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DEPARTMENT OF SOCIOLOGY

IMPACT OF CIVIL WAR ON COFFEE FARMERS' HOUSEHOLD INCOME IN BURUNDI: A CASE STUDY OF RUHORORO COMMUNE, NGOZI PROVINCE

MOSES BIGIRIMANA

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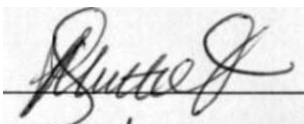
AUGUST 2006

DECLARATION.

I hereby declare that this is my original work and has not been presented for examination in any other institution.

Moses Bigirimana   Signed r^^^^^^ Date   *^ fa)   <p£=>*

Supervisors:

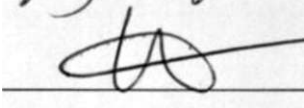Dr Pius Mutie   Signed _____ Date 21/09/06

Mr. Allan Korongo   Signed _____ Date 29/09/06

Dedication

This project is dedicated to my beloved wife Chantal Inamahoro, my lovely children Ben Izibikwiye and Andrea Inamuco for their understanding and moral support. It is also dedicated to Elizabeth Useem and her entire family for their endless encouragement and financial support throughout the course and production of this project paper.

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List of Abbreviations

NGOS: Non-Governmental Organizations

CNDD/FDD: Conseil National pour la Defense de la Democratic/ Front de

Defense pour la Democratic

FGD: Focused Group Discussion

GLR: Great Lakes Region

DRC: Democratic Republic of Congo

CFHI: Coffee Farmer's Household Income

SPSS: Statistical Package for Social Sciences

SOGESTAR: Societe de Gestion des Stations de Lavage

SRD: Societe Regionale de Developcment

OCIBU: Office des Cultures Industrielles du Burundi

COOPEC: Cooperatives d'Epargne et de Credits

ABSTRACT

The study investigated the impact of the civil war on the coffee farmer's household income (CFHI) in Ruhororo zone in Burundi. The study focused on the farmer's coffee income at the household level after the war that has led to increased levels of poverty.

Coffee is a leading cash crop in Burundi both at the communal and national economic levels, with 60% of total output being exported. However, this precious crop has experienced several bottlenecks due to the civil war that struck Burundi from October 1993 and resulted in a decrease in income among coffee farmers. According to the Bureau of Statistics (1999) in Bujumbura, Ruhororo was reputed to be among the highest coffee producing areas in Burundi and the crop's income is central to livelihood in the area. This study examined whether the civil war could be a major cause of coffee income decrease which many believe is the source of high level of poverty currently observed in Ruhororo commune.

The study was guided by the following research objectives:

1. To examine the extent to which the civil war has affected the cofTee farmer's household income.

2. To investigate how the division of labor was affected by the civil war among cofTee farmers in Ruhororo.

3. To find out to what extent the civil war has affected the cofTee marketing for local farmers during the war in Ruhororo commune.

The study used both quantitative and qualitative research methods. The primary data was obtained from the household heads and from representatives of coffee farmers associations. Standardized questionnaires were used to obtain the data. The key informants provided adequate data pertinent to the study. Direct

observation was also a key research method. A total of 50 heads of households were interviewed and 8 representatives of coffee farmers' associations and one was a coffee washing station manager and another, a Communal Administrator. The data analysis was done using the Statistical Package for Social Sciences (SPSS).

The study established that 28% of the coffee farmers now earn less than $20 annual income whereas before the war there were no records of income below this figure. Similarly, before the war, 6% of the respondents confirmed that they could earn income beginning at $191 and reaching the highest earning available from coffee. Unfortunately today, they lamented that only 1% can realize income levels such as these. Regrettably, the study established that 63% of Ruhororo residents could only afford a meal once per day and that 32.7% could only afford new clothes every three years, with 26.5 % affording new clothes once per year.

The study used the Chi-square to test the first hypothesis, which stated that the civil war has negatively affected the coffee farmer's household income in Burundi. The test found an association between the civil war and the decrease in income. The study also found an association between the civil war and coffee income decrease after a greater calculated Chi-square of 42.16 as opposed to 11.07 of the Chi-square table.

The study also established that the war affected the division of labor in Ruhororo villages. This second hypothesis stated that the civil war in Burundi has disrupted the division of labor among the coffee farmers. After testing it by a Chi-square test, it was established that there was a relationship between the civil war and the division of labor because the calculated Chi-square was greater (13.46) against (12.59). Men are now engaged in domestic activities, which was the domain of

women before the war and vice versa. Ik fore the war, only 2% of men could cook but after the war 6% of the respondents confirmed the change. Parallel to that, only 6% of the women could do house construction before the war, but the study has established that 14% are now doing construction as well as other business activities previously done by men alone. This study has showed that the coffee marketing was disrupted in many ways by the civil war although the hypothesis test rejected Ho. About 45.1% of the respondents stated that the pricing for coffee was poor after the war, and 5% found that coffee prices were worse after the war. Among the 50 respondents, only 9.8% were able to sell their coffee to the coffee washing station, and 68% sold their unripe coffee at a throw away price due to inaccessibility of the markets.

After testing this third hypothesis, stipulating that there was an association between insecurity and the coffee marketing disruption, the test showed a correlation of 0.4 which was not enough to approve Ho although to some degree, there was a disruption of coffee marketing.

In conclusion, the study has shown significant proof that the war was to blame for the high poverty observed among the coffee farmers although it was not totally to blame. The civil war has to some degree had a positive contribution to the residents of Ruhororo by breaking some barriers to gender participation in social activities. In this regard, the study recommends that local coffee farmer's associations be institutionalized, for quick rehabilitation of this highly regarded crop. Indeed, the Burundi Government should increase the cost of coffee per kg, in order to make it more profitable for local farmers. New policies as well aiming at protecting coffee farms in case of any disastrous circumstances should be put in place in Burundi.

CHAPTER 1

INTRODUCTION

1.1 Background information

Burundi is a central African country with a population of 6.6 million people, with an area of 27834 square kilometers. It was a Germany colony from 1888 to 1914 and gained its independence from Belgium in 1962. Its economy is mainly dependent on agriculture with coffee being the leading crop in currency earning through exportation.

After the assassination of Ndadaye Melchior, the first democratically elected Hutu president in October 1993; Burundi was in a state of civil war, which only ended in April 2003. Approximately 300,000 people are estimated to have died and one million refugees fled to neighboring countries and to Europe.

The killing of innocent people in Burundi has a long history. Scholars, including Brubacher at the Mennonite Central Committee (MCC) and Wingert (1974:75) observed the 1972 massacres of defenseless people in Burundi, and correctly predicted that the future of Burundi would be as shaky, dark and bloody as its past. This prediction became a reality in 1993 when the elected President and seven ministers of his cabinet were driven from State House by Tutsi military and slaughtered, sparking civil violence between Hutu and Tutsi tribes throughout the countryside, which later turned into civil war.

Such repetitively negative situations had a range of negative effects on the population of Burundi. The effects of the civil war were physical, economic, social, psychological, environmental, moral, cultural and religious. The civil war created such a high degree of poverty in Burundi that many did not have the minimum that Myers (1996:400) describes as basic needs. Household units, one of the basic economic institutions of any society, were the most affected.

Household income among coffee farmers is the major focus of this study. The researcher investigated how farmers lost the major source of their coffee income because of neglect and abandonment due to insecurity. This leading cash crop, responsible for 60% of the national income in Burundi and the major source of income for the majority of rural households, was destroyed, burned and neglected, as a consequence of the civil war. Civil war manifests itself in killings and the theft of domestic animals, the burning of houses, a reduction in skilled labor, high rates of disease and other social upheavals.

This study aimed to examine the impact of civil war on economic activities, particularly the household income of coffee farmers. This study defined civil war as physical violence between group components of the same society: "Vita vya wenyewe kwa wenyewe", in Kiswahili. In the context of Burundi, this was an armed conflict between two opposing ethnic groups, the Hutu and the Tutsi. The army, which was predominantly Tutsi, supported the Tutsi. Jeremy (2002:101) clarifies that the Burundian violence deserved to be called "civil war" because for the first time

rebel groups reached a level of organization significant enough to fight back and inflict significant casualties on the army. This organized resistance came as a surprise after more than sixty years of Tutsi supremacy and violence, with no attempts at resistance.

Scholars differ on the causes of this longstanding conflict but many agree that one of the causes is the division that colonizers introduced in this tiny country by deliberately favoring the Tutsi minority and by equipping them militarily, politically, economically, even morally, when they were described as more intelligent, beautiful, and skilled in leadership, all of this in the name of protecting them against the majority Hutu group. On the other side, colonizers marginalized the Hutu majority by subjecting them to Tutsi people as servants (Lemarchand 1998:72). The violence, which erupted in 1972, cost about 300,000 lives (Ndarubagiye 1995:95). This was followed in 1993 by another heavy loss of life when armed factions killed 250,000-300,000 people. This series of bloody events had devastating consequences for households, since the majority of the victims were of the productive and working age. Most importantly, the agricultural sector, and especially coffee farms, the principal source of household income in Burundi, were devastated by a lack of maintenance.

The coffee production decreased from 700,000 to 7,000 tones in 10 years, though it still accounted for 80% of foreign exchange (Bujumbura Bureau of Standard report 2003). In April 2004, the Economic Magazine on Burundi Television news reported that a Burundian citizen ate an average of 2.5 kg of meat per year. Kinoti (1997:1)

confirms that in the past sixty years, Rwanda and Burundi have known nothing but poverty and civil war. Indicators of increased poverty include children walking naked, poor health, torn clothing, poor hygiene, low ratio of meals per day, begging and other indicators which compare unfavorably to the period before the war. Jeremy (2002:119) observed the Burundian civil war in the following terms: "An extreme humanitarian crisis exists in the country owing to international displacement, regroupment camps and the fall in agriculture production, especially coffee". Bearing in mind the complete reliance of Burundians on the severely affected coffee crop, this study sought to investigate the degree to which the civil war affected the coffee farmer's household income and the degree to which it led Burundi into a poverty trap.

1.2 Problem statement

As a result of the civil war in Burundi, household incomes were adversely affected, leading to increasing poverty levels. The war was responsible for the loss of human lives and the deterioration of public and private infrastructure and social services, such as roads, schools, markets, hospitals, water pipes, and electrical installations. In addition, thousands of homes were burned by warring factions from both Hutu and Tutsi sides. Walter (1998:28) described such a situation as "backwardness" meaning getting less in terms of income as compared to previous earnings. According to the Bujumbura Bureau of Statistics, 2002, for the coffee sector, 10% of the washing stations were looted or demolished, while 60% of the coffee plantations suffered from lack of maintenance, and 5% were burnt.

In addition to this, the loss of the productive age groups through death and displacement, either within or outside of the country, resulted in low income for most families. More importantly, other secondary sources of income like shops, livestock, labor, and others were also not spared. Armed groups from both sides freely stole livestock and looted small shops and houses, even stealing coffee from the farms. Faced with a situation such as this, the majority of the population spent nights hiding in valleys and bushes, unable to carry out their daily activities because of physical weakness, as well as a loss of hope in the future. This unfortunate situation turned many formerly self-reliant people into beggars. Both the Hutu and Tutsi became suspicious of one another and lived in fear, affecting labor relations and economic activities, especially coffee farming, which, by nature, required regular maintenance to be sure of good productivity. Losing an important crop like coffee definitely exposed the Burundian coffee farmers to vulnerability in all aspects of their lives, not only at the household level, but also at the national level. Living in conditions of civil war, where children did not sleep inside the house, and where food supplies were insufficient and of poor quality, also resulted in numerous cases of sickness and a high rate of mortality among children.

Civil servants like teachers, nurses and agricultural monitors, whose salaries were to be paid at head offices, found traveling to be too risky, and did not attempt to collect their salaries. The antagonism between the two dominant ethnic groups. Hutus (85% of the population), and Tutsis (only 14%. but with total control of the army) has been a major handicap to peace and development in the country. And, the impact on the

coffee cash crop was not limited to cofTee alone. Secondary crops, upon which peasant farmers relied heavily, also experienced similar devastating consequences.

Given the magnitude of the negative impact of the civil war on the livelihoods of coffee farmers, an urgent solution must be found, particularly in areas such as North-Ngozi Province where life without cofTee is very problematic. This highly regarded commodity deserves much attention by the new government, during this current period, a period which is being regarded as an historical opportunity for Burundi to revamp its economic activities.

Since August 2005, and the advent of the new CNDD/FDD (Conseil National pour la Defense de la Democracie/ Front pour la Defense de la Democracie) government, led by the former rebels, many Burundians have started expressing optimism by returning to their respective homes and embarking on the rehabilitation of their farms. It was most important, however, to first investigate the extent to which households were affected in cofTee zones like Ruhororo, in order to adopt new policies pertaining to coffee, with a view to rehabilitating this precious commodity and the livelihoods of cofTee farmers. Fortunately, some secondary crops such as bananas, cassava, beans, sweet potatoes, and others do not take long to rehabilitate.

In view of the above stated problem, this study attempted to answer the following questions:

1. What are the effects of the civil war on farming?

2. To what extent does the civil war affect the household division of labor?

3. In what ways does the civil war affect marketing of agricultural products?

1.3 General objectives of the study

The civil war has affected coffee farmer's community at different levels. This study aimed at establishing the disparities inflicted by the civil war since 1993 and broadly establish the extent to which the civil war affected coffee farmers' income at the household level in Ruhororo Commune which was the center of livelihood in the area.

The specific objectives of the study were:

1. To examine the extent to which the civil war affected the household income of coffee farmers in Ruhororo commune.

2. To investigate how the division of labor was affected by the civil war among coffee farmers households in Ruhororo.

3. To assess to what extent the civil war affected the coffee market for local farmers during the war

1.4 Assumptions of the study

It is generally assumed that civil war everywhere is destructive rather than constructive to the society in question. Burundi, which ranked among the five least developed countries in the world before the war, declined even more deeply in economic standing, after the civil war, which began in 1993.

It is believed that after the collapse of its main cash crop (coffee), both the household and national economies suffered because of this production fall, triggering high level of poverty at the household level, especially among coffee farmers.

1.5 Justification of the study

The research on the impact of civil war on the household income attracted the interest of the researcher for several reasons.

> Firstly, this research was much needed in order to produce a report on which to base new policies aimed at revitalizing and rehabilitating income-generating resources devastated and paralyzed by the civil war, especially agriculture. Agreeing with Mirithi (1996:27), this study asserts that in many post-war countries, the major area of investment necessary to revive the economy is agricultural. Good documentation would aid in formulation of effective new policies for coffee production, policies that must be given priority if economic development is going to be promoted both at the household and national levels.

> Though many researchers, NGO's and even the Ministry of Planning, have carried out similar studies touching on the physical and economic impact of the civil war, they did not touch on the impact on household income, despite the fact that it represents the basis of the national economy (The Ministry for Planning and Reconstruction, 1999:72). The household is the institution in which economy is defined at its most basic level. Income begins with the members of the community who then organize themselves together in the

institution called the "household". There was an identified gap in documents that discuss economics at the household level, and the impact of the Burundian war on the household. Even the Oxfam Burundi report of 2003 only addressed the situation of cofTee fanners while the Bureau of Standards in Bujumbura concentrated its investigations on the destruction of coffee farms, but did not address the household income as a whole.

> It was concluded by Stassen (1994:349) that a major source of social instability is a reduction in household income. Given that cofTee, the principal source of income for households in Ruhororo, decreased in production after 1993, the researcher was inspired to investigate the current rates of income when a majority of the cofTee plantations were poorly maintained or completely abandoned because of insecurity. The decline of this pivotal crop constitutes an economic danger to the inhabitants of Ruhororo. And, if this crop is not given priority in the rehabilitation programs, there is a danger of increased numbers of school drop outs, higher rates of infant mortality (particularly among children under five), an increase in crime in villages and other examples of antisocial behavior, which result in a poverty trap and absolute poverty. CofTee farming was almost the only source of income in Ruhororo zone and in its neighboring communes. It was only during the annual cofTee harvest that peasant women received new clothes, and that improvements could be made to the family diet from cofTee income. It was the season for social celebrations like weddings and interfamily visits as well as

youth activities. It was also a time for many families to clear family debts and to initiate new projects such as the purchase of new pieces of land, erecting new houses, purchasing domestic animals and the payment of outstanding school fees. This was generally what the income from coffee covered. Without it, these basic needs arc not met. With a cash crop of such economic importance to the Ruhororo people so severely affected, there is a danger that social needs will not be met and that the family will experience yet another crisis. For this reason, it was indeed important to carry out this investigation in order to avoid this looming danger.

>   Ruhororo is one of the most populated communes in Burundi. Unfortunately, it is also one of those most affected by the civil war in terms of lives lost, houses destroyed, numbers of refugees who fled the area, and loss in agricultural output. Recognizing this loss of labor and of other economic assets, this paper aimed to establish the remaining means of survival for the population of Ruhororo, as well as attempting to call upon new mechanisms which might rescue this population from the effects of civil war as suggested by Anyang'Nyongo and Odhiambo (1988:7).

>   Coffee is the only high revenue cash crop in Burundi and yet it is under total neglect, with war largely to blame. The production of this commodity is said to have collapsed from 700,000 to 7,000 tones during the last ten years according to an Oxfam report on Burundian coffee and the Burundi Bureau of Standards (2003). Other crops such as bananas, cassava, and beans were also not well taken care of, resulting in an annual decrease in agricultural

production since 1994. This statistical analysis awoke the curiosity of the researcher to want to further investigate the survival of coffee fanners. While several scholars differ on the techniques of measuring poverty, Anthony Giddens (2001:311) has suggested guidelines that dictate that an individual or household whose income falls below the poverty line are said to live in poverty. Individuals and households are assessed as falling below the poverty line when their income does not meet their basic subsistence needs. It is thus important to know the rate of income among farmers in order to look for a durable solution to the current civil war in Burundi.

News aired on national television in Bujumbura on April 2004 shocked many, including the researcher. In its economic page, it was reported that a Burundian depended on 2.5 kg of meat per year. According to Kirundi culture, begging was a taboo for anyone but a disabled person. Today, however, many men, women and children in rural villages have become beggars, shamelessly asking for money from whomever they think to be wealthier than them. As a general observation, in most of the rural villages, people wear old clothes, are physically weak, and a large number of children go naked. These observations prompted the researcher to want to know the current rate of household income and to look for means to overcome this critical situation.

Lastly, this study was worthy of pursuit because the Burundian economy depends on coffee exports. Coffee exports still account for 80% of the foreign currency. With 90% of Burundians relying on agricultural production and 60% of the households

relying specifically on coffee income, the level of destruction and neglect that the crop experienced during the civil war creates a necessity for a study that can further anticipate total damages to this precious crop and its impact at the household and national levels.

1.6 Scope and limitations of the study

This study investigated the implications of the civil war on a population of cofTee farmers in Ruhororo Zone in Ngozi Province, Burundi. The study on the Impact of Civil War on CofTee Farmer's Household Income in Ruhororo Commune has its limitations. The total population of cofTee farmers is about 11,000 but this study restricted itself to a sample drawn from cofTee farmers with 200 coffee trees or more. Pay-lists and past records from two washing stations were among other sources of information. The study concentrated on Ruhororo Zone, which is among the highest-producing cofTee zones in Burundi, but which was heavily disrupted by the civil war after 1993.

The major focus of the study was to establish the extent to which the household income was afTected, by determining the current earnings of farmers from coffee in Ruhororo. This study was also interested in establishing the areas of economic activities most affected by the civil war in the area. The study was restricted to assessing the effects of the civil war on household income from cofTee and not from other sectors of life. It was anticipated, however, that there could be difficulties defining a category of profit for household products, since peasants or fanners run a household and not a business. For example, there could be a purchase of a bicycle

used both for the transport of coffee to the factory and for members of the household to other activities, or even using it to reach the farm faster. Given that the research was conducted in the area of the highest coffee production and that the civil war was all over country, all coffee farmers are likely to have suffered in the same way. Therefore the findings of this study could be generalized at the national level.

1.7 Definition of key terms:

Civil war: Physical violence between groups of citizens of the same country.

Household: All the people living in one house regardless of their kinship. This is a useful unit of analysis given the assumptions that, within the household, resources are pooled, income shared, and adult household members make decisions jointly.

Household income: Money received by all those living together in a house over a period of time from work and other resources.

Hutu and Tutsi: Ethnic groups in Burundi and Rwanda who share the same culture but with slight visible physical differences more pronounced on one side than the other. Generally, Hutus tend to have round faces while Tutsis have Somali-like physical attributes. However, both Hutus and Tutsis often share similar features. As a matter of fact, the physical differences between the two are still under debate by anthropologists.

Poverty **trap:** According to Robert Chambers (1991:40). a poverty trap is a vicious and inherited cycle of poverty. It is a condition in which people stay poor because they began poor. Poverty contributes to physical weakness through lack of food; subsequent malnutrition then leads to a low immune response and an inability to pay

for health services, schooling, or even a radio. ITiis leads to isolation. Even a bicycle can be beyond the reach of many. The impoverished cannot afford to travel to look for a job or even to live near the road or village center. The poor arc vulnerable because of a lack of access to assets for large expenses, and, they arc powerless because of the association of lack of wealth with low social status. The poor have no voice.

Poor household: The household is said to be poor when it has few assets, with only a small shelter or hut made of wood, bamboo, mud, grass, reeds, palm or hides. This household has little furniture: mats or hides for sleeping, perhaps a bed, cooking pots and few tools. The United Nations Development Program (UNDP) report of 2002 described a poor household using poverty indexes like a lack of toilet or sanitation, lack of access to clean water, a high rate of infant mortality, and a low literacy rate. Chambers (1991) goes on to describe poor households as those with no land, or, as a household that barely assures subsistence living, whose land is rented or sharecropped. It may have no livestock or only have small numbers of stock (hens, ducks, goats, pig) or a few weak cattle. Clothes are few and worn until they are very old. while family labor has a low productivity or the production is for consumption only with no surplus for savings.

Poverty: A condition in which people lack fundamental requirements for human existence such as food, shelter, and clothing. People living in such a situation live in poverty according to Giddens (2001:311).

Rehabilitation: This is the action of restoring a formerly higher status or position. The productivity of coITee in Burundi needs to be restored in order to generate

income flow into Burundian households so that they may be able to meet some of the basic needs of their members.

Relative poverty: This relates to the overall standard of living that prevails in a particular society. Relative poverty advocates hold that poverty is culturally defined and is not measured according to some universal standard of deprivation. Thus, while human needs are considered to be identical everywhere, the condition of poverty may difTer both within and across societies. This means that things that are seen as being essential in one society might be regarded as luxuries in another.

CHAPTER 2

LITERATURE REVIEW

This chapter reviewed the relevant literature, which shed light on the subjcct under review. The literature was reviewed under the following broad themes:

- Historical background of civil wars in Africa and the Great Lakes Region

- Civil war in Burundi and its impact on sources of income

- Impact of civil war on coffee farmers and labor in Burundi

2.1 Background of civil wars in Burundi and the Great Lakes Region

During the past decade, the African continent has been afflicted by many civil wars. A total of 28 out of 53 African countries were either fully engaged in civil war or in occasional violent conflicts of which some are still ongoing (Jesuit Refugee Service 2004:14). At the regional level, the Great Lakes Region (GLR) was among the most afflicted and the most affected. In its report of May 2003, News Africa Journal revealed that in the Democratic Republic of Congo (DRC) alone 4.7 million lives have been lost since 1998, while Rwanda lost one million in 1994. and Burundi approximately 300.000 people, since the assassination of President Ndadaye on October 1993.

This bloodshed in the Great l^kes Region is not a new scenario, according to Sindayigaya (1998:69). In his book "Great l^akes: democracy or Lthnocrac>", he described the interethnic wars in the region as the major historical event since independence. The massive killing in Burundi in 1972 was the first to be termed "genocide" due to its magnitude (Wingert 1974:68). Rwanda and Uganda have a similar background and share the same livelihood, with an average of 80% of the

respective populations depending on agriculture. Coffee in the three countries remains the main crop earning a high rate of foreign currency exchange. The flood of refugees from the above-mentioned countries has afTected the economic performance in the Region due to a lack of labor and to insecurity, keeping the poverty rate high. Indicators of this poverty include a lower rate of life expectancy; lower per capita income, a higher illiteracy rate, a higher mortality rate among children fewer than one and under five, to name a few.

2.2 Civil war in Burundi and its impact on coffee and farming

Burundi's dependence on coffee exports goes beyond that of other coffee-producing countries in Africa. According to an Oxfam coffee report 2003, coffee has been the only significant source of foreign earnings in Burundi since independence. It is unfortunate, however, that the earnings of this leading crop in the Burundian economy have collapsed from 700,000 to 7,000 tones during the years of civil war (Burundi Bureau of Statistics, 2003).

The agricultural sector suffered greatly during the war. "Ligue Burundaise des droits de rhomme" (Ligue ITEKA 2004) reported that the total number of cattle stolen in the year 2003 alone was 2690. These included cattle stolen by both rebel groups and the regular army. The same organization revealed the large number of schools, dispensaries, churches, and even cooperative banks that were looted or completely destroyed in rural areas by warring fractions. Because of the war. cereal production decreased from 256.8 thousand tones to 190.4 from 1990 to 1998 and banana production realized a fall of 16.1% from 1370.5 to 1149.8 thousands tones (Annuaire statistiquc-lnstitut de statistique et d'etudes economiques du Burundi 1999:61).

More research by the "Cadre stratcgiquc intcrimaire dc croissance economiquc ct de luttc contre la pauvrete" (2002:3), showed an increase in the poverty rate from 1992, from 30 to 60% of the population living under the poverty line in 2002.

2.3 The impact of the civil war on labor

The displacement of the population due to insecurity is another factor affecting the household labor force and its economic performance. All over the country, people were displaced, while others fled to seek refuge outside of the country. For those with no choice but to stay in the villages, they lived with such fear that even daily activities were often neglected. Samoa (1991) confirmed that situations such as this resulted in a large number of projects being stalled not only in Burundi but also in Sudan, Uganda. Mozambique and elsewhere. With the loss of about one million Burundians of the productive age, labor at the household level was significantly affected.

The roles of individuals in the family had to change as a result of the loss of household members, especially men, who died in fighting or joined armed movements. Women were required to take over some of the responsibilities traditionally reserved for men. while children had to start working before the acceptable age. In view of the above indicators, the researcher sought to explore the depth of poverty in Burundi, especially among coffee farmers, where most of the income is expected to come from the commodity.

2.4 Theoretical framework for the study

This study was guided by theories such as Conflict theory, Poverty theory and Structural Functionalism theory.

2.4.1 Conflict Theory

Conflict theory explores the functions and dysfunctions of conflict in society. For purposes of this study, the theory helps to investigate whether the civil war was functional or dysfunctional. Karl Marx, a German by birth who lived from 1818-1883, initiated the conflict theory in Eastern Europe where he was a refugee. This sociological thinker approached conflict as a mechanism of change in society, which does not necessarily need to be bloody (Ritzer 1996:42) and (Schaefer 1995:17). The conflict theory was further developed by neo-Marxists such as Comer and Simmel who focused on the functions of conflict in society. The theory was used in this study to help establish its possible validity in the context of the civil war in Burundi.

The recent political change which has resulted from the efforts of rebel movements to combat the oppressive regime led by the predominantly Tutsi army, seems to be an indicator that conflict has brought unity among the oppressed groups. This is a change that the majority of Burundians are proud of, but leaves one wondering whether the costly and deadly war was really necessary to produce this change. In the light of the sixteen propositions on functions of conflict developed by Coscr and Simmel (1964), the study aimed to examine whether these are still applicable, even in the context of conflicts, which have reached the level of violence.

2.4.2 Poverty Theory

Poverty theory also helps the researcher to establish levels and types of poverty that Ruhororo coffee farmers arc experiencing because of the civil war. Anthony Giddens(1989) in his fourth edition (2001) discussed poverty theory. Other scholars, including Robert Chambers, have further commented on poverty with an aim of giving a more complete description of poverty. Giddens, whose interest was a clearer understanding of poverty, developed mechanisms for showing how to measure poverty. Robert, too, was keen to understand what poverty is, finding the term poverty to be relative.

Borrowing from Giddens, he expanded on two key terms, namely, relative poverty and absolute poverty, distinguishable by their level of severity, perpetuity, and hereditary characteristics (of absolute poverty). This theory is used to help this study to measure and understand the level of poverty among the coffee farmers in Ruhororo where the primary source of income is no longer reliable.

Bearing this in mind, the researcher agrees with Murdoch (1980:169) that agriculture has played a key role in the development of the now-rich nations and will also be crucial for the development of those still in poverty today. It is agriculture that is the basis of the economy of many countries and once it collapses, there is an absolute necessity of knowing the level w hich poverty has reached in order to adopt appropriate measures towards economic rehabilitation.

2.4.3 Structural FunctionalLsm theory

Talcott Parsons introduced this theory in the 1940s. According to Parsons, every society needs a good structure in place in order to be able to produce. Parsons is most known for his "AGIL" acronym, describing the four imperatives neccssary for every society to be able to function.

There is a need for well-defined goals in order for it to be economically fruitful. A stands for Adaptation, G: Goal Attainment (primary goals); I: Integration of components of different relationship regulated by a system; and L: Latency where a system must maintain and renew the motivation of individuals, as well as cultural patterns (Ritzerl994: 237). As Burundi moves towards reconstruction and rehabilitation after the war, there was need to borrow from this acronym, which is grounded in the Structural Functionalism Theory. As a matter of fact, there is need for adaptation, and development of an integrated society with common goal attainment among cofTce farming communities.

The theory helped the researcher to establish whether adaptation mechanisms and goals as well as integration in relationship are being put in place in a way that will help this war-torn community to be functional again. This could be the only way that this community could move forward quickly with assurance of a sustainable and more functional society.

2.5 Conceptual framework

CIVIL WAR (Insecurity)

Despair and fear

Disruption of casual labor

HOUSEHOLD DISRUPTION
- Physical deaths
- Internal displacement
- Fxternal refugees

Disruption of cofTee marketing
Backdoor selling
Selling unripe cofTee
Closed markets and cofTee washing stations
Inaccessibility to cofTee washing stations

COFFEE DESTRUCTION
-Poor maintenance
-CofTee farms burning
-Poor/low productivity
-CofTee income decrease

HOUSEHOLD ABSOLUTE POVERTY
- Low income
  Begging
  Poor shelter
  Loss of traditional values
- S   School drop outs
- S   Loss of assets
- S   Poor /lack of meals

2.6 The study sought to test the following hypotheses:

HI. The civil war has negatively affected the coffee farmer s household income in Burundi.

H2. The civil war in Burundi has disrupted the division of labor among coffee

farmers.

H3. There is an association between insecurity and reduction of coffee marketing in Burundi..

2.7 Operationalization and specification of variables

Hypotheses	Type of variable	Study variable	Variable indicator
HI	Independent	Civil war	-Mass killings
			-Burning of houses/assets
			—Internal displacements
			-Burned Coffee plantations
			-No care for coffee farms
			- Migration
			-Tribal hatred
			-Killing of livestock
	Dependent variable	Households incomes	-Farm produce
			Job retention and salaries
			-No money for social celebrations

			-No money for school fees
			-Inability to pay medical bills
			-Poor personal hygiene
			-Frequency of coffee harvest
H2	Dependent	Division of labor	S Changes of roles according to gender
			S House construction by women
			S Kitchen activities also by men
			S Women headed households
			S Casual labor also by men
			S Solving social differences in village by both men and women
			S Change of age at which children arc

			initiated to socio-economic activities
H3	Independent	Insecurity	-No open coffee washing stations -No access by farmers to -Washing stations and wages. -Fear of attack -Inaccessibility of coffee markets. Number of killings -Number of attacks
	Dependent	Coffee marketing	-Backdoor coffee selling -Ix)w coffee price/poor pay per kg -Selling of unripe coffee -No open markets -Lawlessness in pricing -Poor coffee washing -I^ck of competition

CHAPTER 3

METHODOLOGY

3.1 Research site selection and description

This study was conducted in Ruhororo Zone, which is a rural village in Ngozi Province. The study focused on the understanding of the current income rate for coffee farmer households after the war. Ruhororo Zone was selected because it ranked among the highest cofTee producing areas in the country where most of the population depends on income from it. The other crops grown in Ruhororo include bananas, cassava, beans, potatoes, and sweet potatoes. The selection of the site was influenced by the familiarity of the researcher with the area, and the researcher's knowledge of the importance of cofTee to the residents of the area. The research findings from this area reflected the image of economic hardship experienced by cofTee farmers in other parts of the country as well.

The major focus of the study was essentially to establish the relationship between war and poverty among the cofTee farmers currently rampant in the area. In order to achieve this noble goal, both primary and secondary data were used. The primary data was from the scheduled interviews carried out in the field from the cofTee farmers and the representatives of the coffee farmers associations in Ruhororo commune.
On the other hand, the secondary data was collected from the cofTee washing stations archives, literature review, organizations dealing with coffee in Burundi such as SOGESTAR, SRD. and journals, as well as the reports from the Ministry of Agriculture in combination with the Burundi bureau of standard reports.

In this exercise, both structured and unstructured questionnaires were used as tools to collect data through the methods of scheduled interviews, focused group discussions as well as direct observation.

Eight representatives of the coffee fanners associations, the focused groups as well as the coffee farmers, served as key informants for the study.

3.2 Target Population

The study targeted coffee farmers households in Ruhororo of which sampling was randomly done. The study was intentionally interested in coffee farmers with a population of coffee trees ranging from two hundred and beyond. Ruhororo zone was the field of study where two coffee washing stations were visited.

3.3 Unit of Analysis

The unit of analysis in this study was the impact of the civil war on household income among coffee farmers in Ruhororo Zone as a result of the civil war. The attitudes of coffee farmers towards the civil war, as well as local infrastructure, were also analyzed. Coffee plantation maintenance, as well as cunent livelihood, was to be analyzed.

3.4 Unit of Observation

The units of observation were coffee farmers, particularly household heads, and the coffee washing station managers from Rurengera and Rimiro, respectively. The study observed also the representatives of coffee farmers associations operating in the commune.

3.5 Sampling design

According to Singleton et al (1988:137) "sampling design is that part of the research plan that indicates how cases are to be selected for observation". Within a total population of 200 cofTee farmers in Ruhororo zone with more than 200 cofTee trees, only a sample population of 50 cofTee farmers was randomly selected for interviewing. In order to achieve this, the communal office provided a frame of reference of cofTee farmers with the above population of trees with systematic random sampling used to get the desired figures for the study. The study used probability and non-probability sampling with purposive, stratified and systematic random sampling in the selection of heads of households to be interviewed. Purposive method of sampling was appropriate in this situation because the study selectively focused on households with a determined number of cofTee trees (Peil 1995:28). The study needed to get some heads of households living in both displaced camps and those who stayed in villages. To be able to do this, non-probability sampling (snowball method) was used.

3.6 Key informant interviews method

This method enabled the most direct informed participant members to give information to the researcher about the subject under study. In this case, eight representatives of four cofTee farmers associations in Ruhororo were interviewed. This helped to evaluate different views and categorize their answers to see their differences, which led the study to a more balanced conclusion. The schedules interview and report from their offices were the tools used under this method

3.7 Methods and tools of data collection

The study used interviewing, key informant interviews, observation, and focused group discussions as methods for collecting data.

3.7.1 Interviewing method

This involved full participation of the respondents through filling in the structured questionnaire forms and responsive talk on specific subjects. This study involved interview with the heads of households who grow coffee on the impact of war on their income. As tools for interviewing method, the structured interview forms and structured questionnaire were administered to the respondents. With structured questionnaires, closed-ended questions were developed to guide respondents to alternative answers as set by the researcher. The respondents as well used a few of the open-ended questions to allow collecting wide information and free expression. An interview guide as well was developed to help collect accurate and in-depth information to help the interviewer understand and operate within the study's scope.

3.7.2 Observation method

This observation method allowed interaction between the researcher and the subject under research or the informant. This method allowed the researcher to experiment the same feelings as the interviewee thus, the best ways of understanding the subject under study (Mugenda 2003:202). Under this method, interview schedules and observation checklists were the tools used to enable the researcher to get the qualitative information as needed. In this particular study, coffee farmers pay lists, coffee plantations, facial expressions by coffee farmers during interview, poor

households among others were the center of the observation to meet the objectives of the study.

3.73 Focused Group Discussion method

This was yet another method used by the researcher to generate data. Respondents were grouped in small groups with a maximum of 8 respondents, and under the guidance of the facilitator who was the researcher, to discuss the impact of the war on coffee farmers in their area. The group was homogeneous to promote free expression of ideas. To this effect, the researcher planned to have two groups of eight members each. Focused group discussion members were selected purposively. One group was made of women and men representing the local coffee farmers associations in Ruhororo. The topic under discussion was centered around the impact of the war on coffee income in their households. The tools used included the interview guide, Focused Group Discussion Guide (FGD) and scheduled questionnaire.

Photo 1. Focused group discussion. Photo by the researcher.

3.8 Sources and types of data

The researcher generated both primary and secondary data. Primary data refers to the information a researcher obtains from the field (Mugenda 2003:13). The data was gathered from respondents, key informants, reports and literature on coffee in Burundi. The heads of households that grow coffee could be the main source of data. Among key informants, eight leaders of the coffee farmers associations operating in Ruhororo were interviewed. Reports on coffee production were instrumental in providing information, and pay lists from the coffee washing stations were major sources of data.

It was obtained by filling in the questionnaire as formulated and administered by the researcher and by answering the scheduled interview questions, while the secondary data dealt with existing documents that the researcher used to generate data. In this case, the researcher planned to use the pay-lists from the Rurengera and Rimiro washing stations, and other reports from the Bureau of Standards as well as the coffee companies records and the scheduled interview forms and questionnaires.

3.9 Data analysis

This study used both qualitative and quantitative techniques of data analysis.
 The quantitative data was collected, coded and analyzed in numerical form while qualitative data consisted of a judgment of opinion from the key informants by the researcher.

3.9.1 Quantitative data analysis

The data collected through interviews and closed-ended questions was coded, entered in a sheet, keyed and computerized for the data analysis using the (SPSS).

This translated the data in tables and diagrams that are summarized thus making it easy to understand once expressed in percentages and frequency distribution tables. Quantitative methods of analysis facilitated interpretation and understanding. It helped to describe a distribution of scores using a few indices. With this method, the hypotheses were tested by the Chi-square test, to measure the relationship between variables that are the civil war and decrease of household income among coffee farmers. These methods allowed the summary of data through statistical tables and graphs to facilitate clear understanding of findings. The testing of findings was done using Chi-square at a significant level of 0.5 to prove the association between the civil war and income level.

3.9.2 Qualitative data analysis

After the data was collected, note cards were used to record a summary of the data available. After the organization of the data and summary, the data was put in categories, themes and patterns to facilitate coding of the information using abbreviations to represent a particular phenomenon. From these categories, themes and patterns, the researcher was able to determine the adequacy of the hypotheses and their validity.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This study, carried out in Ruhororo in 2005 in the Republic of Burundi, meant to examine the impact the 1993 to 2004 civil war on coffee farmer's household income. This is a region reputed for its high productivity of coffee but that has also, experienced much hardship since the civil war of 1993. Coffee was a major cash crop in the area. Along the sides of Ruhororo village roads, coffee trees were so productive that they needed physical support to prevent them from breaking under the weight of the beans. This photo was taken after the war in one of the sub location, which was not affected by the war and therefore kept its initial coffee level of maintenance.

Photo 2. Coffee farms conditions before the war in Ruhororo. By the researcher

This heavy productivity could be noticed for miles along the streets of Ruhororo during the coffee seasons before the war of 1993. It was beautiful and enjoyable. Unfortunately, after the war, the story changed, especially among larger coffee farms where maintenance became a major issue due to insecurity.

This chapter serves as an introduction to the quantitative and the qualitative analysis of the collected data. It aims at testing the hypotheses in the light of findings before discussing its results and drawing a final conclusion with regards to the study. The photo was taken after the war. This is one of the coffee farms which was not affected by the war and reflects the image of how generally coffee was before the war in Ruhororo.

4.2.1 Household size

The size of the households in the survey ranged from between 1 member and more than 11 members, with those having between 6 and 10 members forming the majority of households surveyed, as shown in Table 1.

Table 1. Household size

Household size	Frequencies	Percentage
1 - 5	18	36
6 - 1 0	28	56
11 and more	4	8
Total	50	100

4.2.2 Head of the household

The majority of the households interviewed were headed by the biological fathers (82%). Those headed by the biological mothers were 9 (18%). Surprisingly, no single household was found headed by another member of the family or a relative.

Contrary to the popular belief, the 1993 civil war has not cost the lives of many males. Unlike previous civil wars, men were not selected as targets and victims. This civil war took lives of anyone, irrespective of gender, age, ethnic background or other factors.

Traditionally, the Burundian society is patriarchal and the majority of coffee farms belong to men. Most men inherit land and coffee farms from their fathers although some purchase land and coffee farms with their own resources. It is also commonly believed that coffee income is one of the major reliable sources of dowry for young men to be able to marry. In Burundi, unless a man is widowed, male-headed households are considered to be the ideal.

4.2.3 Members of the household aged 15 years and above

A majority of the households surveyed had 1 to 3 members aged above 15 years (64%), while those with 4 to 6 members above 15 years were 34%. Only one household had more than 7 members over the age of 15. It is generally believed that each member of the household ranging from 15 years and above is eligible to participate in the daily household activities including cultivating, which is the predominant activity for 86% of households in the area.

Table 2. Number of family members aged 15 and over

Number of members aged from 15 and over	Frequency	Percent	Valid percent	Cumulative Percent
1-3	32	64.0	64.0	64.0
4-6	17	34.0	34.0	98.0
7+	**1**	2.0	2.0	100.0
Total	50	100.0	100.0	

4.2.4 Gender profile

Among the respondents, women represented 34% with men's representation much higher at 66%. This is basically because traditionally men own coffee farms as well as any other land where coffee is planted.

Fig 1. Gender profile of the respondents

Gender

Female
34%

66%
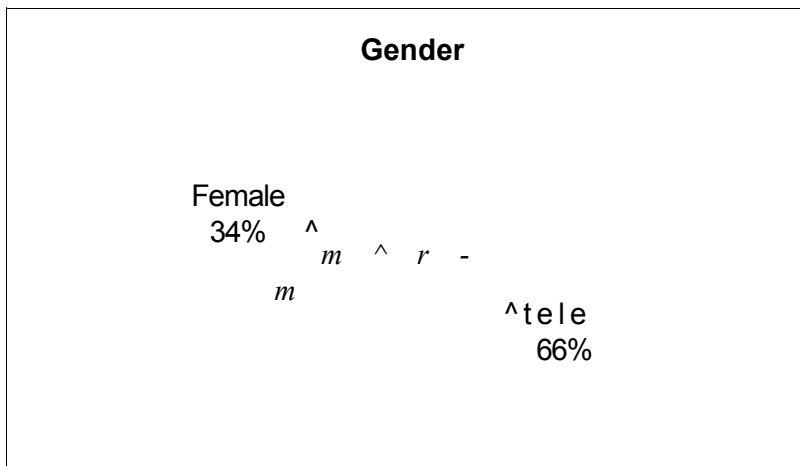
4.2.5 Marital status and level of education

Most of the respondents were married. This shows the social importance of coffee to the family unit. Children, however, for obvious reasons, do not own coffee farms. Coffee farms demand much maintenance, and children are not permitted to own land. Divorced, widowed, and married people represented 6%, 16% and 82%of the sample respectively.

Significant differences in levels of education among respondents were also noted. Surprisingly, none of those interviewed had progressed beyond high school, though most of the respondents had attended primary school, and none had been to university. Twenty-five per cent of the respondents had no schooling at all and were,

thus, totally illiterate. Amazingly, however, some of them had managed to develop

some reading skills through repetitive Bible reading. A few of them could both read

and write. This would seem to indicate that coffee farming is basically an activity for

peasants and those with less education.

Fig. 2 Marital status profile   **Fig 3 Level of education**

Marital status

window
divorce*} 2%
6%

married
82%

Level of education

high
s e c o n d ^⁰¹   Illiterate
13%   25%

13%

r
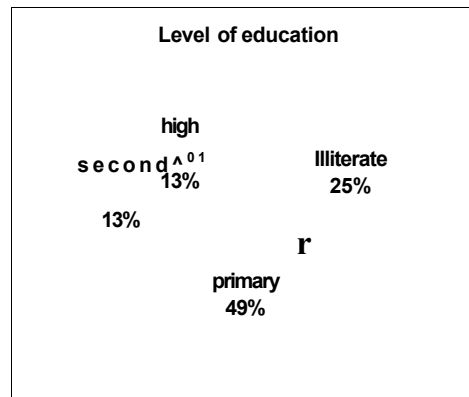
primary
49%

4.3 Number of coffee trees

The study established that 86% of the respondents practice agriculture as their

primary daily activity, with 8% working as civil servant and 6% relying on business

activities.

Most farmers (56% of respondents) maintain between 200 and 300 coffee trees.

Others had 301 to 400 trees (24%); with 4% maintaining between 401 to 500 trees.

Those having between 501 to 600 trees were 16% of the respondents. This stands in

comparison to past statistical records from the agriculture ministry where coffee

farmers with large plantations would maintain from 1000 to 1500 coffee trees, while

small-scale farmers still counted at least 500 trees (Lind, 2002). Numbers of coffee

trees in Ruhororo has decreased as a result of burning, abandonment due to insecurity

and a general lack of maintenance. The above results are for farms currently still under maintenance despite insecurity and a lack of fertilizers and manure.

There is, in fact, a direct link between the numbers of cofTee trees and the cofTee income per household. The larger the size of the coffee holding, the higher the income expected. More importantly, however, the better the cofTee is maintained, the higher the productivity expected, and the higher the income expected as well. Scarcity of land is another barrier preventing some households from planting more coffee. This is because farmers need lots of organic material from banana leaves for good maintenance of coffee trees, and higher future productivity. Chemical fertilizers do exist but are unaffordable for many.

Fig 4. Numbers of coffee trees per household
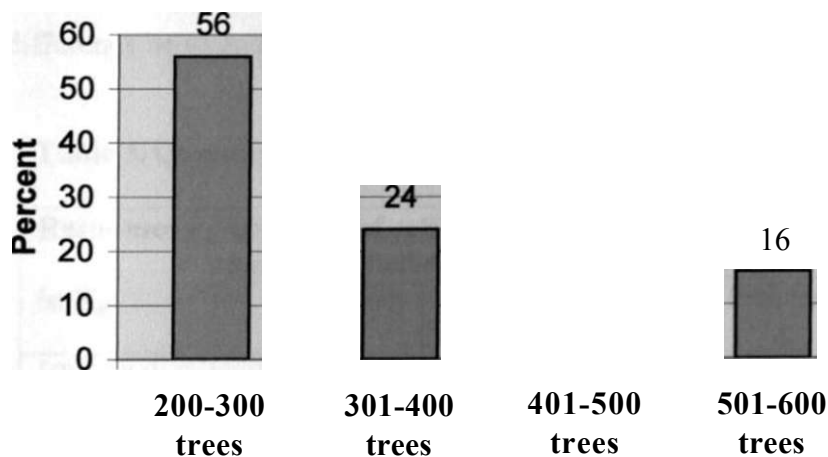
4.4 Quantity of coffee harvested before war and after war

This section provides an analysis of which category of numbers of coffee trees, showed a bigger change in productivity before and after the war. Harvests of

between 500-2000 kg from the category of 200-500 coflee trees, showed a slight quantitative increase in productivity. This is because when coffee trees are relatively small in number, they are easier to maintain. Farms with larger numbers of trees (401-600) experienced major changes in terms of quantity produced. The table below shows that 10% could get a harvest between 3501 -5000kg before the war but after the war only 2% of the farmers from that category were able to get such a harvest. This was a result of lack of maintenance because it takes much time, energy and consistency of maintenance for a big farm to succeed. Prevailing insecurity did not allow for this.

The table below shows the quantity of coffee harvested before and after the war. The table shows the scores according to the number of trees farmed by each head of household interviewed. The frequencies are expressed in percentages in order to show the difference between the two periods of time.

Table 3. Quantity of coffee harvested before war and after war

Responses	Quantity of coffee harvested before war		Quantity of coffee harvested after war	
in Kg	Frequency	%	Frequency	%
500-2000	37	74	43	87.8
2001-3500	7	14	5	10.2
3501-5000	5	10	1	2
5001-6500	1	2	0	0
Total	**50**	**100**	**(1 missing ease) 49**	**100**

4.5 Annual income

After the data analysis, the first hypothesis, which stipulates that the civil war has affected coffee farmers' household income in Ruhororo, proved that the difference of the annual income from coffee before and after the war was significant. One major factor responsible for the decrease was insecurity. People had no access to their farms and ripe coffee dried on the trees. Security in the area was also so bad that it made access to the washing stations extremely difficult and some of them were even closed. For the few who managed to harvest their coffee and processed it at home, there was no open market for the coffee. Any businessman who took the risk of buying the coffee later sold it at throw away prices because it was too risky for them to drive long distances in search of a market. A similar case existed with businessmen who took the risk of buying coffee on the tree. The climate of uncertainty meant they could not give a fair price. Inflation was an additional factor that affected the level of income, regardless of the quantity of coffee produced. The Burundi frank jumped from 570 to 1010 exchange rate against 1USA $ from 1993 to 2003 (Annuaire statatistique 2003). Again, the fact that there were no markets functioning during the war resulted in low income from this crop.

Thus, while the population of Ruhororo has registered a seasonal harvest income since 1993, it has been in a climate of very high insecurity. Armed attacks could be expected at any time, resulting in feelings of intense insecurity and a hopelessness, which impeded any thoughts of plans for the future. This meant that coffee farmers

could sell their coffee under whatever condition and at whatever price offered,

provided that they earned even the smallest contribution to their daily survival.

Table 4. Annual income from coffee before war and after war in US $

Responses	Before war		After war	
	Frequency	**%**	**Frequency**	**%**
0-20	0	0	28	57.1
20-50	29	58	11	22.4
51-80	12	24	4	8.2
81-140	3	6	4	8.2
141-190	3	6	1	2
191 and above	3	6	1	2
Total	**50**	**100**	**(1 missing case) 49**	**100**

The other major reason for the decrease of coffee income was the poor maintenance

of coffee farms, especially of larger farms, during the time of insecurity. With

household members scattered and in refuge, it became impossible to maintain larger

farms, and productivity was adversely affected. Income was subsequently affected

after the war, with a large standard deviation of 0.829 after testing on Hypothesis

One. This indicates a direct link between the war and income levels from coffee, and,

most significantly, it shows that the war was, indeed, responsible for the high levels

of poverty observed among coffee farmers in Ruhororo today.

4.6 Effects of war on coffee marketing

The war has also affected the marketing of coffee. Some of the farmers (34%) accepted to sell their coffee at a throw away price. As indicated by Figure 3, there was no market for coffee, at all.
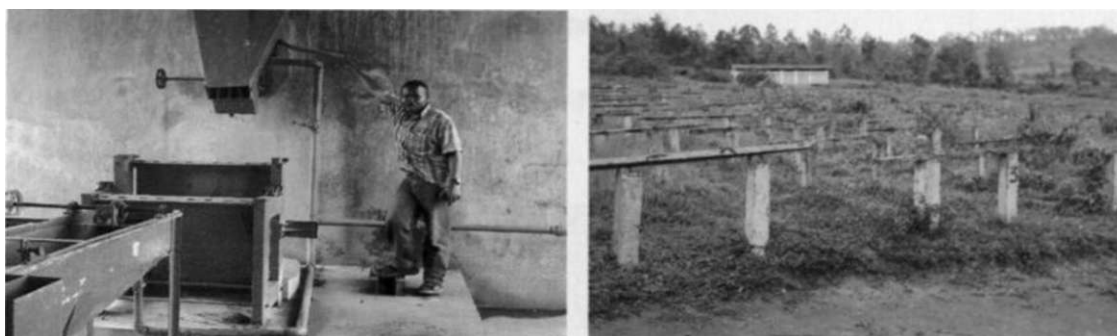
Photo 3 and 4. The Rurengera Coffee washing station with no maintenance

Major companies and cooperatives, such as SOGESTAR, OCIBU and SRD, bought coffee directly from the washing stations. However, after coffee farmers stopped selling coffee from the washing stations, most of the washing stations were poorly maintained and fell into disrepair. Driers became overgrown when the machines were left without cleaning and mechanical maintenance, maintenance that should have been assured by the washing station manager.

Alternatively, coffee was sometimes processed at home and sold to businessmen in the ordinary village markets. Unfortunately, none of these markets were opening in either Ruhororo or its environs. The condition of roads was one of the factors preventing access to the local markets and the washing stations.

And, once again, insecurity was a major barrier to free movement. Businessmen were required to make elaborate security preparations when setting out to purchase cofTee, preparations that often required bank loans. The cofTee farmers, themselves, knew that particular days were set aside for cofTee sales and purchases. But it was a risky business that could collapse in an instant when the precarious security situation disintegrated, and many were loath to participate in it.

Figure 5. Effects of w ar on the coffee market
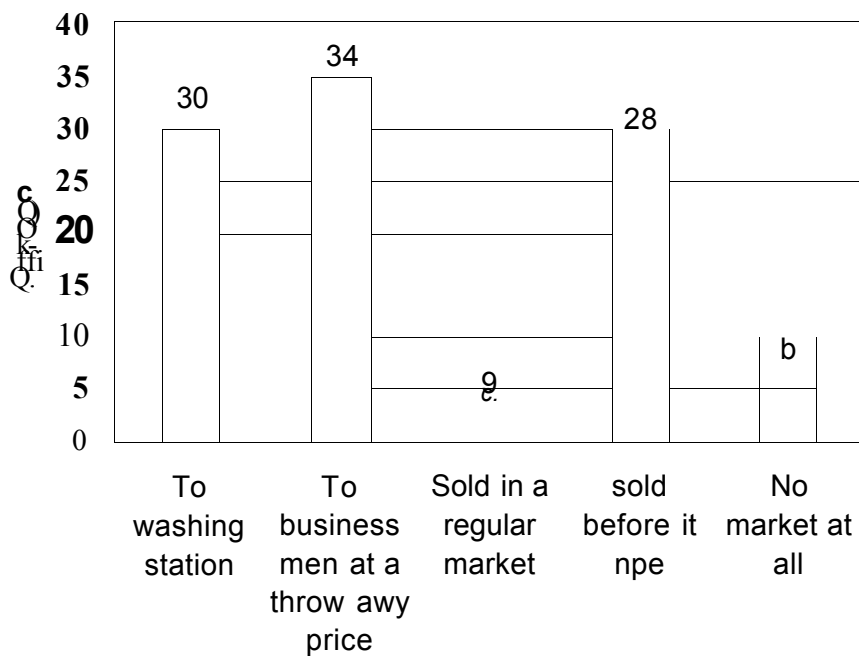
It was also not easy for cofTee farmers to carry bags of dry cofTee to the market given that at any time an attack could occur causing them to abandon their commodity and to run for safety. Possibilities for selling cofTee to the washing station, where the cofTee price was relatively fair, were very slim. It was established that 34% of the farmers sold their cofTee to businessmen at an unusually low price while 28% decided to sell their cofTee even before it had ripened. Ideally, all of the cofTee harvest was

expected to be sold to the washing stations but only 30% of the production actually made it.

4.7 Changes in coffee prices

The price of coffee went down, with most respondents (46%) saying that the price of coffee was poor and only 10% saying it was fair.

Figure 6. Coffee farmers' views on coffee prices after the war
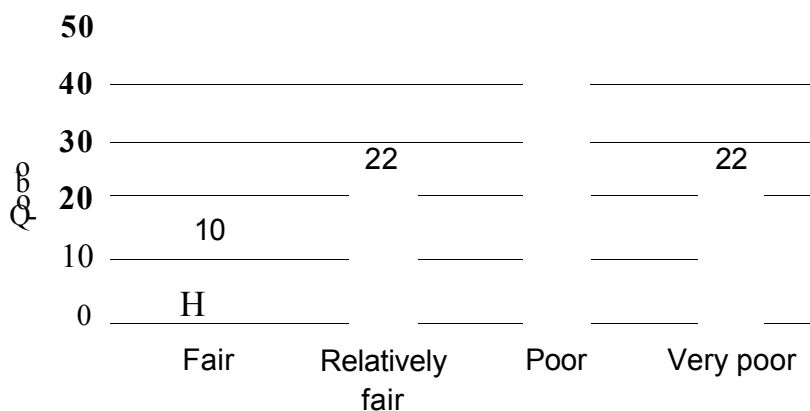
The above changes depended largely on where the coffee was sold. All coffee harvested was sold to the washing stations and the coffee prices were fixed by the coffee marketing companies in strict collaboration with the government. At least 80% of the total harvest was sold to the coffee stations before the war. During the war, however, coffee was sold to unknown businessmen rather than the washing stations recognized by the government.

As shown in table 5 below, those respondents who described coffee prices as fair, managed to sell their coffee to the washing stations but represented only 10% of the total sales. Those whose response described coffee prices as poor represented 46% of the total quantity of coffee sold during the war. The approximate price received by

this category of respondent was one-half of the prices given at the washing stations.

This was for cofTee sold at home but already ripe.

Table 5. Changes in coffee prices

Responses	Frequency	%
Fair	5	10
Relatively fair	11	22
Poor	23	46
Very poor	11	22
Total	50	100

The "relatively fair" category of responses represented farmers with ties or relations with people whose security was guaranteed as they went to the washing stations. These were often Tutsis who lived in displaced camps, and whose security was guaranteed by the regular army. Respondents such as these could buy ripe cofTee from the villagers and resell, allowing them to sell at prices higher than the official price at the washing stations.

The "very poor" responses came from the category of coffee farmers who, because of pressure generated by various needs at the household level, and insecurity, decided to sell unripe coffee at a throw away price. These were often Hutus who were not provided with security but were, instead, targeted by the then regular army and internally displaced people motivated by revenge.

4.8 Selling of unripe coffee on the trees

Selling unripe coffee to get cash for survival is very common (68%). This is a result of a day-by-day fight for survival. Additionally, it was a result of the insecurity that prevented farmers from taking the coffee to the washing stations. Ironically, those

who could buy the unripe coffee were often from the "camp of the adversary" (internally displaced people and members of the then regular army). It is generally believed that while the sale of unripe coffee existed before the war, it was much less frequent than was the case after the war.

Figure 7. Sale of unripe coffee on the trees
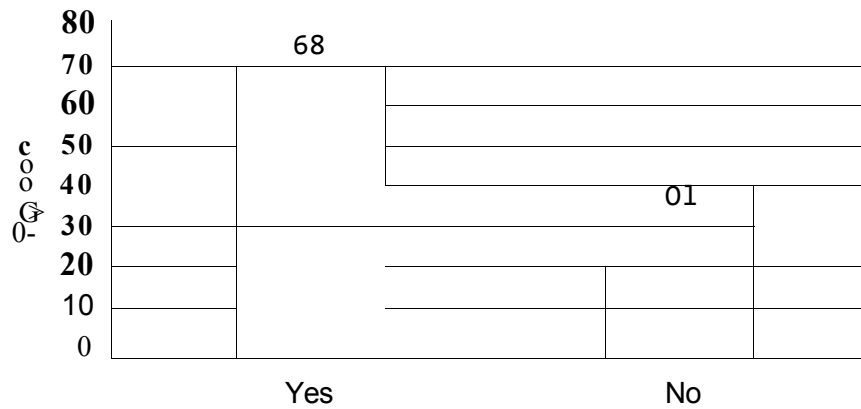
The sale of unripe coffee was an indicator of economic insecurity. In rare cases, this was observed before the war but much more evident after the war. Although the quantity of the unripe coffee sold was not determined in this research, it seems true that people sold only a small fraction of their harvest, the amount deemed necessary to ensure their survival.

Due to circumstances which highly compromised the ability of households to meet their basic needs, 34 out of 50 respondents found themselves under obligation to sell their coffee before it ripened, in order to ensure the daily survival of the household. People were often desperate enough that they would opt to sell whatever could get a buyer including unripe coffee, immature green bananas, goats, and iron sheets.

4.9 Number of meals per day per household

The majority of the respondents (63.3%) in this study could only afford one meal per day, as indicated below.

Fig 8 Number of meals per household per day
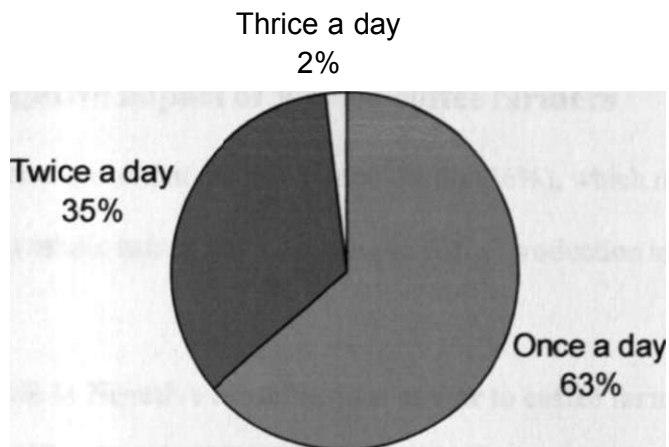
The number of meals consumed by a respondent in a day was yet one of the major indicators of the level of poverty in the population tested. Before the war, the ideal for the majority of population of Ruhororo population was to have three meals per day (Ngendakumana and Huybens 1998:38). This research showed that only 2% of the sample of coffee farmers could afford three meals per day, while 63% hardly managed one meal per day.

The study did not concentrate on the quality but only on the number of meals, regardless of both the quality and the quantity. The main reason for this decrease in

the number of meals consumed was the poor harvest obtained from other poorly maintained crops, as well as low income from coffee. (Coffee was an important complement to food crops enabling coffee farmers to buy a variety of food for the household members.) The truth today is that less than half of the coffee farmers eat twice per day. The assumption, then, is that those who do not farm coffee live with more poverty-related suffering than those who farm coffee.

4.10 Negative impact of war on coffee farmers

Respondents noted that the war caused deaths (36%), which resulted in loss of labor, deepening ethnic hatred and a decrease in coffee production as shown in the table below.

Table 6: Negative contributions of war to coffee farmers

Responses	Frequency	%
Physical death	18	36
Ethnical hatred widening	15	30
Coffee production decrease	17	34
Total	50	100

The civil war left strong memories in the minds of coffee farmers, all of them negative. The three most frequent responses to what the war has contributed to coffee farmers were death, deepening ethnic hatred and decreased coffee production. Neglect of the coffee plantations, poor maintenance and even total abandonment characterized the state of many of the coffee farms in Ruhororo. Cows were sometimes found grazing in the coffee farms, as illustrated bellow, contributing to poor maintenance and lack of productivity. In summary, in the opinion of Ruhororo coffee farmers, there was no single positive contribution that the civil war had made to their community.

Photo 5 and 6. Poorly maintained coffee farms, which became a grazing place. Photo by the researcher.

In the course of the interviews for this study, some respondents could not hide their tears as they remembered their loved ones killed during the war. The faces of others easily expressed the sadness they felt at losing their coffee farms, expressed by shaking of their heads and through strong expressions in vernacular (Kirundi) like " *Jndwano ni mbi, ni ikiza, n'umwana nzosiga"!* meaning: War is horrible, evil, and destructive, nothing good comes from it, and I never wish it on my siblings.

On the other hand, respondents also expressed deep sadness at the disappearance of the healthy relationship formerly enjoyed between friends and neighbors across ethnic divides.

4.11 Victims of war

Most households (69.2%) lost one to three members to the war, resulting in adverse conditions for coffee production.

Table 7. Victims of war

Responses	Frequency	%
0	4	15.4
1-2	18	69.2
3-4	4	15.4
Total	26	100.0

24 missing cases

This study noted that 69.2% of the households interviewed had lost between one and two members during the war, whereas, **15.4%** had lost between three and four members during the war. This adversely affected the division of labor especially when the victim's age was 15 and above. In Ruhororo commune, it was assumed that every young boy aged from 15 should have his own coffee farm.

Gender in this case is another determinant of the effect of the war cn labor. The loss of women and girls who fled the country also affected the household division of labor. Girls 15 and above were responsible for a number of daily household activities and assumed family responsibilities that included cultivation, kitchen activities, coffee maintenance, and assistance in business. Generally, more than 80% of the households had lost a member with a resulting impact on the household income not only from coffee but from other sources of income as well.

It is evident in Table 8 that most of the victims' ages (45%) ranged between 21 and 30 years of age. The majority of the victims were of working age resulting in an inevitable decrease in labor and income at the household and individual levels.

The resulting negative impact on the division of labor meant that the household had to initiate younger and younger members under 12 into socio-economic activities. More importantly, both the quality and the quantity of the work were affected, as the new casual workers were not experienced. As an example, what two mature people could cultivate in four days took the newly-initiated casual laborers six days to cultivate, according to the respondents

4.12 Average age of the victims

Most of the victims of the war (45.5%) were at their most productive age between 21 and 30. This also contributed to a decline in coffee production.

Table 8. Average age of the victims

Responses	Frequency	%
1-10	5	22.7
11-20	5	22.7
21-30	10	45.5
31-40	1	4.5
60 and above	1	4.5
Total	22	100

28 missing cases

This age category was the most vulnerable during the civil war in Burundi. The major reason for this was that it was the primary target group of all of the warring groups, those searching for strong young recruits and those trying to inflict damage on potential strong young recruits for their enemies. Any resistance resulted in death. Another important factor contributing to the average age of the victim was ethnicity. A young person running into an armed person from the opposite ethnic group was often considered to be a potential energetic enemy to be eliminated. Moreover, since it was an ethnic war, this age category was a major target in the bid to weaken the

whole ethnic group and to stop the development of a new generation from the rival ethnic group.

4.13 Cultural practices abandoned

Official weddings, family visits and dowry payment were the social activities most affected by the war, as indicated in the figure below.

Figure 9. Cultural practices abandoned
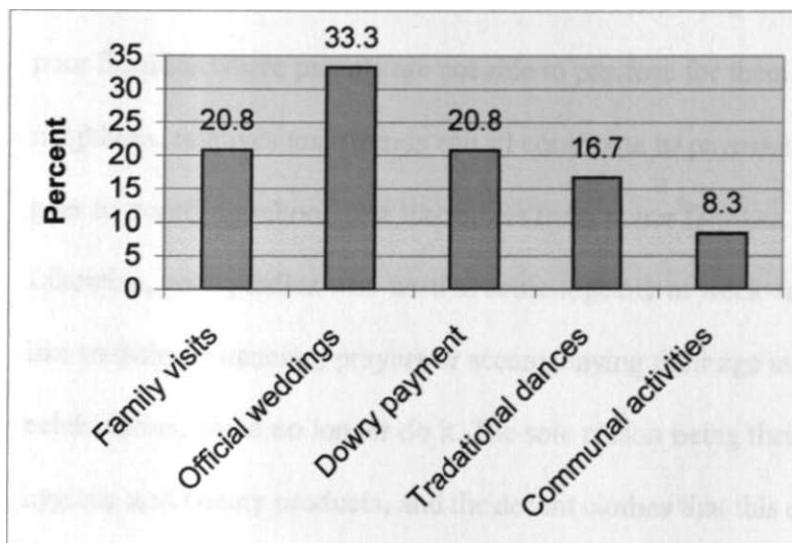
Figure 9 illustrates other social cultural practices also abandoned not by choice but as a direct result of a decline in coffee income in Ruhororo since the war. Lack of funds for decent clothing has one of the largest impacts on participation in social events, as good clothing is universally required at community social events, regardless of the extent of other financial contributions. Coffee income in Ruhororo has been the motor and the major economic determinant in the lifestyle of Ruhororo residents and its decline has inevitably triggered the social breakdown of the community in question.

Coffee income has a direct link to social events and traditional celebrations. Income from coffee is often used to support weddings, bride wealth payments, and for mutual family support during celebrations, church gatherings, traditional dances and games etc... Other activities receiving support through coffee, include community support for bereaved families, assistance for people with physical disabilities and contributions to education for primary students excelling in national exams, but from poor families where parents are not able to pay fees for them. For such a child, neighbors, relatives and friends can all contribute to payment of the fee and the child goes to boarding school, just like others from richer families.

Likewise, young ladies who used to come together at week-ends for entertainment like traditional dancing, prayers or accompanying their age mates for wedding celebrations, could no longer do it. The sole reason being their inability to afford the hygiene and beauty products, and the decent clothes that this exceptional occasion required.

In addition, parents who used to spend time together either in bars or in family evenings sharing beer and amicable talks, were no longer able. There is now little to share between women who used to spend pleasant moments discussing the quality of a new piece of clothes that their husbands had bought for them after selling coffee, and other such similar conversations. In Ruhororo village, men also found they had nothing more to talk about, as they were no longer able to purchase new land or

additional cattle, new radios or new bicycles due mostly to the decline of their income

from coffee.

After the war started, some of the above social practices changed and some were

abandoned. One of the social practices most affected was the official wedding. It is

observed that many young men and ladies have 'backdoor' weddings. This is due to

the fact that despite the lack of necessary resources to pay dowry, the human need to

marry persists though insecurity and poverty may loom.

Bride price also went down because young men could no longer afford to pay higher

bride wealth when their major source of income collapsed around them. Most of the

informants agreed that the majority of young men who were able to pay the dowry

must first migrate to Bujumbura, the capital city, in search of odd jobs and income.

They often spend one year and come back with money enough to pay both the bride

wealth and the wedding costs, after which they return to the city in search of more

income to sustain their new family. This seems to be the only way to provide for an

official wedding.

Table 9 Profile of changes in roles performed by women before and after the war

Activity/roles	Response before	%	Response after	%
Construction of houses	3	6.0	7	14.0
Coffee maintenance	2	4.0	8	16.0
Cooking activities	19	38.0	14	28.0
Small Business	8	16.0	8 [H]	16.0
Grazing	1	2.0	5	10.0
Casual labor	16	32.0	6	12.0
Solving differences/village	1	2.0	2	4.0
Total	50	100.0	50	100.0

The civil war also resulted in significant changes in the division of labor. Some of the social activities and roles formerly defined, as gender specific did not withstand the pressures of the war on the household system. Women became masons and men finally accepted to join women in the kitchen. Proof of this can be found in the statistics showing 4% of men now participating in kitchen activities, an increase from 1% before the war(table 10). About 38% of women respondents were also involved in kitchen activities before the war. After the war, the number reduced to 14%. This seems to indicate that these activities are increasingly shared between spouses. And, amazingly, women who, formerly, would not stand in front of community meetings to solve differences in the community, are now directly involved in this process with an increase in participation from 2% before the war to 4% of the respondents after the war.

Table 10. Profile of **changes of roles played by men before and after the war**

Activity/Role	Responses before war	%	Responses after war	%
Construction of houses	10	20.0	8	16.0
Coffee maintenance	15	30.0	10	20.0
Cooking	1	2.0	5	10.0
Business	8	16.0	8	16.0
Grazing	2	4.0	5	10.0
Casual labor	1	2.0	6	12.0
Solving differences	13	26.0	8	26.0
Total	50	100.0	50	100.0

The change in the division of labor was also evident among men. Before the war, as previously stated, the study established that only 2% of men were involved in cooking activities, with 5 % becoming active after the war. Likewise, men became more and more involved in casual labor, which was initially a female activity (from 2% to 6%). Other activities like coffee maintenance and grazing were now shared by women, with men's participation in coffee maintenance decreasing from 15 to 10% and women's participation increasing from 2 to 5%(table 9). The above variables are clear indications that there was a change in the division of labor, a change which occurred due to a lack of income and the means for survival.

4.14 Ages at which children were initiated to socio-economic activities before and after the war.

The division of labor was also measured by looking at the different ages at which children were initiated into socio-economic activities before and after the war. The study established that the average age changed from 15 to 12 years, after the war. Depending on their gender, children began being oriented into socio-economic activities at an earlier age.

4.15 How often new clothes were bought

Poverty has forced the society to concentrate on only those things that sustain life. Clothing became a luxury, with most people (32.7%) buying clothes only once a year.

Figure 10. How often new clothes were bought after the war
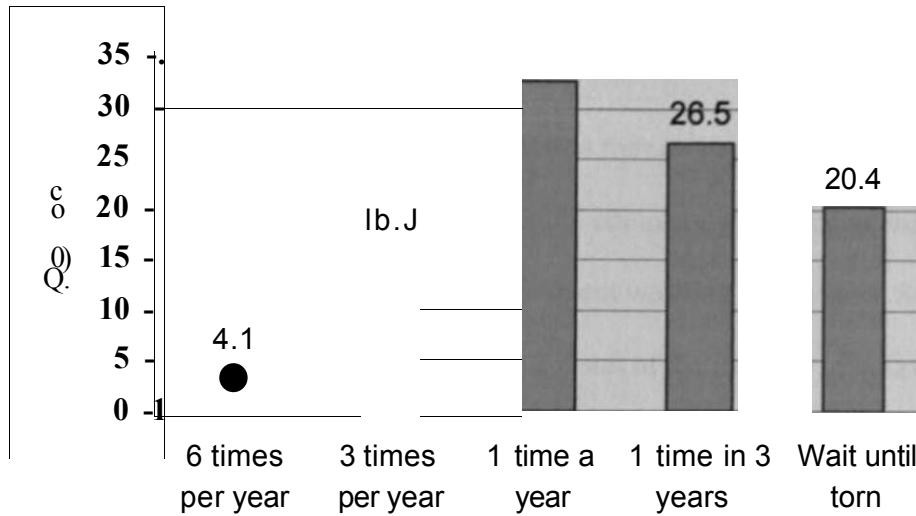
The number of times members of the coffee farmer's household manage to buy new clothes is yet another indicator of the severity of the impact of the war on the countryside. The study established that 20.4% of the respondents were not in a position to secure new clothes before the old ones deteriorated. In other words, members of coffee households who fall into this category may have received new clothes once every two or three years, or even less frequently.

Comparing this score with the 69.2% who were in a position to buy new clothes for their members once per year, it became apparent that the difference was still not that big. According to majority of the informants, it was a guarantee for each member of the household to get new clothes each coffee season even twice per year before the war. The relatively small difference was due to insufficient resources for the purchase of new clothes for special events in the community. One example that some respondents used to illustrate the situation was that the same clothes, which were used

to go to the market, were also used to go to wedding celebrations and even to church services.

Some use the same clothing for cultivation as they do to attend other social services. For this reason, some respondents decided to completely abandon attendance of church services, and the increasingly infrequent wedding ceremonies. Several cases of school dropouts were also reported as a result of the inability of household heads to buy school uniforms for the children. Some couples had even separated or divorced as a result of the same problem.

CHAPTER FIVE

5.1 Test of Hypotheses

Test of hypotheses are procedures for making rational decisions about the reality of effects observed. This chapter intended to establish an acceptable degree of confidence and an acceptable level of significance in the study results, which is the center of every research undertaking. These were indeed the indicators as to whether the results actually do show a real relationship between two variables (Gravetter and Wallnau 2000:243)

There are various methods available for testing the relationships between the study variables. This study has used the Pearson's Chi-square for the purpose of giving statistical inference. It has used also the correlation testing to establish the association between variables, which in this case expressed means at different times.

The Pearson's chi-square is by far the most commonly used method for testing the degree of significance of the relationship between variables. This section makes further inferences about relationships that exist between the various variables in the previous section.

Hypothesis /: Civil war has negatively affected the coffee farmer's household income in Burundi.

This hypothesis was tested by a Chi-square and has approved Ho. The test revealed a steady and strong relationship/association between the civil war and the income from coffee.

Fable 11. Annual income of coffee before war and after war in US $

Responses	Before war		After war	
	Frequency	**%**	**Frequency**	**%**
-20	0	0	28	57.1
20-50	25	58	11	20.4
51-80	12	24	4	8.2
80-100	4	6	6	6.2
111-140	3	4	4	4.3
141-190	3	4	**1**	2.0
191 and above	3	4	**1**	2.0
Total	**50**	**100**	**(1 missing case) 49**	**100.0**

The table below describes the frequency of distribution of income from coffee per household in US dollars before and after the war. The table shows a large difference between coffee earnings before and after the war.

One self-explanatory example was that before the war, none of the coffee farmers were earning less than $20 but after the war 28% of the coffee farmers earned below $20 annual income from coffee. In addition, the number of farmers earning more than $200 has considerably reduced.

5.2 Chi-Square Test of Frequencies

Table12. Annual income from coffee before war

Annual income from coffee per household in S USD before war	Observed N	Expected N	Residual
20-50	29	10.0	17.0
51-80	12	10.0	2.0
81-140	7	10.0	4.0
141-190	6	10.0	-14.0
191 +	3	10.0	-7.0
Total	50		

Table 12 is the first step in the process required to calculate the Chi-square from the frequencies of annual income from cofTee where by the observed number and the expected numbers had to be established. Chi-square testing was used because it was testing the categories of earnings.

Table 13. Annual income from cofTee after war

Annual income from coffee per household	Observed N	Expected N	Residual
-20	28	8.2	19.8
20-50	11	8.2	2.8
51-140	8	8.2	-14.2
141-191	2	8.2	-14.2
Total	49		

The above table illustrates the cofTee earnings after the war. The table was used to establish the Chi-square and to test whether there was a relationship between the war and the cofTee income after the war.

Table 14. Statistical test of annual coffee income before and after war

Chi-square test of annual cofTee income	Q 13 Annual cofTee income before war	Q 14 Annual cofTee income after war
Chi-square a, b	51.200	42.16
D f	4	5
Asymp. Significance	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0
b. O cells (.0%) have expected frequencies less than 5. The minimum expected frequency is 8.2

Testing it at 0.05 level of significance, the result is .000, with the calculatcd Chi-square of 42.16 in comparison to 11.07 the corresponding value of the degree of

freedom of 5. This shows that there is an association between the civil war and the cofTee income in Ruhororo commune. This test has approved Ho and rejected H1. The number of cofTee farmers in a position to earn an income ranging from $191 and above became extremely small (1%), thus increasing levels of poverty in the area. In comparison, 28% of the respondents earned less than $20 per annum from cofTee after the war.

The formula used was $X^2 = \text{Sum } (0-E)^2/E$, where O is the observed frequency value and E is the expected frequency value.

Table 15. Table of annual income responses - Frequency before and after war

Before	After	Total
0	28	28
29	11	40
12	4	16
3	4	7
6	2	8
50	49	99

The first stage in this process is to calculate the expected frequency for each cell, which will be used to calculate the Chi-square. The expected frequency for a given cell is the product of the row total and column total divided by the total frequency. Thus, the expected frequency of the first cell will be 28x50/99=14.14

Table 16. The chi-square computed

o	E	O-E	$(O-E)^1$	$(O-E)7E$
0	14.14	-14.14	199.94	14.14
28	13.89	14.5	210.25	15.13
29	20.2	8.8	77.44	3.83
11	19.79	-8.79	77.26	3.90
12	18.08	3.92	15.30	1.89
4	7.91	-3.91	15.30	1.93
3	3.53	-0.53	0.28	0.07
4	3.46	0.54	0.30	0.08
3	2.02	0.98	0.96	0.47
1	1.97	-0.97	0.96	0.47
3	2.02	0.98	0.96	0.47
1	1.97	-0.97	0.96	0.47

X^2 42.16
Df= 5

The formula for the degree of freedom (df) is the following:

Df= (R-l) (C-1)
  = (6-1) (2-1)
  = (5)(1)

  = 5_____11.07 the corresponding value at .05 level of significance

Given that the computed Chi-square 42.16 is greater than the level of significance set,

the study approved *Ho,* which stipulates the relationship between the war and coffee

income before and after the war.

Hypothesis 2: Civil war in Burundi has disrupted the division of labor among coffee farmers

Figl 1. Age at which children were initiated into socio-economic activities, before war
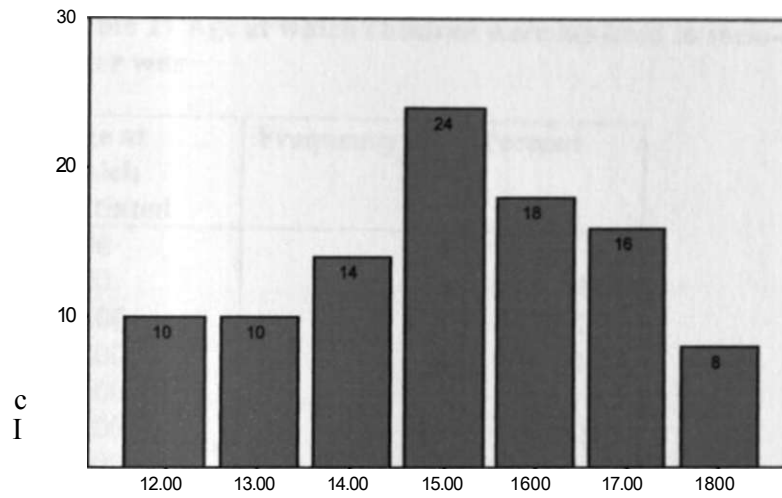
At what age were initiated to household activities before war

The second hypothesis of the study focused on examining the relationship between the war and the division of labor. It had three major variables: the civil war, the age at which children became associated in socio-economic activities, and the changing roles of men and women as a result of the war. After testing this hypothesis, the study found that the age at which children became associated to the daily activities changed, as well as the roles that men and women used to play before the war.

Generally speaking, the acceptable average age at which children were initiated to domestic and socio-economic activity was at 15. This however has changed after the family construct has been disrupted by the war from 1993.

Children have to join their parents at earlier age as the table bellow illustrates it. After the war children were initiated in socio-economic activities at 12 even less. These

activities include cultivation, kitchen activities, small business, looking after cows and many others.

Table 17 Age **at which children were initiated to socio-economic activities after war**

Age at which initiated	Frequency	Percent
8.00	**4**	**7.8**
9.00	**6**	**11.8**
10.00	**8**	**15.7**
11.00	**8**	**15.7**
12.00	**1**	**2.0**
13.00	**12**	**23.5**
14.00	**4**	**7.8**
15.00	**4**	**7.8**
16.00	**3**	**5.9**
Total	**50**	**98.0**
Missing	**1**	**2.0**
Total	**51**	**100.0**

Table 17 shows the distribution of age at which children were initiated to social-economic activities in Ruhororo community after the war of 1993. The table shows a big change in terms of age at which this social event. This was due to the economical constraints and social pressures towards contributing to the daily earnings for the household members to survive. The research showed that 12 and bellow became the age at which children were involved in contributing to the family economic life after the war.

Table 18. Correlation test between ages of initiation before and after war

	Correlations	Q 36a at what age were children initiated to household activities before war	Q 36b at what age were children initiated to household activities after war
Q 36a at what age were children initiated to household activities before war	Pearson correlation Sig. (2-tailed) N	1

50 | 903 .000 50 |
| Q 36b at what age were children initiated to household activities after war | Pearson correlation Sig. (2-tailed) N | 903 .000 50 | 1

50 |

** The correlation is significant at 0.01 level of significance (2-tailed)

The table 18 illustrates the average means at which children were initiated to the household activities before and after the war. It has both situations before and after the war. The major difference established is that initially (before the war) parents did not allow their children to carry out energetic activities like cultivation until they had reached the age of 15.

After the war, the economic situation pressurizes the households to the extent of using even the eleven- year- old children in hard jobs even for survival. Cultivation remained the major activity in the area that majority of the residents relied on even before the war, but after the war it became more dominant since other socio-economic activities involve some capitals to some degree which majority of this population became unable to get.

Fig 12. Combined initiating age of children to socio-economic activities
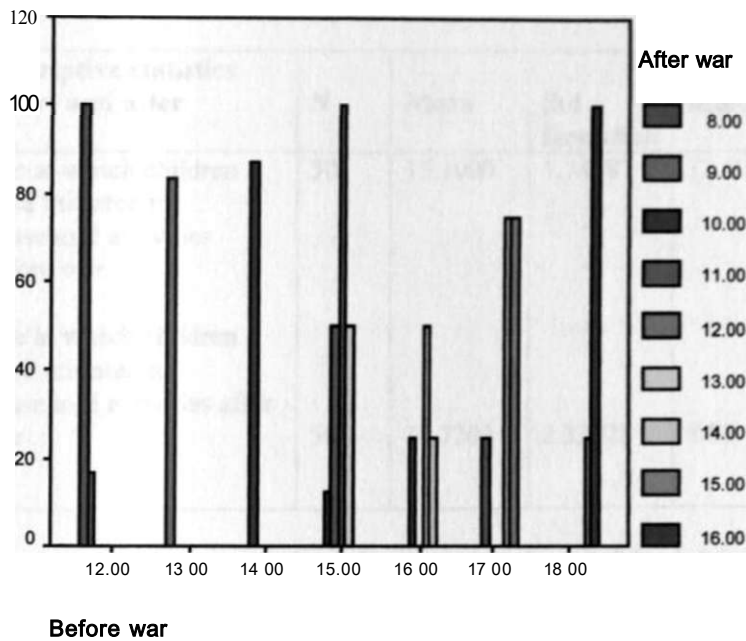
Fig 13 is a histogram, which combines the two situations to establish the comparison between the ages of children initiation before and after the war.

The frequencies below in figure 12 show the scores of age children were initiated before the war, when on the right the scores show the changes of age at which the socio-economic activities were carried out after the war.

Table 19. Descriptiv e statistics for information before and after war

Descriptive statistics before and after	N	Mean	Std Deviation	Minimum	Maximum
Age at which children were initiated to household activities before war	50	15.1000	1.74087	12.00	18.00
Age at which children were initiated to household activities after war	50	11.7200	2.33028	8.00	16.00

Before the war the mean age of children's domestic activities initiation was 15 years with minimum age of 12 years and maximum of 18. But after the war the mean age dropped to 11.7 years with minimum age of 8 and maximum of 16.

Table 20. Frequencies of activities carried out by men before war

Activities	Frequency	Percent
Construction of houses	10	20
Coffee maintenance	15	30
Cooking activities	1	2
Business	8	16
Grazing	2	4
Casual labor	1	2
Solving differences	13	26
Total	50	100

The above table illustrates the types of roles that the Kirundi culture allowed men to do before the war. Ideally, some activities like cooking, caring for children were not male oriented activities. The Burundian culture and tradition

could allow men to carry out like construction of houses, solving differences

between people in the community, grazing, cofTee maintenance etc.

Table 21. Frequencies of activities carried out by men after war

Activity/household role	Frequency	Percent
Construction of house	8	16.0
Coffee maintenance	10	20.0
Cooking activities	5	10.0
Business	8	16.0
Grazing	5	10.0
Casual labor	6	12.0
Solving differences	8	16.0
Total	50	100.0

The civil war has to some degree changed the way of life like any other sector

of life. After the war, men changed their behavior and accepted to carry out

some of the household activities that were regarded as a taboo to males in

Burundi. Traditionally, cooking activities, cultivating for someone for payment,

taking care of the children are some of the examples, which the research could

establish as change in the division of labor.

Table 22. Chi-Square test of frequencies on activities of men before war

Activities carried out by men before war	Observed N	Expected N	Residual
Construction of houses	10	7.1	2.9
Coffee maintenance	15	7.1	7.9
Cooking activities	1	7.1	-6.1
Business	8	7.1	.9
Grazing	2	7.1	-5.1
Casual labor	1	7.1	-6.1
Solving differences	13	7.1	5.9
Total	50		

I able 28 was used to test whether there was an association between the war and the division of labor. This type of test was used because of the nature of the variables, which were the categories of men and women.

Table 23, Computing the Chi-square test of men's activities before and after war

Chi-square test of men activities before and after war	Q 37a identify activities carried out by men before war	Q 37b identify activities carried out by men after war
Chi-square Df: degree of freedom Asymp. Significant level	28.960 6 .000	2.920 6 .819

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency **is 7.1**

The Chi square test calculated revealed that there was a relationship between the insecurity and the division of labor before and after the war. Testing at.05 level of significance, the result was .819 with a Chi-square of 2.920. The **Ho** was accepted thus a remarkable change in the division of labor where today several activities which used to be exclusively for men have changed to be done by either gender but the percentage still needs to grow for a good balance.

Some of the activities in which change has been witnessed include house construction or building houses, kitchen activities, caring for child, running business to name a few. Such adaptation was created in situations where a husband and wife could be separated by the war and the man was obliged to take care of the children with whom he fled. He could find himself in a situation where he was the one to cook for them

and take care of them. Likewise a wife could find herself in a situation where she must put up a shelter for herself and may be with the small children. For those who could remain together, life became problematic such that each one had to do anything regardless of the gender and traditions provided they got a living. This situation has disrupted the division of labor to the extent of initiating minor children to the socio-economic activities at the unacceptable number of age.

The study has established that an eleven -year- old child can now be found cultivating for a whole day using a hoe together with the parents. This is contrary to the situation before the war where until one has reached the age of fifteen he could not be seen cultivating. Only light activities could be done because and schooling was a priority and school dropout was an exception.

Table 24. Frequencies of activities carried out by women before war

Activities	Frequency	Percent
Construction of houses	3	6.0
Coffee maintenance	2	4.0
Cooking activities	19	38.0
Business	8	16.0
Grazing	1	2.0
Casual labor	16	32.0
Solving differences	1	2.0
Total	50	100.0

Table 24 shows the frequencies in percentages of the women's activities culturally carried before the war.

Women were not allowed to perform some activities like construction of

houses, solving differences in the village, coffee maintenance and others.

Table 25. Frequencies of activities carried out by women after war

Activities	Frequency	Percent
Construction of houses	7	14.0
Coffee maintenance	8	16.0
Cooking activities	14	28.0
Business	8	16.0
Grazing	5	10.0
Casual labor	6	12.0
Solving differences	2	4.0
Total	50	100.0

The table above illustrates the changes, which occurred in the division of labor

as a result of the war. Some activities became common to both men and

women. The construction of houses became one of the big changes because

even women started constructing houses for themselves after many of them lost

their husbands and became unable to pay for a contactor for the work.

Table 26. **Frequencies of the women activities changes before and after the war.**

Responses before	After the war	total
3	7 '	10
2	8	10
19	14	33
8	8	16
1	5	6
16	6	22
1	2	3
50	**50**	**100**

Table 27. Computing Chi-square of activities by women before and after war

o	E	O-E	$(O-E)^1$	$(0-E)^J/E$
3	5	-2	4	0.8
7	5	2	4	0.8
2	5	-3	9	1.8
8	5	3	9	1.8
19	16.5	2.5	6.25	0.37
14	16.5	-2.5	6.25	0.37
8	8	0	0	0
8	8	0	0	0
1	3	-2	4	1.33
5	3	2	4	1.33
16	11	5	25	2.27
6	11	-5	25	2.27
1	1.5	-0.5	0.25	0.16
2	1.5	0.5	0.25	0.16
				Sum of $(0-E)^2/E$ = 13.46
				Calculated X^J = 13.46

The degree of freedom (df)= (R-l)(C-1)
= (2-1X7-1)
= 1x6
= 6

The corresponding value of 6 in the Chi-square table is 12.59. Given that the

calculated Chi-square value **13.46** is greater than the corresponding value in the chi-

square table!2.59. this means there is an association between the war and the division

of labor in Ruhororo commune. The war has affected the roles that people performed

in the society based on the gender but now there is a change.

From the observed and the expected data, the standard deviations as well as the

corresponding value of the degree of freedom were computed to allow the complete

testing of the association. The chi-square testing of activities carried out by women

after the war was to be computed in order to establish a comparison between the two periods of time.

As a process, the observed and the expected data were to be established to enable the process find the standard deviation and corresponding value to the established figure of the degree of freedom.

H3. Insecurity hampered the coffee marketing in Ruhororo since 1993.

This hypothesis was tested by a correlation type of testing to examine the relationship between changes of coffee marketing were as a result of the civil war. Pearson Correlation was used as a method of statistical test because it was dealing with means at different times. The test could not establish a major relationship between coffee marketing and the war in terms of price changes. Therefore the Ho was rejected although a small relationship was observed.

5.3 Frequencies of coffee prices before the war

The frequencies show the variations of coffee prices due to the market changes. Before the war, most farmers were comfortable with the price of cofTee at the washing stations where 66% of the respondents felt the price to be fair.

CofTee farmers who were used to selling their cofTee to the cofTee washing stations and getting their payments cumulatively changed because it became insecure to access their usual market. As a result, the cofTee price became very poor according to the responses got from the respondents in the following table.

After the war, the views of coffee farmers towards the price of coffee changed

drastically. About 45% of the respondents found the prices to be poor where only

about 10% felt that the prices were fair.

Table 28. Pearson's Correlations test of coffee prices changes

Frequency table of coffee price changes

34	10	5	1
5	12	23	10

Ranging data by decreasing order   4   3   2   1

                                    1   3   4   2

Difference (D)   = 3   0   -2   1

         D   = 9   0   4   1

Sum of D^2 = 14

Formula for Pearson correlation r: $= 1-6(Sumd^2)$

$$n(n^2-1)$$

$r = 1-6(14) = \textbf{0.4}$

$$4(16-1)$$

There is very little correlation - significant at 0.4. The little change was due to lack of

officially open market as well as the washing stations in the region. This sparked the

backdoor selling of coffee where the government lost control of coffee prices. The HO

is then rejected given that the difference of coffee prices is not that big before and

after the war although to some degree the prices have changed.

5.4 Discussion of the results and conclusion

The eight key informants comprised manager of the Rurengera cofTee washing station, eight representatives of four cofTee farmers' associations in Ruhororo, and the cofTee engineer as well as the communal administrator. They unanimously confirmed that civil the war was a major handicap for households' income in Ruhororo and agreed that the income from cofTee has drastically decreased due to the war and the most affected age was between 20-30.

Regarding the question on how the civil war has affected the cofTee farmer's household income and the division of labor, members of the focused group were unanimously in agreement that security was not enough for cofTee farmers to pursue their daily jobs for coffee farms maintenance in particular. This led cofTee farms to poor productivity especially those with bigger farms. Lack of accessibility to the markets and the washing stations resulted in poor cofTee marketing that has led the community to high degree of poverty.

The division of labor was affected in both negative and positive ways. The woman sitting the third position from left in the photo 1, pp 29 is now the chief in Rohororo zone democratically elected since 2004. Traditionally, women in Burundi were not allowed to sit in front of men to settle a dispute in the village but after the war there-have been several changes in the division of labor and men are to bear with this new culture. More changes including construction of house by women, and cooking activities by men are realities in Ruhororo commune today as a result of the war effects.

According to the key informants, it was established that the most affected group fall in the category of 13-20. This group was the target of both the warring fractions whose aim was to convince them to line up on their sides in the fight, failure to which they could die. Coffee farmers as well were yet another category of the most affected group in the sense that they lost the only means of economic resource, which has affected their livelihood.

Every coffee season, coffee farmers became a target because both the warring factions wanted to have their coffee and the only way to access it was to terrorize them. Like in any other warring situations, old people, women and children are the most vulnerable but this situation seemed to be the contrast.. Instead, the civil servants, men, as well as tribal affiliation became potentially a factor for target and the cause of vulnerability depending on which group you encountered. Thus, the change depended on the type of politics behind the 1993 war.

The civil war had several other impacts on coffee farmers. Socially, coffee farmers are no longer celebrating together after selling their coffee. The division of labor has considerably changed now. Men are now sharing some responsibilities with women and vice versa. Men whose role used to be mainly family protection now can take kitchen responsibilities when on the other hand women now build houses, which was exclusively the male role before the war.

Young men are mostly now having backdoor weddings because they are not able to get dowty. Women as well, whose tradition of getting new clothes every season

ceased, now are no longer attending social and religious events like church services weddings as it used to be before the war. In the face of such an economic crisis, some coping mechanisms were developed. Men who were not taking casual labor in the village now do so. Other crops like bananas, cassava, beans and potatoes have been given more emphasis after coffee faced several shortcomings. More young men had to migrate to the capital city for petty jobs for the households to survive, and children had to be initiated at the socio-economic activities at the early age of 11 or 12. Coffee farmers who became internally displaced had to depend largely on humanitarian assistance in addition to the meager harvest.

Coffee is regarded as a high commodity in Ruhororo zone because it is the only crop from which the farmers get relatively much money on one occasion. Thus they are able to achieve a tangible family goal like putting up a house, buying new land, sending children to school, buying new assets like bicycle, radio, and new clothes for the members of the family especially mothers. In Ruhororo coffee increases social esteem.

The more the number of coffee trees, the more respect one has in the community. Old men value coffee highly because it helps them a lot in their old age. Its economical role is vital in the rural communities. The rural banks COOPEC cannot give a loan until the management committee has inspected the farmer's coffee trees. This proves his ability to pay it back and is thus taken as guarantee. For some of the households.

special meals like eating meat is very occasional, and this is only when coffee is sold, according to the key informants.

Children as well celebrate during coffee harvest after selling the residues collected in coffee farms and at the washing stations. From this little money, the most unfortunate manage to buy clothes for themselves. This happens as well for young ladies who get money from casual labor during the harvest and manage to buy whatever they want for themselves.

It is only during this seasons that weddings are celebrated and different types of entertainments are witnessed such as football matches, church movements through visitations, traditional dances and the like.

It is a reality that the war has affected the price of coffee during the war. This was due to loss of control not only over coffee by the government but on most commodities. However, the collapse of coffee cannot be only on the war, but also on the international market, which affected many coffee producing countries, Burundi being one of them (Sturman 2002:144).

To sum up. coffee income in Ruhororo commune is a central motor of the livelihood and thus needs particular attention especially during this after the war time for a quick rehabilitation to rescue the 90% of the Ruhororo residents whose sole source of income is nothing but coffee.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter summarizes and draws conclusions from the findings, makes recommendations and highlights areas for further research. The aim of the study was to establish the relationship between the civil war and coffee farmers' household income.

Hypothesis testing was done and the findings showed that the civil war has impacted negatively on the coffee farmers' income and has thereby increased the level of poverty among Ruhororo coffee farmers.

6.2 Summary of findings

The study had established that before the war 6% of the respondents earned more than $ 191 and beyond which was the highest earning from coffee. Today only 1% can make it. The study went further and established that more than 5% of coffee farmers after the war get less than $ 20 annually while before the war none of the farmers could go under this figure. This was due to lack of maintenance particularly for larger farms from which a big quantity of harvest could be expected. This is a clear relationship **between** the civil war and coffee income, which was the cause of increased poverty level in the area.

The study established that the majority of the respondents (63.3%) could only afford one meal per day and only 2% of the respondents could afford three meals per day. This was a major handicap because it affected the effectiveness of the daily work. Because many people were physically weak, people were not strong enough to work hard to maintain their coffee and to generate more income.

The study has proved that poverty has forced the community to concentrate on those things that only sustain life. Clothing became a luxury in Ruhororo with most of people (32.7%) buying clothes once per year and 26.5 % affording new cloths once in three years in Ruhororo zone. This has direct effects on several activities in the community given that some require uniforms or dressing decently. As a matter of fact, members of this community unable to buy cloths became less participative and owned less since they could not afford to go out and look for the minimum of casual labor

The study established that the majority of households have a number of coffee trees ranging between 200-300 while the highest ranges between 501-600 and above. Before the war the lowest population of coffee tree ranged between 400-500 when the highest went beyond 1000 coffee trees. Poor maintenance due to insecurity was responsible the decrease of coffee population trees. This means that the rate of productivity was affected consequently the rate of income as well became affected.

Indeed, the study discovered that some traditional values were abandoned as a result of the war, which depleted income resources. One of them is the payment of dowry, which symbolized honor to the parents for the good education of their daughter. About 20.9% of the respondents confirmed this abandonment due to lack of income. This shows that income from coffee was a major determinant of several social programs, thus there is needs for urgent measures to revamp this crop for the community to be again more functional.

The study has further tested the first hypothesis by a Chi-square and established that there is significant relationship with a chi-square value of 42.16 at a level of significance tested at 0.05 or 95% confidence level between the annual income of coffee before and after the war. Based on the above findings, the study has approved **Ho,** which states that the civil war has negatively affected the coffee farmer's household income.

The division of labor was both negatively and positively affected. Before the war, only 2% of men could cook but after the war 6% of the respondents confirmed the change. Parallel to that, only 6% of women could do house construction but the study has established that there was an increase of 8% women participation in house construction activities after the war and there are other businesses that women do which previously were done by men only. After the war, more other activities previously done either by men or women only became common to both of them. Some of these roles include cooking, childcare, construction, and solving differences in the village. Some of these changes show that the Ruhororo community became

more inclusive and more participative regardless of gender. Consequently, this community may revamp its economy quickly due to the mutual support in daily activities.

The study revealed that after the war the age at which children were initiated to the socio-economic activities had reduced from 15 to 11 years. About 17.6% confirmed that children were initiated to socio-economic activities at 16 years, when 24.5% confirmed to have been initiating their children at 15-This proves that the war had affected the main source of income for the household which is coffee, forcing them to engage in income generating activities at an early age.

The test of the second hypothesis by the Pearson's correlation has further proved that, there is a correlation between the war and the division of labor at 0.903 at 0.01 level of significance thus approved **Ho.** This shows that the civil war has disturbed the order and capacity of society members such that they have to cross share roles in order to survive.

Using the Chi-square test on the third hypothesis, the study has established that the coffee market has been affected by the civil war. The study revealed that the price of coffee has gone down. Most respondents (46%) said that the price of coffee was poor and only 9.8% said that it was fair. Respondents said that selling unripe coffee allowed coffee farmers to get cash for survival and this was very common during the war. Due to the conditions of insecurity, 68% of the coffee farmers sold their coffee unripe at a throw away price.

The implication of the lack of market was that cofTee farmers could not get income after they invested much time, money and energy over the year maintaining it rather than doing other income generating activities. Thus, they lost twice and this negatively affected their income level, and consequently led to increase of poverty at the household level.

The civil war had adversely affected the cofTee farmers' community and had little positive contribution. The study has established that physical deaths and ethnic hatred have been on the increase while cofTee production for medium cofTee farms decreased. These effects as well as the deterioration of culture were the most common characteristics of the war in the area.

Socially, the study also showed that some cultural and traditional practices as well as social values have been abandoned due to unaffordability. Many young men found themselves unable to pay bride price, therefore official weddings decreased. About 33.3% of the respondents confirmed that official weddings are abandoned while 20.8 % of the respondents confirm that dowry is abandoned due to unaffordability. Other cultural practices affected include community activities, family visits and entertainment like traditional dancing among young ladies, football matches etc...

The study established that contrary to the common belief after the war. most of the households are headed by biological fathers. Out of 50 respondents, mothers head only 9. In the course of the interview, respondents explained that this was so because from the 1972 killings, from this experience men knew that they are the first targets

of war; thus they took precautions of hiding ahead of time during the recent war of 1993 and this is how they survived.

6.3 Conclusions

Given that the capacity of income from coffee decreased by more than 50% a few years after the war erupted in 1993, it is reasonable for coffee farmers in Ruhororo to blame the decreased income on shortcomings from coffee on the war. In the history, coffee in the area is the only main crop on which the population of Ruhororo relies as a cash crop. The failure of the last one is a major threat to the livelihood of not only the coffee farmers of the commune but all its residents. It is from this crop that the rest of the socio-economic activities in Ruhororo are able to kick off.

This was proved by this study where only 32.7% of the coffee farmers are able to get new cloths once per year and 26.5% only manage to get new cloths after three years. Likewise none can go for his work with an empty stomach but the study revealed that there is no sufficient food for the households. In the long run, this continues to increase poverty in the area. This means that some activities may not be attended to if people are not dressed appropriately and are not strong enough to vacate on their daily activities.

Moreover, the above list is a clear indication beyond doubts that the war has strongly affected negatively the coffee farmers' community.

The fact that children start their integrated life in the community at an earlier age now affects their future careers. Many of them are now forced to become cultivators as a quick way of getting earnings to survive. The school dropouts became a daily

occurrence and early backdoor marriages became the order of ihe day. This has as well prompted rapid increase of poverty.

On the other hand, however, the community currently benefits more from the change of the roles as shared by both males and females more than it did before the war.

The Ruhororo population, which mainly relies on agriculture, can only work for few hours due to lack of sufficient energy resulting from the shortage of food. This putsto question the level of agricultural productivity among fanners who account for more than 90 % of the inhabitants. It is unfortunate that death has not spared any single coffee farmer's household. If it was not death, it was either fleeing inside or outside the country.

The coffee marketing was another major handicap which accelerated the rapid depletion on coifee income due to the high insecurity blocking the access of both coffee farmers and the buyers to the washing stations. On top of that, some coffees dried on trees because the owners fled for their security. The current shanties and internally displaced refugee camps in Ruhororo is yet another sound testimony of how infrastructure sector was not spared.

This leads to poor hygiene and poor nutrition, which result in diseases of all kinds. Without mentioning the widening of hatred between Hutu and Tutsi, which deteriorated since the war erupted, there is adequate evidence therefore to blame the war as the origin of more disparities and high level of poverty among coffee farmers in Ruhororo and the whole of Burundi. More importantly, however, there is urgent need for all stakeholders to act in support of this highly regarded cash crop from which both households and the government benefit directly in Burundi.

6.4 Recommendations

On the basis of the above findings through the study carried out in this unfortunate zone, the researcher recommends the following so as to overcome the continuing sufferings:

> The government to increase the cost of ripe coffee per kg which has never exceeded an average of .01$ through SOGESTAL company since 1991. This would allow farmers to be the first beneficiaries from their sweat. It would indeed encourage a positive attitude to the coffee farmers who no longer see any fairness in the coffee marketing while others no longer see it as an area of investment. The coffee market indeed should be open to any buyer, not only the washing stations to allow farmers to sell their coffee in either dry or ripe conditions.

> The coffee farmers' organizations should be strengthened by institutionalizing them so that the government may make use of them as agencies for coffee rehabilitation in the area. This would help the rapid and direct communication and collaboration between coffee farmers in the field and government agents in the coffee sector. Through them, coffee farmers can be mobilized, and can be a more organized entity. At the end. they may address their concerns more systematically and more efficiently.

> Given that once the coffee farmers regroup and manage to restore their farms within a short time and more efficiently, all coffee farmers should join the

existing organizations for the sake of quick rehabilitation of this dependable and costly crop. This would help farmers with bigger farms to quickly catch up in rehabilitating their farms thus recover their initial income states.

- The local community should consider allowing women to own and inherit both cofTee farms and land in order to balance the economic power between men and women. This would indeed allow women to increase their economical status by having access to loans, banking and other social benefits. CofTee maintenance should not continue to be a male oriented job but open to both sexes since all members of the household benefit from it.

- The government should grant loans to cofTee farmers to enable them to buy all necessary organic and chemical manure to ensure a high level of maintenance for the maximum level of productivity.

- More importantly, government should install new policies for protecting the coffee crop even during war, given that it is the only cash crop that both the households and the government rely on economically. In addition to the new policies, special mechanisms of protecting cofTee from all natural disasters be it war, diseases, fire, droughts and others, should streamlined and instituted.

- In order to allow full participation and maximization of income at the household level, the community elders who arc the lawmakers at the village

level should encourage people to adopt the new practice of sharing roles by both men and women.

- CofTee marketing should be liberalized rather than staying under the government domination alone. This would help farmers to have a wider choice of market and price competitiveness.

- The government should indeed add to more washing stations in South and East of Ruhororo commune to increase chances of getting a market from all corners of the commune to reduce the long distance that cofTee farmers travel. In addition this would give more chances for the cofTee farmers to get a market in case of insecurity even in case of any inconvenience like technical pan.

6.5 Suggestions for further research

1. There is need to investigate the socio-economic effects of the civil war in Ruhororo community

2. Other possible alternatives for cash crops in case cofTee fails again as a result of natural or man-made disaster should be explored.

3. There is need to examine the effects of the decrease of cofTee income on the most vulnerable groups in the society namely women, children. HIV AIDS victims and older people.

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APPENDIX I.

QUESTIONNAIRE.

Dear respondents,

My names are Moses Bigirimana, a student at the University of Nairobi in Sociology department. I am currently carrying out a research on the Impact of the Civil War on the coffee Farmer's household Income in Ruhororo Zone. Your collaboration by answering the questions would be highly appreciated and I hereby assure you that the information you will give me will be treated in strict confidence.

Thank You

A. Background information.

Q1 Sex

    (i) Male   (ii) Female

Q2 What is your marital status?

    (i) Married   (ii) Single

    (iii) Divorced   (iv) Widow

Q3 WTiat is your level of formal education

    (i) Totally illiterate_____(ii) Primary school

    (iii) Secondary level_____(iv) High school_____(v) University

Q4. Please indicate the daily occupation of the head of the household

(i) Agriculture   (ii) Civil servant

(iii) Business   (iv) Labor

(v) Mason   **(vi) Other (specify)**

Q5. How many are in your household?

    (i) Between 1-5 ( )   (ii) Between 56-10 ( ) (iii) More than 10 ( )

Q6 Who is heading your household?

    (i) The father( ) (ii) The mother ( ) (iii) Member of the family( )

    (iv) Relative ( )   (v) Others -specify ( )

Q7 What is the major occupation in your household?

    (i) Farming ( ) (ii) Business ( ) (iii) Labor ( ) Others...specify

Q8. How old is your head of household

        (i)   Between 20-30 ( )

        (ii)   Between 31-40 ( )

        (iii)   Between 41-50 ( )

        (iv)   Between 51-60 ( )

        (v)   From 61 and above( )

Q9. How may members of your household aged more than 15?

   (i)   Between l-3( )

   (ii)   Between 4-6( )

   (iii) Between 7 and more( )

B Economic status of the coffee farmer's households

Q10. How many coffee trees does your household have?

(i)Between 200-300 ( )

(ii)Between 301-400 ( )

(iii)Between 401-500 ( )

(iv)Between 501-600 ( )

(v)From 601 and more ( )

Q1 1. In average, how many kg of ripened coffee were you getting in your household **per** season **before** the war started in 1993?

(i) Between 500-2000 ( )

(ii) Between 2001-3500 ( )

(iii) Between 3501-5000 ( )

(iv) Between 5001-6500 ( )

(v) From 6501 and above( )

Q 12. In average, how many kg of ripened coffee were getting **after** the war

(i)   Between   500-1500()

(ii)   Between 1501-2500 ( )

(iii)   Between 2501-3500 ( )

(iv)   Between 3501-4500 ( )

(v)   From 4501 and above ( )

Q13. Would you please give an estimate average of annual income in $ currency for your household from the following resources before the war.

Before the war

(i)   Coffee

(ii)   Banana yields

(iii) Cassava/baskets

(iv)   Other crops

(v)   Livestock

(vi)   Labor

Q 14 Please give an estimate average of annual income in $ currency for your household from the following resources after the war:

(i)   Coffee

(ii)   Banana yields

(iii) Cassava

(iv)   Other crops

(v)   Livestock

(vi)   Labor

Q15. How did your household survive since the escalation of the civil war?

    a) By donations( )

    b) By humanitarian assistance( )

    c) By previous savings( )

    d) By agricultural harvests( )

Q 16. At what age children were initiated to household activities before the war?

Q 17. At what age were children initiated to household activities after the war?

Q18. Chose one of the activities that was a taboo for males in Ruhororo before the war:

a) Construction of houses

b) Coffee maintenance

c) Cooking activities

d) Business

e) Casual labor/like cultivating for someone for money

f) Looking after cattle

g) Solving differences in the community.

Q 19. Identify one of the activities that became both for men and women after the war?

a) Construction of houses

b) Coffee maintenance

c) Cooking activities

d) Business

e) Grazing

f) Casual labor

g) Solving differences in the community.

Q 20. Where did you sell you coffee since the war crisis of 1993?

a) To the washing stations ( )

b) To the business men at home( )

c) In the market ( )

d) Sold before it ribbed to businessmen( )

Q 21. How fair was the price of coffee per kg as compared to the official rate before the war?

    a) Fair ( )

    b) Relatively fair( )

    c) Poor ( )

    d) Very poor( )

Q 22. How fair became the price of coffee per Kg as after the war?

    a) Fair ( )

    b) Relatively fair( )

    c) Poor ( )

    d) Very poor ( )

Q 23. Have you sold your coffee on trees before ripening?

    Yes ( )   NO ( )

If Yes explain why not waiting until it ripening.

Q 24. Which types of crops were available after the war?

    a) Cassava( )

    b) Green bananas( )

    c) Beans( )

    d) Potatoes( )

    e) Vegetables!)

    0 Cereals( )

Q 25. Which kind of assets did you lose because of the war?

a) A house( )

b) A radio( )

c) A bicycle( )

d) A television( )

e) A mattress( )

f) Dishes( )

g) A motorcycle( )

h) A shop( )

i) Clothes( )

j) Others (specify)

Q26. What was the most special need you could meet using income from coffee in your household before the war?

a)   Buying clothes for members of the family especially.

b)   To purchase a new land

c)   To eat special meal like meat and rice

d)   To buy cattle for more organic manure and milk

e)   To send children to school/pay fees

f)   To pay off debts

g)   To drink beer

h)   Visit other relatives and friends

i)   To buy new assets like bicycle or radio

Q27 How many meals do you have per day?

    (i)   Once ( )

    (ii)   Twice ( )

    (iii)   Three times ( )

    (iv)   Four times ( )

C. Attitude of coffee farmers towards the civil war

Q28. In your views, do you think civil war is good?   Yes( ) NO( )

  If yes explain

  If no explain

Q29 Would you mention three things that the civil war contributed to coffee farmers?

a)

b)

Q 30 Please mention three negative effect that the civil war brought to coffee farmers

a)

I). Physical effects of civil war.

Q 31. Have you lost any member of the household since the war started?

   (i)   **Ycs( )** or (ii)No( )

Q 32. If yes. how close were they/was she/was he for you?

       i)   Nuclear family membcr( ) ii) Rclative( ) iii) Friend (iv)

       Neighboit)

Q 33 How many people has your household lost

      i) None ( ) ii) Between 1 -2( )   iii) Between 3-4( )   iv) More than 5 ( )

Q 34. How old was the victim(s)?

(i)   Between 1-10 ( )

(ii)   Between 11 -20( )

(iii)   Between 21-30( )

(iv)   Between 31-40( )

(v)   Between 41-50( )

(vi)   From 51 and above( )

Q 35 How many houses and other infrastructure destroyed or put on fire during the war in Ruhororo Zone?

      i)   1-50 ( )

      ii)   51-100( )

      iii)   More than 100 ( )

Q 36 Give a brief description of roads conditions during the war on Ruhororo portion?

Q 37. At what level were dispensaries affected by the war in Ruhororo?

(i) Only looted*)   (ii) Hall destroyed ( ) (iii) Totally destroyed*) Both destroyed and looted( )

Q 38 How many schools were affected by the civil war in Ruhororo?

(i) Between 1-4 ( ) (ii) Between 5-6 ( ) Between 7 and more( )

E. Social and cultural impact of the war in Ruhororo Zone

Q 39 Where have your household members been displaced by the war?

(i)Displaced internally   (ii) Outside the country

Q 40 What cultural practices that you no longer practice because of the war?

(i)Family inter-visit (Kugemura) ( )

(b) Official weddings( )

(c) Paying dowries/bride price( )

(d) Gathering on week-ends for traditional dances( )

(e) Group activities for mutual help( )

(0 Others

APPENDIX II

Interview guide for key informants.

Introduction

Good day!

My name is Moses Bigirimana an MA student at the University of Nairobi in
Sociology department. I am currently carrying out a research on the Impact of the
civil war on the coffee farmer's household income in Ruhororo Zone. Your
collaboration by answering the questions would be highly appreciated and I hereby
assure you that the information you will give me will be treated with confidence.

Thank you.

Date and time of interview___

Place of interview___

Name of the respondent___

Occupational role___

Time for the interview___

Interviewee background.

Sex: Male (   )   Female (   )

Marital status: Married (   )   Single (   )   Divorced (   )   Separated (   )

Level of education: Illiterate (   )   Primary (   )   High school (   )   University (   )

Age: Between 15-25 (   )   Between 26-35 (   )   Between 36-45 (   )   More than 45 (   )

Guideline questions

1. How were cofTee farmers affected by the war as compared to non cofTee

farmers?

2. How were coffee farmers in your area affected?

3.How were you marketing for your cofTee during the

war?

4.How has war affected prices of cofTee in your area ?

5.Were your infrastructures damaged during the war? Yes ( )   NO ( )

If yes . to what

extent?

6.How have the other crops been affected by the civil war?

7.How do you feel with the current production rate of cofTee today?

8. What kind of things do you remember you used to do that you no longer do because

of lack of means?

9. How do you evaluate coffee's income as compared to other crops in Ruhororo?

10. As coffee farmer association representatives, which precautions did you take in case of any other social or political crisis?

11. How do you feel when you see coffee covered by bushes today?

12. Which other crops do you consider to be an alternative once coffee collapses?

13. Why do you think coffee should be revamped?

14. Which role do you think coffee plays in the household economy that no other crops can do?

15. In your views, what is the role that the government should play to rehabilitate coffee in Ruhororo?

16. What do you think would be the role of NGOs in the rehabilitation of coffee in Ruhororo?

APPENDIX III

Guidelines for focused group discussion

1. Date:

2. Venue and time:

3. Duration for the discussion:

4. Name of the group facilitator:

5. Central theme:

6. Group size:

Background of the group members

17. Average age of the members:

Between 15-25( ) Between 26-35( ) Between 36-45( ) More then 46( )

18. As coffee farmers, how do you perceive war?

19 How did the war affect your sources of income apart from coffee income?

20. As coffee farmers, how was your income performance affected since the war started?

21. What social activities that men were not to do before the war?

22. What activities that women were not allowed to before the war?

23 At what age are children initiated for household activities?

Photo 7. General view of newly maintained coffee farm after the war on sandy soil in Giheta.
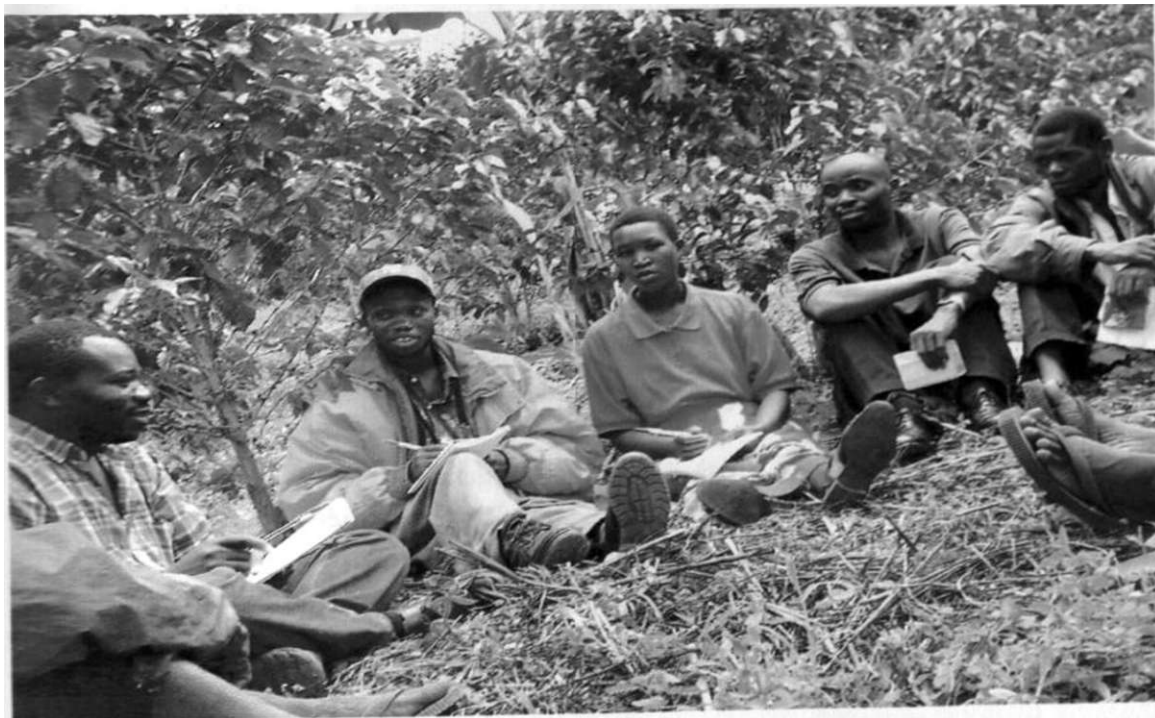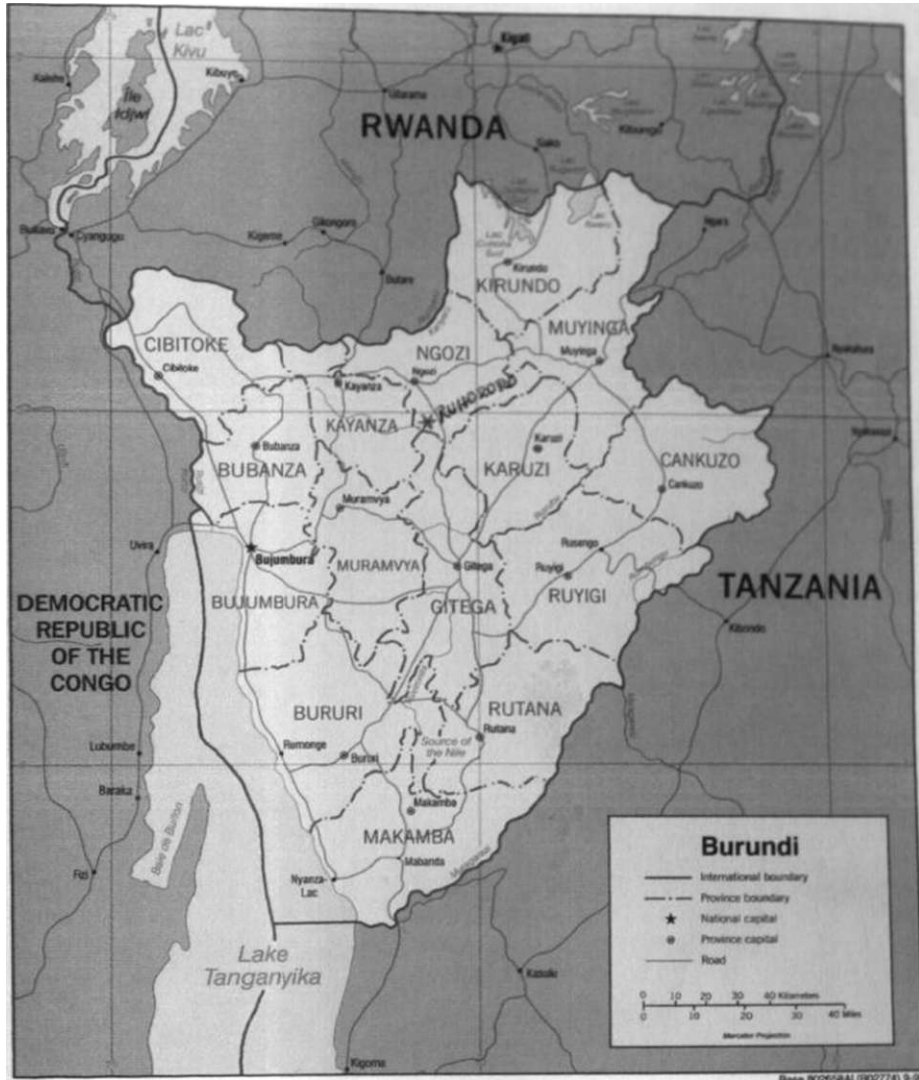

Photo 8. Interview with representative members of the "Ikawa niyo neza y'igihugu association" Ruhororo-Ngozi. Photo by the researcherf

This map shows the research field and all the provinces of the Republic of Burundi. By the Ministry of Planning for Development and Reconstruction.