# EFFECTS OF THE HARMOS BICYCLE LOAN PROJECT ON THE SOCIAL ECONOMIC WELL BEING OF THE BENEFICIARY FARMERS IN CHONGWE DISTRICT

A Research Report presented to the Department of Agricultural Economics and Extension Education of the University of Zambia.

BY

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# In Partial Fulfillment of the Requirements for the Degree of Bachelor of Agricultural Sciences

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# LIST OF ABREVIATIONS

- AMIZ Association for Microfinance Institutions In Zambia
- **CSO** Central Statistics Office
- **FAO** Food and Agriculture Organization
- HMDL Harmos Micro Enterprise Development Limited
- **IFRTD** International Forum for Rural Transport and Development
- MACO Ministry Of Agriculture and Cooperatives
- MFI Micro Finance Institution
- NGO Non Governmental Organization
- **PABIN** Fan Africa Bicycle Information Net Work
- SPSS Statistical Package for Social Sciences
- **UNDF** United Nations Development Program
- WBR World Bicycle Relief

#### ABSTRACT

# Effects of Harmos Bicycle Loan Project on the Social- Economic Well Being of the Beneficiary Farmers in Chongwe District

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## Supervisor: Miss D.J Banda

The main objective of this study was to find out the major benefits beneficiaries derive from the bicycle loan project, and perceptions beneficiaries have regarding the bicycle loan facility. The study is based on sample survey data from Chongwe district of Lusaka Province of Zambia. Collected data was analyzed in Statistical Package for Social Sciences (SPSS) to generate descriptive statistics. Frequency distribution tables were generated to calculate each response as a percentage of the total responses available for a particular question. The study also considered characteristics of the beneficiaries such as the level of education, marital status, sex and age.

Field results showed that most (44.0%) beneficiaries use the bicycles for taking agricultural produce to the market; 20.9% use the bicycles to take children to school; 4.4% of the beneficiaries hire the bicycles out. The other 4.4% said they use the bicycles as transport to community meetings. 4.4%; 3.3%; 2.2% and 1.1% indicated using the bicycle for transportation to the field, clinic, in search of new occupation and drinking places. Over fourteen percent (i.e. 14.4%) represent the sample population that was not contacted. On beneficiaries perception 46.0% indicated that bicycle loan was less risky compared to other loans while,39.6% said the loan was not less risky because any delay in fulfilling the loan repayments resulted in the loss of the their bicycles by Harmos Micro Development Limited (HMDL) bailiffs. On the other hand, 59.3% of the beneficiaries indicated that HMDL bicycles were more durable compared to other bicycles, while 23.3% said otherwise. 75.6% of the respondents said the loan was affordable while 10.0% indicated that loan was not affordable.

# CHAPTER ONE INTRODUCTION

#### **1.1 Background**

Isolation is one of the key elements of poverty; isolated communities have little or no access to goods and services, and few opportunities to travel beyond their immediate surroundings. This restricts agricultural productivity, reduces health and educational opportunities, and limits opportunities for employment and politics. Limited financial resources prevent investment in means of transport maintaining the position of poverty and isolation especially in rural areas. Consequently, there was a need to develop alternative and more affordable means of transport.

One of the more common, affordable types of intermediate transport developed was the bicycle. Bicycles are a low cost means of transport that can improve access to various goods services hence, a vital tool to reducing poverty associated with isolation.

The bicycle has been used in different countries for various purposes. In agriculture, bicycles have been used to transporting milk churns and other agricultural produce to the market in Kolkata, India. They have also been used to address stove-marketing problems faced by women producer groups in Kenya (IFRTD, 2008). Studies have shown that the bicycle has been successfully used as a poverty-fighting tool in some areas. A typical example of how this was used is by the World Bicycle Relief (WBR) that spent up to \$1.5 million on bicycle project involving Tsunami victims (men and women) in Sri Lanka. The study further demonstrated that bicycles dramatically accelerate recovery from brutal disasters. Two years after the project was completed, the results were outstanding in that:

- 88% of recipients depended on bicycles for livelihood activities
- Bicycles saved a household up to 30% of its annual income for transportation costs
- The bicycle program provided critical, appropriate transportation enabling households to resume important livelihood, education and service activities.

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#### 1.2 Harmos Micro Development Limited (HMDL) Project

Due to the success of Tsunami Bicycle project, World Bicycle Relief collaborated with established institutions to build and test the micro financing model utilizing their improved-quality bicycle with the first pilot programs being located in Zambia and Tanzania. Parallel tests were also being carried out in Ethiopia, Uganda, Rwanda, Kenya and Malawi (WBR, 2008).

In Zambia WBR has collaborated with a Micro finance institution called Hamos Micro Development Limited (HMDL) to provide bicycle loans to the needy. Under this loan facility, HMDL sources bicycles from WBR, which it then gives to its clients in form of loans across its branches. HMDL has branches in Nakonde, Solwezi, Kitwe, Chongwe, Gwembe, Munyumbwe, Sinazongwe and Kembe. HMDL targets self-employed entrepreneurs running micro or small businesses in Peri-Urban and Rural areas as well as small-scale farmers. This study evaluated the HMDL bicycle loan project in terms of major benefits and perceptions among the beneficiary small-scale farmers in Chongwe District of Zambia.

#### **1.3 Problem Statement**

Zambia's population is estimated to be over 11 million of which 72.9% live below the poverty line (CSO 2006). The countries ranking in the Human Development Index has been declining in the recent past, in fact Zambia ranked among the least developed countries in 2006 (UNDP 2006). The main challenge for Zambia therefore has been to bring about sustained improvements in the livelihood of the approximately 73% of the population living in poverty. This challenge necessitates greater targeting of developmental resources and micro finance projects towards the poor and the vulnerable.

Colossal sums of money in Zambia have been spent and are still being spent on micro finance programs such that the outstanding loan portfolio from various micro finance institutions by the end of 2004 stood at 20 billion kwacha (AMIZ 2005).

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Chongwe district is one such district in Zambia that has benefited from micro finance projects through various non-governmental organizations such as HMDL. Food and Agriculture Organization 2000 report indicates that micro financing improves the standard of living of the beneficiaries, but has access to microfinance helped in improving the standard of living of the beneficiaries in Chongwe? Assessing the benefits of micro finance programs on the economic welfare of the beneficiaries is the only answer to the question hence the need for the study.

# **1.4 Study Objectives**

- To determine the major benefits farmers derive from the bicycle loan.
- To find out the farmers' perceptions and feelings about the bicycle loan project.

### 1.5 Study Significance

Quality and reliable data is very important in the establishing a reliable base-line information on the beneficiaries in terms of their improved economic welfare, the data base is cardinal to both the non-governmental organizations involved in micro financing of the resource poor in society and the government. The information from the database will be helpful in the formulation of strategies aimed at improving the economic welfare of the resource poor individuals in society. Consequently, this will be of value in the formulation of short and long-term microfinance intervention policies. It is therefore prudent to evaluate the impact of the Micro Finance Institutions (MFI) intervention on the rural resource poor farmers.

# 1.6 Structure of the report

This research report is divided into five (5) chapters and is laid out as follows; the first chapter is the study introduction and background, statement of the problem, study purpose, study significance and study scope; chapter two presents a discussion on the literature review, chapter three presents the research methodology. Study findings are presented and discussed in chapter four, and the paper concludes with chapter five, which contains the study conclusions and recommendations.

# CHAPTER TWO LITERATURE REVIEW

### 2.1 Introduction

This chapter reviews relevant literature on micro finance as a concept, the bicycle as well as the scope of the study.

# 2.2 Definition and Scope of Micro financing

The term micro finance and micro credit are used inter changeably in this report because they refer to the same thing.

Microfinance refers to financial services like small loans, savings and in recent times insurance and transfer payment services, provided to low income households and individuals (FAO, 2000). Microfinance has become a popular poverty fighting tool. The motivation behind microfinance is that financial institutions can extend loans to the poor, while at the same time, making a reasonable profit. By charging high interest rates, microfinance institutions can afford the high transactions costs of processing large volumes of loans as small as few hundred thousand kwacha, as well as the high risk resulting from lack of collateral. Microfinance institutions therefore, charge interest rates that are higher than commercial bank loans but lower than informal moneylenders are.

Unlike government credit programs and traditional bank credit programs that emphasize large loans for long repayment periods, microfinance provides small loans that are repaid within short periods of time. They are essentially used by low-income individuals and households who have few or do not have any asset that can be used as collateral and are too poor to qualify for traditional bank loans. Micro finance has been proved an effective tool in poverty alleviation enabling those without access to traditional lending institutions to borrow. Microfinance provides a vehicle that enables poor people to become self employed so that they can generate their income, thereby allowing them to care for themselves and their families. According to (FAO 2000) micro credit departs from traditional rural banking in three many ways; it is aimed at a more marginalized (poor) group of borrowers; it generally include non-credit services and employs a group lending approach. Micro credit is therefore not a replacement of traditional banking as it is smaller in scale and differently targeted compared to loans from other lending institutions. It attempts to fill the gap in the credit delivery system that is not addressed by other financial providers.

Micro credit aspires to reach potentially credit worthy borrowers who do not meet the formal lenders normal screening criteria and potentially credit worthy borrowers who are geographically isolated. It also offers related services such as basic financial management aimed at increasing the borrower's income generating capacity. Micro finance also aspires to use financial services as a development tool at the household level as well as to catalyze female-based entrepreneurship (FAO 2000).

A typical micro financing procedure according to (FAO 2000) involves, identifying eligible borrowers according to the target criteria and procedures, formation of small groups (five to eight people) of common gender and each member of the group is in turn required to make compulsory savings. One or two group members will then borrow the initial maximum amount, which has to be repaid before the next member can borrow. The repaid loans and savings eventually, provide sufficient capital to maintain the revolving loan pool for the members.

The novelty of rural credit introduced by micro credit is the way in which it tackles market and institutional failures. Micro credit attempts to overcome these barriers and still be financially viable. The three major problems tackled are:

Information asymmetries- this is created when the parties to a transaction do not have access to equal information thereby creating an advantage to the party with greater amount of information. A borrower may appear to be less risky than he/she is, but after the transaction has occurred, he may have an incentive not to repay the Lender as agreed. To deal with this problem formal financial institution require borrowers to have good credit history and meet requirement such as steady income and offering collateral in exchange for granting a credit. Under micro finance, information asymmetries is resolved by the peer group contract in which liability is collectively accepted and regular payment are made at group meetings. In this case, peer pressure creates an incentive to remain current with loan payment as well as exclude those who might be considered poor credit worth (J.Morduch 1998).

Low Potential Profitability- This is another barrier to loans for the poor. It reflects a bank's perception of the high cost, high risk and small market interest in serving such a borrower population. At individual level, such borrowers generally do not have steady or adequate income or any assets to seize and they face great economic and cultural barriers to earning income. At community level, they are relatively isolated so it is expensive to provide financial services to them and their market opportunities are few. The sparse population of potential borrowers in such areas also inhibits reaching economies of scale in the provision of financial services. Micro credit resolves this problem through several practices. Many micro credit programs provide training and technical advice to borrowers in an effort to increase their income. These include literacy programs, enterprises management among others. These programs try to increase the skills and capacity of borrowers. According to (Vonpishke J.D. 1999) this is of value especially to women who lack experience and knowledge in running of businesses. High repayment rates are also important to micro credit ability to lend the poor. According to (Khandler 1998) he attributed these high loan repayment rates on female borrowers, who are more responsible than men in making payments and to a joint liability approach. Khandlers says loan repayment default rates for female borrowers are at 3% compared with 10% for men in the same programs.

Portfolio diversification- This is the third problem, which bar poor rural population from accessing credit. Lenders operating in a given community or region face covariant risks. Among the most likely reasons for loan delinquencies in a region or country is a natural disaster like drought or economic down turn like world economic depression the world is currently experiencing. Such events affects micro credit borrower more than other borrowers because of their great economic vulnerability. (Khan 1999) suggests that the

problem of portfolio diversification has been resolved partially by Micro Finance Organization Peer group lending approach, which spreads the liability for repayment among the entire group of borrowers in a given group of borrowers. He further states that insurance products and emergency funds are also being adopted to address the lack of portfolio diversification. These sources provide compensation or additional credit during times of disaster and they might include a suspension on loan repayment schedules until recovery is possible.

## 2.3 Over View of the Bicycle

Oftentimes, isolated communities tend to have little or no access to goods and services, and few opportunities to travel beyond their immediate surroundings. Such limitations restrict agricultural productivity, reduce health and educational opportunities, and limits opportunities for employment and politics. Limited financial resources prevent investment in means of transport maintaining the position of poverty and isolation especially in rural areas. Consequently, there was a need to develop alternative, more affordable means of transport. (I.T, 2008)

One of the more common, affordable types of intermediate transport developed to break the isolation barrier is the bicycle (Work Bike, 2008). The bicycle, bike, or cycle is a pedal-driven, human-powered vehicle with two wheels attached to a frame, one behind the other. A person who rides a bicycle is called a cyclist or a bicyclist. (Wikipedia, 2009)

The origin of the bicycle dates back to the 19th century and now number about one billion worldwide (Wikipedia, 2009). Multiple innovators contributed to the history of the bicycle by developing precursor human-powered vehicles. The documented ancestors of today's modern bicycle are known as pushbikes.

The basic shape and configuration of a typical bicycle has changed little since the first chain-driven model was developed around 1885. Many details have been improved, especially since the advent of modern materials and computer-aided design. These have allowed for a proliferation of specialized designs for particular types of cycling.

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The bicycle has many uses, which include transporting milk churns and other agricultural produce to the market in places such as Kolkata, India, been addressing stove marketing problems faced by woman producer groups in Kenya (IFRTD, 2008).

Historically, the diamond-frame safety bicycle gave women unprecedented mobility, contributing to their emancipation in Western nations. As bicycles became safer and cheaper, more women had access to the personal freedom they embodied, and so the bicycle came to symbolize the New Woman of the late 19th century, especially in Britain and the United States. 19th-century feminists and suffragists recognized the bicycle as a "freedom machine" for women. American Susan B. Anthony said in a New York World interview on February 2, 1896; "Let me tell you what I think of bicycling. I think it has done more to emancipate women than anything else has in the world. It gives women a feeling of freedom and self-reliance. I stand and rejoice every time I see a woman ride by on a wheel...the picture of free, untrammeled womanhood." In 1895 Frances Willard, the tightly-laced president of the Women's Christian Temperance Union, wrote a book called How I Learned to Ride the Bicycle, in which she praised the bicycle she learned to ride late in life, and which she named "Gladys", for its "gladdening effect" on her health and political optimism. Willard used a cycling metaphor to urge other suffragists to action, proclaiming, "I would not waste my life in friction when it could be turned into momentum."(PABIN, 2009).

# CHAPTER THREE RESEARCH METHODOLOGY

# 3.1 Introduction

This chapter outlines the methods and procedures used to achieve the stated objectives. It gives information on the study sites, data collection and data analysis tools that were used in the study.

# 3.2 Study Area

Chongwe district located 45 kilometers away and about 20-30 minutes drive from Lusaka constituted the main study area for this study. The district lies in the medium rainfall belt of the country (region ii) and has over 5,000 peasant and small-scale farmers whose main livelihood is agriculture. The main ethnic groups in the area are the Solis who are traditionally governed by senior chieftainess Nkomesha with the assistance of sub chiefs.

# 3.3 Data Collection Method

Both primary and secondary data was collected in this study. Primary data was collected by means of structured questionnaires administered as interviews. Secondary data was collected from various institutions such as the Ministry of Agriculture and Cooperative (MACO), Association for Micro Finance Institutions in Zambia (AMIZ), HMDL, Food and Agriculture Organization (FAO) and the Central Statistics office.

A sample of 90 households was randomly selected from the wards in Chongwe district to include representative samples of areas with beneficiaries.

# 3.3 Data Analysis

The field data was analyzed in Scientific Packages for Social Sciences SPSS to produce descriptive statistics and the output was organized using EXCEL. Frequency distribution tables were generated to calculate each response as a percentage of the total responses that were available for a particular question.

# CHAPTER FOUR STUDY FINDINGS AND DISCUSSION

# 4.1 Introduction

This chapter presents and discusses the study findings. It begins with a presentation and discussion of the Demographics characteristics of the respondents. It goes on to present the outputs of the findings as generated by SPPS.

# 4.2 Demographic Characteristics of the Beneficiaries

# Table 1: Sex of the beneficiaries

Sex	Frequency	Percentage
Female	8	8.9
Male	82	91.1
Total	90	100

Source: Own Survey Data (2009)

The table above presents the sex of the HMDL bicycle project beneficiaries. The majority of the beneficiaries were males who are represented by 91.1% and the minority, the females where resented by 8.89%. The low number of women beneficiaries is attributed to the type of the bicycles provided (i.e. has a flat frame as opposed to the slanted one) as being user unfriendly to women.

Age Group	Frequency	Percentage
24-29years	13	14.4
30-34years	11	12.2
35-39years	16	17.8
40-44years	13	14.4
45-49years	14	15.6
50 & above	10	11.1
Total	90	100

# Table 2: Age of respondent

Source: Own Survey Data (2009)

Table 2 above presents the age of the beneficiaries, the range of years of the beneficiaries was from 24years to 50 and above. The majority of the beneficiaries (17.8%) were those in the age group of 35-39 years, while the minority of the beneficiaries(11.1%) was in the age group of 50 years and above. This is because the older the person, the less energetic one becomes; hence the bicycle could be unsuitable for this age category. 14.4% represent the age group 24 to 29years. Age groups 30 to 34 years, 40 to 44years and 45 to 49years are represented by 12.2%; 14.4% and 15% repectively.

Marital Status	Frequency	Percentage
Non contact	13	14.4
Single or under	9	10.0
Married	47	52.2
Divorced or separated	9	10.0
Widowed	12	13.3
Total	90	100

Table 3: Marital status of the beneficiaries

Source: Own Survey Data (2009)

The majority of the beneficiaries (52.2%) were married, as shown in the table above. The minorities of the beneficiaries (10.0%) each are those who were single or under age and those who were divorced or separated. The beneficiaries who were widowed were represented by (13.33%), while the (14.4%) that is evident in table represented non-contact.

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Non contact	13	14.4	14.4	14.4
Sub A/ grde1	2	2.2	2.2	16.6
Form 3/grade 10	6	6.7	6.7	26.7
Form 4/grade 11	9	10	10	36.7
Form 5/grade 12	20	22.2	22.2	58.9
College student	6	6.7	6.7	65.6
Tertiary certificate	4	4.4	4.4	70.0
Sub B/ grade 2	8	8.9	8.9	78.9
Std 6/grade 7	2	2.2	2.2	81.1
Form 1/grade 8	1	1.1	1.1	82.2
Form 2/grade 9	16	17.8	17.8	100.0
Total	90	100.0	100.0	

Table 1: Level of education of respondents

Source: Own Survey Data (2009)

The distribution of beneficiaries by level of education is depicted by the table above .The majority of the beneficiaries (22.2%) had completed grade twelve (12) or form 5. The minority (1.1%) of the beneficiaries were those who had completed grade eight (8) or form one. Those beneficiaries who reached grade one (1) or sub A are represented by 2.2%, while those who reached grade ten (10) /form three , grade eleven (11)/form 4, and college students are represented by 6.7%, 10.0% and 6.7% respectively. Others are those who obtained a tertiary certificate represented by 4.4%, those who dropped out of school at Sub B /grade two (2); Standered6/grade 7, form 2 /grade(9) are represented by 8.9%, 2.2%, 17.8% accordingly

# 4.3 Major benefits respondents derive from the bicycle.

Table 5 shows the responses that the respondents/beneficiaries of the HMDL bicycle project gave in relation to how they use the bicycles. Majority of the respondents (44%) indicated that used the bicycles to take produce to the market, the minority represented by (1.1%) used the bicycles to travel to drinking places. (20.9%) took Children to School using the HMDL bicycles. (4.4%) of the respondents said, they use the bicycles as transport to the Field, Community meetings and for Hire. (3.3%) ;( 2.2%); represent the beneficiaries who said they use the bicycles as transport to the Clinic and for under taking new occupations respectively (see table 5 at the appendix).

# 4.4 Perceptions of the Beneficiaries regarding the Loan

Sex	No	Yes	Non contact	Total
Female	4	4	0	8
	50%	50%	0.0%	100%
Male	19	50	13	82
	23.2%	60.9%	15.9%	100.0%
Total	23	54	13	90
	25.3%	59.3%	14.4	100%

Table 2: Perceptions of durability of the HMDL bicycles.

# Source: Own Survey Data (2009)

Regarding whether the HMDL bicycles were more durable compared to the other types, (59.3%) of the total beneficiaries indicated that the HMDL bicycles were more durable than other bicycles, while (25.3%) said other wise.

Sex	No	Yes	Non contact	Total
Female	3	5	0	8
	37.5%	62.50%	0.0%	100%
Male	6	63	13	82
	7.3%	76.8%	15.9%	100.0%
Total	9	68	13	90
	10.0%	75.6%	14.4%	100%

Table 3: Affordability perceptions of the HMDL bicycle loan compared to other loans

Source: Own Survey Data (2009)

With regard to whether, the HMDL bicycles were more affordable than other bicycles, the majority (75.6%) affirmed, that the HMDL bicycles were more affordable compared to other bicycles because the spare parts and repair parts were readily available at an affordable price in the area. The minority (10%) said other wise and 14.4% represent non-contact as shown on the diagram above. Affordability in this case is related to the availability of spare parts and repair services, which are sometime lacking in rural area.

Table 4: Farmers' perceptions about the degree of risk of the bicycle loan

Sex	No	Yes	Non	Total
			contact	
Female	6	2	0	8
	80%	20%	0.0%	100%
Male	30	39	13	82
	36.6%	47.5%	15.9%	100.0%
Total	36	41	13	90
	39.6%	46.%	14.4%	100%

Source: Own Survey Data (2009)

The majority of the total contacted beneficiaries (46.0%) affirmed that the HMDL bicycle loan was less risky compared to the other loans. The minority (39.6 %) indicated

otherwise and 14.4 % represented non-contacted beneficiaries. Risk in this case is defined in terms of the consequences of defaulting. That major risk respondents associated with the loan pertained seizure of the bicycles in case of default.

# CHAPTER FIVE CONCLUSIONS AND RECOMMENDATIONS

# **5.1 Conclusions**

This study was designed to ascertain major benefits respondents derive from the use of the bicycles and their perceptions regarding the bicycle loan.

This study found out that majority (44.0%) of the farmers use the bicycles to transport the commodities to the market. Therefore, the bicycle loan project has essentially been instrumental in improving market accessibility among small scale farmers, a situation that will go a long way in helping the district (Chongwe) at large achieve one of the agriculture policy attainments of increasing income of those involved in agricultural production. Though not so significant a finding, the revelation that 21% of the beneficiaries use the bicycle to take their children to schools is commendable in as far as in improving literacy levels among the farming community in Chongwe.

Majority of the beneficiaries perceived that bicycles are durable, affordable and that the loan given by HMDL was less risky compared to other known loan systems. From these findings, one would therefore state that HMDL bicycles loans facilities and procedures are ideal for the poor small-scale farmers in Chongwe and can be replicated across country.

#### **5.2 Recommendations**

- HMDL should continue with the bicycle loan facility, as it has proved helpful as a means of transport among small-scale farmers. However, the organization should consider promoting user-friendly bicycles for women in their future projects to enable as many women as possible have access to bicycles.
- More study surveys on the HMDL bicycle facility that involve much larger sample sizes (i.e. in order to increase variations within the sample hence, capture more variables of importance) should be carried out.

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# APPENDICES

# Appendix 1: Table 5

Take children to school	Carry goods to the market	Travel to drinking places	Take family members to the clinic	Travel to the field.	New occupation	Transport to community meetings	For hire	Non contact	total
0	4	0	0	0	0.0	4	0	0	8
0.0%	50%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%
19	36	1	3	4	2	4	4	13	82
23.2%	43.9%	1.2%	3.7%	4.9%	2.4%	4.9%	4.9.0%	15.9%	91.1%
19	40	1	3	4	2	4	4	13	90
20.9%	44%	1.1%	3.3%	4.4%	2.2%	4.4%	4.4%	14.4%	100%
	children to         school         0         0.0%         19         23.2%         19	children to school         goods to the market           0         4           0.0%         50%           19         36           23.2%         43.9%           19         40	children to school         goods to the market         drinking places           0         4         0           0.0%         50%         0.0%           19         36         1           23.2%         43.9%         1.2%           19         40         1	children to school         goods to the market         drinking places         members to the clinic           0         4         0         0           0.0%         50%         0.0%         0.0%           19         36         1         3           23.2%         43.9%         1.2%         3.7%           19         40         1         3	children to school         goods to the market         drinking places         members to the clinic         to the field.           0         4         0         0         0           0.0%         50%         0.0%         0.0%         0.0%           19         36         1         3         4           23.2%         43.9%         1.2%         3.7%         4.9%           19         40         1         3         4	children to school         goods to the market         drinking places         members to the clinic         to the field.         occupation           0         4         0         0         0         0.0         0.0         0.0           0.0%         50%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%           19         36         1         3         4         2         23.2%         43.9%         1.2%         3.7%         4.9%         2.4%           19         40         1         3         4         2	children to school         goods to the market         drinking places         members to the clinic         to the field.         occupation         community meetings           0         4         0         0         0         0.0         4           0.0%         50%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%         0.0%           19         36         1         3         4         2         4           23.2%         43.9%         1.2%         3.7%         4.9%         2.4%         4.9%           19         40         1         3         4         2         4	children to schoolgoods to the marketdrinking placesmembers to the clinicto the field.occupationcommunity meetings040000.0400.0%50%0.0%0.0%0.0%0.0%0.0%0.0%193613424423.2%43.9%1.2%3.7%4.9%2.4%4.9%4.90%1940134244	children to school         goods to the market         drinking places         members to the clinic         to the field.         occupation         community meetings         contact           0         4         0         0         0         0.0         4         0         0           0.0%         50%         0.0%

Source: Own Survey Data (2009)

Appendix 2: Questionnaire

Questionnaire serial number:

# Effects of Harmos Bicycle Project on the social-economic welfare of the Beneficiaries.

# Department of Agro Economics, UNZA, Zambia.

				rvey Lustrataent			
1.	Farm identificatio	n					
1.1	District code	dist		District name:			
1.2	Constituency code	const		Constituency name:			
1.3	Ward code	ward		Ward name:			
1.4	Farm code	farm		Name of the farm:			
1.5	a) Name of farm ow c) Which year was f				wner (0=Female; 1=Male)	sex 🗌	
1.6	Is the owner the ma	in respond	lent?			rown	
	o = No $1 = Yes \rightarrow Go to$	question 1.	8				
1.7	a) Name of main re	spondent	resp		ationship to farm owner des at bottom of Table 2.1	rship	
pos	tpone the interview of	and call bo	ack when a knov	knowledgeable about th vledgeable person is are	e farm, and Bicycle Pro	-	
1.8	Are you a benefician o = No → Fill in 1 = Yes	-	-	Benefit and End interview			
	1.9 Response status	s (1=Comple	ete; 2=Did not be	enefit; 2=Refusal; 3=Non-(	contact) status		
	1.10 Date of enumer	ation (dd/1	mm/yy)		daten /		
	1.11 Name of enume	rator		Enumerator	code enum		
	1.12 Date checked (	dd/mm/yy)	)		datec /	1/1	
	1.13 Name of field su	pervisor			r code <b>sup</b>		

# 2. Household Data

<u>Enumerator</u>: Fill in the information asked for in the following table for each member of the household. Household members are defined as those that eat from the same pot. However, be sure to include the farm manager in the list, even if he/she is strictly not a member of the farm family/household.

I now would like to ask you a few questions about each of the members of your household/farm family. I will also ask about the farm manager if there is one.

			<del></del> .				· · · · · · · · · · · · · · · · · · ·	······	T	· · · · · · · · · · · · · · · · · · ·
me the n the mem househol with the owner/h Memb er code	bers of the ld? Start farm nead . Member name	What is's sex? 0=Female 1=Male	When was Month Codes below	Year (e.g. 1967)	What is's marital status? 1=Single or under-age 2=Married 3=Divorced or separated 4=Widowed	What is the highest level of <u>education</u> attained by  See code below	What is's relationship to the head? See code below	Did provide farm labour the past 12 months? 0=No 1=Yes	Did earn any income during the past 12 months (farm or off-farm)? 0=No 1=Yes	Did have his/her ow Bicycle before the project. 0=No 1=Yes
MID	NAME	DM01	DM02	DMo3	DM04	DM05	DM06	DM07	DM08	DM09
1.										
2.										
3-										
4-										
5.										
6.										
7.										
8.										
9.						ļ				
10.									-	
11.						ļ				
12.										
13.						L				
14.										
15.										
Month e	odes (DMo	2) Leve	el of educa	tion code	(DM05):	<u> </u>		Relationship	to head code	s (DM06):
1=Jan 2=Feb 3=Mar 4=April	7=July 8=August 9=Septemb 10=Octobe	0=1 1=S xer 1=S	None Sub A; Grade Sub B; Grade Std 1; Grade	5=S1 e1 6=S1 e1 7=St	td 4; Grade 5 td 5; Grade 6 td 6; Grade 7 form 1; Grade 8	11=Form 4; Gr 12=Form 5; Gr 13=Form 6 14=College Stu	rade 11 rade 12	1=Head 2=Spouse 3=Own child 4=Step child	7= Ne 8= So d lav	ephew/Niece on/daughter-ii
4=Aprii 5=May 6≕June	11=Noveml 12=Deceml	ber 3=S	Std 1; Grade Std 2; Grade Std 3; Grade	e3 9=Fe	form 2; Grade 9 Form 3; Grade	14=Conege Sta 15=Tertiary Certificate 16=Bachelors o		5= Parent 6= Brother/	Sister (Sj	pecify) nrelated

# Physical capital/assets

Asset type		Does the farm have ? O=No→ Go to next asset 1=Yes	How many does the farm own?	What is the current value of each of? (ZMK)	What is the total capacity of all the (s)?	What was the most important method used to finance investment in? Codes below	Ask only if asset=14 What type is? 1=Charcoal 2=Air cooler
asset	Name/description	AS01	AS02	AS03	AS04	AS05	
1	Tractor				Horse power		
2	Truck/pick up				Tonnes		
3	Tractor trailer				Tonnes		
4	Other tractor-drawn implements						
5	Ox cart						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
6	Other ox-drawn implements						
7	Cattle						a ta ana ang ang ang ang ang ang ang ang an
8	Donkeys						
9	Sheep				to most it		
10	Goats						
11	Pigs						
12	Chickens						
13	T.V				SE De		a harmonist of the
14	Radio				in the section		
15	Other (specify				Alex and the set		
16	Bicycle						
17	Land under shadow netting				<i>m</i> <sup>2</sup>		
18	Packaging, cleaning, grading shed				<i>m²</i>		
19	Cold storage				<i>m</i> <sup>2</sup>		
20	Access to electricity				Sta Gra		
21	Bank account						
22	Other (specify)		_				
23	Other (specify)						199 (A. 1997)
24	Other (specify)						

# 2.1.1 Fill in the following table about the farm's ownership of livestock and non-livestock assets.

# Codes for source of investment funding (ASo5)

1=Retained earnings 6=NGO or project

- 2=Off-farm income
- 3=Bank loan

4=Family members

- 7=Government department
- 5=Farmer organization
- 8=Intermediaries (buyers) 9=Fellow farmers or informal lenders
- 10=Other (specify)

# 3. Nature of the farm

# Basics

3.1.1	Which year was the farm started	(e.g. 1947)		hh01	
3.1.2	How far is the farm from the near	rest market town?		h <b>ho2</b>	km
3.1.3	How far is the farm from the mai	n (surfaced) road?		hho3	km
3.1.4	How long does it take to get to the a) Dry season (minutes)?	e main road by motorized tan	sport in the	hho4	<b>minutes</b>
	b) Rainy season (minutes)?			hho5	<b>minutes</b>
3.1.5	For how many months in a year is	s the nearest main road acces	sible?	hho6	months
3.1.6		ty for this farm? = Grains = Other, specify:		hh07	months
3.1.7	How many farm laborers did the a) Males?	farm hire during the past 12 1	months	hho8	
	b) Females?			hho9	
3.1.8	Who manages this farm? 1 = Farmer/owner 2 = Owner's spouse	3 = Owner's child 4 = Farm manager	5 = Co-owner 6 = other, spe		arm .
3.1.9	What is the sex of the one who may	anages this farm? (0=Female	; 1=Male)	hh11	
3.1.10	What is the roofing material for the second	he main farm house made of 3 = Tiles 4 = Corrugated iron sheets	5 = Grass/stra		
3.1.11	What is the wall material for the n 1 = Burnt bricks 2 = Concrete blocks 3 = Mud bricks	main farm house made of? 4 = Pole/bamboo 5 = Pole and dagga 6 = Mud (mudhindo)	7 = Grass/stra 8 = Iron shee 9 = Hard boa	ts	
3.1.12	What is the door material for the 1 = Std door frame & door	main farm house made of? 2 = Traditional		hh14	
3.1.13	What is the floor material for the 1 = Cement 2 = Concrete	main farm house made of? 3 = mud 4 = Bear earth	5 = Other (sp	<b>hh15</b> ecify)	
3.1.14	Does the farm have running wate 0=No 1=Yes	r/potable water in the house?	?		hh16

# 4. Access to social facilities <u>Enumerator</u>: Fill in the information asked for in the following table.

4.1 I now would like to ask you a few questions about social facilities, distance to each of the facility and the mode of transport to the facilities (see codes below.)

Type of facility(see codes Below)	Distance to facility	Mode of Transport

Codes for facilities	Codes for Distance	Codes for Transport
I= School	1 = below 10  km	1= by foot
2= Clinic	2=between 10 and 20km	2= Motorized transport
3= Market	3=Above 20km	3=Bicycle
4=Church		·
5=others (specify)		

4.2 Do the distance to social facilities matter in choosing the Bicycle loan among other loans?

o = No1 = Yes

#### 5. Bicycle loan awarenes

5.1 I now would like to ask you about awareness of the bicycle loan project. (May 2007-March 2008)

#### <u>Enumerator</u>: Fill in the following table about the awareness of the bicycle loan project. **if your answer in question 1.8 above is yes indicate by ticking in the table below were you heard of the bicycle loan from.**

	Sources of awareness of the bicycle loan project	Tick applicable
No.	Description	
1	Friends	
2	TV	
3	Radio	
4	Magazines	
5	News papers	
6	Govt. Extension Workers	
7	NGOs	
8	Posters	
9	brochures	
10	Other (specify	
Codes fo	i Prawareness	

 I = Friends
 7=NGOs

 2 = T.V
 8=Posters

 3=Radio
 9=Brochures

 4=Magazines
 5=News papers

24

5.2 I would like to ask you about benefits of the bicycle loan project. (May 2007-March 2008)

<u>Enumerator</u>: Fill in the following table about the benefits of the bicycle loan project. **Indicate by ticking in the space provided in the table below**.

Benefits		Tick applicable
No.	Description	
1	Take children to school	
2	Carry goods to the market	
3	Travel to drinking places	
4	Transport Family members, to the clinic	
5	Carry Harvest from The field	
6	Travel to the field	
7	For pursuing new occupation	
8	Transport to community meetings	
9	For hire	
10	Others (specify)	

l = take children to school 2=carry goods to the market 3=travel to drinking places 4=transport family members to clinic 5= carry harvest from the field 6=travel to the field 7=for pursuing new occupation 8=transport to community meeting 9=For Hire

# 5.3 I would like to know your perceptions regarding the bicycle loan.

	Indicate your perceptions over the following.							
	Are the harmos bicycles durable compared to other bicycles?	Is the loan affordable Compared to other options?	is the loan less risky compared to other loans	Does Harmos provide technical assistanc e to the clients	Does Harmos execute loan transaction faster Compared to other firms?	Are the Harmos bicycles easily repaired compared to other bicycles?	Would advise someone to access a bicycle loan from Harmos	
Characteristics	o= No 1= Yes	o= No 1= Yes	o= No 1= Yes	o= No 1= Yes	o≠ No 1= Yes	o= No 1= Yes	o= No 1= Ye	
	MC02	MC03	MCo4	MCo5	MCo6	MC07	MCo8	
1= durability								
2≂affordability								
3= Less risky								
4= Provide technical assistance			<u> </u>					
5= faster transaction								
6= easy maintenance	+				······			
7= Other specify (Specify)						 		
8 =advise to access								

4 Do you think that there are things that have to be improved to make the Harmos bicycle loan more user friendly?(tick your option) o= No 1= Yes

.5 If your answer to question 5.1 is yes list items that you feel need to be improved on.

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hank you for sharing your experiences with me and may God bless you!