assets bought. The results on table indicate that most of the respondents were able to purchase some assets, TV, radio and fridge were cited the most. One respondent managed to build a house; this proves that the programme made an impact in terms of improving households' basic assets. They are able to listen to the news on radio and some watch television. Other mentioned assets were cell phones, bed, wardrobes etc.

Assets: 1= build a house, 2= TV, 3=Radio, 4= Fridge.

Table 4.34: Distribution of assets acquired through income received

Types of Assets	Frequency	%
0	5	16.7
1	1	3.3
1,2,3,4	1	3.3
1,2,4	2	6.7
2	4	13.3
2,bed	1	3.3
3	1	3.3
4	2	6.7
4, phone	1	3.3
Bed	1	3.3
Bed	1	3.3
bed, phone	1	3.3
Bricks	1	3.3
Clothes	1	3.3
Frame and sand	1	3.3
Phone	2	6.7
Tiles	1	3.3
Tiles, phone	1	3.3
trailer for donkeys, it helps with fetching water	1	3.3
Wardrobe	1	3.3
Total	30	100.0

4.22 What would you like to see the Government do to improve the programme?

During the implementation of the infrastructure support programme there were loop holes, beneficiaries were left with serious concerns and dissatisfaction. The respondents cited that they were not satisfied with the way the programme was implemented and believed that the government should improve the programme in relation to the suggestions listed below.

4.22.1 Improvement of infrastructure provided

Instead of buying modular buildings the implementers should consider building structures with bricks to improve the working conditions. The environment in modular buildings is not conducive for beneficiaries to work in it and during hot conditions it tends to be too hot inside due to lack of air conditioners and the cooperatives cannot afford to purchase air conditioners. Another disadvantage of the modular building is that it is too small to operate within it, it accommodates few people and the rest of the members are forced to work outside under the trees. During rainy seasons they abandon their work due to lack of shelter. Building of structures can also improve the working conditions of the members.

4.22.2 Consultation

Infrastructure programmes aimed at poverty alleviation are difficult to implement at the ground because the decisions of implementing projects are planned at national level. Most of the times local authorities are excluded and their involvement is important for the effectiveness of the national development or economic development. Nyakor (2007). Local authorities have a major role to play in local development, they have the power to influence and insure that there is effective and accountable local infrastructure, social service delivery for the poor and also improving a dialogue between national government, communities, civil society and private sector.

The decisions that are taken above often do not match with local needs and those who implement it, find it difficult to execute their tasks properly e.g. the National Department signed a five years' service level agreement with the service provider to support farmers with sweet potatoes and medicinal plants without doing needs analysis. When the implementers consult the farmers they found that the farmers produce cucumbers, chillies, green beans and the farmers had to accommodate the

government support for planting sweet potatoes and medicinal plants due to fear that if they refuse they might not receive any support from government.

The respondents believe that they must be consulted before the programmes are implemented. In Muyexe, village one of the project implemented is for arts and craft, the beneficiaries were forced to adapt to designing crafts that are of a Zulu culture due to the nature of training received. The service provider who trained them was from Durban and the service provider was also responsible for marketing the crafts in Durban and for setting the prices. The culture of the beneficiaries was ignored and they were unable to sell their products locally because the locals prefer their Tsonga cultural designs.

4.22.4 Trainings

The implementers must improve training and capacity building to ensure that the beneficiaries of the programmes are skilled with knowledge that will help them to sustain the projects. They must also teach them to be independent and have ownership of the projects. Financial management and record keeping also lacks within the projects. Therefore the implementers should improve the skills of beneficiaries in terms of managing their finances.

4.22.5 Appointment of a mentor, development of an exit strategy and monitoring tools

The beneficiaries suggested that they should be assisted with a mentor to supervise and guide them in the absence of the implementing agents. They must also have an exit strategy .e.g. handing over of the project to the beneficiaries rather than abandoning the project without returning to monitor the progress. They must also develop monitoring tools such as spread sheets for report writing to assist cooperatives to be accountable.

4.22.6 Increased access to funding and stipends

The government should consider increasing the budget for supporting the projects because it becomes difficult for the agents of change to fulfil the infrastructural needs of all projects with limited budgets. Some respondents suggested that they should be provided with stipends for six months to assist them with monthly income as they struggled to pay themselves.

4.23. Summary

The purpose of analysing data collected was to investigate the impact of the infrastructure support programme on poverty alleviation. This was done through examining how the different types of infrastructure provided to different types of cooperatives supported through the comprehensive Rural Development Programme could have contributed to poverty alleviation and also determining how sustainable the programme is in the long-term. The infrastructure support was based on the industry which the cooperative was engaged, in this case the cooperatives ranged from agriculture, construction, cosmetics and Arts & Craft. To answer the research question the following objectives had to be met:

- I. To examine the types of the infrastructure provided and how it was distributed and managed.
- II. To assess how the infrastructure support programme has contributed to poverty alleviation on households and cooperatives in the community.
- III. To determine the sustainability of the programme in the long-term

Infrastructure has a role to play in both economic development and poverty alleviation (Spring, 2007), the relationship between infrastructure development and poverty reduction was proven to be positively correlated with regard to seasonal fluctuations in consumption expenditure, using a unique panel data set of irrigated and un- irrigated areas of Sri Lanka (Sawada et al., 2014). Their results proved that irrigation reduced chronic poverty through permanent income improvement and eliminated the negative impact of chronic poverty by reducing downside expenditure risk.

The results of the study also reveals that infrastructure support was used in the study area to assist rural women, man and youth to create economic activities that could raise income and also contribute to poverty reduction in the area. To assess whether objective (I) was met, the following types of infrastructure were identified:

Two boreholes were drilled to assist the small holder farmers with irrigation of their planted crops. According to the human development report (2006) lack of access to water is one of the causes of poverty and inequality. Water is regarded as a limiting factor in the success of food production and energy security. According to Mweso (2014:3) poverty reduction requires that serious consideration with regard to access to water that goes beyond domestic use be given more attention to ensure that there is

proper infrastructure to supply water to ensure that households are able to engage in small-scale farming that includes growing crops and earning an income. This would contribute significantly in impacting the living standards of people living in rural areas. The small holder farmers of Muyexe village are now able to plant and irrigate crops without relying on the Municipal water and rainfall due to the available boreholes provided through infrastructure provision programme.

A fence was constructed to secure the land and to prevent theft, the respondents stated that before they were ploughing their crops without security and animals were troubling them due to the fact that they were accessing the crops easily; ever since they received the fence they were no longer worried about the animals. They were also supplied with drip irrigation pipes that helped them to move from furrow irrigation and it also contributed to reduced labour and also saving of water. A nursery was also constructed and covered with a shade net to prevent seedlings from being damaged by the sun. Two water tanks were provided to store water and a store room was constructed to store the equipment's. Electricity was also installed in the project.

Two modular buildings were provided to Arts and craft and the Cosmetics cooperatives to operate their businesses. The building improved the working conditions of the cooperatives because they were operating under the trees and some were working from home. During rainy conditions they were unable to work and were forced to carry their products to their homes. The respondents stated that they are now able to store their materials and products in the modular building.

The construction cooperative were assisted with drilling of a bore hole , fencing of the yard, store room and office constructed, brick laying machine was provided, electricity installed, water tank, equipment's such as spades, wheel barrows, etc. and a shade net was provided.

After assessing the types of infrastructure provided the analysis revealed that all infrastructures provided were being utilized efficiently and effectively, however the infrastructure was found to be inadequate. The cooperatives cited that they still required additional infrastructure, such as transport, tractors, buildings, electricity, market infrastructure, etc. Cooperatives in the study area are still faced with challenges of lack of access to markets, transport, implements and equipment's.

Objective (ii) the impact made through infrastructure support did not assist households to graduate from poverty due to failure of the projects to generate enough income to be able to pay salaries, although they indicated that they were able to meet some of the basic needs of their households and purchasing of some assets. The monthly income of beneficiaries was found to be very low, 23.3% of the beneficiaries indicated that they do not receive a monthly income in their cooperatives, while 73.3% of the beneficiaries indicated that they sometimes receive an income between R500.00- R1000.00 and 3.3% stated that they receive income between R2000.00- R2500.00.

According to Garr (2010) income of people is regarded as an indicator of their purchasing power and probably one of the indicators of poverty. People who earn high incomes are able to stay out of poverty because they can afford consumer goods and services that improve their wellbeing and living standard, while people with low income can be trapped in poverty because they are unable to afford basic goods and services. The low incomes earned clearly indicate that the beneficiaries are still trapped in poverty and the infrastructure programme did not help in improving the situation. The projects in the study area also did not contribute much in empowering other community members or households due to failure to create permanent jobs. The jobs created were seasonal and without salaries, workers were paid with vegetables.

Objective (III) the sustainability of the projects is also not guaranteed due to the fact that the cooperatives are failing to operate on their own without government support. The challenge with government support is that beneficiaries do not feel ownership of the projects because it is the government who identifies the needs of the beneficiaries and also plan and implement the projects without involving beneficiaries in decision-making. Again the government faces a serious challenge with budget constraints and fails to meet the needs of the project members and community and hence the beneficiaries feel it is the responsibility of government to meet such needs causing them to be reluctant in participating to sustaining the projects funded by government.

Although they indicated that they were able to purchase inputs to continue production, they are still faced with a challenge of expanding their businesses due to lack of finance. The income generation gaps between the cooperatives, income for beneficiaries as well as the number of years in operation proves that the cooperatives are not sustainable. 20% of the participants have been in the cooperative from three to

four years while 76, 7% have the experience of five years and above but the incomes of beneficiaries are not improving.

Although agriculture and construction cooperatives seems to have maximal impact in terms of income generation, this does not guarantee sustainability of the projects because they are not expanding. The age of beneficiaries also counts to the sustainability of projects, the projects in the study area are dominated by older people and low participation of the youth, only 6.7% of the youth are participating in the projects. Lack of youth participation in the projects has a negative effect on the long-term sustainability of the projects because when older people retire there will be no one to take over the projects and this will lead to collapsing of the projects.

Infrastructure provision to the beneficiaries of land reform is a way of promoting self-reliance in the form of creating economic activities for the poor but it does not serve a purpose because insufficient infrastructure is provided, beneficiaries are unable to take advantage of the infrastructure and utilize it to full capacity because the infrastructures provided act as a starter for low income generation and food nutrition. Government plan projects to fulfil the mandate of the financial year and they are unable to plan for one project each financial year due to targets set for them for the purpose of reporting.

Infrastructure provision can be a sufficient condition for long-term development of beneficiaries but it cannot alleviate poverty alone, it needs to be complemented with high investments in infrastructure such as markets, roads and transport, electricity, provision of land and capital, education and training of beneficiaries, close monitoring and supervision. In this case, beneficiaries were provided infrastructure to produce food, manufacture products, but they were not assisted with markets for selling products and no storage facilities to keep their goods safe and in good condition. Poor roads also disadvantage the beneficiaries because their area is dominated by gravel roads and it becomes difficult for buyers to access their produce. They face a challenge of transporting their goods to the market on time.

Rural development should be about uplifting rural areas with physical, economic and social infrastructure, the focus should be about helping people to help themselves by ensuring that they have access to education, markets, transport, health, water,

electricity, communication facilities such as the internet as well as other public amenities that could promote participation.

The size of the land determines the amount of food to be produced and it also contributes to increased poverty due to the fact that rural people depends on the land for food production, lack of access to the land has a negative impact on food production and income. Infrastructure provision should go hand in hand with provision of land, most of the projects in the study area are operating on a 1ha land with a permission to occupy from the Tribal Authority and there is no room for expansion, some are operating on a community centre land where they are not allowed to build any infrastructure. Land reform should focus on improving the lives of rural communities by assisting them to gain access to land by negotiating with the traditional council to ensure that they avail enough land for development projects. People in rural areas lack funds to purchase land to engage in commercial farming and therefore settles for small scale farming on communal land.

Government should promote micro-finance credit to encourage independence and accountability amongst beneficiaries. The programme of infrastructure provision fails to achieve its objectives due to lack of accountability between Agents of change and beneficiaries, lack of supervision and monitoring contributes to the failure of the projects because after implementation no one goes back to check the progress. If small –micro finance credits with affordable interest rates can be established to compliment the infrastructure provided, beneficiaries can learn to take some form of responsibility knowing that they have to increase the economies of scale to make profit. This will also reduce the dependency from government and contributes to greater impact of the programme.

CHAPTER FIVE PRESENTATION AND INTERPRETATION OF THE RESEARCH FINDINGS

5.0 Introduction

This chapter summarizes the research findings and the recommendations for future implementation of infrastructure programmes aimed at poverty alleviation. As outlined in chapter one, the aim of the study was to determine the impact of infrastructure support programmes on poverty alleviation for cooperatives and households in Muyexe village that were supported with infrastructure. The cause of poor infrastructure was due to lack of services in the area, the community had no access to basic services such as electricity, water and sanitation until in 2009 when the government came to its rescue and declared the area the Comprehensive Rural Development site where all government departments came together and bring different types of services such as building of schools, houses, clinic and providing infrastructure support for creating economic opportunities.

The main objectives of the study as stated in chapter one were to examine the types of infrastructures that were provided to rural cooperatives and to determine how it was distributed and managed. The government was hoping that the provision of economic infrastructure will contribute to job creation, reduce poverty, increase income and also promote sustainable livelihoods through self-reliance projects established. Therefore this study had to be conducted to assess how the infrastructure support programme could have contributed to poverty alleviation on households and cooperatives in the community and also to determine how sustainable the programme is in the long-term.

5.1 Summary of findings

The members of the projects who participated in infrastructure support programme in the study area stated that they were faced with a challenge of lack of infrastructure for participating in local economic development activities that could lead to job creation, income generation and poverty alleviation. The government came to their rescue in 2009 and provided the following types of infrastructure: fence, boreholes, store rooms, water tanks, irrigation pipes, electricity, modular buildings, brick laying machines and shade net. The details of infrastructure are described in objective 1, 2 & 3 below.

5.1.1 Objective 1: types of infrastructure provided to cooperatives.

Cooperatives ranging from agricultural industry, Cosmetics, Arts and craft and construction received different types of infrastructure depending on the scope of their projects.

5.1.2 Fence

The agricultural cooperative was provided with fence which they have used to fence the land where the project is located. The fence acts as a security from animals which used to trouble them by destroying their produce. The construction cooperative also received fencing and they have also fenced the yard of the project, they used to experience theft of bricks before the yard was fenced but currently they are no longer experiencing cases of theft.

5.1.3 Water tanks

Water tanks are used to store water to ensure proper irrigation control and also used by construction cooperatives to store water for brick lying.

5.1.4 Borehole

Water was regarded as a resource that was very scarce in the community of Muyexe, the government assisted the cooperatives to access water by drilling a borehole and now they are able to plant vegetables instead of depending on dry land farming where they use to wait for rain to plant maize. They were also depending on Municipal water and it was difficult for them to access water all the times because municipal water is unreliable.

5.1.5 Irrigation pipes

The pipes are used to irrigate the crops and it has reduced the time spent by beneficiaries irrigating using buckets. It also saves water because it irrigates only the area where the plant is located instead of flooding the whole area.

5.1.6 Electricity

Electricity is a basic need for life and functioning of businesses, cooperatives use electricity to pump water from boreholes to water tanks. It is quick to fill up the tanks and production is not affected due to lack of water.

5.1.7 Modular building

This is used as an alternative to building infrastructure such as storerooms and offices using bricks. The beneficiary utilizes it as an office and warehouse where they store all their materials. The only disadvantage is that it is too small for all beneficiaries to work inside it, they opt to work outside under the trees due to lack of ventilation inside and the environment is not conducive. During rainy seasons they are forced to abandon their work.

5.1.8 Brick laying machine

Brick laying machines are used to manufacture more bricks at the same time as compared to the traditional one which manufactures one brick at the time. It also reduces labour and time spent manufacturing bricks.

5.2.1.8 Shade net

Muyexe village is one of the hottest areas in the Mopani District, the shade net is used to protect the beneficiaries from heat while working, and they manufacture the bricks under the shade net.

5.1.9 Store room

The store room is made of bricks and cement and they utilise it for storing equipment's and some use it as an office.

5.1.10 Impact of the infrastructure provided to rural cooperatives

5.1.10.1 Before the intervention

The cooperatives cited that they were facing challenges of theft due to lack of security fence for their crops. The state of infrastructure for all the cooperatives was very poor; some were operating under the trees, while others had no fence to secure the land. The quality of products and produce was also very low due to lack of proper production equipment's. They even stated that they were relying on their indigenous knowledge for arts and craft, cultural agriculture and lying of bricks without machines. They had no professional skills and it affected their production due to poor quality produce and products, this resulted with low profit and less income. Market accessibility also contributed to less profit and income generation, they had no market to sell their products.

5.1.10.2 After the intervention

The respondents acknowledged that the support improved their working conditions. They indicated that instead of working under the trees and storing their products in their households, they now have the infrastructure such as modular buildings to use as warehouse and offices and those who are in the agricultural activities indicated that their production is no longer affected by animals due to the available security fence, the irrigation infrastructure also reduced hard labour and time spent fetching water from the Municipal water taps which was also not reliable. The quality of their products also improved due to the capacity building workshops and trainings provided. The knowledge imparted to them is useful because new skills and new technology helped them to improve their produce and products and also improved their market access and marketability of their final products.

The income generated from the agricultural infrastructure seemed to be higher as compared to other cooperatives but the salaries of the beneficiaries were very low and sometimes they don't pay themselves. The low salaries and inability to pay monthly salaries was caused by high number of beneficiaries in the cooperative. The agricultural infrastructure seems to contribute to high income generation as compared to the others because it is easier to sell vegetables to the community and hawkers. Most community members prefer buying vegetables from the project because it costs less than travelling to town.

The construction, Arts and Craft and Cosmetic projects contributed to the economic development of the community and they form part of the formal business that are registered in the community. Construction infrastructure was the second in generating high income, but they also face a challenge of paying themselves monthly salaries. Their biggest challenge is marketing because bricks are in high demand in the community and the village is very small. They lack transport to deliver bricks outside the community and it hinders profit. They also lack transport to collect sand from the river and cement from the hardware, they end up paying more for sand and cement. Their profit is affected due to the cost of buying sand and cement.

The arts and craft and cosmetics infrastructure does not contribute much to income generation due to the nature of the products manufactured; they are also not in demand within the community. They find it difficult to market their products and

therefore generating income and profit is not easy. They rely on government to transport them to exhibitions where they are expected to sell their products and sometimes they come back without selling anything.

5.1.10.3 Job creation for other community members

The Agricultural infrastructure seems to have a positive impact in empowering other community members, because it is able to create seasonal jobs during harvesting of crops. Although the impact is not huge due to failure of the project to pay them salaries, they are able to pay them with the harvested crops. It also promotes the number of women, youth and men to participate in agricultural activities. Other cooperatives are unable to create jobs due to lack of funds to pay them and their products are not in high demand.

Despite the effort made by government, The cooperatives are still faced with a serious challenge of lack of infrastructure because the programme did not provide all infrastructure required for a business to sustain itself due to budget constraints for government, the respondents cited that they still required additional infrastructure such as transport, buildings, land, markets, pack houses and equipment's.

In chapter two of literature review, the UN habitat (2011:1) cited that many African countries experience the challenge of poor infrastructure such as roads and ports due to insufficient investment on infrastructure and maintenance. Access to well-maintained roads and ports contribute to the distribution and marketing of products but poor roads causes delay in the arrival of the final product to the market. Although the village is situated 5km away from the tarred road, the road is very poor due to lack of maintenance. It is not easy for beneficiaries to arrive with good quality products to the market due to the dusty roads they travel on and poor transport they use. This is supported in literature by CSIR (2006:9) who conducted a study examining the state of infrastructure in South Africa and it was found that one of the causes of poor roads was lack of maintenance.

5.2.2 Objective2: How did infrastructure support contribute to poverty alleviation?

The programme contributed to poverty alleviation through the formation of cooperatives that participated in poverty alleviation initiatives. The infrastructure

provided has contributed to functioning of income generation and food security projects. Although the projects in the study area are not contributing much to generating enough income, the members are able to meet some of the basics needs in the households and acquiring of some assets. Most of the beneficiaries interviewed indicated that they were able to purchase food and support their families. Before they had no source of income and they were unable to feed their families but through participating in the project, the status of some households and food consumption has improved.

The participation of beneficiaries in agricultural initiatives has contributed to increased food production and increased access to nutrition in the community. Project members' benefited from the project's harvest because they sometimes took vegetables to their homes and members of the community supported the project by buying vegetables.

5.2.3 Objective 3: Sustainability of the projects

The projects are not sustainable due to lack of commitment by members and also the absence of a team spirit. Sustainability of the projects depends on active participation of the beneficiaries, in this case 19.9% of beneficiaries did not show much interest in the projects because they were found to be committed in other community projects such as the Expanded Public Works Programme where they were paid stipends and they were only available after hours, while the 80% majority remains in the projects, this resulted with conflicts and project members deciding to work independently. In most projects, they produce and sell products individually and there is no accountability.

Some projects do not have bank accounts to save money on it. Financial management and record keeping is a serious challenge found to be contributing to the failure of projects because they are unable to account on how their money is spent. The beneficiaries indicated that they were able to purchase agricultural inputs and materials to continue production on their own without support from the government, however they are still unable to generate enough income and profit that can enable them to pay themselves monthly salaries and also to expand their projects. They are still faced with challenges such as purchasing of equipment's, transport and access to markets. Beneficiaries are unable to work independently without continuous support from government. Failure to increase income and profit also contribute to projects

being unsustainable because they are unable to invest money for future use due to reinvesting it back to buying inputs to continue with production, without money there is a huge possibility that members are likely to abandon the projects.

Participation also determines sustainability of development projects, in this case the projects long-term sustainability is not guaranteed because it is dominated by older people and soon they will retire. Youth participation is very low and they are also not patient and they are reluctant to perform hard work, only 6.7% of the youth participate in the projects especially in the Arts and Craft. Lack of youth participation in agriculture and construction can lead to collapsing of projects when older people retire.

Low levels of education also has a negative impact on the functionality of the business, 53% of the respondents indicated that they only attended primary school, this is a serious challenge facing the projects because low levels of literacy have a negative impact on income and productivity of a business. Low levels of education also contribute to trapping beneficiaries and their families in poverty because poverty and education are interrelated, the higher the number of people who are educated the lesser the number of poor people. In this case, there is high number of people with low levels of education which also affected their income earning. This also affects the status of their households, their children are also affected as they are also likely to lack good quality education due to low incomes earned by their parents.

The sustainability of projects should be considered in the early stages of designing the programme, beneficiaries were capacitated with various trainings and production methods but there were no mechanisms developed for follow-up trainings to keep on updating the information to make trainings sustainable. Financial support was also not determined as to where will the beneficiaries' source funding after the programme has stopped. Maintenance plan of the infrastructure was also not developed and therefore the sustainability of this infrastructure is not guaranteed due to the fact that the projects are failing to repair them on time and they also complained about the cost of repairing which is very expensive.

5.3 How do these findings answer the research question?

The findings answer the research questions because it proved that infrastructure support programmes has a potential to contribute to poverty alleviation. Greater impact could be achieved if sufficient infrastructure can be provided to meet the needs

of the intended beneficiaries and it also needs to be complemented with other dimensions. As stated in chapter two, literature revealed that improving access to irrigation has greater impact on food production because without water, food cannot be produced and it also affects the energy sector due to its usage for water to produce electricity, every business relies on electricity for production. Improving access to infrastructures such as fence, storage facilities and equipment's contributes to creating opportunities that lead to poverty alleviation. In this case the infrastructures provided did not make a greater impact due to its limitations, it was not sufficient to achieve the goals of the beneficiaries. There is still high inequality in terms of capabilities of the members in acquiring assets and income. As stated in chapter one under poverty measures, a house is considered not deprived if it is able to own assets that are required to meet basic needs without losing some of their assets in times of hardship (Iceland & Bauman 2011:376-379). In this case acquiring assets through income earned from participation in the cooperatives is limited to few members. Most of the beneficiaries spend their income on the basic needs such as food and clothing while others cited that they do not receive monthly incomes.

From these findings it is concluded that the programme of infrastructure provision did not achieve a greater impact on poverty alleviation due to the failure of the implemented projects to generate more profit and income. The beneficiaries are still deprived in terms of earning income that can sustain their projects and families. Income is regarded as an indicator of people's purchasing power and one of the indicators of poverty (Garr 2010). People with high incomes are able to afford consumer goods and services that improve their wellbeing while people with low income can't afford basic goods and services which can make them poor. In this case the beneficiaries of the projects are still very poor and they are not likely to graduate from poverty due to failure of their projects to create decent jobs and decent incomes.

5.4 Strategic and policy implications

Poverty alleviation initiatives that are aimed at improving the lives of rural communities requires decentralization of the approach to rural development. Planning of poverty alleviation programmes at national level often does not match local conditions therefore Provincial and Local government needs to be given powers to identify programmes that meet local conditions. According to the Intergovernmental Fiscal Relation Act 97 of 1997 the three spheres of government are required to work together

in formulating decisions, coordinating of budgets and activities that cut across the spheres.

In practice, it is difficult for the spheres of government to work together, they work in isolation and often fight for mandates e.g. the Department of Agriculture has a mandate to support small holder farmers with inputs, the Department of Social development also has the mandate of supporting rural enterprises both agricultural and non-agricultural and the Department of Rural development also has the mandate of supporting both agricultural and non-agricultural enterprises. All of them service the same communities but they do not work together and this results with duplication of services. The departments should plan together and agree on the type of service each can render e.g. the Department Social Development has budget to build infrastructure and therefore they could support projects with infrastructure such as store rooms and offices , Rural Development can buy inputs and equipment's while the Department of Agriculture could provide training and technical support.

Other departments such as Sports Arts and culture can contribute to promoting the work of arts and craft cooperatives through participation in the Provincial Mapungubwe arts festivals, assisting beneficiaries to gain access in national art galleries. Department of Local Economic Development can assist with marketing of the enterprises. Small Enterprise Development Agency could provide support and promote cooperatives to ensure their growth and sustainability through their programs of business development, assisting with marketing plan and networking events.

Beneficiaries should empower themselves by identifying gaps and skills required to function effectively and approach agencies who can assist with improving their gaps without relying on state agencies. They should also develop strategies to source funding from other donors such as Old Mutual Foundation, Small Enterprise Finance Agency, this could promote independency and accountability. Policy makers must also be able to identify how key assets such as land, education and infrastructure are likely to shape the decisions of the rural people.

5.5 Recommendations

5.5.1 Implementation of the programme

The programme of infrastructure provision is relevant to poverty alleviation and it should continue. Its potential was seen through the improvement of the status of some households in terms of poverty alleviation and income. However for the programme to be effective infrastructure should be provided sufficiently. Insufficient infrastructure limits cooperatives to function effectively, due to lack of infrastructure that complements the functionality of the others. It also requires integration between the three spheres of government, the study identified that there was loopholes during the implementation stages of the programme. Lack of proper consultation and lack of integration were identified as challenges that could have contributed to the limited impact of the programme. The spheres of government were operating in isolation and they all went to fulfil the requirements of their mandates and left without follow up mechanisms. Beneficiaries of the projects also had to accept any assistance provided to them because they were not afforded the opportunity to raise concerns about the development concerning them. Infrastructure provided was insufficient to enable cooperatives to create job opportunities, increase production and income. Some of the infrastructure provided was only suitable for storing materials only, it is difficult for the beneficiaries to operate within the harsh conditions of the infrastructures provided.

It is recommended that proper coordination between the spheres of government should be taken into consideration to prevent duplication of services. Consultation should also be considered to ensure that there is maximum participation by all concerned stake holders including the community. For development projects to be successful, it requires that proper planning and consultation with all relevant stakeholders be conducted. Again poverty alleviation programmes must be planned to achieve the needs of the intended beneficiaries not to fulfil the mandate of the implementing agent because it leaves the beneficiaries with incomplete projects. The absence of public participation can cause a huge setback for development but through participation priorities of the intended beneficiaries can be revealed and it can create a maximum support for the project.

5.5.2 Improving training and capacity building including mentoring and monitoring

Training and capacity building provided were relevant to the members training needs. However it failed to make a greater impact because there was no follow up trainings. Hence business planning, financial management was found to be the most challenge facing the struggle of projects due to poor writing and reading skills. Trainings were conducted for few days through the appointment of a service provider.

It is recommended that effective mechanisms for training, supervision and designing of monitoring tools must be considered to ensure that there is sustainability of the development projects and also to ensure that there is accountability and functionality of all stake holders.

5.6 Areas of future research

Further research needs to be undertaken on the management of infrastructure provided and also ensuring that there is accountability amongst cooperatives. The study revealed that there is lack of commitment amongst members. There is also abundance of projects due to failure of the projects to generate income that can enable the members to sustain themselves. This results with collapsing of projects because the cooperatives are not held accountable. The study also needs to be extended to a larger sample because due to time a small sample was done.

5.7 Conclusion

Rural infrastructure investment has a potential to contribute to higher farm and non-farm productivity, employment and income opportunities. The impact of infrastructure on poverty alleviation can be determined by the extent to which it is capable to provide productive employment and higher income to poor households and also raise their standard of living. The results of the study found that infrastructure investments in the study area did not make much impact to the poor's access to opportunities, after assessing the government's effort to alleviate poverty through infrastructure provision, the study revealed that the poor are still struggling to graduate from poverty due to failure of the projects to create decent jobs and income.

Poverty alleviation does not depend only on the type of strategy that is adopted but it also depends on the implementation and management of such intervention. The

infrastructure provided was not equally distributed due to budget constraints for government and it was not easy to fulfil infrastructural requirements for all projects, hence there is still a high challenge for lack of access to markets, transport, storage facilities and equipment. Therefore the intervention was not more effective in alleviating poverty due to the fact that the improvement in the projects life cycles is limited and they are also not sustainable.

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Annexure A

Data collection questionnaire

1. Demographic profile

a. Gender

Male Female

1	2
---	---

b. Age of the respondent, tick one

18-35	1
36-45	2
46 -55	3
56 -69	4
60 /above	5

c. What is your marital status? 1=single, 2 =married, 3=divorced, 4=widow

1	2	3	4
---	---	---	---

d. What is your position in the cooperative?

Chairperson

Manager

Board member

Employee

Member

1
2
3
4
5

2. Status of a household

a. Head of the family: 1=father, 2=mother, 3=child

1	2	3
---	---	---

b. Employment status: 1=employed, 2=unemployed, 3=self employed

1	2	3
---	---	---

c. Highest level of education: 1=primary, 2=high school, 3 =tertiary

1	2	3
---	---	---

d. Did you receive any training relating to the project?

Yes No

1	2
---	---

e. If your answer to the above is yes please specify the type of training.

.....

f. If your answer to the above is no please explain why you did not receive the training.

.....

3. Type of cooperative

Agricultural

1

Construction

2

Arts and craft

3

None

4

Other

5

(specify).....

a. How long have you been a member of a cooperative?

0-1 yr.

1

1-2 yrs.

2

3-4 yrs.

3

5yrs +

4

b. Why did you join the cooperative?

.....

c. Do you earn a monthly income in your cooperative?

Yes No

1	2
---	---

d. How much is your monthly income? Please tick the relevant box

1	R500 -R1000
2	R1000-R1500
3	R1500-R2000
4	R2000-R2500
5	R2500+

d. How many hours do you work per week?

1	Less than 10h
2	10-20h
3	30-40h
4	40h+
	Other (specify).....

e. How much does your cooperative generate per month?

1	R1000-R2000
2	R2000-R4000
3	R4000-R6000
4	R6000- R8000
5.	R8000+

4. Did the cooperative receive infrastructure support from government?

Yes No

1	2
---	---

5. If your answer is yes which of the following infrastructure did you receive? Tick the relevant box

1	Fence
2	Tanks
3	Irrigation
4	Modular building
5	All of the above
6	None of the above
7	Other (specify).....

6. Are you actually utilising the infrastructure?

Yes No

1	2
---	---

7. If your answer is yes, please explain how are you utilising the infrastructure?

.....

8. If your answer is no, please explain why are you not utilising the infrastructure?

.....

9. Do you share the infrastructure with other cooperatives?

Yes No

1	2
---	---

(a) If you do share, are there any challenges which you face in the process?

Yes No

1	2
---	---

b. If there are challenges, please explain the nature of the challenges that you face

.....

c. Who maintains the infrastructure? 1= beneficiaries 2= government

1	2
---	---

d. Are there any problems with respect to maintenance of infrastructure?

Yes No

1	2
---	---

e. If the answer is yes, please specify the challenges

.....

f. Do you need any other infrastructure in addition to what has been provided?

Yes No

1	2
---	---

g. If yes, please specify the type of infrastructure.

.....

h. Of what use would be the infrastructure you have cited above?

.....

10. Rate how was the cooperative before being given the support from government by circling one number for each question. 1 = disagree, 2 = disagree somewhat, 3= neither agree nor disagree, 4 = agree somewhat, 5 = agree

a. State of infrastructure was good	1	2	3	4	5
b. Quality of produce was high	1	2	3	4	5
c. The members had skills	1	2	3	4	5
d. The cooperative was generating less money	1	2	3	4	5
e. The cooperative had access to market	1	2	3	4	5
f. Members were earning an income	1	2	3	4	5
g. Record keeping was good	1	2	3	4	5

11. Rate how the support changed the status of the cooperative? Is there an impact made through the support received. 1 = disagree, 2 = disagree somewhat, 3= neither agree nor disagree, 4 = agree somewhat, 5 = agree

a. The state of infrastructure has improved	1	2	3	4	5
b. Quality of produce/produce improved	1	2	3	4	5
c. Trainings received	1	2	3	4	5

- d. The cooperative generates more money/profit 1 2 3 4 5
- e. Monthly income for members has increased 1 2 3 4 5
- f. Access to market has improved 1 2 3 4 5
- g. Ability to procure stock/materials/inputs 1 2 3 4 5
- h. The cooperative can operate on its own (no support) 1 2 3 4 5
- i. The cooperative employs more people 1 2 3 4 5
- j. The number of youth participation has increased 1 2 3 4 5
- k. The number of women participation has increased 1 2 3 4 5

12. How many people did you cooperative employ since given the support?

- a. Number of women.....
- b. Number of males.....
- c. Number youth.....
- d. Number of disability.....

13. Do you see your business as growing or struggling?

Yes No

1	2
---	---

14. If your answer to the above is yes please explain why do you say the business is growing?

.....

15. If your answer is no please explain why do you say the business is struggling?

.....

16. Will the cooperative be able to operate on its own for the next 5 years if the government can stop the support?

Yes No

1	2
---	---

17. If your answer is yes please explain why you say the cooperative can operate on its own.

.....

18. If your answer is no please explain why do you say the cooperative cannot operate on its own?

.....

19. What challenges do you experience in the cooperative?

.....

20. How do you view the support given to the cooperative? Please answer the following question:

a. Is the support enough to able the cooperative to achieve its goals?

Yes No

1	2
---	---

b. If your answer is yes please explain why do you say the support is enough?

.....

c. If your answer is no please explain why do you say the support is not enough?

.....

c. How did your participation in the cooperative change your life?

.....

d. Were you able to support the family before participating in the cooperative?

Yes No

1	2
---	---

e. Are you able support your family with the income from the cooperative?

Yes No

1	2
---	---

f. Which of the following assets were you able to buy from the income earned from the project? Tick the relevant boxes

1	Build a house
2	Bought a TV
3	Bought a radio
4	Bought a fridge
5	Bought agricultural implements
6	Other (specify if any).....
7	

21. What would you like to see the implementer's do to improve the programme?

.....

Annexure B

Informed consent form for participation on the interviews for data collection on the impact of infrastructure support programme on poverty alleviation

IConfirm that (please tick the appropriate box)

1.I was informed about the purpose of the research project	
2. I was given an opportunity to ask questions about the research project and my participation	
3. I voluntarily agree to participate on the interviews for the purpose of data collection.	
4. I understand that I can withdraw at any time by notifying the researcher and that I will not be penalised for withdrawing	
5. The procedures of confidentiality has been explained to me e.g. use of name , anonymity etc.	
6. The use of data in research publication has been explained to me.	
7. I understand that the researcher will have access to this data only if she agrees to the confidentiality of the data and to the terms I have specified in this form	
8. Select only one of the following: <ul style="list-style-type: none"> • I would like my name used and understand what I have said or written as part of this study will be used in reports, publications and other research outputs so that anything I have contributed to this project can be recognised. • I do not want my name used in this project. 	
9. I, along with the Researcher, agree to sign and date this informed consent form.	

Participant:

Name of Participant

Signature

Date

Researcher:

Name of Researcher

Signature

Date