

**Socio-Economic Constraints on Women's Income from Agriculture in  
Southern Province of Rwanda**

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A Thesis as

Presented to the School of

Postgraduate Studies and Research

Kampala International University

Kampala, Uganda

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In Partial Fulfillment of the Requirements for the Degree

Master of Public Administration

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By

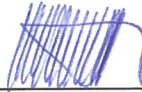
**BANGIRIYIKI SIMEON**

**SEPTEMBER, 2011**



## **DECLARATION A**

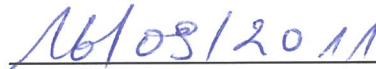
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Date

### **DECLARATION B**

I confirm that the work reported in this dissertation was carried out by the candidate under my supervision

A handwritten signature in black ink, appearing to be 'Stella B. Kyohairwe', written over a horizontal line.


Name and Signature of Supervisor

**Dr Stella. B. KYOHAIRWE**

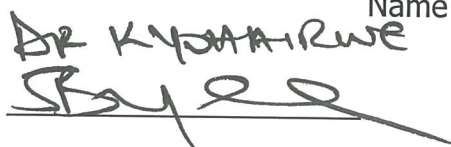
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## APPROVAL SHEET

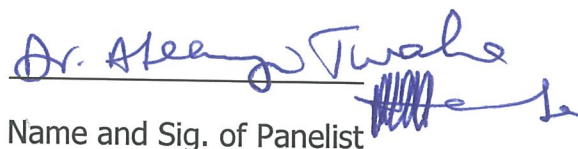
This thesis entitled" Socio-Economic constraints on women's income from agriculture in Southern Province of Rwanda" prepared and submitted by BANGIRIYIKI SIMEON in partial fulfillment of the requirements for the degree of Masters of Public Administration has been examined and approved by the panel on oral examination with a grade of PASSED

  
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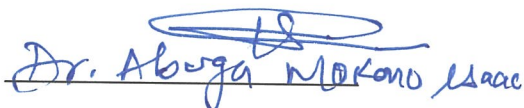
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## **DEDICATION**

This work is dedicated to the Almighty God, MUJAWIMANA Spéciose my wife, UMURUTASATE Joliesse and BIRABA Joséline IYIVUZE my daughters, SENTAMA Zebulon and HARINDINTWARI Philemon my Sons, Coworkers, classmates , to my friends and relatives.

## **ACKNOWLEDGEMENTS**

So many people contributed to the success of this study. They are too many to mention all by names.

Outstandingly, however, are the several scholars whose works were consulted during the development of this study. Some were properly cited and acknowledged in the text, while others, out of omission, were not. To the omitted scholars, kindly accept the acknowledgement of this error.

The completion of this book would not have been possible without advice and comments of my Supervisor, Dr Stella .B. KYOHAIRWE. I sincerely thank her.

I fully acknowledge the patience and understanding of my wife MUJAWIMANA Spéciose, my children UMURUTASATE Joliesse, BIRABA Joséline IYIVUZE, SENTAMA Zebulon and HARINDINTWARI Philemon. I heartily thank them for their support during the process of doing this research.

I am all of you with love, for each of you has had a part in making this book possible. Thank you all, may God bless you.

## **ABSTRACT**

This study arose from the popular assumption that women contribute greatly to the economy through agricultural activities but have little or no access to and control on the factors or techniques of farming production and as such they earn income from it. This study, designed to determine socio-economic constraints on women's income from agriculture in Southern Province of Rwanda.

A total of three hundred ninety-nine (N=399) participated in this survey. Descriptive research design was used during data analysis and appropriate test such as Pearson was carried out using SPSS.

The study explains how the social (2.2971) as well as economic factors (2.369) were source of women's lower income from agriculture in Southern Province of Rwanda. Besides qualification, profile characteristics of respondents were not significantly related to the women's income from agriculture. The hypothesis stating that there is significant relationship between socio-economic factors and women's income from agriculture in southern Province of Rwanda was accepted. The researcher concluded that the women's income from agriculture could be improved by giving them opportunities to control socio-economic factors.

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## **TABLE OF ABBREVIATIONS**

UNIFEM: United Nations Development Fund for Women's Development

MINAGRI: Ministère de l'Agriculture (Ministry of Agriculture)

MINEDUC: Ministry of Education

UNICEF: United Nations Children Education Fund

MINECOFIN: Ministère de Finance et de la Planification Economic (Ministry of Finance and Economic Planning)

USAID: United States Agency for International Development

FAO: Food and Agriculture Organization

## **CHAPTER ONE**

### **INTRODUCTION**

#### **Background of the Study**

From the systematic point of view, the issues of the gender equality are moving to the global gender but better understanding of women's position on society and their contribution is essential (ONEGO, 2008).

Needless to say, as is the case in most patriarchal societies, Rwanda's social structure has, for centuries, been major contributor to the existing imbalances in the country. In context of Rwanda, the culture used to assign particular jobs to women and men; and women were mostly assigned subordinated jobs oriented to family subsistence. Due cultural rigidities and patriarchy system women's production in development process is not given its due recognition (UNIFEM, 2006).

From the agricultural survey conducted in 2008, it was noticed that Rwanda had an agricultural population of 8,283,844 people. The total population being estimated at 9,831,501 inhabitants in 2008, this constitutes a proportion of 84% of agricultural population respectively Kigali City 49.2% men versus 50.8%, Southern Province 47.5% men versus 52.5%, Western Province 47.6% men versus 52.4% Northern Province 47.9% men versus 52.1% Women and Eastern Province 47.8% men and 51.9 % women . According to this data, women are majority in sector of agriculture (National institute of statistics of Rwanda, February 2010).

Despite much progress has been made in achieving equality between women and men since United Nations decade for women in 1975-1985, when the issue was put on agenda of global governance institution, gender inequalities continue to persist in countries, globally, since unequal relations between women and men are deeply embedded in cultural values and attitudes, religious beliefs and practices, social norms,

economic activities, development planning in all sectors and political life and public institutions (Grace William Maiso, 2002). The socio-economic gender inequalities are conceived as an essential factors affecting women's income from agriculture. This is the core issue underlying this study.

### **Statement of the Problem**

Different studies shown that, women constitute the majority of small farmer particularly in sub-Sahara Africa and around the world, which Rwanda does not make most differences. However, they continue to be denied the rights to own the ground that they cultivate, and on which they raise their families. In most countries and within most ethnic groups it is much more difficult for women to own land, obtain credit; receive training and information; and obtain new technologies. In addition, the women farmers are faced with a number of constraints, including unfavorable condition of work, poor technological and financial means (Alfred BUREGEYA, 1998).

In the same way women are excluded from many of the formal and legal structures of society and from full participation in economic life (Tatyana, 2001). In reality, traditional thinking and behavior have excluded women from the planning and implementation of development activities, focusing instead on often less productive males. Apparently, there are indicators of gender inequalities that affect the women's income from agriculture. This contributes to poverty and perpetuates the socio-economic inequality that can lead to the inequality in economy development which has resulted to gender disparity in development. As it is, ensuring equal rights for women is important. Unfortunately, little is known about the impact of socio-economic constraints on women's income from agriculture. Thus, the study investigates the factors militating against women's income from agriculture in Southern Province of Rwanda.

### **Purpose of the Study**

The study aimed at establishing the socio-economic constraints on women's income from agriculture with view to propose possible solutions to the problem.



## **Research Objectives**

The following objectives were achieved:

1. To determine the profile of the respondents in terms of age, farming experiences, level of education, marital status and location or residence (Urban or rural) in Southern Province of Rwanda.
2. To determine the socio-economic constraints on women's income from agriculture in Southern Province of Rwanda.
3. To determine the level of income of some women from agriculture in Southern Province of Rwanda.
4. To establish the correlation coefficient between socio-economic factors and women's income from agriculture in Southern Province of Rwanda.

## **Research Questions**

1. What is the profile of the respondents in terms of age, farming experiences, levels education, marital status and location or residence (Urban or rural) in Southern Province of Rwanda?
2. What are the socio-economic factors militating against women's income from agriculture in Southern Province of Rwanda?
3. What is the level of women's income from agriculture in Southern Province of Rwanda?
4. Is there any significant relationship between socio-economic factors and women's income from agriculture in Southern Province of Rwanda?

## **Scope of the Study**

This study was carried out in southern Province, which is the one of the four Provinces of Rwanda and Kigali City. The Southern Province is located in the South of Rwanda and has a common border with Kigali City in the North, with Eastern Province in the East, with Western Province in the West and with The Republic of Burundi in the South. The Southern Province has an area of over 5,701 km<sup>2</sup> and a population of more than 2,058,674. It is at an altitude of 1500 m to 2800 m. The temperature varies between 11°C and 28°C. The major part of the Southern Province is made up of forests which occupy an area of more than 404 km<sup>2</sup>.

It consists of eight Districts which are Gisagara, Huye, Kamonyi, Muhanga, Nyamagabe, Nyanza, Nyaruguru and Ruhango. Population of 399 women was consulted as part of our study and period under the study was of after genocide of 1994.

## **Significance of the study**

The study intended to analyze the socio-economic constraints on women's income from agriculture. The research findings will be a vital tool for potential end users including relevant governmental heads, gender activists, women leaders, opinion leaders and individual persons.

The findings of this study will be instrumental to persons for purpose of reviewing their perspective approaches to mainstreaming gender attributes. While seeking to ensure an environment free of gender inequality and mutual respect for both men and women. The recommendation from this study shall be of great use to the researchers, mainly in engendering the process of development, the findings shall also give a practical insight into reality pertaining to equal right on the ground.

## **Operational Definitions of Key Terms**

### **Gender**

The term gender may refer to culturally and socially constructed roles, responsibilities, privileges, relations and expectations of women, men, boys and girls. This social construction is embedded with inequalities between both sexes.

### **Gender roles**

There are the different tasks and responsibilities and expectations that society defines and allocates to men, women, boys and girls because of their biological make up. They are not necessarily determined by biological make up and therefore can change with the time and according to situation.

## **Gender equality**

Gender equality, refers to equal rights, responsibilities and opportunities of women and men and girls and boys. It means that equality does not mean that women and men will become the same but the women's rights; responsibilities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and full engage men as well as women. Equality between women and men is seen both as a human rights issue and as precondition for, and indicator of, sustainable people centered development.

## **Gender equity**

Gender equity may theorize better understanding the concept, refers to just and fair treatment, balanced recognition and appreciation of both women's and men's potential.

## **Gender stereotyping**

This is the assigning of roles, tasks and responsibilities to a particular gender on the basis of preconceived prejudices.

## **Gender mainstreaming**

Gender mainstreaming consists of taking into account men's and women's problems in policies, programs, decision-making position and budget. The points is , men's and women's problems and skills are to be addressed with equity at the moment of designing , implementing , monitoring and evaluating policies and programs at political, economic and social levels so as to handle men and women the same way and uproot the inequalities.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **Introduction**

This chapter consists of five major sections. The first section, conceptual framework, establishes the socioeconomic factors militating against women's income from agriculture. The second section deals with gender issue as social factor hindering women's income from agriculture in Rwanda. The third section talks about gender and education. The fourth section relates the women's participation in decision making. The final section deals with Gender and entrepreneurship, employment and labor relations.

Climate, level of education, age, farming experience and marital status (intervening variables) may influence women's income. In this regard, researcher deeply analyses them in order to see their implication on women's income.

## **Social factors and women's income from agriculture**

### **Gender imbalance**

Gender distinction is generally reflected in the social structure and the beliefs, attitudes and practices of patriarchy and of religion and culture that ascribe a subordinate position to women with regard to economic and social rewards and participation (Heyzer, 1991). In fact, Rwanda constitution and laws accord equal opportunities to women in various fields. However, prevailing cultural and traditional values hamper the faithful translation of that equality in reality (Rwandan constitution, 2003).

The various mechanism and strategies government and partners have adopted for achieving gender equality have led to some positive changes. Nevertheless, the process of gender mainstreaming is still constrained by challenges that call for appropriative measures (UNIFEM, 2006). Despite the creation of ministry of Gender and Women Promotion in Rwanda in 1999, with the mission to promote equality and equity between men and women in development process, the female sector has not been able to improve its status owing mainly to societal constraints.

The term gender has however increasingly acquired a social meaning where it defines how the male and female genders relate in the society. The social meaning refers to social characteristics of one's sex. These characteristics include gender based division of labor whereby duties are allocated on the basis one's sex. For example, the female gender is allocated duties such as cooking, washing and other domestic chores, which belong to the private rather than to the public sectors. The male gender is allocated non dominance duties such as decision making, breadwinning and others which belong to the public sector (Clarion, 2001).

The following figures reflect a situation of gender disparity as regards the status of women and their participation in national life, with many constraints emanating from a traditional social patriarchal structure, a high rate of illiteracy, legislation that did not favor women in the past and, not least, the consequences of genocide (Ministry of Health, 2003).

Table 1. The status of women and their participation in national life

Domain	Women (%)	Men (%)
Illiteracy rate (15 years and more)	48	52
Primary school enrolment	82	95
Proportion of Girls in School (1998)		
Primary Education	50	50
Secondary education	49	51
High education	26.9	73.1
Heads of households (1996)	34.1	56.9
Uneducated	67.4	40.8
Primary education	27.5	50.7
Post primary education	5.1	8.5
Employing by activity (1996)		
Agriculture	56	44
Industry	16	84
Services	22	78
Women at a decision making level (1999)		
Parliament	20	80
Ministers and State Ministers	7.2	92.8
Secretaries general	28	72
Provincial Governors	0	4
District Mayors	0.7	99.3
Public enterprises	5	95

Source: Ministry of health: National population Policy for sustainable of Rwanda, National Population Office, January 2003.

Results from such situation of gender disparity as regards the status of women and their participation in national life may obviously lead to say that there are existence deficits that were required accelerated, concerted effort to address them.

When one considers the grim global statistics in relation to the status of women, then the importance of the mainstreaming process becomes even clearer. It is reported, for example, that women do about 66% of the world's work in return for less than 5% of its income. Of the 1.3 billion people living in poverty around the world, 70% are women, in the least development countries nearly twice as many women over the age of age 15 are illiterate compared to men , two-thirds of children denied primary education are girls, and 75% of the world's 876 million's illiterate adults are women and women work two-thirds of the world's working hours, produce half of the world's food, and yet earn only 10% of the world's income and own less than 1% of the world's property (UNIFEM, 2006).

### **Domestic violence**

In Rwanda as well as in most African countries, the challenges relating to the violence against women are complicated by the social, cultural and economic environment of the country. Some include: failure to understand the real causes of violence against women; lack of national programs aimed at tracing and punishing the authors of acts of aggression against women; discriminatory socio-cultural behavior and socio-economic inequalities; no reception centers to house the victims of violence with view to providing them with the necessary protection and moral rehabilitation (UNIFEM, 2006).

Alithum BRUCE (2007) in his study points out that, a total of 60% of respondents agreed that wife battering was prevalent, and that it occurs quite often in most families, 25% of respondents agreed to the fact that marital rape exist, and they had experienced forced sex by their spouses though they pointed out that, forcing or the act of marital rape was not a daily routine but it did happen in their sexual relations. The same study shown that 94% of the respondents agreed to the fact that due to domestic and gender based violence cases of unwanted pregnancy was common within their community, owing to rape, defilement, which also led to common cases of risky options of unequal abortions which lead to deaths of the victims.



The essence of low economic status of the women emanating, from the views of domestic gender based violence, accordingly 72% of respondent contended to the fact that, there was low economic status of women; this was associated with lack of effective involvement of women in economic activities as a result of instabilities from domestic violence.

### **Cultural stereotyping**

The slogan like integration of women in development indicates that women are seen peripheral, and being outside the process of development especially economic development. Islamic law has features whose effects on women are discriminatory. For instance, woman cannot serve as guardian because she herself is a ward of her husband. As far as inheritance is concerned, a daughter receives only half of her brother's share, and the wives only half of their husbands' (Jahan, 1991). In relation to other regions of the world, the policies and protocol in Rwanda may appear to be less discriminatory and disadvantageous to its female population. Legislation of Rwanda grants women the same rights and privileges as men. In many cases, what is provided for in legal documents and protocols is not necessary what occurs in practice. There is wide gap between the two.

Cultural and traditional practices subjecting women to male dominance have hindered women's progress in achieving gender equality in politics. Women face barriers such as conflict, intimidation, negative attitudes, stereotypes by society and lack of support from the electorate, notes the group (Africa recovery, 2004).

Despite the positive trend portrayed in recent years in Rwanda as well as in neighbor countries, serious challenges hindering women in decision making persist, this include, but are not limited to, the domination of the male of political life and elective bodies, limited support for female nominees by political parties, limited access to political networks; inadequate educational and training networks to promote female political leadership, and to attract young women to politics; the electoral system , that can be biased toward or against female nominees, limited opportunities and access to

the information and lack of self confidence by women regarding electoral politics (UNIFEM, 2006).

In Rwanda, the education sector is still facing huge challenges in an effort to achieve universal primary education and egalitarian education at all level, due to various reasons. The low rate of school attendance by girls in rural areas is mainly to the inferior socio cultural status of women in the society; but also to the colonial rule, which give girls access to the education thirty years after boys. Some of key common challenges and constraints include: inadequate high quality primary schools for girls to address the low rate of attendance by girls in the technical and science schools (UNIFEM, 2006).

The underdevelopment of women's education has been shown to have a negative impact on their agricultural development. This particular type of underdevelopment may be attributed mainly to an approach to women's education utilized in most politico-social perspective which focuses on how women can be more useful to the family (Usha Nayar; 1991) in Hashim, R. and Heyzer (eds.), p.32. For instance, all the development plans in Bangladesh stress educating women to fit their role as mothers of the nation's future leaders and not to fulfill their fundamental right to get educated (Ashan, 1994).

At higher education level the participation of girls is weak, especially in the better equipped public institutions; the percentage of female students has been less than 30%. Participation in science and technology is even weaker, as exemplified by national high visibility institutions in 2005. At National University of Rwanda (NUR) only 19% of the students studying in agriculture, and 16% of science and technology students, were girls. At Kigali Institute of Science and Technology (KIST), in the Faculty of technology, only 20% of students were girls, and at Institut Supérieur d'Agriculture et d'Elevage (ISAE) 23% of students were girls (MINEDUC, February, 2006).

Statistics reveal that in the least development countries of Asia and the pacific , there are more illiterate women than illiterate men, and illiteracy gap between the male and female population is widest here (Usha Nayar , op.cit., p.32) .

Study after study has taught us that there is a tool for development more effective than education of girls. No other policy likely to raise economic productivity, lower infant and maternal mortality, and improve health ... than the policy of educating girls (UNICEF, 2004).

From this perspective, however, woman agriculture may not lead to real expected development because the female manpower to develop it, is half illiterate. The need to focus on ways and means improve girls' education, with all advantages associated it, remains the motive behind the government of Rwanda's emphasis on education for all, but the effort is constrained by limited resources to invest for both massive and quality education- especially in science. The saying remains true that if you educate a woman you educate a nation (UNIFEM, 2006).

### **Denial of rights to own property**

As Alfred Buregeya (1998) points out, the situation of women with regard to the right to property has evolved slowly as a result of an inadequate protective legal framework and concluded that there is ultimate requirement needed to empower women economically and socially. The women must be trained and sensitized about their rights and laws in order to allow them to claim and champion their rights.

Women in contemporary Rwanda hold few political positions and have limited economic power, as seen in the difficulties women have in inheriting land and property. Many women's association attempted to increase the level of women in recent years, with little parent success (Vansina, 2006).

As general rule, widowed women and occasionally other women without partners but with dependents, normally control land when inherited from a father or husbands with the original claim. All other women generally depend upon their husbands or

partners for land access. Finally, lands are generally divided among siblings, either giving more land to sons than daughters, or giving none at all to the latter. In customary law of the ethnic communities of Kenya, women are granted access to the land either through the marriage or through inheritance. These customary rights to land do not necessarily entail rights to property. In any case, both types of rights have often been annihilated by conflicts. Thus, many women have found no longer with the land rights they used to enjoy. This loss of access to land has greatly reduced the possibilities of women whose economic activities are land based, and who, therefore, find themselves legally and economically disempowered (Alfred Buregeya, 1998).

It has been said that even when women have legal rights to land and property, customs often prevent them from exercising such rights (UNCHS, 1994). While women in Rwanda are reported to have considerably legal rights to own and inherit property, only a few of them are able to claim these and a small number who do own land, only are able to control its use or to realize its value.

### **The economic factors and women's income from agriculture**

Many women work many hours per day, their work has often been described as invisible, unpaid and unrecognized. The meagre pay that these women get certainly affects their financial ability to obtain the necessary factors of farm production, improved techniques or to have access to capital or assets.

### **Little access to the necessary factors of farm production**

The low economic status of women limits their opportunities for broader participation in society. African culture discriminates a lot against women and girls, especially in the area of inheritance (land). As suggestions to avert the situation, access to education extension services, information, land credit facilities and other relevant innovations would entice many women to agricultural productions and would reduce poverty among women farmers (Fabiya and al. 2007).

There are factors that contribute to making women economically dependent, and often rendering them helpless. One is that they face many structural impediments, including the fact that they are not allowed to own land and property, which are inherited by men (Raj-Hashim and Herzer, 1991). And even in the countries where this right of access to land and housing exists, its exercise is fraught with difficulties.

It has been reported that agriculture is a critical source of livelihoods for women in many countries, and a key pathway out of poverty (The World Bank, 2007). Unfortunately, it also portrayed that women in many rural societies are especially constrained by a lack of access to inputs, productive resources and services. They also often lack incentive to invest given the greater vulnerability and proportionately greater exposure to risk that result from having fewer assets, and the very real likelihood that once their niche in the value chain becomes commercially profitable it will be expropriated by men (The World Bank, 2007).

National Institute of Statistics of Rwanda (2008), point out that the use of agricultural inputs: that is improved seeds and pesticides / fungicides as well as fertilizer, among which organic fertilizers (manure of big and small animals and composts) and chemical is still low. They show, indeed, that the use of improved seeds and fertilizers was not popularized enough.

Around 75% of people in developing countries live in rural areas, with the vast majority dependent on agriculture for their livelihoods. In many famine prevalent countries, farming is done mostly by women. However, women only own 2% of land worldwide and often have limited access to agriculture inputs, loans, and opportunities to learn about improved techniques (USAID AGRICULTURE, 2010).

Folasade (1991) emphasized that lack of separate land for women and inadequate contact with extension agents are serious constraints faced by women farmers. Women are the backbone of Africa's rural economy, accounting for 70 per cent of food production. He noticed that, food security in Africa cannot be assured without improving the situation of women producers.

### **Lack of the techniques for farm production**

Most of lands were supplied by water from rainfall (more of 95% of farm area). It was indeed difficult to practice irrigation, drainage watering on lands on situated hills. Moreover, the cultivation techniques used were exclusively traditional. The mechanized cultivation was non-existent at the level of agricultural in Rwanda (National Institute of Statistics of Rwanda, 2008).

Inadequate information about the improved technologies was one of the constraints in agricultural production. Women do not have adequate access to agricultural information and innovation (Saito and Surling, 1993).

### **Little access to the capital or assets**

Women face the problems of access to inputs, including credit, technology, extension services and agricultural training and marketing. Many credit associations and export-crop marketing cooperatives limit membership to household heads in many countries, thereby excluding most married and unmarried women. Banks demand collateral in the form of landed property and male approval before making loans to women, while men often have been reluctant to support women's applications. Most resources and technical assistance have been channeled to men growing export crops, with improved seeds and tools going to larger commercial farmers, almost invariably men. Only 5 per cent of the resources provided through extension services in Africa are available to women, "although, in some cases, particularly in food production, African women handled 80 per cent of the work. Of total extension agents at work in Africa today, only 17 per cent are women," notes Ms. Marie Randriamamonjy, director of the Women in Development Service of the FAO (A.I.D, 1982).

UNIFEM (2006), the level of women's access to financial resources remains relatively low. Limited access to information on the availability of financing opportunity and a lack of collateral asserts are a major impediment. Conventional loan finance policies and procedures hinder women from tapping valuable resources for the growth

and advancement of their business. Although data on business start-up in Rwanda is scanty, indications are that most of the businesses that collapse are likely to be owned by women. Because of formal banking system requires collateral security as a precondition for access to finance; women are generally excluded due to the lack of demonstrable ownership of assets. Land, houses and livestock are the keys assets of most households and all belong to the man.

According to Fabiyi and al. (2007) Women have little access to the capital and other assets that make agricultural production easy and profitable, furthermore, majority of the women famers have financial problem and lack financial assistance (88%), similarly women have to beg (83%) for farmlands from husbands and relations.

Although article 15 of the Labor Code guarantees women equal employment opportunities, few women are employed in the formal sector. Of salaries workers, only 30% are women. Those hold low paying stereotypical jobs that limit their ability to rise to management and decision making position where economic decision that affect their lives are made. Rwandan women constitute 52% of the population engaged in unpaid family work. Forty-two of these do miscellaneous odd jobs, furthermore, 56% of the Rwandan population is illiterate, and of them 52% are female and 48% are male (MINECOFIN, 1996).

The figures on poverty in Rwanda show that more than half of Rwanda's population lives below the poverty line and that there have been huge disparities between the rural and urban population since 1985. The tragic events of the April 1994 genocide and war worsened and already precarious situation. Since the 1994 catastrophe, poverty in Rwanda has had particular feminine face. Statistics show that the poverty incidence is higher among women than in men; and the households headed by women are poor than those headed by men and boys (MINECOFIN, 2002).

For instance, it is said that many policy-makers and business leaders are guilty of harboring a gender bias against women. Specifically, bankers have been perceived (rightly or wrongly) as not anti-poor (because of the requirement of security or

collateral for loans) but also anti-women. The latter claim is supported by the fact that it is usually the women who do not have property with which to secure loans. In addition of this, they also need to get their husbands' consent in filling their application for loans. And yet the experience of the Grameen Bank and its counterpart in other countries has shown that women are better users of credit and borrowers, with a track record of high repayment rates (Getubig 1991).

It is also argued that bankers are anti-illiterate (due to the volume and complexity of requirement which banks demand, such as forms, which presuppose a certain level of literacy); and anti-rural, since most banking Institutions are located in urban areas. When it is recalled that most women are illiterate and are rural based, the discriminatory effect of those banking requirement on women becomes obvious. And it is the women's lack of access to land, productive resources and credit which seriously inhibits their ability to generate income (Getubig, idem). These disadvantaged women more than men because the former have very limited means (in terms for education, time funds) which would allow them to pursue their claims or rights to land and property.



## **CHAPTER THREE**

### **METHODOLOGY**

#### **Introduction**

In this chapter, the researcher intended to explain methods and techniques used while gathering, presenting, analyzing and interpreting data. It contains sections which are the research design, the research population, sample and sampling procedures, instruments for data collection, procedure for data gathering and analysis.

#### **Research Design**

This research was based on descriptive correlation survey method and ex post fact. This because descriptive survey designs are used in preliminary and exploratory studies which enable researchers to gather information, summarize, present and interpret them for the purpose of clarification. Descriptive studies are conducted to establish the situation of existing conditions (Ortho, 2004). It will provide both understanding of the socio- economic factors militating against women's income from agriculture. In addition, descriptive research results were used in suggesting, recommending or formulating the action and remedies to take from the current situation.

This study has used qualitative and quantitative methods to present and interpret data. In addition this study has used both primary and secondary data including public books, reports, journals, magazines, newspapers and internet sources. Secondary data was carefully scrutinized and analyzed so as to help the researcher to get the background to the problem as well as the literature related to the research topic. It also helped in building up of an impression of the group that was studied and thereby developed appropriate methods of investigation.

## Research Population

The population of this study was women farmers living in Southern Province of Rwanda. Hereafter is the table illustrates the population of the study.

Table 2. Population of the Study

District	Household
Gisagara	21,045
Huye	18,729
Muhanga	15,307
Kamonyi	14,621
Nyamagabe	17,366
Nyanza	15,842
Nyaruguru	16,319
Ruhango	15,137
Total	134,366

Source: National Institute of Statistics of Rwanda, National Agricultural Survey 2008

## Sample Size

The sample size has been determined by using Slovin's formula:  $n = \frac{N}{1 + Na^2}$ .

Where

n= Sample size

N= Size of the population

a= level of significance or reliability level (Usually equal to 0.05 or 0.01).

In this regard, the research drew a total number of eight Districts whereby in each District, women farmers were chosen by random sampling. 399 female farmers were sample size determined by using Slovin's formula, whereby  $399 = \frac{134,366}{1 + 134,366 \times (0.05)^2}$

## **Sampling Procedure**

The simple random sampling technique was used to select eight sectors from eight Districts composing the Southern Province of Rwanda. On the 399 women farmers, lottery fishbowl method of sampling was used, that is to say method randomly choose the consistent elements of study which are public visible and little or no person privacy. Hence the total number of elements will be known; the researcher will eliminate bias to give each population an equal chance of being selected to participate in the study and to ensure full representation of all women.

## **Research Instrument**

Questionnaire, interview guide have been respectively applied for this investigation. Primary data has been collected from the selected population with the use of questionnaires that were applied to the general respondents, women with open and ended question on the themes of study with target of getting dept information about the topic of study. The questionnaire was comprised of two sections: The first section seeks information about personal profile of respondents while the second one, seeks information about the socio-economic factors militating against women's income from agriculture.

According to the interview guide, it has involved the oral or vocal or discussion. The technique involved face-to-face interaction between individuals leading to self report. Responses from interviewee were recorded and can then be analyzed. Structured and unstructured interviews questions were asked and answers were carefully recorded down. Under unstructured interview, the respondents were given the subject of a whole issue in general and respondents were asked to elicit information in the way they deem necessary. Under structured interview schedule, the respondents were given the answers from which to choose. The researcher used both structured and unstructured interviews purposely to ovoid limits in their responses.

## **Validity and Reliability of the Instrument**

The validity refers to the appropriateness of the instrument while reliability refers to its consistency in measuring whatever it is intended to measure (Amin, 2005).

The content validity method was used. To investigate the validity of the questionnaire ten women farmers knowledgeable about the theme of the study have been asked to judge each item in each questionnaire either relevant (R) or irrelevant (IR), who after through screening and making appropriate recommendations, some modifications in the nature of the questions was made accordingly. A pretest was conducted again after one week to the same respondents in the same Province and it gave the same results, showing that the questionnaires had consistency in reliability.

Finally, the listed questionnaire was administered to the selected respondents. There after the Content validity Index (CVI) was computed for instrument, then this implies that the questions were valid and therefore ready for data collection.

## **Data Gathering Procedures**

Collection of data for this study was done after a sequence of the following steps namely, an Introduction letter from the Associate Dean, Social Sciences School of Postgraduate Studies and Research of Kampala International University to the Province. The primary data was collected with the use of structured through interview guide; Questionnaire was administered to the selected female farmers. The respondents were requested to answer completely and not to leave any part of the questionnaires unanswered. The researcher emphasized retrieval of the questionnaires within seven days from the date of distribution. On retrieval, all returned questionnaires were checked if all were answered.

## Data Analysis

The term analysis (processing for some researchers) involves a number of closely related operations, which are performed with the purpose of summarizing the collected data and organizing these in such a manner that they answer the research question (s) and hypotheses if they exist (Amin, 2005).

Data processing and analysis was guided by the research objectives, research questions and the theoretical frame work for the study. In the study, the researcher had to analyze data. Indeed, after collecting the data, researcher grouped the responses from various informants, and then, the data processing was carried out. For reliability and efficiency of the findings, the researcher used two types of data analysis: Quantitative and qualitative data analysis.

With respect to quantitative analysis, it has dealt with summing up the data. In fact, calculation was done on quantitative information and the frequency and percentage distribution were used to determine the demographic characteristics of the respondents. The mean and standard deviations were applied for the levels of Socio-economic factors and women's income from agriculture. An item analysis illustrated the higher factors and lowers that militated women's income from agriculture based on the indicators in terms of mean and rank. From these, the recommendations were derived.

The following mean range was used to arrive at the mean of the socio-economic factors and interpretation:

Mean Range	Response Mode	Interpretation
1.00-1.75	Not available	Lower
1.76-2.50	Few	Low
2.51-3.25	Enough	High
3.26-4.00	Very many	Higher

Descriptive research design was used during data analysis and appropriate test such as Pearson was carried out using SPSS to test the difference between means for hypothesis one (Ho #1) at 0.01 level of significance.

The following correlation coefficient was used to arrive at relationship between socio-economic level and women's income level

Correlation coefficient (r)	Descriptive label
0	No correlation, zero correlation
0.0 to 0.2 and 0.0 to -0.2	Very weak or negligible
0.2 to 0.4 and -0.2 to -0.4	Weak or low
0.4 to 0.7 and -0.4 to -0.7	Moderate
0.7 to 0.9 and -0.7 to -0.9	Strong, high or marked
0.9 to 1.0 and -0.9 to -1.0	Very strong or very high
+1 to -1	Perfect correlation (Positive /Negative)

Data was presented in tables and figures where necessary, in order to facilitate better understanding and interpretation. A descriptive analysis of data was done using the following approaches: Context analysis of information obtained from literature review, manual analysis of qualitative data from key informants which was thematically analyzed among major variables/ concepts/ and broad categories developed to differentiate and describe ideas expressed from generalizations, making summaries, direct verbatim quotation and where appropriate make comparisons.

On the other hand, qualitative analysis has dealt with the interpretation of quantitative data from the tables. Thus, qualitative data was dissected under the research themes regarding the socio-factors militating against women's income from agriculture in Southern province of Rwanda. In this case the presentation of the data was followed by some comments which helped draw conclusions related to the research hypothesis.

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## **Ethical Consideration**

In the course of this study, an ethical consideration was beheld: The researcher tried his best to handle respondents with courtesy to fill the questionnaires form by motivating them. In fact, the respondents were not in any way coerced into filling questionnaires, however, the researcher associated with respondents in order to induce a good cooperation which led to accurate, reliable and successful information about the researcher's thesis.

The respondents were made aware on how and why were sampled and that filling in the questionnaires is for the purpose of achieving the research aim. Thus, the respondents were assured of confidentiality and their responses to the questions were required free expression of what they were feeling by filling or ticking appropriate answers, they were also coded instead of reflecting the names and were requested to sign in the Informed Consent Form (Appendix 5).

## **Limitations of the Study**

The researcher faced a number of challenges while collecting data. Firstly, the problem faced was related to the high rate of illiteracy among many respondents especially women. This made it difficult to access clear and accurate information due to lack of proper information concerning the topic of the study. The researcher therefore had to spend a lot of time trying to bring the whole concept of the study to such participants so as to enable them understand its rationale so as to provide data accordingly.

Secondly, Owing to constraints of time, researcher had not profoundly investigated and interviewed necessary groups that should give all information needed. Simply, researcher had been limited to some key groups. However, prior to the survey, respondents were made fully aware of objective of study and were asked to provide honest responses. Although researcher cannot fully ascertain that all responses are

honest, researcher believes that data suffers little from the problem of meaningless random response.

Thirdly, the almost data used in the analysis comes from rural women and therefore results may not generalize well to urban women with significantly different socio-economic set-ups.

Finally, there was the challenge of translation of some concepts from English to local language. This was due the interview schedule and questionnaire being written in English and yet all of them hard to understand. An attempt to rectify the problem led to concepts losing the original intended meaning.



## **CHAPTER FOUR**

### **PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA**

#### **Introduction**

This chapter contains the presentation, analysis and interpretation of data. The analysis of data was organized according to the research objectives of the study. Section one dealt with profile characteristics of the respondents, section two dealt with the socio-economic factors militating against women's income from agriculture, section three determined the level of income of some women from agriculture in Southern Province of Rwanda. Final section drew the relationship between socio-economic factors and women's income from agriculture in Southern Province of Rwanda.

## Results from Respondents

Table 3. Profile characteristics of the respondents

Characteristics	Frequency	Percent
Age in years		
< 35	55	13.8
35-50	277	69.4
>50	67	16.8
Total	399	100.0
Marital status		
Unmarried	26	6.5
Married	308	77.2
Widow	56	14.0
Divorced	9	2.3
Total	399	100.0
Educational Status		
Never been to the School	34	8.5
Primary	338	84.7
Secondary Education	27	6.8
University level	0	0.0
Total	399	100.0
Matrimonial status		
Community property	392	98.2
Limited community of acquests	5	1.3
Separation of property	2	0.5
Total	399	100.0
Farming experiences (years)		
<15 years	81	20.3
15-30 years	206	51.6
>30 years	112	28.1
Total	399	100.0
Location or residence		
Urban	132	33.1
Rural	267	66.9
Total	399	100.0

As indicated in the table 6 above presented the majority of the women farmers (69.4 %) were within 35-50 years of age, and 13.8% and 16.8% were respectively under 35 of age and over 50 years of age. From the results of the study, the farmers in their thirties and forties were able to earn and raise income from agriculture. Since agriculture is the main source of Rwandans, improving women farmers in agriculture sector effectively is very important.

Many of respondents were married (77.2%). Category of widowers (14%) comes in second position (after the one of legally married), unmarried (6.5%) while (2.3%) were divorced women. Majority of women farmers were married due to the fact they joined husbands who had already land. This should be an opportunity for them rather a challenge to improve their farming activities for they can benefit from experience or technical assistance of their husbands. The level of widows farmers which is relatively high is explained by the fact that many women became widows as result of the genocide of 1994.

In the same way, the table shows that the majority of female farmers (84.3%) had primary educational level while only 8.5% of them had no formal education. This was a big challenge because people with low level of education would not be able to initiate innovation or technology in farming production; reason why farming production system was weak and this affected women's income from agriculture. Hence, technical assistances including trainings would be priorities since improving women's income from agriculture should begin with improvement of women's education.

With respect to the profile characteristics of respondents, majority of them adhered to the community property (98.2%), 1.3% of respondents were of limited community of acquests and only 0.5 % was of separation of property. In fact, all spouses, whether united by civil or religious marriage, have matrimonial regime. The regime lays down the rules for economic relationship between the spouses and the fate of their property when the regime is dissolved. The matrimonial regime comes into effect upon the solemnization of marriage- or the date of the deed changing the

regime- and ends on an a judgment of divorce or nullity of marriage or on the death of the one of the spouses. It is, however, important to note that these results hold true only for some circumstances. In reality, Rwandan society is characterized by a patriarchal structure in which male dominance is norm. For this reason, women's accessibility to property, whatever matrimonial regime they may adhere to, has been subject to numerous constraints.

Fifty-one point six (51.6%) of the respondents had 15-30 years of farming experiences, 20.3% of them had less 15 years. To comment, the farmers over fifteen years of farming experience are expected to get more out of their land and labor, and then earn more money. However, this is not always the case due to other related constraints such as gender imbalance, domestic violence, and little access to the factors of farming production, lack of techniques of farming.

In the same direction, as indicated in the table, the majority of women farmers (66.9%) lived in rural area while 33.1% of them lived in urban areas. This is because farming land in rural areas is more available than in towns where the majority of women are engaged in other activities (especially business) rather than in farming.

A total of three hundred ninety- nine (N=399) participated in this survey. The information was first computed using Microsoft Excel software by researcher. The combined results were then entered into SPSS for analysis. The results for the factor analysis of sixteen socio-economic factors are given in table 4 and 6; worth noting is the fact that social factors 1 and 4, and economic factors 1, 10 and 12 were the first factors perceived by respondents that militate against women's income from agriculture.

Rank and interpretation of socio-economic factors were necessary in spirit of better and easy discussion. The survey as whole has shown that the social (2.2971) as well as economic factors (2.369) were related to women's income level. Thus, the hypothesis stating that there is significant relationship between socio-economic factors and women's income from agriculture in southern Province of Rwanda was accepted.

Table 4. The social factors militating against women's income

1. Gender imbalance					
Valid	Frequency	Percent	Mean	SD	
Lower	56	14	3.20802005	1.079427	
Low	31	7.8			
High	86	21.6			
Higher	226	56.6			
Total	399	100			
2. Domestic violence					
Valid	Frequency	Percent	Mean	SD	
Lower	276	69.2	1.69924812	1.12967	
Low	23	5.8			
High	44	11			
Higher	56	14			
Total	399	100			
3. Cultural stereotyping					
Valid	Frequency	Percent	Mean	SD	
Lower	180	45.1	1.69924812	1.12967	
Low	70	17.5			
High	40	10.0			
Higher	109	27.3			
Total	399	100			
4. Denial of rights to own property					
Valid	Frequency	Percent	Mean	SD	
Lower	87	21.8	2.373433584	1.067282	
Low	169	42.4			
High	50	12.5			
Higher	93	23.3			
Total	399	100			

Table 5. Rank and interpretation of social factors

Factors	Mean	SD	Interpretation	Rank
Gender imbalance	3.208	1.079	High	1
Denial of rights to own land	2.373	1.067	Low	2
Cultural stereotyping	2.195	1.269	Low	3
Domestic Violence	1.699	1.13	Lower	4
Total	2.369		Low	

According to the table 5, gender imbalance (3.21) as well as denial of rights to own property (2.373), cultural stereotyping (2.195) and domestic violence (1.699) were perceived by respondents as major factors for women's low income from agriculture in Southern Province of Rwanda. In fact, Rwandan culture values men more than women. Therefore, women do not have significant economic opportunities as men and this impinges on their farming production. In reality, the female farmers were rarely systematically targeted for training, owning land, obtaining loans, technology or improved inputs. It means that they did not receive resources and thereby increase productivity in agriculture.

Table 6.The economic factors militating against women's income

Factors of production				
1. Small farming land				
Valid	Frequency	Percent	Mean	SD
Lower	30	7.5	3.385964912	0.919582
Low	31	7.8		
High	93	23.3		
Higher	245	61.4		
Total	399	100		
2. Women farmers do not use improved seeds				
Valid	Frequency	Percent	Mean	SD
Lower	196	49.1	1.691729323	0.781512
Low	136	34.1		
High	61	15.3		
Higher	6	1.5		
Total	399	100		
3. Women farmers do not use fertilizer				
Valid	Frequency	Percent	Mean	SD
Lower	298	74.7	1.343358396	0.679861
Low	76	19		
High	14	3.5		
Higher	11	2.8		
Total	399	100		
4. Women farmers do not use the pesticides				
Valid	Frequency	Percent	Mean	SD
Lower	355	89	1.290726817	0.859876
Low	6	1.5		
High	4	1		
Higher	34	8.5		
Techniques of farming production				
1. Women farmers do not hire man powers				
Valid	Frequency	Percent	Mean	SD
Lower	317	79.4	1.528822055	1.099816
Low	15	3.8		
High	5	1.3		
Higher	62	15.5		
Total	399	100		

2. Women farmers do not practice irrigation				
Valid	Frequency	Percent	Mean	SD
Lower	286	71.7	1.461152882	0.819284
Low	55	13.8		
High	45	11.3		
Higher	13	3.3		
Total	399	100		

3. Women farmers do not use tractors in farming production				
Valid	Frequency	Percent	Mean	SD
Lower	291	72.9	1.661654135	1.135675
Low	8	2		
High	44	11		
Higher	56	14		
Total	399	100		

4. Women farmers do not practice drainage in farming production				
Valid	Frequency	Percent	Mean	SD
Lower	200	50.1	2.0551	1.17852
Low	43	10.8		
High	90	22.6		
Higher	66	16.5		
Total	399	100		

5. Women farmers who use traditional techniques (hoe)				
Valid	Frequency	Percent	Mean	SD
Lower	119	29.8	2.939849624	1.352976
Low	20	5		
High	26	6.5		
Higher	234	58.6		
Total	399	100		

#### Other factors

1. Types of crops that women grow				
Valid	Frequency	Percent	Mean	SD
Lower	27	6.8	3.3308	0.9055
Low	38	9.5		
High	110	27.6		
Higher	224	56.1		
Total	399	100		



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2. Women farmers in cooperatives				
Valid	Frequency	Percent	Mean	SD
Lower	37	9.3	3.2256	0.99205
Low	50	12.5		
High	98	24.6		
Higher	214	53.6		
Total				

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3. Female farmers do not receive adequate loans for farming production				
Valid	Frequency	Percent	Mean	SD
Lower	33	8.3	3.363408521	0.959357
Low	38	9.5		
High	79	19.8		
Higher	249	62.4		
Total	399	100		

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Rank and interpretation of economic factors were also necessary in spirit of better and easy discussion as stated before.

Table 7. Rank and interpretation of economic factors

Factors	Mean	SD	Interpretation	Rank
<b>Factors of production</b>				
Small farming land	3.386	0.92	Higher	1
No use of improved seeds	1.692	0.782	Lower	2
No use of fertilizer	1.343	0.68	Lower	3
No use of the pesticides	1.291	0.86	Lower	4
<b>Techniques of production</b>				
Use of traditional techniques	2.94	1.353	High	1
No practice of drainage	2.055	1.179	Low	2
No use of tractors	1.662	1.136	Lower	3
No hire of man powers	1.529	1.1	Lower	4
No practice of irrigation	1.461	0.819	Lower	5
<b>Other factors</b>				
Inadequate loans	3.363	0.959	Higher	1
Types of crops growth	3.331	0.906	Higher	2
Women farmers in cooperatives	3.226	0.992	High	3
Total	2.297		Low	

### Factors of farming production

The small farming lands were stated by respondents as the biggest source (3.39) of women's lower income from agriculture in Southern Province of Rwanda. This is coupled with women's limited access to farming land as most of farming lands are controlled by their husbands, brothers or fathers.

The factors related to the women's low income from agriculture were also related to inadequate loans granted to the female farmers, which led to no use of improved seeds (1.692), no hiring of man powers (1.529), no use of fertilizer (1.343) and no use of pesticides (1.291). It means that, even though there was sufficient evidence to prove

women's substantial contribution to agriculture in Southern Province of Rwanda, there was equal proof that these women were often farming without benefit of improved inputs and services required for a more productive and remunerative agriculture. Steps must be taken to ensure that the new technologies and resources, actually reach women farmers. In fact, resources allocated to farm household typically reach men rather than women. Male agricultural extension agents provide information to groups of male farmers; women farmers get the knowledge of improved technology second-hand. Steps must be taken to ensure that control which women may have over resources is not threatened or eliminated by reallocation of such resources to others. It is worth to conclude that Women's access to the resources that is to say, give the right to them to use resources such as land and other production means and women's control that is to say, give the right to them to decide on why and how to use available resources, was factor of female farmers' low income from agriculture in Southern Province of Rwanda.

### **Techniques of farming production**

Concerning the farming techniques used to improve agriculture production, Results from the study shown that almost female farmers still using traditional techniques in farming production (2.94) i.e. using hoe while cultivating and no use of improved techniques for farming production including practice of drainage (2.055), using tractors (1.662), and irrigation (1.461), were low or lower related to women's income from agriculture. It means that, using hoe in farming production despite improved techniques was source of women's low income from agriculture. In fact, nearly 71.3% of women farmers were primary level (table 4), thus innovation in agriculture production was rather slow and most of farmers stuck to their old farming practices. As Saito and Surling (1993) points out, inadequate information about the improved technologies was one of the constraints in agricultural production. Women do not have adequate access to agricultural information and innovation. An obvious way of remedying these defects is to provide trainings relating to the improved farming techniques. In a bid to this, it is necessary to begin by ensuring women farmers to

utilize appropriate technologies and practices that can ensure proper yield of the crop including using tractors, drainage, irrigation and using fertilizer and improved seeds.

### **Other economic factors**

Inadequate loans (3.363), types of crops growth (3.331) and number of women in cooperative were seen by respondents as a source of women's lower income from agriculture. To explain, most women grow food crops (Cereals, legumes, bananas, fruits and vegetables) which do not require more activities and farming techniques than cash crops (coffee, tea and wheat). Besides, food crops do not bring more income as they do not require more inputs like fertilizers, seeds and pesticides. It is especially important, in the transition from subsistence to commercial agricultural systems, that the traditional concept of reward for the labor be retained. In Southern Province of Rwanda, male farmers were allocated the resources (land, water, seeds and information) to enable them to produce cash crops for sale (coffee, tea and wheat) while Women farmers were expected to carry out the tasks of transplanting coffee or tea and continue their traditional cultivation of food crops for their family's subsistence. It means that, female farmers could not earn much money, due them grow food crops which were expected to yield less money than cash crops would do.

Table 8. Farm size and means of acquisition of farm land

Farm size (ha)	Frequency	Percent
<0.5 ha	219	57.2
0.5ha-1ha	157	41.0
>1ha	23	6.0
Total	399	104.2

Means of acquisition of Land	Frequency	Percentage
Allocation by spouse	289	72.4
Inheritance	16	4.0
Sharecropping/Rent	53	13.3
Purchase	31	7.8
State interventions	10	2.5
Total	399	100.0

According to the findings, it is clear that women's access to the land was limited, and the land to which the women farmers may own was very small. According to the female farmers, 57.2% of them had less 0.5 hectare (ha) of land, 41% had 0.5-1ha, while 1.8% had more than one hectare. In line with evidence from results of research based on survey and other researchers' findings, it is worth to notice that the women do not own land but they could at least use it under limitation of their husband. The former behave like land-owner and their husbands acknowledge that they have all rights except that of alienation. On the issue of access to land, the situation in southern Province of Rwanda was characterized by few opportunities to gain ownership of land. This is not simply to higher levels of concentration of land. This is due to socio-cultural which prevent women from owning land and property because of inheritance practices which give property to males. As reported by female farmers, many women (75.5%) previous access to land was through marriage and had it by husband and relatives (allocation by spouse). A low number of women indicated that they had acquired land through State interventions (2.6%), such as land reforms. Weak property rights led to sub-optimal decisions and missed to increase opportunities to increase income. They

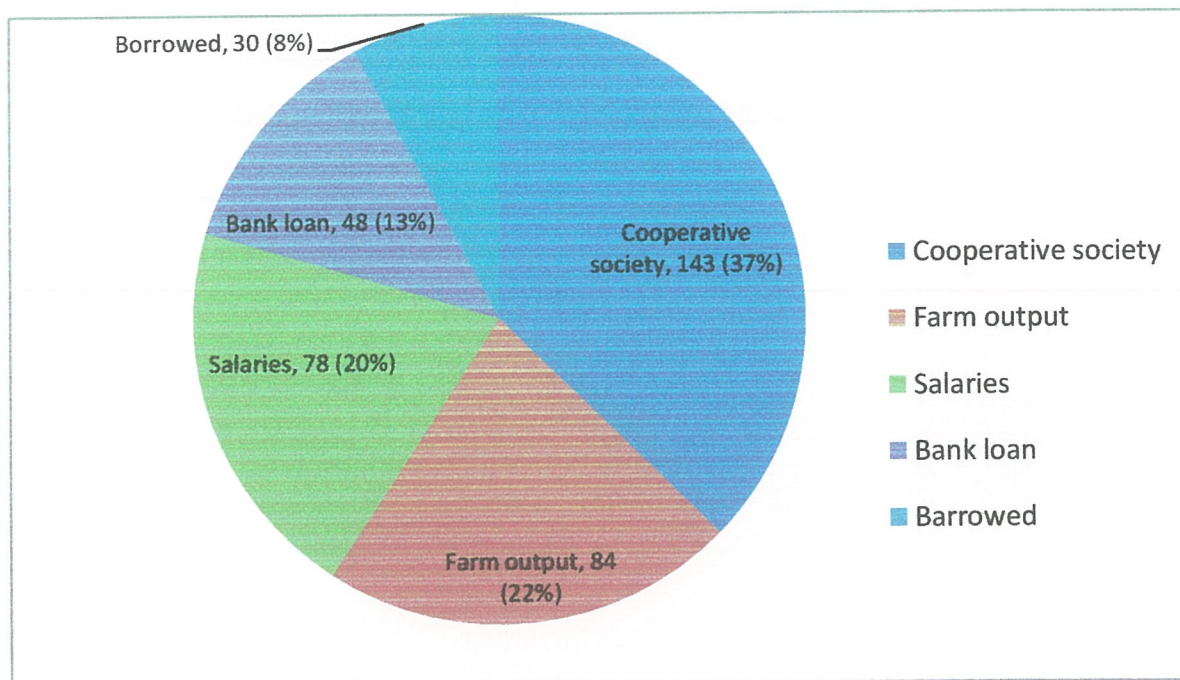


Figure 2. Main sources of funds employed in farming activities

Female farmers did not receive adequate loans because they have little access to the capital or credit facilities, so they did not have collateral. This was probably why it has traditionally been difficult for them to obtain bank loan or others form of credits.

According to figure 2, the majority of respondents (37%) said that women farmers got loan from their cooperative societies. In fact cooperative societies grant loans to female farmers, not because they only intended to facilitate the farmers in general, but also they targeted women farmers who long ago, were excluded in business system.

Whereas, only 13 % of respondents stated that female farmers were able to obtain Bank loan while others got money from other available sources such as borrowed (8%). This information is in line with findings of Famoyo (1979), who said that low access to financial resources/credit due to lack of bank guarantees. Generally excluding women for lack of demonstrable ownership of assets and lack of the title to land prevents women from exercising or improving expertise in crop production.



Figure 3. Loans received by female farmers.

Referring to the figure above, 62.4% of respondents said that they did not receive loans from any banks or micro finance, only 8.3 % of respondents estimated that the loans so far received were very sufficient. It is now widely demonstrated that women farmers have little access to capital or credit facilities. As stated early, they do not have collateral and this remains serious problem for them to obtain bank loans or to accede to other form of credit. Loans are given to those who own land, women however, use land that is owned by their husbands, fathers and brothers.

Table 9. Income level per month of women farmers

Range of income	Frequency	Percent	Mean	SD
< 30,000 Rwf	319	79.9	1.213	0.4395
30,000-50,000 Rwf	75	18.8		
> 50,000 Rwf	5	1.3		
Total	399	100		

According to the findings (table 7), Income level per month of women farmers was poor (1.213). It means that majority of female farmers, that is to say 79.9% confirmed that their monthly income falls less than 30,000 Rwf. At the second position come the women farmers who earn between 30,000-50,000 Rwf with (18.8%). At third position 5 women farmers out of 399 (1.3%) have as income from agriculture greater than 50,000 Rwf. It means that, the majority of female farmers were generally poor implying a constraint on their agricultural income.



Table 10. Correlation between socio-economic factors and women's income\*

Person Correlation Income from agriculture	No use of tractors	Domestic violence	No use of fertilizers	Cultural stereotyping	No practice of drainage	Types of crops	Gender imbalance	Denial of rights to own ground or land	Small farming land	Inadequate loans	Women in cooperatives	No use of improved seeds	No use of pesticides	No hire of man powers	No practice of irrigation	use of traditional techniques (hoe)
	0.88	0.868	0.856	0.691	0.685	0.359	0.356	0.333	0.324	0.322	0.299	0.192	-0.164	-0.234	-0.273	-0.697

\*Using Pearson correlation

Table 8 indicates that all the computed correlation valued between Socio-economic factors in terms of no use of tractors in farming production, domestic violence, no use of fertilizer, cultural stereotyping, no practice of drainage, low number of Women farmers in cooperatives, gender imbalance, denial of rights to own ground or land, small farming land, inadequate loans, no use of improved seeds, no use of pesticides ,no hire of man powers, no practice of irrigation, types of crops growth and use of traditional techniques . Three factors were thought to be high or strong related to women's income including (0.880, 0.898 and 0.856) and two others (+0.192 and - 0.164) were thought to be very weak or negligible.

As an illustration the correlation between women's income from agriculture and no use of tractors in farming production was 0.888. It means that female farmers needed tractors to extent farming production, the letter leads to increased income. With

respect to domestic violence (0.868), related to women's income, this means that there is a wide variety of forms of violence against women: sexual violence, physical violence, moral violence, psychological violence, sexual assault and harassment. All these acts of violence lead to serious physical, biological, psychological consequences due to them women farmers do not work properly. It was the same, no use of fertilizer (0.856) was related to women's income. It means that, much more fertilizers were used in farming production much more likely to have much income from agriculture.

According to the findings, income of women from agriculture was related in the opposite way to the no use of pesticides with a correlation of -0.164, no hiring of man powers (-0.234). This unexpected finding may be due to the fact that pesticides were used on cash crops (coffee and tea) any very few are used on food crops. Moreover, the lack of knowledge on how to handle the pesticides and its high price are the main reasons of why was weak related to women's income from agriculture in Southern province. Since agriculture is the main source of livelihood for people of Southern Province of Rwanda, handling effectively the socio-economic constraints on women's income should be very important.

## **CHAPTER FIVE**

### **FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **Introduction**

The final chapter of the study is divided into three different sections. Section one discusses findings presented in chapter four in relation to the existing literature, section two draws conclusions and third section of this chapter, deals with recommendations and further researches relating to the study.

#### **Findings**

Objective one sought to determine the profile of the respondents in terms of age, farming experience, level of education, marital status and location which were thought to be extraneous independent variables. The results (table 3) shown that the female farmers were between 35-44 years old (44.3%). 51.7% of them had farming experience of 21 to 30 years. Majority of respondents had form education (92.3%) mostly primary education (71.3%), while only 7.7% had no formal education. The researcher shown that the female farmers in their thirties and forties with 15-30 years of farming experiences, were able to earn and raise income from agriculture. However, study shows that the majority of female farmers (84.3%) had primary educational level while only 8.5% of them had no formal education. This was a big challenge because people with low level of education would not be able to initiate innovation or technology in farming production; reason why farming production system was weak and this affected women's income from agriculture. Hence, technical assistances including trainings would be priorities since improving women's income from agriculture should begin with improvement of women's education.

Objective two sought to determine the socio-economic factors militating against women's income from agriculture. The survey as whole has shown that the social (2.2971) as well as economic factors (2.369) were related to women's income level.

Thus, the hypothesis stating that there is significant relationship between socio-economic factors and women's income from agriculture in southern Province of Rwanda was accepted. From 16 items, respondents identified 5 factors which they perceived to be most hindrance on women's income from agriculture and ranked them in decreasing order. Gender imbalance (3.28) and denial of rights to own property (2.373), as social factors and small farming lands (3.39) followed by inadequate loans (3.363) and types of crops growth (3.331) as economic factors, were significantly a source of women's lower income from agriculture in Southern Province of Rwanda, The results from the study shown that female farmers were mostly affected by many socio-economic factors in their farming activities. Thus, Women were rarely systematically targeted for training, technology or improved inputs.

Objective three sought to determine the level of income of women farmers from agriculture in southern Province of Rwanda. According to the findings (table 9), Income level per month of women farmers was poor (1.213). It means that majority of female farmers, that is to say 79.9% confirmed that their monthly income falls less than 30,000 Rwf. At the second position come the women farmers who earn between 30,000-50,000 Rwf with (18.8%). At third position 5 women farmers out of 399 (1.3%) have income from agriculture greater than 50,000 Rwf.

Objective four sought to establish the relationship between socio-economic constraints and women's income from agriculture in Southern Province of Rwanda. The findings revealed both, that there was significantly relationship between socio-economic factors including no use of tractors (0.880), domestic violence (0.868) and no use of fertilizer (0.856) and women's income from agriculture; and there was negligible relationship between socio-economic factors including no use of improved seeds (0.192) and no use of pesticides (-0.164), and women's income from agriculture.

## **Conclusions**

In this study, researcher investigated socio-economic constraints on women's income from agriculture in Southern Province of Rwanda. Based on the findings, researcher intended also to provide appropriate solutions to given constraints. Researcher proposed descriptive research design for data analysis and appropriate test such as Pearson was carried out using SPSS.

### **Profile characteristics of respondents**

The results from the study shown that the female farmers in thirties and forties with 15-30 years of farming experiences, were able to earn and raise income from agriculture. However, female farmers were majority primary education level which constituted constraint on women's income from agriculture, due people with low level cannot initiate innovation or technology in farming production. Researcher suggested that temporary measures and technical assistances including trainings would be priorities. The fact that majority of women farmers lived in rural area and others in urban area did not significantly exert on women's income from agriculture.

### **Socio-economic factors militating against women's income**

The findings indicated that there are social factors including gender imbalance, denial of rights to own property and cultural stereotyping that are perceived to be very hindrance on women's low income from agriculture followed by economic constraints including small farming land, inadequate loans granted female farmers and types of crops growth. The findings indicated also that income level per month of women farmers was relatively poor.

The hypothesis stating that there is significant relationship between socio-economic factors and women's income from agriculture in southern Province of Rwanda was accepted. Researcher demonstrated that alleviation of socio-economic factors militating against women's income from agriculture was one of the most important avenues for increasing their income; and pointed out that access to education,

extension services, information, land, credit facilities and relevant agricultural innovations will entice many women to agricultural production and will reduce poverty among women farmers. Credit facilities and input should be made available through farmers' cooperatives and families. The existing women's cooperatives in the village should be organized and strengthen to increase women' access to credit inputs.

## **Recommendations**

Basing on the findings from the study and the views gathered from both respondents and observation of researcher, the recommendation put forward propose some key action points. Results from studies revealed that female farmers were majority primary education and the findings indicated also that there were socio-economic constraints on women's income from agriculture in Southern Province of Rwanda. The following recommendations were suggested for addressing the situation:

Low number of female farmers who are educated, the government should promote female's education until their number matches that of their male as well as provision of trainings and increased knowledge intending to give female farmers opportunities to innovate new system of modern farming production.

Gender imbalance, the researcher recommends the integration of gender equity in national policies and Local authorities should prepare gender sensitization meeting intending to meet village men and women, sensitizing them about the role of women in the development process. This would increase women's respect and hence, reduce domestic violence perpetrated against them. In sector and areas where women are disadvantaged by gender norms, explicit targeting would be necessary to catalyze a change process for ending gender discrimination and securing women's access to key resources.

Cultural stereotyping, government alleviate the cultural, ethnic, religious, social and disability- based causes that results in the creation of barriers that lead to segregation and exclusion.

Denial of rights to own property, government must undertake the legislative and administrative reforms to give women full and equal access to economic resources, including the right to inheritance and the ownership of land and other property.

Little access to the factors of farming production, women farmers should be given equal access to and control on the factors of farm production (land, fertilizer and other productive resources).

Lack of access to the techniques of farm production, Women farmers should be provided financial and technical assistance to increase farming production. Design interventions that explicitly target women. And promote collective action among women or encourage them to work into cooperative, for formation of women farmers' groups to improve rights and access to service is way through which members increase productivity and income collectively.

Little access to capital or asset the women must be given the right to use resources such as land and other production means and women's control that is to say, give the right to them to decide on why and how to use available resources.



### **Suggestion for further researches**

Further studies can also be done in areas like:

- Family planning and women's earnings from agriculture.
- Domestic violence hampering women's earning from small trades.
- The effect of illiteracy on women's earnings from agriculture.

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## APPENDICES

### Appendix 1. Transmittal letter



KAMPALA  
INTERNATIONAL  
UNIVERSITY

Ggaba Road - Kansanga  
P.O. Box 20000, Kampala, Uganda  
Tel: +256- 41- 266813 / +256- 41-267634  
Fax: +256- 41- 501974  
E- mail: admin@kiu.ac.ug,  
Website: www.kiu.ac.ug

**OFFICE OF THE ASSOCIATE DEAN, SOCIAL SCIENCES  
SCHOOL OF POSTGRADUATE STUDIES AND RESEARCH (SPGSR)**

January 29, 2011

Dear Sir/Madam,

**RE: REQUEST FOR BANGIRIYIKI SIMEON MPA/42592/81/DF  
TO CONDUCT RESEARCH IN YOUR ORGANIZATION**

The above mentioned is a bonafide student of Kampala International University pursuing a Masters of Arts in Public Administration. He is currently conducting a field research of which the title is **"The Social Economic Factors Impending Women's Income from Agriculture in Southern Province in Rwanda"** as part of his research work; he has to collect relevant information through questionnaires, interviews and other relevant reading materials.

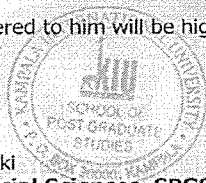
Your organization has been identified as a valuable source of information pertaining to his research project. The purpose of this letter is to request you to avail him with the pertinent information he may need.

Any information shared with him your organization, rest assured the data you provide shall be treated with utmost confidentiality.

Any assistance rendered to him will be highly appreciated.

Yours truly,

Dr. Roseanne Mwaniki  
Associate Dean social Sciences ,SPGSR)



*"Exploring the Heights"*

## Appendix 2. Request for permission to conduct research

BANGIRIYIKI SIMEON

Kampala International University

P.O. Box 2000, Kampala, Uganda

+250788853294

[Bangiriyiki\\_simeon@yahoo.fr](mailto:Bangiriyiki_simeon@yahoo.fr)

February 24<sup>th</sup>, 2011

To the Governor of Southern Province

Dear Sir,

**RE: Applying for permission to conduct research in your Institution**

I hereby apply to be allowed to do my research in your Institution in the fulfillment of the requirement of the award of Masters of Public Administration at Kampala International University. The study is entitled: **The socioeconomic factors impeding women's income from agriculture in Southern Province in Rwanda.**

I hope it will be helpful to the Society, Policy makers and Government as it will highlight how the socioeconomic factors could affect women's income from agriculture.

Yours truly



BANGIRIYIKI SIMEON

### Appendix 3. Informed consent

THE REPUBLIC OF RWANDA



SOUTHERN PROVINCE

P.O.Box: 41 NYANZA

Tel. 252533385 Fax. 252533380

E-mail: [south@southernprovince.gov.rw](mailto:south@southernprovince.gov.rw)

Website: [www.southernprovince.gov.rw](http://www.southernprovince.gov.rw)

Nyanza, 01 MAR 2011

Ref.: 0251/07.02

Mr. BANGIRIYIKI SIMEON

Tel.: +250788853294

Email: [bangiriyiki\\_simeon@yahoo.fr](mailto:bangiriyiki_simeon@yahoo.fr)

Dear Sir,

#### RE: Your request to conduct research

Reference made to your request to conduct research in the Southern Province as required for the award of the Masters of Arts in Public Administration that you are working for in Kampala International University;

We are pleased to inform you that you are authorized to conduct the research in the Southern Province on "*The socioeconomic Factors impeding Women's Income from Agriculture in Southern Province in Rwanda*". We will therefore appreciate any assistance rendered to you to facilitate this research.

Sincerely Yours,

  
MUNYANTWALI Alphonse  
The Governor of the Southern Province



#### CC:

- Honorable Minister of Local Government;

KIGALI

- The District Mayors (all)

SOUTHERN PROVINCE

*Dukorane umurava, dutere imbere*



## Appendix 4. Transmittal letter

BANGIRIYIKI SIMEON

Kampala International University

P.O. Box 2000, Kampala, Uganda

+250788853294

[Bangiriyiki\\_simeon@yahoo.fr](mailto:Bangiriyiki_simeon@yahoo.fr)

April 28th, 2011

To the Manager of Bank, Financial Institution

To the chairperson of Cooperative

Dear Madam/Sir,

**RE: Applying for permission to conduct research in your Institution**

Ref. 0251 /07.02 made from the Governor of Southern Province authorizing researcher to conduct his research in Southern Province, the aim is of facilitating a study on **"The socioeconomic factors impeding women's income from agriculture in southern Province, Rwanda."** I kindly request you to spare your priceless time and respond to the questions as genuinely as possible.

Your sincere response will be of paramount contribution towards the success of this research and will be kept confidential. Thus the questions require free expression of what you feel by filling or ticking appropriate answers. Your cooperation and honest opinion are highly appreciated.

Regards,



BANGIRIYIKI SIMEON

## **Appendix 5 . Research Instrument**

### Questionnaire for female farmers

Dear respondent,

This questionnaire is for the purpose of facilitating a study on “The socioeconomic factors impeding women’s income from agriculture in southern Province, Rwanda.” I kindly request you to spare your priceless time and respond to the questions as genuinely as possible. I wish to further request to answer all questions if possible.

Your sincere response will be of paramount contribution towards the success of this research and will be kept confidential. Thus the questions require free expression of what you feel by filling or ticking appropriate answers. Your cooperation and honest opinion are highly appreciated.

Regards,

BANGIRIYIKI SIMEON

Researcher, Kampala International University

## **Appendix 6. Informed Consent Form (ICF)**

I am giving my consent to be part of the research study of socio-economic constraints on women's income from agriculture in Southern Province of Rwanda.

I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and rights to withdraw my participation anytime.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

Initials.....

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

Code.....Date received by Respondent ...../...../.....

Score	Response mode	Description	Interpretation
1. Lower		you disagree with no doubt at all	Poor
2. Low		You disagree with some doubt	Fair
3. High		You agree with some doubt	Satisfactory
4. Higher		You agree with no doubt at all	Very satisfactory

### Personal profile

Tick the right response only by using X

#### Age group:

<25 ☐ 25-34 ☐ 35-44 ☐  
45-54 ☐ 55-64 ☐ >=65 ☐

#### Marital status:

Unmarried ☐ Married ☐  
Widow ☐ Divorced ☐

#### Educational status:

Never been to the School ☐ Primary education ☐  
Secondary education ☐ Higher education ☐

#### Matrimonial regime

Partnership of assets ☐ Separation as to property ☐  
Community of property ☐

**Farming experiences**1-10 ☐11-20 ☐21-30 ☐>=31 ☐**Location or residence**Urban ☐Rural ☐

A. The social factors below are considered to be some of the constraints on women's income from agriculture.

**The issues relating to social factors impact on women's income:**

- 1.....Factor of Gender imbalance
- 2.....Factor of Domestic violence
- 3.....Factor of Cultural stereotyping
- 4.....Denial of rights to own property

B. The economic factors below are considered to be some of constraints on women's income from agriculture. Rate them according to the level of constraints using 1, 2, 3 and 4.

**Women farmers do not own factors of agricultural production:**

- 5.....Small farming land
- 6.....No use of Seeds
- 7.....No use of Fertilizer
- 8.....No use of Pesticides

**Women do not use the farming techniques to improve agriculture activities:**

- 9.....No hiring of man powers
- 10.....No use of irrigation
- 11.....No use of tractors
- 12.....No practice of drainage
- 13.....Use of traditional techniques (hoe)

**The types of crops impact on women's income from agriculture. Generally, Cash crops earn much money than food crops:**

- 14.....Types of crops

**Low number of female farmers in cooperatives impact on women's income:**

- 15.....female farmers in cooperative

**Female farmers do not receive adequate loans for farming production:**

- 16.....Inadequate loans

C. Tick the right response only by using X

**How did you acquire the land?**

- |                               |                          |
|-------------------------------|--------------------------|
| 1. Allocation by spouse       | <input type="checkbox"/> |
| 2. through inheritance        | <input type="checkbox"/> |
| 3. Through sharecropping/Rent | <input type="checkbox"/> |
| 4. through purchase           | <input type="checkbox"/> |
| 5. Through State intervention | <input type="checkbox"/> |

**Would you estimate the size of your farming land?**

- 1. <0.5ha ☐
- 2. Between 0.5ha- 1ha ☐
- 3. The farming women whose size of land is >1ha ☐

**What are the major sources of funds employed in your farming activities?**

- 1. Bank loan ☐
- 2. Borrowed ☐
- 3. Farming output ☐
- 4. Cooperatives societies ☐

**If you employ bank or microfinance as your major source of funds for agricultural activities, how can you rate loans so far received?**

- 1. Very sufficient ☐
- 2. Sufficient ☐
- 3. Insufficient ☐
- 4. None ☐

**Estimate your parent's or guardian's income per month**

- 1. <30,00 Rwf ☐
- 2. Between 30,000-50,000Rwf ☐
- 3. >50,000Rwf ☐

**Thank you**

## **Interview guide for female farmers**

1. What is your civil status?
2. How long have you been in farming activities?
3. Based on your experience in farming activities, how do the factors bellows affect the women's income from agriculture?
  - a) Factor of Gender imbalance
  - b) Factor of Domestic violence
  - c) Factor of Cultural stereotyping
  - d) Denial of rights to own land
  - e) Small farming land
  - f) No use of Seeds
  - g) No use of Fertilizer
  - h) No use of Pesticides
  - i) No hiring of Manpower
  - j) No hiring of man powers
  - k) No use of irrigation
  - l) No use of tractors
  - m) No practice of drainage
  - n) Use of traditional techniques (hoe)
  - o) Types of crops
  - p) Female farmers in cooperative



q) Inadequate loans

4. Suggest possible ways of improving women's income from agriculture.

**Thank you**

## Appendix 7: Computation of the CVI

The CVI for the administered instrument were computed using the following formula

( Amin, 2005):

$$CVI = \frac{R}{R + IR}$$

Where CVI: Content Validity Index

R: Relevant questions

IR: Irrelevant questions

The indices were computed as shown in the table below

Instruments	Judgment/ Assessment questions			Computation
	Relevant (R)	Irrelevant (IR)	Total (R+IR)	
Questions	19	2	21	19/21=0.90

According to Amin (2005) the instruments were certified valid as he stipulated the minimum Content Validity Index to be at least 0.7.

## Appendix 8. Number of women farmers in cooperatives

Level	Women's participation				leadership participation			
	Men		Women		Men		Women	
	No	%	No	%	No	%	No	%
Farm cooperatives								
ABASHYIRAHAMWE/NKOMANE	16	59.3	11	40.7	3	42.9	4	57.1
K.D.M.R/GASAKA	30	44.1	38	55.9	5	55.6	4	44.4
ICYEREKEZO/NKOMANE	130	81.3	30	18.8	6	66.7	3	33.3
KOPERATIVE SHYIRIMPUMU	40	27.4	106	72.6	4	44.4	5	55.6
KODUBUKI/KITABI	94	52.2	86	47.8	7	63.6	4	36.4
TWISUNGANE GATRE	14	40.0	21	60.0	6	40.0	9	60.0
TURWANE KU BUZIMA MUSANGE	40	38.1	65	61.9	6	60.0	4	40.0
ZINDUKANA ISUKA/KIBILIZI	5	50.0	5	50.0	4	44.4	5	55.6
COOTHEGAB BURUHUKIRO	219	91.6	20	8.4	4	57.1	3	42.9
DUKORE MUSANGE	6	18.8	26	81.3	3	37.5	5	62.5
Total	594	59.3	408	40.7	48	51.1	46	48.9

## Appendix 9. Proposed Budget

Item	Quantity	Unit (Rwf)	Total cost (Rwf)	US\$
Proposal writing	4	10000	40000	66
Printing one copy ( First draft)	1	15000	15000	25
Printing one copy ( second draft)	1	15000	15000	25
Printing one copy (third draft)	1	15000	15000	25
Printing questionnaires	400	50	20000	33
Printing 5 final copies	5	5000	25000	41
Binding 5 copies of the thesis	5	5000	25000	41
Transport for research	15	5000	75000	123
Food for researcher	15	5000	75000	123
<b>Total cost for Thesis</b>			<b>305000</b>	<b>500</b>

## Appendix 10. Time Frame

Particulars	Duration
Selecting and approval of topic	Sep-10
Doing library research	October 2010-November 2010
Writing of proposal	November 2010 -January 2011
Approval of Project proposal	Jan-11
Doing field research	February 2011-March 2011
Data processing and compiling	Apr-11
Editing the work	May-11
Handing in of the final work	May-11

## **Appendix 11.** Researcher's curriculum Vitae

### Personal Profile

First Name: BANGIRIYIKI

Surname: SIMEON

Date of birth: 1970

Place of birth: RUSIZI District

WESTERN Province

Rwanda

Current residence: NYAMAGABE District

SOUTHERN Province

Rwanda

Father's name: MUDEYI PIERRE

Mother's name: NYIRANZIRORERA FELECITE

Nationality:

Rwandese

Marital Status: MARRIED

Phone number: (+250) 0788853294

E-mail: [bangiriyiki\\_simeon@yahoo.fr](mailto:bangiriyiki_simeon@yahoo.fr)

### Educational Background

From 1995 to 2000: Bachelor's Degree of Public Administration at National University of Rwanda

From 1986 to 1992: Advanced General Certificate of Secondary Education in Training teacher School

From 1977 to 1986: Primary Level Certificate at MUHEHWE Primary School.

#### Work Experiences

1993-1994: Teacher at MUHEHWE Primary School.

2000-2003: Professional in charge of Territorial Administration in Ministry of Local Government.

2003-2003: Chief of Division in charge of Planning at National Assembly of Rwanda

2003- 2006: Director in charge of Territorial Administration and Good Governance in GIKONGORO Province

May 2004- September 2004: Acting Mayor of KADUHA District

November 2004 – April 2005: Acting Executive Secretary of GIKONGORO Province.

2006 up to now: Director in charge of Good Governance and Administration of

NYAMAGABE District

#### Other Relevant information

Computer literacy in the following programs:

Microsoft DOS

Microsoft WORD

Microsoft EXCEL

Microsoft POWER POINT

Microsoft ACCESS

Internet

B driving license category holder

