



**Faculty of Social and Cultural Sciences**

**Institute of Sociology**

**Agrarian Change and Gender in Post Genocide Rwanda:**

**Analysing the Effects of Crops Intensification Program on Women**

**Smallholder Farmers**

By Fortunée Bayisenge

A Dissertation submitted for the degree of Doctor of Philosophy (Dr Phil)

**Supervisors:**

The first supervisor: Prof. Dr. Dr. Reimer Gronemeyer

The second supervisor: Prof. Dr. Ingrid Mieth

Giessen, 15 March 2023

## **Declaration**

I declare: I have prepared the submitted dissertation independently and without illicit help from others and only with the help that I have indicated in the dissertation. All text passages taken literally or analogously from published studies and all information based on oral statements are indicated as such. For all the research I conducted and which I mention in this dissertation, I have adhered to the principles of good scientific practice as laid down in the 'Statutes of the Justus Liebig University Giessen to Ensure Good Scientific Practice'.

Giessen, March 2023

Fortunée Bayisenge

## **Erklärung**

Ich erkläre: Ich habe die vorgelegte Dissertation selbständig und ohne unerlaubte fremde Hilfe und nur mit den Hilfen angefertigt, die ich in der Dissertation angegeben habe. Alle Textstellen, die wörtlich oder sinngemäß aus veröffentlichten Studien entnommen sind, und alle Angaben, die auf mündlichen Angaben beruhen, sind als solche kenntlich gemacht. Bei den von mir durchgeführten und in der Dissertation erwähnten Untersuchungen habe ich die Grundsätze guter wissenschaftlicher Praxis, wie sie in der ‚Satzung der Justus-Liebig-Universität Gießen zur Sicherung guter wissenschaftlicher Praxis‘ niedergelegt sind, eingehalten.

Gießen, März 2023

Fortunée Bayisenge

# Table of Content

|                                                                                                          |      |
|----------------------------------------------------------------------------------------------------------|------|
| Declaration.....                                                                                         | ii   |
| Erklärung.....                                                                                           | ii   |
| Table of Content.....                                                                                    | iii  |
| Dedication .....                                                                                         | vii  |
| Acknowledgement .....                                                                                    | viii |
| List of acronyms and abbreviations.....                                                                  | ix   |
| List of Figures to be improved .....                                                                     | x    |
| List of Tables .....                                                                                     | xi   |
| Abstract.....                                                                                            | xii  |
| Chapter I: General Introduction .....                                                                    | 1    |
| 1.1 The context of agricultural change in Rwanda .....                                                   | 2    |
| 1.1.1 Rwanda as a post-genocide society.....                                                             | 2    |
| 1.1.2 Agricultural policy reform in post-genocide Rwanda.....                                            | 6    |
| 1.2 Stating the research problem.....                                                                    | 12   |
| 1.3 Aim and research questions .....                                                                     | 15   |
| 1.4 Significance and justification of the study.....                                                     | 16   |
| 1.5 Scope and limitation of the study.....                                                               | 19   |
| 1.6 Organisation of the paper .....                                                                      | 20   |
| Chapter II: Women in Rwanda .....                                                                        | 21   |
| 2.1 Gender regimes and women's position in Rwandan society.....                                          | 21   |
| 2.2 Women's access to land in Rwanda .....                                                               | 26   |
| 2.3 Women in agriculture.....                                                                            | 31   |
| 2.4 Women in politics .....                                                                              | 32   |
| Chapter III: Theoretical orientation.....                                                                | 36   |
| 3.1 The underlying idea for agrarian change in sub-Saharan Africa.....                                   | 36   |
| 3.1.1 Definition.....                                                                                    | 36   |
| 3.1.2 Green revolution policies as strategies for agricultural transformation in sub-Saharan Africa..... | 38   |
| 3.1.3. The tenacity of green revolution policies in sub-Saharan Africa.....                              | 39   |

|                                                                                                      |    |
|------------------------------------------------------------------------------------------------------|----|
| 3.1.4 Rwanda’s pathway to adopt and implement green revolution policies .....                        | 41 |
| 3.1.5 The Crops Intensification program (CIP) as a green revolution strategy .....                   | 42 |
| 3.1.5.1 Organisation and mobilization of farmers.....                                                | 44 |
| 3.1.5.2 Delivery of agricultural inputs.....                                                         | 44 |
| 3.1.5.3 Land Use Consolidation in the Rwanda’s context .....                                         | 46 |
| 3.1.5.4 Farmers participation in CIP implementation process.....                                     | 49 |
| 3.2 The implication of agrarian change for gender relations.....                                     | 52 |
| 3.2.1 Gender as a concept .....                                                                      | 52 |
| 3.2.2 Gender roles or division of labour .....                                                       | 54 |
| 3.2.3 Gender roles, class and women’s labour.....                                                    | 56 |
| 3.2.4 The agricultural capitalist production and gender relations.....                               | 57 |
| 3.3. Conceptual framework .....                                                                      | 60 |
| 3.3.1 Agency and opportunity structure in CIP policy process .....                                   | 60 |
| 3.3.2 Intersectionality .....                                                                        | 65 |
| Chapter IV: Research methodology .....                                                               | 68 |
| 4.1 Research approach.....                                                                           | 68 |
| 4.2. Data collection process .....                                                                   | 68 |
| 4.2.1 Organisation of the field work.....                                                            | 68 |
| 4.2.2 Sampling.....                                                                                  | 70 |
| 4.2.3 Selecting the respondents.....                                                                 | 72 |
| 4.2.4 Techniques used to collect data .....                                                          | 74 |
| 4.2.4.1 Focus group discussion .....                                                                 | 74 |
| 4.2.4.2 Interviews .....                                                                             | 74 |
| 4.2.4.3 Participative field observation .....                                                        | 75 |
| 4.2.4.3 Documentation .....                                                                          | 76 |
| 4.3 Data analysis methods.....                                                                       | 76 |
| 4.4 Validity and reliability .....                                                                   | 76 |
| 4.5 Ethical consideration.....                                                                       | 77 |
| 4.5 Difficulties encountered in carrying out this research. ....                                     | 78 |
| Chapter V: Presentation of research findings: perspectives of women farmers involved in CIP<br>..... | 80 |

|                                                                                                                     |     |
|---------------------------------------------------------------------------------------------------------------------|-----|
| 5.1 Who are women smallholder farmers involved in the CIP program? .....                                            | 80  |
| 5.1.1 Women farmers involved in CIP are relatively young .....                                                      | 80  |
| 5.1.2 Most of women farmers are married and live with their husbands .....                                          | 83  |
| 5.1.3 Most of women farmers have low level of literacy.....                                                         | 84  |
| 5.1.4 Most of women farmers are wage labourers.....                                                                 | 85  |
| 5.1.5 Most of women have limited access to land under CIP.....                                                      | 86  |
| 5.2 Types of changes engendered as per the implementation of CIP .....                                              | 88  |
| 5.2.1 The procedure to access and use land in the marshes has changed.....                                          | 88  |
| 5.2.2 Under the CIP program, farmers practice mono-cropping .....                                                   | 91  |
| 5.2.3 CIP is implemented through farmers' cooperatives.....                                                         | 95  |
| 5.2.4 Agricultural production under CIP follows the performance contract system .....                               | 97  |
| 5.2.5. CIP has fostered a market-oriented agricultural production system .....                                      | 99  |
| 5.2.6. Under CIP, farmers have to use modern farming techniques .....                                               | 101 |
| 5.2.7 Under CIP farmers have limited involvement in decision-making process.....                                    | 103 |
| 5.3 Do the changes in farming system impact intra-household gender relations? .....                                 | 107 |
| 5.3.1 The farming system under CIP increases women's burden.....                                                    | 107 |
| 5.3.2 Despite their important role in agricultural intensification program, women are still subordinate to men..... | 112 |
| 5.5 CIP offers opportunities to enhance women's skills as modern farmers .....                                      | 116 |
| 5.5.1 CIP program increased maize productivity by the unit of land.....                                             | 116 |
| 5.5.2 CIP enhanced women's professional skills in modern farming techniques.....                                    | 118 |
| 5.5.3 CIP program added value to women's work in agriculture.....                                                   | 120 |
| 5.6 Challenges of women smallholders while coping with agriculture intensification program.....                     | 121 |
| 5.6.1 The management of cooperatives .....                                                                          | 121 |
| 5.6.2 Government interventionism in the program process .....                                                       | 122 |
| 5.6.3 Low access to resources such as land and agricultural inputs.....                                             | 124 |
| 5.6.4 Plant diseases and climate change .....                                                                       | 125 |
| 5.6.5 Food (in) security .....                                                                                      | 126 |
| 5.7. Women's wishes concerning the effectiveness of CIP.....                                                        | 128 |

|                                                                                                                                   |     |
|-----------------------------------------------------------------------------------------------------------------------------------|-----|
| Chapter VI: Reflecting on agency and opportunity structure under CIP to scrutinise its effects on women smallholder farmers ..... | 130 |
| 6.1 Women’s access and control over resources, a prerequisite for coping with the agrarian change under CIP .....                 | 131 |
| 6.2 Intensifying farming system or intensifying women’s labour: the nexus between productive and reproductive work .....          | 136 |
| 6.3 Power and participation: inclusivity versus exclusivity under CIP .....                                                       | 141 |
| 6.4 Economic growth or dispossession: the enigma of contract farming system under CIP .....                                       | 146 |
| Chapter VII: General Conclusion .....                                                                                             | 151 |
| List of references .....                                                                                                          | 159 |
| Appendix .....                                                                                                                    | 170 |

## Dedication

“...If it had not been the Lord who was on our side..., if it had not been the Lord who was on our side when men rose up against us, then they would have swallowed us alive,...then the waters would have engulfed us, the torrent would have swept over our soul,... blessed be the LORD JESUS, who has not given us as prey to be torn by their teeth...” Psalm 124, the Holy bible.

*To Arthur Habimana, my husband*

*To Kessia, Alain Bright and Gloria, my children*

*This dissertation is dedicated*

## **Acknowledgement**

This research paper is a product of many efforts from different people, without them it could not be completed. I take this opportunity to express my high gratitude to some of them.

To begin with, I want to extend my deepest gratitude to Prof. Dr. Dr. Reimer Gronemeyer, for having accepted to supervise this thesis and for his valuable assistance throughout the entire process. The approach he used to supervise this work was far beyond what I was expecting from him as a supervisor. He was always ready to listen to me, sacrificing other duties to give his insightful comments, guidance and support. His attitude has been a source of energy and enlightenment throughout the research process.

My gratitude goes to Bread for the World for their invaluable financial support and assistance by their staff whenever I was in need. Many thanks to different staff who were always ready to reply to my urgent emails full of requests, sometimes beyond your normal work. I will always remember your help during the entire period of my studies.

I cannot find words to express my gratitude to the leaders of the Protestant Institute of Arts and Social Sciences (PIASS); my studies could not be possible without their support. My thanks go particularly to Reverend Professor Dr Elisee Musemakweli who, despite his many duties, was always ready to listen and support me throughout the entire process. I also use this opportunity to express my thanks to different colleagues and friends who directly or indirectly contributed to the success of my doctoral studies: thank you Jonas, Mathilde, Gloriose, Michaela and Kazuyuki, for your invaluable help throughout the whole period of my studies.

I cannot pass over the assistance I benefited from the leaders of Huye and Gisagara Districts, the leaders of farmers' cooperatives, all the participants, and any other person who, directly or indirectly assisted me during my field research.



## **List of acronyms and abbreviations**

CIP: Crops Intensification Program

GDP: Gross Domestic Product

GOV: Government of Rwanda

LUC: Land Use Consolidation

KOABIDU: Cooperative of Farmers of Maize in DUWANI Marshland

KOAGIMPA: Cooperative of Farmers of Maize in MPAZI Marshland

MIGEPROF: Ministry of Gender and Family Promotion

MINAGRI: Ministry of Agriculture and animal Resources

MINALOC: Ministry of Local Government

MINECOFIN: Ministry of Finance and Economic Planning

NISR: National Institute of Statistics of Rwanda

RAB: Rwanda Agriculture and Animal Resources Development Board

RPF: Rwanda Patriotic Front

WF: Woman Farmer

# List of Figures

Figure 1: the implementation of Crops Intensification Program..... 51

Figure 2: Conceptual framework: agency and opportunity structure..... 64

Figure 3: Age categories of women participants..... 81

Figure 4: the marital status of women participants ..... 83

Figure 5: level of education of women participants ..... 84

Figure 6: The main source of income for women involved in CIP ..... 85

Figure 7: The size of landholding under CIP ..... 86

Figure 8: The intersection of gender, class and state interventionism under CIP..... 155

# List of Tables

**Table 1: the research participants** ..... 73

## **Abstract**

The World Development Report of 2008 highlighted agricultural intensification as a strategy to boost economic growth and reduce poverty, particularly in sub-Saharan Africa. In accordance with this assumption, Rwanda is one of the African countries which adopted and implemented an agrarian change in the form of Crops Intensification Programme (CIP). CIP aims to transform small-scale subsistence farming into large-scale and market-oriented agriculture, to enhance agricultural growth and improve the well-being of those involved and depend upon farming activities, whose majority are women. Drawing from the experience of women farmers involved in CIP in Huye and Gisagara Districts in southern Rwanda, the aim of this study was to analyse the effects of the Rwanda's agrarian change on the daily life of women smallholder farmers. It hence used qualitative research tools to gather data from different actors of CIP such as women members of CIP cooperatives, government officials in charge of agriculture and cooperatives' leaders. Findings revealed an increase in agricultural productivity by a unit of land as a result of the intensified farming system under CIP. Such intensification, however, induces the cost of production in terms of inputs and labour, which makes it hard for the smallholder farmers to cope with such an agrarian change. Furthermore, the government's control over CIP process and the intra-household labour relation increase the burden of poor women as the main actors of agriculture sector. The study argues that the intersection between gender, class and government interventionism reinforces the proletarianisation of poor women's labour under CIP. Henceforth, an empowering strategy by the government can enhance women's capabilities as well as their opportunities to benefit as active agents of CIP.

**Key words:** Rwanda, agrarian change, crops intensification program, land use consolidation, women smallholder farmers, gender relations

## Chapter I: General Introduction

The World Development Report 2008 recommended agriculture development as an alternative strategy for economic growth and poverty reduction in sub-Saharan Africa (World Bank 2007, FAO 2011). The assumption underlying this change is that "transforming subsistence smallholdings into large scale commercial farming will increase yields, ensure food security and respond to the demographic pressure, which is threatening most of African economies"(World Bank 2007).

The Rwandan agrarian economy has been mainly characterized by a subsistence smallholding farming system and consequently, the sector has been less productive. In Rwanda, women constitute 76 percent of those involved and depend upon farming activities, while men hold 41 percent. However, around 90 percent of those who depend upon farming activities are poor, and the majority or 70 percent of them are women (MINAGRI 2010, 2010; NISR 2015). This implies that women carry out almost the entire work in farming activities, but they benefit less compared to their counterpart men.

Since 2008, the Government of Rwanda implemented Crops Intensification Programme(CIP) with the great aim of transforming smallholding-subsistence farming into large-scale commercial farming to enhance agricultural growth and improve the living conditions of those involved in agriculture sector whose the majority are poor (MINAGRI 2008, MINAGRI 2013). Since the implementation of Crops Intensification Program, the government claims about its contribution in increasing agricultural productivity and the national economic growth (Mbonigaba and Dusengemungu, 2013). However, one's question might be for who's interests is such agricultural growth.

Drawing from the experience of women farmers involved in CIP, this study aims to analyse the effects of the Rwanda's agrarian change via Crops Intensification Program on the daily living conditions of women smallholder farmers, as the main actors of agriculture sector. In the first chapter, the paper introduces the main idea of this study, that is, the description of the context of the study, the statement of the research problem, the research questions, the scope of the study, and the organizational structure of the paper.

## **1.1 The context of agricultural change in Rwanda**

### **1.1.1 Rwanda as a post-genocide society**

To understand the effects of agricultural intensification programmes on women smallholder farmers, this study needs to grasp the political history of Rwanda because, it helps to understand factors underpinning the post-genocide governmentality, as it constitutes a pertinent aspect of the context of this study.

Rwanda has existed as a nation-state since the 11<sup>th</sup> century. Until the colonial period, Rwanda was a centralized kingdom. The king was the supreme authority and cumulated all the powers. It was either he and/or his advisors who decided on all matters. (Vansina, J. 2004). Consequently, the large majority of the Rwandan population had little access to power or privilege except through the King. The advent of colonial rule brought far-reaching changes to the political powers of the country. At the break of the twentieth century, like in other African countries, Rwanda shifted from a kingdom to a colony. It was colonized first by German in 1885-1918. After the First World War until its independence, that is, between 1918 and the first of July, it was colonized by Belgium under the protectorate agreement (Gatwa, 2005).

During this period, the political power accumulation transited gradually from the king to the colonial masters. Finally, the former became the rulers and the king submitted to the colonial authorities. The post-colonial period was mainly characterized by mass political violence: the first republic (1962-1973) and the second republic (1973-1994) were centralized and dictatorial political regimes, and popular discontent grew through the 1980s (Prunier, 1995). During this period, ethnic ideology or political tribalism was at the forefront of this authoritarian regime leading to social, economic and political division, and many Rwandans particularly from the Tutsi group have been victims of this system (Gatwa, 2005).

In 1990 began a new era in the political arena of the country. Rwanda which remained until then under the rule of one party opted for a multiparty political regime. Due to the pressure from the international community for democratization, several new parties emerged in 1991(Prunier, 1995). At the same time, the Rwandan Patriotic Front, a Tutsi-dominated rebel army from Uganda attacked and entered into the war against the former Rwanda defence forces on the first of October 1990. In the same period, economic decline, political manipulation of ethnic animosities, and civil war, all contributed to the disintegration of Rwandan society, especially, between 1990–1993 (Ibid. 1995: 78). In 1994, a total breakdown occurred in the form of the genocide. The weakness of the then state opened the opportunity for the Rwanda Patriotic Front (RPF) to accelerate its efforts in fighting against the divisionism and genocide ideology and finally took power in July 1994.

The genocide against the Tutsi of April 1994 is believed to have claimed more than one million people within three months between April and July 1994, the vast majority of whom are Tutsi (Izabiriza, 2005). The war and the genocide have shattered all aspects of the social, economic, and political fabric of the society.

Thereafter, the political legitimacy remains fragile as a result of human atrocities committed during the war and the genocide (between 1990 and 1994). Hence, the post-genocide state had a great responsibility to rehabilitate the social and political tissue of the society (Gatwa, 2005). In this process, The RPF, a ruling party since July 1994, managed to mobilize Rwandans by suppressing the ethnic divisions and reinvigorating the political values embedded in the historical political culture. As the latter had been characterizing the leadership before the colonial time, the government managed to use it for consolidating Rwanda's shared political identity (Abbott and Malunda (2015).

However, some critics argue that the post-genocide state uses those historical political values for backing its neoliberal policies and to consolidate a highly centralized developmental state (Huggins, 2017). For instance, the public discourses of Rwandans usually tend to be dominated by those who occupy the most powerful positions within society. This political culture is grounded in an oral expression used by King MUTARA III RUDAHIGWA (1911-1959), "Irivuze umwami ukomayombi", which means literary "Whatever the monarch says, you applaud". In other words, "What the king says, people must follow!" such expression idolizes the person in the position of authority and justifies to some degree the lack of contention of the state's top-down approach in the decision-making process.

MUTARA III RUDAHIGWA (1911-1959) was a fervent Christian and after his enthronement, he requested the Rwandan population to shift from traditional religion to the western Roman Catholic Church missionaries. What they did, and since then, Rwandans joined massively the so-called "modern church" (Gatwa, 2005). Such expression reflects top-down decision-making as a political value, and, good citizens are not only those who do not oppose themselves to the state's authority



or leaders' order but also those who sacrifice their interests for the general/national ones. Expressly, the public discourse reflects the political culture preconizing centralized decision-making processes and political control to the detriment of political diversity (Straus and Woldorf, 2011).

Rwandan politics continues to raise controversial opinions, because and despite the above description of the post-genocide leadership, Rwanda has established a decentralized administrative authority since 2000. According to the decentralization policies and strategies, ideally, local entities and the local population are entitled to more decision-making power in the pursuit of democracy and political participation. (MINALOC, 2021).

But in reality, the decentralization has served to reinforce rather the power of the central government to a much greater degree that the political pressure has penetrated up to the bottom of the community. With the new structure, the authority from the central government can easily reach the individual family by passing through the District, the Sector, the Cell and the Village, and sub-village known as "Isibo." In other words, through its political structure, the government can easily control and enhance the cooperation between government authorities, civil society organizations and the mass co-optation of the policy change by population (Huggins, 2014, Straus and Woldorf, 2011).

In nutshell, the central government has direct control over local governance, and the state presence at the local level is enhanced through government nominees, as well as elected officials (Ansoms, 2009). This leaves much space for the political elite to influence individual behaviours and impose their agenda widely and easily. Finally, it is worth underlining that the current Rwandan economic political impetus is not from within autonomous state choices, but rather it falls within an "aid-dependent context.

Consequently, the aid recipient state must locate itself as part of discursive “good governance” system, with its political and economic implication" (Huggins, 2017: 79).

### **1.1.2 Agricultural policy reform in post-genocide Rwanda**

*"We have to work on the minds of our people. We have to take them to a level where people respect work and work hard, which has not been the case in the past. You have to push and push. I hear whispers of criticism, and complaints that people are being pushed too hard. I have no sympathy for that. People have to be pushed hard until it hurts". Paul Kagame, as cited in Huggins (2017: 100).*

This above extract of the Rwandan President's speech reflects the above-described context of the post-genocide reconstruction process which requires many efforts by every individual at all levels, as the conflict has destroyed almost all aspects of social life. In this respect, agriculture policy reform was the most targeted, as the majority of those who were living in misery were employed by the sector. For this, there was a need for political leaders to mobilise the population around this highly demanding development agenda. Agriculture reform in the post-genocide reconstruction process involved a policy change. To understand the effects of such change on women smallholder farmers; this study needs to describe the architecture of agricultural policy reform.

Rwanda is a small landlocked country, situated between Tanzania in the east, Uganda in the north, Burundi and the Democratic Republic of Congo, in the south and west respectively. The country is residence to 11.5 million inhabitants, according to the data from the 2012 population census. On a land surface area of 26,388 sq. km and with more than 400 inhabitants per square kilometre, Rwanda is one of the most highly densely populated countries in sub-Saharan Africa (Huggins, 2017).

Statistically, women make up most of the Rwandan population at 52 % compared to only 48 % of men.

The population is predominantly agrarian: agriculture contributes about 40 per cent of the GDP and employs more than 80% of the population, especially those people who reside in rural areas (GoV, 2012). Around 80 per cent of the population live in rural areas and depend on rain-fed agriculture. As a result, the average land holding at the household level dropped from 2 ha in 1960, to 1.2 ha in 1984, to just 0.7 ha in the early 1990s, and less than 0.7 ha in 2003 (Musahara and Huggins 2005, NISR 2014). The intensive pressure on land has led to widespread over-cultivation and consequently land degradation in the form of soil erosion and fragmentation. Consequently, more than 90 per cent of households farm at least one plot of land but, because the land is scarce, most farming is done on very small plots. Around 80 per cent of farming households likely cultivate between 0.33 ha and 0.9ha of land (Musahara and Huggins 2005; Randell 2014, NISR, 2021).

Understandably, the agriculture sector, as the backbone of the national economy was one of the important policy reforms embarked upon by the government in the post-genocide reconstruction process, because, as the main sector, agriculture was the hope for the future of many Rwandans. Hence, the reform was envisioned by the firstly established and leading policy strategy known as “Vision 2020”(MINAGRI, 2008).

The latter was a comprehensive development policy which was grounded in the history and the ambition of Rwanda's political leaders to bring transformation in all areas of the social, economic and political life or to facilitate the country's recovery.

Herein, the main idea of the policy framework of "Vision 2020", was reflected by the political discourses, as it is insinuated in the above quotation by the President of Rwanda, it embodies the aspiration of the government of "creating" a new Rwanda (Huggins, 2017).

At its inception in 2000, the country was still on recovering stage and the majority of citizens were facing extreme difficulties in everyday life, and in his opinion, Rwanda needed finding out an effective pathway to undertake a promising development process(Harrison, 2016, Rwanda: an agrarian developmental state). According to Rwanda's vision 2020, it was expected that by 2020, the country would become a middle-income with an annual income per capita of at least 1240 USD (MINECOFIN 2000). To achieve such an ambitious goal, agriculture reform was put at the forefront of the country's development pathways. In this respect, the Vision 2020 strategic framework highlights the modernisation of agriculture and Animal husbandry as one of its main pillars, for building a diversified, integrated, competitive and dynamic economy, from which poverty would be reduced and well-being enhanced (Randell 2014; MINAGRI 2008).

Modernisation of agriculture was justified by the fact that despite its great importance for the national economy the sector has been less productive due to different factors: besides the explosion of the demographic pressure, other factors include the limited use of modern agricultural inputs and technologies, traditional farming techniques, land fragmentation leading to smallholding and subsistence farming system. Hence, agricultural reform has been adopted as a substantial strategy to overcome these constraints and enhance the country's development(MINAGRI 2008, (MINAGRI 2011).

As argued by Ansoms (2007), the goal of this agriculture reform was criticised for being too ambitious in light of Rwanda's historical reality.

In fact, except for cash crops such as tea and coffee, Rwandan farmers have traditionally worked and grown crops for their subsistence, and due to the demographic explosion and land fragmentation, food shortage has been a reality for many Rwandans even before the genocide. In this regard, it has been argued that conflict related to land was one of the factors which enriched the war and genocide between 1990-1994(Musahara and Huggins, 2005).

Furthermore, the agriculture policy reform includes, among others, the National Agriculture Policy (NAP) adopted in 2004, the Land Law of 2005 as revised in 2013, and the National Strategic Plan for Agriculture Transformation (PSTA) which was established in different phases to guide the implementation of NAP, and the Economic Development and Poverty Reduction Strategy (EDPRS). The common argument for all these policy frameworks is that the most important issue regarding Rwanda's agricultural development is not only the land size but also the low productivity associated with traditional peasant-based subsistence farming(Government of Rwanda 2004, 2013).

For example, the National Land Policy of 2004 describes the polyculture system of farming practices as:

*“simple self-subsistence agriculture based on working the land without caring for its conservation or the improvement of its production, which hinders all forms of technical innovations...what prevails, therefore, is mediocre agriculture that has no future, characterised by tinny plots on which the prevailing crops are traditional and non-productive (GoR. 2004: 54).*

In line with the above quotation, it is clear that the government's strategic plan for agricultural transformation (SPAT) has focused on promoting programs and activities

that shift the agricultural sector from subsistence to commercial production through crops intensification, farm mechanization, development of agro-processing facilities, technology enhancements, and infrastructure development (MINAGRI 2013). The land policy, therefore, recommended the Crops intensification program (CIP) as a strategy to use land efficiently and to increase productivity.

Hence, the Ministry of Agriculture has initiated Crops Intensification Program (CIP) in 2007. As further discussed in the third chapter of this paper, CIP aims to increase the productivity of high-potential food crops and to provide Rwanda with greater food security and self-sufficiency through sustainable intensification processes (MINAGRI, 2009, 2013). The implementation of CIP involves four components or sub-programs including use consolidation, the distribution of improved inputs, proximity extension services to farmers, and post-harvest handling and storage technologies (MINAGRI, 2009). Land Use Consolidation (LUC) is the main pillar or the driving component of CIP, as one of its objectives is to enhance the proper use of land, and in most cases, both terms are used interchangeably in the public discourse ( Mbonigaba and Dusengemungu 2013). That is the reason why the abbreviation CIP-LUC is used in some parts of this paper to reflect the public perspective about the framework of this agricultural change.

Land use consolidation is, according to the Organic Land Law No. 08/2005 of 14 July 2005 as revised in 2013, a strategy for transforming smallholdings by arranging the individual plots of land to make them more productive and to reduce the adverse effects of fragmentation (Ansoms 2013; Government of Rwanda 2013). By consolidating the use of land farmers are expected to benefit from the various services under CIP such as efficient delivery of inputs (improved seeds, fertilizers), access to extension services, facilities in post-harvest handling and storage, irrigation

and mechanization, and access to the markets for inputs and outputs (Musahara et al. 2014).

The implementation process of CIP via the LUC program involves various stakeholders: different Ministries, NGOs, Civil Society Organizations and the Private Sector. Although the technical plan for the implementation of the LUC program is drawn up by MINAGRI through its implementing agency- the Rwanda Agriculture Board (RAB), it is implemented in conjunction with local administrative authorities (from the district to the Cell level). All households are required to grow the selected crops following agro-ecological zones, and local administrative authorities ensure and enforce the organisation of farmers into cooperatives and to grow selected crops in a consolidated fashion. Those crops are namely maize, rice, cassava, Irish potatoes, soybeans, beans and wheat. Based on the agro-ecological potential and the land area available, target figures are agreed upon and captured in the performance contracts of the respective Districts to enhance consistent achievements (Mbonigaba and Dusengemungu 2013; Huggins 2011).

Since its implementation, official assessments claimed its tremendous contributions in increasing yields of the selected food crops whereby maize increased by five times; wheat and cassava by three times; Irish potato, soybean and beans by about two times; and rice by around three times (Musahara et al. 2014; Kathiresan 2011). The question, however, is to know how smallholder farmers, especially women, as they constitute the majority of the workforce of the Rwandan agrarian economy, benefit from these macro-level gains by CIP.

## **1.2 Stating the research problem**

As stated above, the agrarian change introduced through Crops Intensification Program is expected to transform the agricultural production system as a condition to increase production and to enhance the living conditions of those involved in farming activities, whose majority are poor( MINAGRI, 2008, Cioffo et al. 2016).

As elsewhere in Africa, women constitute the majority of those involved and carry out almost the entire work in farming activities, but they benefit less compared to their counterpart men(FAO 2011; Rwanda National Institute of Statistics 2016). According to the Rwanda Integrated Household Living Condition Survey published by the national institute of statistics of Rwanda in 2015; 76 per cent of women work in farming activities and agriculture is the main source of income for them, while men who survive through farming activities are 41%. Furthermore, 85% of women heading households work in farming, while only 61% of men heading households were in farming activities. Women work longer hours in agriculture than men, even before taking account of their domestic work, and are more likely than men to be dependent on the income from their farms (Randell 2014; Rwanda National Institute of Statistics 2016).

In addition, women are primarily responsible for producing food for the household for domestic work and caring for children and elderly relatives(MINAGRI , 2010; Musahara and Huggins, 2005; MIGEPROF, 2010). Despite this important role of women in Rwandan agriculture and the daily livelihoods of a rural household, the evidence shows that their living conditions are poor compared to their counterparts men. For instance, more than 90 per cent of those who derive their livelihoods from agriculture in Rwanda are poor, and 70 per cent of them are women.



The poverty incidence published in the EICV4 quoted above demonstrates that 44% of female-headed households are poor compared to 37% of male-headed households being poor in 2013/14(NISR 2016). Yet, the agricultural intensification programs implemented since 2008 were expected to improve the living conditions of those involved in farming activities.

Although such policies have been claimed to be successful in raising yields of selected crops such as maize, wheat, cassava, Irish potatoes, soybeans and beans (MINAGRI 2011, (Mbonigaba and Dusengemungu 2013); Musahara et.al, 2014), and in reducing the incidence of poverty over the same period; but the reality shows that women involved in farming have been living in misery and this situation constitutes an intrinsic factor which may constrain their performance and their benefits from the new agrarian program(MINAGRI 2010; Randell and McCloskey 2014).

The introduction of green revolution policies implies a substantial transformation of the agricultural production system: farmers have to adopt modern farming techniques such as improved seeds, chemical fertilisers and pesticides; they have to adopt modern farming techniques such as planting in rows, weeding, irrigation, and so on. All these require an intensification of labour and capital to specialise in marketable crops and achieve the targeted productivity by the unit of land via the contract farming system (Dawson, Martin and Skor, 2016, Musabanganji et al., 2016, Huggins, 2014). As demonstrated by different scholars (Tsikata, 2015, Whitehead, 2009, Razavi, 2003) such an agrarian change has an impact on the living and working conditions of farmers and it is experienced differently by women and men, especially those who have limitations to accessing financial means. This is because, that change increases pressure on women's farming labour as the latter is considered as a family-free labour, and in most cases, women are bounded by reproductive roles, while men

can easily get opportunities for off-farm activities, and can therefore escape from that pressuring resulting from the new farming system as per the agrarian change (Tsikata, 2015).

This implies that social relations such as gender and class inequalities are associated with the processes of accumulation in the capitalist transformation of agrarian economies, and they can have negative effects on women, particularly in rural Africa, where the majority of them are involved in subsistence agriculture (Razavi 2003; O'Laughlin 2008). Despite the importance of the social relations underlying the capitalist agrarian economy, the dominant orthodoxies in agrarian studies paid little attention to it (Rasavi, 2003, 2009, Tsikata, 2015). Instead of recognizing gender as a key tool for the analysis of the agrarian economy, most of the agrarian scholarships regard female concerns as matters of the local sphere or consider gender inequalities as mere side-contradiction (Treidl, 2018). Yet, it is important for research in agriculture to question not only gender inequalities, but also how these inequalities take place, and their implication for the agrarian economy (Okali 2012).

Studies on agrarian reform in Rwanda have been preoccupied mainly with the assessments of the agricultural intensification programs concerning productivity or the increase of yield, poverty reduction, and food security, see for example Mbonigaba and Dusengemungu 2013; Ansoms 2013b; Ansoms 2007, 2008, 2011; Huggins, 2010, 2014; Musahara, et al., 2014; Bizoza and Havugimana, 2016; Ndushabandi, 2017;), but overlooked its implication for gender relations and vice-versa. In other words, although women account for more than half of the agricultural labour force in Rwanda, the agrarian studies in Rwanda have been silent on women's labour in agricultural intensification programs, and how gender relations have shaped capitalist accumulation.

This is what has triggered the interest of this research to investigate what is the implication of the newly introduced agrarian change in Rwanda for the social relations of gender and what might be its impact on women smallholder farmers, as the main social category involved and depending on farming activities. By doing this, the study will contribute on one hand filling the existing gap in the literature on agrarian reform in Rwanda and will, on the other hand, give a voice to those involved in the CIP program, particularly women, and hence contributes to the policy change.

### **1.3 Aim and research questions**

As described above, since 2007, the post-genocide government of Rwanda implemented an agricultural policy change aiming to intensify agriculture productivity through the transformation of subsistence into market-oriented agriculture (MINAGRI 2013). This study aims to understand the implication of this change for the social relation of gender and its effects on the daily life of women farmers as the main social category of those involved and depend upon farming activities.

Hence, the general objective of this study is to analyse the effects of the CIP program on the daily living conditions of women smallholder farmers. To achieve this objective, the study designed different research questions which guided the research process. For this regard, the main research question is how CIP impacts the daily living conditions of women smallholder farmers, with the following sub-questions:

- ✓ Who are women farmers involved in Crops Intensification Program?
- ✓ What type of changes which have occurred in the agricultural farming system following the implementation of CIP?
- ✓ How have these changes affected intra-household gender relations and women's daily lives?
- ✓ How are women farmers involved in decision-making process under CIP?

- ✓ What challenges that women smallholder farmers are facing while coping with the agricultural change under CIP?
- ✓ What strategies do women farmers propose which can enhance their performance and benefits from the CIP?

This research strives to answer the above questions from the perspectives of women and to draw from their lived experience on the agriculture change deriving from the implementation of CIP programs, being in the farming system, in access and control over agricultural inputs or in rules and regulations regarding the use of land or decision-making process. Secondly, the study attempts to understand how this agrarian change affects intra-household gender relations and its implication for the daily life of women smallholder farmers in terms of gender division of labour and power relation between different members of the farmer's family. Lastly, the study continued recurring the women's experience in coping with this change, the challenges they are facing and the strategies which would contribute to their success in the process of shifting from traditional/subsistence farming to a professional and market-oriented farming system under CIP.

#### **1.4 Significance and justification of the study**

*“Women play important and varied roles in agriculture, but gender inequalities are justified by unequal access and control over resources and opportunities prevail. Closing these gender gaps would be good for agriculture development both for women and for agriculture”*(as quoted in IFPRI, 2014). Women are indeed recognised as the main producers of the agriculture sector, on one hand. However, this recognition does not prevent them from enduring exclusion and oppression when it comes to controlling their assets and benefiting from agricultural produce, on the other hand.

As stated above, some studies have manifested low interest in gender aspects of agrarian change or they just focus on a descriptive account of the pervasive role of women in agriculture and gender inequalities underpinned by women's low access and control over land (Razavi, 2003, Dancer and Tsikata 2015, Okali, 2012). In Rwanda, Gender Monitoring and Evaluation (GMO, 2017) conducted recently a study in which GMO reviewed agriculture and gender, by assessing how women and men(un)equally participate and benefit from current agricultural policies and programmes. Accordingly, the study has recognised that the contribution of women in terms of energy, time and/or innovation in various agricultural activities has increased and it is even more outstanding than that of men.

The study demonstrated however that despite women's contribution to the agricultural production process, few women have access to opportunities inherent to those policies and programmes in the sector. The study argues that fewer women than men are invested in the trade and sales of fertilisers and crops, they are less likely to access credits and loans for agriculture, they are less represented among the seeds out growers and a handful number of women are found in the management of the sector's leadership and management (Gender Monitoring Office, 2017).

CIP policy draws from the neoliberal policy agenda as it involves the transformation of the agricultural production system, from subsistence to a market-oriented or capitalist production system. This implies a change in power relations between different actors or stakeholders involved in the agricultural production system. A such system is highly demanding in terms of capital and labour, which makes it difficult for many smallholder farmers to afford the required cost of investment(Shivji, 2008; Razavi 2003). Unfortunately, smallholder farmers, particularly women, lack capacities and

can hardly cope with such agrarian change and therefore benefit little from the capitalist agricultural production system (Ansoms 2013) .

This interest of this study lies in the experiences of women farmers involved in the CIP, to understand how far they are coping with the new agrarian model and if they are benefiting from it or not and how gender relations shape or not their benefits from. This research interest is inspired by my previous study on the role of representatives of women in a political position in pushing up women's issues; from which it was argued that the needs and interests of poor women, in particular, do not get automatically attention by the increased number of women representatives. Rwanda has championed women's empowerment and gender equality by establishing different strategies including a quota system. As a result, it is internationally hailed for having a big number of women in political entities and policy-making structures, especially in the parliament (Burnet, 2008). Yet, those women representatives stand for economic, political and social agendas, and 'gender issues' are either overlooked or not taken up at all (Bayisenge, 2008).

If representatives of women fail to raise women's issues in the policy arena, and yet it is one of the reasons d'être of the quota system, who can do it, who will speak or advocate for women's issues especially poor women who are working in agriculture if those elected to represent their failure to do so, how can women benefit from development initiatives if their concerns are not taken up in the policy-making and implementation process? Amidst such an impasse, the interest to carry out qualitative research is born. I believe that writing on this topic is also one way of allowing women to make their voices heard and this will improve their conditions in the future.

Therefore, the objective of the study is to understand how women smallholders, who have been facing various constraints in agriculture, have managed to copy and actively get involved in the CIP program, to what extent the latter supported them throughout this new journey, or if the program is being implemented as a way to support the legitimate project of the state or capitalist accumulation.

### **1.5 Scope and limitation of the study**

As aforementioned, this research aims to analyse the effects of the Rwanda's agrarian change initiated via CIP on the daily living conditions of women smallholder farmers. It is worth to underline that the research is not an assessment of the CIP policy, but rather, it is an exploratory study which draws from the experiences of women farmers involved in the CIP cooperatives, meaning their perspectives on the new farming system. For this, the study attempted to understand how this change affects intra-household gender relations, the struggle of women while coping with the change as well as the interaction between different actors involved in the implementation of agricultural intensification program in Rwanda. By doing this, the study argues that, the benefits of CIP for women smallholders are conditioned by their position as active agents, not just as the beneficiaries of the program.

Methodologically, the study was interested in exploring the experiences of women smallholder farmers who are members of maize farmers' cooperatives under in two Districts namely Gisagara and Huye in the southern region of Rwanda. Concerning timeframe, this research investigated the effects of CIP from its implementation in 2008 until February 2020, the time when the field research was completed.

## **1.6 Organisation of the paper**

This paper is composed of seven chapters. The first chapter is about the general introduction, which describes the research context, states the research problem, research objectives and questions, the justification of the relevance of the study and describes the scope of the study.

The second chapter goes through the status of women in Rwandan society, and specifically, it traces the position of women in the agrarian economy. In this regard, it demonstrates how cultural norms and gender knowledge regimes inspire the existing social, economic and political structures, particularly gender roles, gender division of labour and distribution of resources such as land, and how all these structural factors impact women's position in the agrarian economy as well the gender power relation.

The third chapter discusses the main literature which enshrines the definition and discussion of key concepts and or variables that back up the discussion in this study and draws a conceptual framework, which inspires and guides the discussion of research findings.

The fourth chapter narrates the methodological tools used by the study to collect and analyse the data. The fifth chapter presents the research findings following different themes as per the research questions. The sixth chapter discusses research findings with the support of substantial literature and the last but not least chapter draws the general conclusion, it presents the argument of this study and propose further studies to explore the subject exhaustively.



## **Chapter II: Women in Rwanda**

This chapter presents a brief description of women's status in Rwandan society, focusing mainly on their position in the agrarian economy. In this respect, it demonstrates how gender regimes (cultural norms and values which define gender identities) inspire the existing social, economic and political structures, from which power and productive resources are distributed particularly in the agrarian economy. The chapter is made of four sections. The first section presents gender regimes in Rwanda, that is, how cultural norms influence the social relations between women and men or gender hierarchies. The second section demonstrates how is women's access and control over land, and its impact on their daily living conditions. The third section presents the situation of women concerning gender roles and more specifically gender division of labour in agriculture. The last but not least section is about women's position in Rwanda's politics and how this has impacted their empowerment process.

### **2.1 Gender regimes and women's position in Rwandan society**

Rwanda is a patriarchal society where social structures are underpinned by unequal power relations between men and women, boys and girls. It means that, in Rwanda, like in other developing and mainly rural societies, women's position has been one that is subservient to men. This has translated into men's dominance and women's subordination, respectively. Consequently, gender inequalities have not been seen as unjust, but rather as respected social normality (Abbott, 2009, MIGEPROF 2010).

Gender knowledge regimes have been influencing the definition of gender relations and the distribution of power and productive resources such as land and related properties throughout Rwandan history (Abbott, P. et. al. 2015).

In this respect, there have been various metaphors that are commonly used in the daily public discourse determining the power relations in society with women always inferior to men. Those metaphors are used by both women and men as gender normative ideas/ideologies to define gendered subjective identities from which gender roles are distributed, with the latter always associated with power. These gender regimes transcend all aspects of the social realm at all levels (macro, meso and micro) of society and are normalised by different institutions such as the family, religious institutions, and political authorities, which makes it easy for the entire community to associate it with their belief as the truth (Rombouts 2004).

Nevertheless, as elsewhere in Africa, the Rwandan gender regimes consider men as the first sex and breadwinners, whereas women are inferior or subordinate to men (Abbott et.al. 2015). Women manage the household; pursue productive and reproductive labour work to secure the family's livelihoods, on one hand. Men undertake mainly off-farm activities and any activities that require physical strength, on the other hand. Those gender roles appear to be naturally based on sex, but they are socially constructed. "From childhood, a girl learns to be a good mother and a household worker and a boy learns to perform activities requiring physical strength like construction and carrying heavy baggage (Burnet (2000). The gender-based labour distribution goes hand in hand with power. Young boys are initiated to decide for the family once their fathers are absent. This influences not only the relationships between men and women, but also differences in the social and economic position of

different groups of women, and cultural norms and practices regarding women and gender relations (Rombouts 2004).

Historically, women have faced social, economic, political and legal discrimination in Rwanda. Until 1992, women have no right to engage in any commercial activities, except the husbands have authorised them to do so. Although the law has been repealed for three decades, still many people adhere to this prescription in practice. Furthermore, in rural areas women accept it without question or claiming their rights (Abbott, 2015).

The advent of colonial rule introduced new social and cultural values. Both Christianity and monetary systems have reinforced the supremacy of men over women, furthering inequality between both. Christianity has religiously favoured men. Accordingly, men were the head of the family and were given all the authority over the family as well as in society. Men were empowered through education and professionalization, they were allowed to work in the mission stations as well as in administration and they have begun to earn money, as the colonialist's administration favoured men over women (Jesse, 2020). Money was prestigious and owning it opens up a better life and control over the least wealthy. This abrupt shift from subsistence to a monetary economy exacerbated the already existing gender inequalities to the disadvantage of women (Schwartz 2004). It is later that women would be allowed to go to schools but their schools were relatively few, unequally distributed and mainly in the field of social sciences.

As narrated by Burnet (2008), in the post-colonial period, that is, the first and second Republics, basically women have remained behind and little change could be observed in their position in households and society in general. The government of the first Republic of Rwanda supported social centres for women in each region.

The latter focused on the needs of rural women, such as literacy and health education, and this could open opportunities for educated women who staffed them to occupy leadership positions in society.

The government of the Second Republic, however, focused on the exclusion of different categories of Rwandans including women, particularly from governance and key positions in the ministries. Nonetheless, in this period, little effort was made to address the historical gender imbalances. Women were not particularly encouraged either to go to school. Few who dared were not supported to progress beyond primary education. Thus, the majority of women were illiterate and severely disadvantaged. They continued to be prepared to carry out domestic or reproductive work, which is about household and caring for children and the elderly. Therefore, women have no rights to own or inherit the land. Moreover, if they need to conduct financial transactions or seek employment, they could only do with consent from the male who is responsible. Their husbands or parents and tutors were the decision makers.

Gender regimes also dominate marriage ceremonies in Rwanda and reinforce women's subordination through inkwano (dowry system). In Rwandan customary marriage, a male fiancé has to pay to the groom a price. Traditionally, it was paid in kind, in cows or drinks, depending on the wealth status of the husband-to-be. Randell posits that "Inkwano" gave more control to the male partners, establishing them as women's masters for whom, they have paid the price (Randell 2014, Jesse, 2020).

As Malhotra and Schuler (2002) put it, the western feminist and gender equality movement have pushed for changes in the unjust laws and policies and have gradually fostered for recognition of women as a person with equal rights and inherent dignity on an equal basis as men counterparts.

Following their pressure in around the 1980s, the Third United Nations Conference on Women held in Nairobi in 1985, and the Beijing "Platform for Action" of 1995, respectively have required governments and development actors to "take measures against all discriminatory policies and to ensure equality between women and men in the sharing of power and decision-making at all level.

Until 1992 Government of Rwanda did little to ensure gender equality. Neither did they develop related policies or implement any of the above recommendations. During the upheaval crisis following the break of war in 1990, a Ministry for gender and family promotion was created in the cabinet. Its primary mandate was to promote economic development to improve the status of women and children ( Mukabera, 2017). Alongside, there was a proliferation of grass-roots women's organisations. With the great support of international non-government organisations, emerged farming cooperatives. They have promoted mutual self-help and social capital among rural and vulnerable women.

Although under this political regime women had limited choices, the social interaction from within their self-help organisations was more than nothing (Ibid., P. 273, NewBurry and Baldwin, 2000). The situation of the women's movement remained unchanged until the end of the war and the genocide in 1994. The war and genocide affected men and women differently. Men have been the main target of the war and the genocide. As a result, many of them were killed during and or as a consequence of genocide, others fled to neighbouring countries and never returned to Rwanda, and another proportion went into prisons on charges of genocide (Izabiriza, 2005).

Thereafter, the place of women in Rwanda changed radically. In the Post genocide period, women constitute around 70 per cent of the Rwandan population (La Mattina, 2012). Inevitably, many families became dependent on women. Women have played an enormous potential to contribute as actors in the post-genocide reconstruction and development process. In this regard, Izabiriza noted that women had to assume heavy responsibilities, not only to take care of their children, older relatives and orphans but also to assume the role of the head of the household, a role which normally was carried out by men (Izabiriza 2005). Such a situation can be viewed as completely abnormal when viewed from the perspective of the Rwandan social structure which is firmly based on a patriarchal system.

Yet, the post-genocide system has created an abnormal situation, one which has required women to assume multiple roles they were not used to such as heads of household, community leaders and financial providers, as well as giving them greater responsibility for meeting the needs of devastated families and communities. Accordingly, gender roles change may strengthen women's capacities and organizational capabilities, inducing them to take on more public roles during or after conflict (Bouta et al. 2005). This is what happened just in the aftermath of the genocide as it is described in the fourth section of this chapter.

## **2.2 Women's access to land in Rwanda**

Traditionally, the customary system had been regulating land tenure in Rwanda. As a result, land distribution was much influenced by the patriarchal system which has had a great impact on women's land rights and gender inequalities (Bayisenge et al. 2014). The prevalence of customary systems and the very limited application of written law have led to land tenure insecurity and instability.

In fact, until the land reform of 2004, access to land and its use had been governed by two complementary systems of land tenure: the statutory system which was governed by property law, inherited from the colonial rules, and the customary system governed by cultural norms, inherited from the traditional political system (Musahara & Huggins, 2005). The statutory system regulated the use of land in urban areas and rural development centres. Under this system, the land was acquired through formal land transactions such as sale and inheritance, registered and held by individuals as freeholder landlords (Ministry of Natural Resources, 2004). Yet, the customary system prevailed mainly in rural areas, where rights to own and use land were traditionally recognised and respected by the communities. Under this system, the land was not registered and was privately held through freehold ownership.

It could be transmitted from parents to male heirs, through inheritance or ascending partitioning, (Ministry of Natural Resources, 2004; Musahara & Huggins, 2005). Both statutory and customary systems deprived women and female descendants of any access to and use of land, whose ownership and control remained for a long time the prerogative for men (André & Plateau, 1998). Consequently, women from rural areas irrespective of marital status whose majority depends on agriculture for a living, and mainly work in the agricultural sector, have been facing unprecedented constraints to access land and benefit from the land-related property. Depriving women of rights to access and use land in both land tenure systems resulted in perpetual land conflicts and persistent tenure insecurity, which negatively impacted social cohesion and economic development (Payne, 2011).

Committed to promoting women and enhancing gender equality, the post-genocide government undertook different reforms aiming to secure women's land rights as male counterparts. In this respect, the government of Rwanda has revised and promulgated the Matrimonial Regimes, Liberties and Successions Law of 1999 (Government of Rwanda 1999). The law gives equal rights for both male and female sex members of the same family to inherit the land. Also, this law ensures equal rights between women and men concerning property upon civil marriage and it permits children, regardless of their sex, to acquire an equal share from the parent's patrimony (ibid., 1999: 12, art. 50 of the law No 22/1999). Land reform laws followed and were informed by this inheritance law. It is worth noting that the inheritance law has no retroactive impact, subsequently, it could not be applied to regulating the matters arising from unions contracted under previous laws (Newburry and Baldwin 2000). In those cases, the judiciary system had to use jurisprudence to transcend different cases.

Gradually, to promote sustainable land use in Rwanda and mitigate land-related conflicts, the Government of Rwanda opted for land reform from which a new land policy was adopted in 2004 and the land law in 2005 as amended in 2013. Both law and policy have clarified further the modes of access to land and defined different provisions underlying the effective management of land use countrywide. Also, their adoption brought substantial changes in land administration, especially through the introduction of the unique statutory system of land tenure all over the country (Bayisenge et al. 2014, Government of Rwanda 2013).

Moreover, the land management frameworks following the current inheritance law address gender inequalities in terms of access to land or related property under matrimonial regimes.



This implies that, in the case of marriage alliance, the inheritance law recognises the right of both spouses depending on three types of matrimonial regimes: the community of property, the limited community of acquits, and the separation of property, respectively.

Whereas the second and third regimes give only partial or no right to the other spouses, under the regime of community of property the spouses opt for a marriage settlement based on joint ownership of all their property-movable as well as immovable and their present and future charges (art. 2 of the Law N° 22/99 Of 12/11/1999 regarding matrimonial regimes, liberality and succession). According to that article: both spouses, males and females, enjoy the same rights to property including rights to access to and use of land; meaning the land 'owned' by couples married under the community of property. Therefore, any land property acquired before or after the union of spouses has to be registered in the joint name of both spouses and all children have to have their interest recorded on the land title (Abbott and Malunda, 2015, GoV, 1999).

The reform has enhanced access to land for all Rwandans and a well-functioning system of land administration and management that ensures efficient ownership and use of land resources (Ministry of Natural resources, 2004). However, the customary system continues to govern family and land matters and often discriminates against women's direct rights to property and inheritance. This is because, on one hand, current legal frameworks protect and recognize women's land rights only in official marriages, there is no legal recognition of consensual cohabiting and polygamous unions or unregistered marriages.

On the other hand, the community still resist women's inheritance and land rights and gender relations are influenced by cultural beliefs which women are not entitled to inherit the land and related property as well as men (Abbott and Malunda, 2015). Worse and of all, the state has supreme power to manage all the national land and it is the owner of the land on behalf of the people (Manirakiza, 2019).

As Ngoga (2019) articulates, the current land policy and land law recognize two main categories of property regimes in the country: the state land, which makes up the public domain, and the individual private land, whose users are ordinary citizens. The individual private land is held through a renewable emphyteutic lease contract which is issued to every landowner upon registration. Nevertheless, the law guarantees only partial ownership to individual owners. In its third article, the Organic Land Law of 2005 as amended in 2013 stipulates: "The land is the common property of all Rwandans but only the State has an eminent right to the agreement of occupation rights."(GoV, 2005, GoV, 2013). Furthermore, the land law articulates that: every recognised landowner needs to obtain, outside the public and private domain of the State, an emphyteutic lease contract ranging from 3 to 99 years. (art. 29 of the Organic Law No 08/2005 as amended in 2013).

In other words, the required registration of land holdings does not entitle the land to definitive appropriation but it only provides the rights of use if rational exploitation is guaranteed. All of these laws and policies are important for women. They add opportunities for women to participate equitably in all development sectors especially agriculture, on one hand. On the other hand, they have raised expectations. Now that they theoretically own land, their entitlement in the matters should also increase, and so will be their empowerment to become part and parcel of the agricultural development and transformation.

Despite these property rights guaranteed by the new legal frameworks, however, women continue to face challenges when attempting to actualise their rights, especially for those women living in non-official marriages. In addition to the cultural norms which emphasise man as a breadwinner and the head of the family; the equal enjoyment of property rights, namely, the land rights between spouses is conditional to the matrimonial regime (Bayisenge et al. 2014).

### **2.3 Women in agriculture**

The agriculture sector continues to be the backbone of the Rwandan economy. It is still among the first three main contributors to the national economy. Yet, it remains the main economic pillar as it employs around 80 per cent of the Rwandan population, whose majority are women (NISR, 2016).

As highlighted in the previous chapter, women in Rwanda play an important role in agriculture. According to the Rwandan tradition, women have been attributed the responsibility of managing food within the household, yet the land is controlled by men (MIGEPROF 2010). In line with these gender norms, crops were categorised respectively to gender hierarchies.

The report by the Ministry of agriculture and animal husbandry on agriculture gender strategy indicates that different examples of crops are categorised by gender (MINAGRI, 2010). For example, depending on the region, Irish potatoes, bananas, coffee, and exotic vegetables (Tomatoes, eggplants, cabbage, green pepper) have been classified as men's crops, while beans, maize, sweet potatoes, cassava, sorghum, and traditional vegetable are mostly women's crops, (MINAGRI, 2010, Rietveld, 2017).

In any case, men's crops are allocated more land, and they become categorized as for men when they are marketable. In urban and peri-urban areas, exotic vegetables are highly marketable due to the high demand by urban consumers.

As Anne Rietveld (2017: 10-12) narrates, both in rural areas as well as in the cities and towns, banana beer is consumed at home but also sold at the market, and the derived income is for men as the head of the family. Although women will often weed in banana plantations, they are less involved in its production than men, women may sometimes harvest a bunch of bananas for household consumption but they may not harvest them and trade them against money. Similarly, banana beer is prestigious for consumption as well as for the market. Women participate in the process of its production but they are less to own any income from it. It is a male crop, while sorghum is only used to make a traditional beer mostly consumed at home.

## **2.4 Women in politics**

To understand the position of women in Rwanda's society, it is worthy for this study to locate them with political structures. As underlined above, in Rwanda, women have historically been predominantly confined to the domestic sphere, while men monopolized the public and political arenas. Political decision-making at the community and national levels was almost exclusively the province of men, and mainly of older elite men. Consequently, unequal power relations and gender-based discrimination were considered normal (Mutamba, 2005). Before colonial rule, only the mother of the King was playing a role as advisor of King. This political power, though it was limited, it was cut off during colonial rule.

The post-independence governments (the first and second republic respectively) took little interest in the situation of women.

They were characterized by a discriminatory policy based on gender, and ethnicity, which reinforced women's discrimination in politics and the decision-making process (Debusscher and Ansoms, 2013). The first female parliamentarian began serving in 1967. However, before the war in the early 1990"s and the genocide of 1994, women never held more than 18% of seats in Parliament (Powley 2005, Mutamba 2005).

In the after match of genocide, women have been considered the key force in the country's reconstruction process. The reason for this, as it is underlined above, is that women constitute the majority of those who survived the war and genocide, since men were the most targeted by both tragedies, either as actors or as victims (Izabiriza, 2005). Herein, women had to take on more responsibilities including those which were previously for men. Backing to this context, the post-genocide government took it as an opportunity for development.

Hence, women's promotion and gender equality became one of its political priorities (Debusscher and Ansoms, 2013). In this process, the Government has initiated different measures and developed gender-sensitive legal and policy frameworks for fighting discrimination against women in all sectors (Powley, 2005). Indeed, the government reinvigorated first the Ministry of Gender and Family Promotion to ensure the elaboration and implementation of all policies and actions aiming to enhance women's promotion and gender equality. Second, the Government adopted a new constitution in 2003, from which women were guaranteed a quota of at least 30 % of all positions in central and local government authorities ( GoR, 2003).

Hereafter, women's representation at all levels became a fundamental principle, and the number of women members of Parliament kept increasing, which made Rwanda the first country in the world with a high number of women in political entities (Abbott and Malunda, 2015, Powley, 2005).

However, despite the increased number of women in political reserved seats, especially in Parliament, the system has been criticised to be pro-elite class and unable to include poor women or those from low social and political backgrounds. Therefore, the quota system does not have a significant impact on the lives of the majority of Rwandan women (Bayisenge, 2008, Abbott and Malunda, 2015).

Furthermore, as Burnet argues, (2011), since women in parliament have to align with their party's political agenda, they rarely mobilise around women's issues and therefore have little effect on deep-rooted norms and practices within which gender inequalities are strongly embedded (Debusser and A. Ansoms, 2013). Socially and culturally embedded values still influence gender relations in practice at different levels. Society particularly rural communities still regard women as dependent on their husbands or male counterparts. And Gender norms and perceptions still influence even the behaviour of some of those who are in political positions; they are still viewed in terms of their identity as mothers and women rather than as political figures or decision maker (Mukabera, 2017, Abbott and Malunda, 2015).

To conclude this chapter, it is worth underlining that gender regimes in Rwanda have been a foundational variable for women's subordination or unequal gender relations from which women are treated as the second sex. This context has rendered difficult their living conditions at all levels and in all aspects: a social, economic and political life. Women have been facing challenges to access productive resources such as land and related property and despite their important role in agricultural production, their work has been considered less productive, as the majority of farming activities are for subsistence.

Committed to changing this context, the post-genocide government initiated different reforms to enhance women's access to land and their participation in politics. Concerning agriculture, the government adopted agricultural intensification programs to transform the farming system from subsistence to market-oriented.

However, although one cannot ignore the progress that is being achieved concerning women's empowerment and gender equality, the reality shows that women have still a long journey to go because gender relations are embedded in gender knowledge regimes which are deeply ingrained in the societal norms and beliefs within which gender inequalities are embedded, and the latter is supported and/or institutionalised by powerful bodies such as the family (marriage) and religious communities.

## **Chapter III: Theoretical orientation**

This chapter reflects on the theoretical debate underpinning agricultural change and gender. The chapter comprises three sections. The first section sheds light on the underlying idea for the promotion of agricultural change in sub-Saharan Africa including Rwanda. The second section grasps the implication of changes in agriculture production system on gender relations and on the living condition of women smallholder farmers. The third section discusses a conceptual framework from which this study draws its main argument.

### **3.1 The underlying idea for agrarian change in sab-Saharan Africa**

#### **3.1.1 Definition**

As an important part of the agrarian question, agrarian change involves the transformation of relations between land, labour and capital, which affects an agricultural production, rural livelihoods and class relations (Huggins, 2017). It entails the transformation of the social relations of production, and developing the agricultural production forces to enhance food security, livelihoods and the accumulation of capital (Moyo (2011). Under neoliberal era, the growing idea of agriculture commercialisation brought various change on the social relations of agrarian economic system, resulting from the adoption of new technologies to intensify agricultural production process (Tsikata, 2015).

Intensification of agriculture involves a process of transformation from traditional labour based to technology-based agriculture (Ksz, 2014). By this, it assumes a fundamental transformation of the modes of production in agriculture, and the relationship between different actors of agrarian economy such as the state, market and the community (De Janvre, 1981). In countries where agriculture is less developed, intensifying agriculture has been regarded as a strategy for boosting the economy and development. This was the case of some countries in Asian, Latin-American and African in 1960-90s, where green revolution policies were initiated and generated unprecedented growths (Dawson, Martin and Sikor, 2015).



Countries like India, Indonesia and Philippines are given as examples in which policies of mid 1960 on green revolution or intensification of agriculture promoted agriculture growth and successful experiences of smallholder through massive public investments that included price guarantees to raise smallholders' income (Birner and Resnick, 2010).

For Pretty, Toulmin and Williams( 2011), agricultural change implies the process of , “modernisation of agriculture” or ensemble of different techniques designed for increasing yields per hectare, increasing cropping intensity per unit of land or other inputs, and changing land use from low value crops or commodities to those that receive higher market prices). It was adopted as a strategy which uses productive technology, commonly known as “green revolution technologies” to modernise or transform traditional agriculture and to provide new and more productive technical inputs such as chemical fertilisers to peasant cultivators at a cost which is sufficiently relatively low for generating benefits ( Ansoms, 2007).

In this respect, agriculture transformation through green revolution technologies involves prominent factor for economic development as it evolves changes in agri-food system from being subsistence-oriented and farm-centered into one that is more commercialized, productive, and off-farm centred (Laporte et al. Petras and Rinehart (1971). The FAO (2016) stipulates that this transformation generates agricultural growth at least in the context where farming is the primary source of employment for most of the population. It is assumed that this growth generates income and money circulation in rural areas and stimulates the growth of non-farm goods. For example, for the time of green revolution technologies in some Asian countries, rural farmers had more cash to spend; this stimulated the demand for non-farm goods and services, created new jobs in the non-farm economy and pulled millions of people off the farm into more productive jobs. Over time, the gradual shift of the workforce from farming to non-farm sectors has transformed the economic and demographic structure of much of Asia. However, this continues showing that the well-off productive farmers are those who lead this transformation and benefit much more from it(ibid.p.5).

This argument is supported by Kusz(2014) while he was assessing modernisation of agriculture in relation to sustainable development in Poland, he demonstrated that in case of implementation of new agriculture technology, farmers who are the first innovators or who manage to integrate the new system are the first to benefit most. In line with this, one's question may be how the situation is or who is benefiting from green revolution policies in Africa, particularly in Rwanda, how are farmers involving in the new agricultural production system, and so forth. This issue is the object of the following section.

### **3.1.2 Green revolution policies as strategies for agricultural transformation in sub-Saharan Africa**

The debate on modernising agriculture in Africa was highly raised by the time of publishing the World Development Report of 2008 (World Bank, 2007), whereby the leading discourse was “waking up the sleeping giant”. This discourse implies that transforming subsistence agriculture is the hope of Africa's development as the sector employs the majority of the population, and a great number of these are poor women (FAO, 2009). The World Development Report 2008, emphasises the need to create ‘a productivity revolution in smallholder farming (World Bank 2007).

The underlying argument for this agrarian change is that “traditional’ farming is irresponsive to change low-yielding and would not bear the technology needed to increase the productivity to supply the increasing population and absorb the emerging labour in Africa. Thus, African countries must catch up with the Green Revolution as other parts of the world, in order to boost their productivity and address their mainly rural type of poverty (Patel, 2013, Ansom, 2009). Agriculture modernisation or green revolution policies were thus regarded by sub-Saharan Africa countries including Rwanda as a strategy to transform their agricultural production system, boost their economic growth and reduce poverty.

Consequently, the initiated programs for agriculture modernisation gained much support from international donors (Ansoms, 2011, Cioffo et al., 2016, Huggins, 2013).

However, as stated by Kusz (2014), the speed and the scope of the creation and implementation of strategies for modernization of farming system involve their competitive edge: when the process of modernization of farming regime is effectively implemented, it can be a driving force towards an economic growth, whereas inappropriately implemented modernization may bring unfavourable effects. The World Development report of 2008 also acknowledged this concern as a challenge ahead of smallholder farmers in Sub-Saharan Africa in the process of implementing green agricultural technologies stipulating that smallholder farmers who have entrepreneurial capabilities will be able to cope with this model and stay in agriculture (World Bank, 2007).

### **3.1.3. The tenacity of green revolution policies in sub-Saharan Africa**

The debate around the tenacity of the new green revolution for sub-Saharan Africa questions the preparedness of Africa's countries for integrating the new agrarian strategies, that is, how governments are able to finance it, how smallholders are empowered to shift from subsistence to commercial farming, and how the new green revolution is different from structural adjustment programs which failed in 1980s (Ansoms, 2011). It is argued that the new green revolution model for Africa is too ambitious and embedded in the neoliberal agenda which recalls for a process of shifting from pre-capitalist forms or peasantry production to industrial capitalism as an alternative path to development (Shivji, 2008). For Shivji, the neoliberal policies such as large-scale farming play an important role in promoting export growth and foreign investments in agriculture, which facilitate dispossession of different groups of small-scale farmers and capitalist accumulation.

As stipulated by Cioffo et al. (2016), the concerns of the new agricultural production systems in sub-Saharan Africa includes not only how to produce enough food to feed the growing population, but also how to ensure that this population have sufficient purchasing power to secure access to that food, and how the agency of more vulnerable population groups is enhanced.

In other words, the agrarian question in sub-Saharan Africa is about the capacities of states and farmers groups to implement the new agrarian model (Murison, 2016, Lavers, 2012). Studies highlight low capacity for different states to finance agricultural sector development, lack of human and institutional capacity, unsuitability of seed varieties to local context, relatively poor infrastructures, and vulnerability to climate change as additional challenges (Huggins, 2017, Dawson, 2013, Ansoms, 2011).

In the same angle, Dawson (2013) argues that, in most of cases, the relationship which is assumed to be between the use of improved inputs and the increase of income for rural actors including smallholders is not straightforward, just because, these inputs are expensive for poor farmers, and in some cases the subsidies by the governments are not sustainable. Moreover, the cost induced by agriculture mechanisation cannot be afforded by smallholders, and in case of large scale, use of green revolution technologies tends to reduce the need for rural labour force, and the resulting surplus of labour would also depress the increase in real wages brought about by low food prices (Das, 2000; Patel, 2013).

Another threat to the success of green revolution in sub-Saharan African is related to environment sustainability. Indeed, in the countries where agriculture is characterized by small-scale farms, challenges like continuing population growth and economic growth in the face of scarcities of agricultural land and water and the dangers posed by climate change, agricultural pollution and biodiversity loss are also experienced. This affects the long-term productive potential of such farming model (Buckwell et al., 2014).

Nevertheless, it is worthy to note that, African agricultural change is rooted and influenced by western capitalist values, knowledge and actors, and the unbalanced power relations characterise the emerging policies and their implementation (Huggins, 2013, 2017). This situation constitutes another type of challenge as it underestimates the agency of African farmers and that of the governments within the market dynamism.

This is what Shivji (2008) calls the domination of capitalist imperialism in Africa or the logic of primitive accumulation which is underpinned by the expropriation of values without exchange. This scholar goes further stipulating that, the most challenge of African development including agriculture development is the fact that the later has been grounded in western capitalist hegemony and this has turned Africa into the site of generating surplus (ibid. :57-58).

### **3.1.4 Rwanda's pathway to adopt and implement green revolution policies**

Chris Huggins asserted that: *“the Rwandan state does not make its policy choices on a completely autonomous basis, but rather within an aid dependent context in which aid-recipients states must clearly locate themselves as part of a particular and discursive “good governance”, with political and economic implications”* (Huggins, 2017: 79).

To begin with, it is important to highlight that the Rwanda's agrarian reform falls into the above statement, because, it is part of African Green Revolution, and as discussed above, like any other African state, it implies the dependence of the Rwandan state to multinational organisations for the implementation of these policies. In fact, despite the challenges ahead of agriculture modernisation in sub-Saharan Africa, Rwanda is one of the countries which embarked on an agrarian change through the implementation of green revolution policies (Ansoms, 2008, Huggins, 2014). Hence, it is worthy for this section to discuss different patterns underlying this agrarian change, the social relations between different actors, brief, the state's mechanisms to deal with this policy change.

To implement such agrarian change, Rwanda adopted Crops Intensification (CIP), since 2007, as the leading strategy for transforming subsistence into professionalised, market oriented, and from small-scale to large scale farming system (MINAGRI 2011, 2013, Ansoms, 2008, Huggins, 2014, 2017). The underlying assumption for this agrarian change is that the intensification policies would provide an alternative response to a number of challenges which have been limiting the productivity of agricultural sector, and holding many farmers in poverty (MINAGRI, 2013, 2011).

Beside, this aspect of agricultural productivity, the government regarded CIP as a vehicle to achieve an agrarian transition from an agricultural based economy to a service based economy as highlighted by the vision 2020 (MINECOFIN, 2000). In fact, the post genocide context required a vigorous strategy to boost the economy and to enable the majority of the population who were living in misery to access improved living conditions.

Given that land is the main resource of production and agriculture is the main sector of the Rwanda's economy, such an agrarian change would be a vehicle for the country to achieve the envisaged economic growth, from which the number of people relying on agriculture need to reduce from 90 percent of the total population in 2000 to 50 percent in 2020 (Huggins, 2017).

### **3.1.5 The Crops Intensification program (CIP) as a green revolution strategy**

As mentioned in the first chapter, the Rwandan agriculture sector has been facing challenges which hold it back and limit its productivity. Those challenges include namely the limited use of modern inputs such as chemical fertilizers, improved seeds and pesticides, and land fragmentation. As a result of high demographic pressure and given that it is the main source of income for the majority of Rwandans, land is highly fragmented and yet, agriculture is mainly based on small scale family farming, with an average size of less than 0,5ha (Musahara and Huggins, 2005). Indeed, as an agrarian society where around 80 % of the population are engaged and survive by farming activities, development of agriculture is one of the high priorities of the Rwandan Government. CIP was then adopted by the government as a solution oriented strategy those challenges (Musabanganji, 2016, MINAGRI, 2011). The program was launched in 2007 and implemented since 2008, with the great aim of boosting efficient use and productivity of land and enhancing the national economic growth (MINAGRI, 2011, 2013).

In line with this context however, it was important for this study to explore about the implementation process of CIP for understanding the architecture of this agrarian change, and particularly the manoeuvre of the government in achieving such ambitious goal.

The relevance of this question lies in the fact that such radical change requires more capital investment for the state, farmers and other stakeholders. It is then important to reflect on how were those actors mainly farmers and the state, prepared for this highly demanding investment. As Bernstein (2010) put it, under green revolution policies even the meaning of “farming” changes, it is much more regarded as an agribusiness rather than being a family farming or just a way of life.

In fact, this change engages many actors which are no longer under the control of the farm family; meaning that, the agrarian change engage not only the financial means, but also, it evolves the mobilisation and transformation of people’s mind-sets, as well as the change in social relations between different actors. In this process, the government had the great responsibility not only to transform the traditional farming system, but also to find mechanism to transform or modernise farmers. Modernising farmers here implies to improve or change their mentality for them, to adopt the new character (knowledge and skills) in modern farming techniques, that is, to work hard, to use scientific methods, the market/cash driven spirit and so forth (Huggins,2014, 2017).

In fact, the implementation of the CIP evolves a complex process, engaging the entire state machinery and various actors from inside and outside the country. In that complex process, the CIP has fours components or elements which are interlinked and which are considered as the pillars for its success (MINAGRI, 2013, Kathiresan, 2011). Those components are namely land use consolidation, the delivery of agricultural inputs to smallholders, the agricultural extension, and the post-harvest handling and marketing of agricultural produce (MINAGRI, 2013). Beside these four elements which reflect the technical aspect of the CIP, the government had another task of mobilising the community for its investment in the new agrarian model. Each element is discussed in the following sections.

### **3.1.5.1 Organisation and mobilization of farmers**

Regarding the community mobilisation, especially that farmers have to engage in the “modernisation” process”, the government used cooperatives as the arena for CIP implementation. Farmers’ cooperatives facilitated organisation and mobilisation of farmers, in that, the government authorities at different levels could interact and mobilise the mass of smallholder farmers for getting involved and co-opt the new agrarian model ( Mbonigaba and Dusengemungu, 2013). Since the post-colonial period, the Rwandan state considered cooperatives as the useful mechanism for the implementation of developmental policies, and used different strategies, sometimes coercive, for the population to join them (Musahara, 2012).

Apart from being a tool for social integration and reconciliation especially in the post genocide context, like other civil society organisations in Rwanda, cooperatives prefer to act as compliant partners for the government, to avoid political discrepancy and its consequences (Uvin, 1998, Ntihinyurwa and Masum, 2017). Nevertheless, in Rwanda cooperatives have been regarded as the convenient way agricultural can be promoted. Also, various community based organisation (faith based and local NGOs) were mobilised to complement the government’ extension and advisory services (Huggins, 2017).

### **3.1.5.2 Delivery of agricultural inputs**

On the other hand, there was a need for the government to avail agricultural inputs, because, not only they were not available on the rural markets, but also, the majority of smallholders could not afford the induced cost (MINAGRI, 2011). Also, the government had to subsidise and distribute agricultural inputs especially chemical fertilisers and improved seeds to smallholders who accept to join the program, that is, those who accept to farm the CIP selected crops. In collaboration with local authorities, cooperatives play an important role in the distribution of subsidised fertilisers and in monitoring the reinforcement of rules/procedures underpinning the inputs management under CIP.



The MINAGRI subsidized the cost of fertilizers at 50% and the farmers buy the fertilizers from agro-dealers by presenting the vouchers distributed by the CIP (Kathiresan 2011).

However, despite the investment so far provided by both the government and farmers, the reality shows that the supply is still low compare to the required inputs and the capacity of smallholder farmers (Booth and Golooba-Mutebi, 2012, Clay, Cioffo, Ansoms and Murison , 2016) . This is because, although the government tried to mobilise internal financing for the agricultural sector, the program depends mainly on foreign aid/investment. Consequently, the agricultural financing system risks to be subjected to the government's public relations and to falls into the aid conditionality (Huggins, 2014). At the beginning, the program received more investment, but it kept decreasing.

A given example is in 2011, when around USD 116.3 million of investment in agriculture was registered according to the Rwanda Development Board (RDB), and more than 55 % of this fund was from foreign investors. The World Bank has been the main provider of funds for Rwanda's agricultural development, though, different multinational corporates such as AGRA (Alliance for a Green Revolution in Africa), Rockefeller Foundation, and the Bill and Melinda Gates Foundation, have been also supporting the implementation of green revolution policies in Rwanda (Ansoms, 2008, Dawson, 2013).

Knowing the risk of foreign aid dependence, the government has been making an effort to mobilise the local private sector to invest in the implementation of CIP. In this regard, a public-private partnership between the government, banks and local NGOs has been developed (GoV, 2019). However, under this alternative, farmers have to get loans or agricultural credit from commercial banks. Despite that the government supply funds for this scheme, the access of farmers may be limited as many of them are smallholders and are not in good position to fit into the required conditions under agricultural loan schemes.

In addition to the supply of modern inputs, implementation of this program involves other policy strategies such as Land Use Consolidation, the proximity advisory services to farmers, distribution and post-harvest technologies (e.g. driers and storage facilities). The program is also supported by other strategies like land-husbandry, irrigation and mechanization infrastructure development to bring more land under production, avoiding dependency on rain-fed farming system and use of farm power in the context of a market-oriented agriculture (Dusengemungu and Mbonigaba, 2013).

### **3.1.5.3 Land Use Consolidation in the Rwanda's context**

Land Consolidation is generally defined as a process of arranging the parcels in order to make them more productive and to reduce the adverse effects of fragmentation (Bullard, 2007). Consolidating land has been used as a strategy of green revolution in different parts of the world. It was used for instance during the 'second agricultural revolution' in Europe, in order to increase productivity and yields, and in India and South-East Asia, where the agricultural production was increase resulting from the consolidation of large land holdings (Cioffo, Ansoms and Murison, 2016). This implies that land consolidation is not a Rwanda's invention as some official government reports try to define it as a Rwanda's home grown initiative. Although it is implemented in different parts of the world and at different periods of the history, it is practiced differently, as its objectives and procedure depends upon the context in which it is implemented (Ntihinyurwa and Masum, 2016).

Land consolidation follows different models differing in terms of the process involved, and also the extent of voluntarism or coercion of the affected community. USAID Land project (2013) describes four models that land consolidation can take:

- Comprehensive land consolidation: it consists of re-allocation of parcels together with a broad range of other measures to promote rural development. Under such model, activities include village renewal, support to community-based agro-processing, construction of rural roads, construction and rehabilitation of irrigation and drainage systems, and environment protection measures like erosion control;

- Simplified land consolidation: this model optimizes the conditions of the agricultural sector through the re-allocation or exchange of parcels, and the provision of additional lands from land banks. These simplified projects are often combined with the rehabilitation of infrastructure and sometimes the provision of minor facilities;
- Voluntary group land consolidation: under this model, consolidation is entirely voluntary;
- All participants agree fully with the proposed project. As a result, voluntary projects tend to be small, and voluntary consolidation tends to be best suited to address small and localized problems;
- Individual land consolidation: this model can take place on an informal and sporadic basis;
- The state is not directly involved and so these initiatives do not include the provision of public facilities. However, the state can play a significant role in encouraging consolidations that improve agriculture by promoting instruments such as joint land use agreements, leasing and retirement schemes.

Despite that the model of land consolidation varies from one society to another, depending upon its specific context, it is generally treated as a strategy for promoting not only rural development through agricultural production as well as efficient land use, but also at improving social, economic and cultural aspects (Ntihinyurwa and Masum, 2016).

In Rwanda, land laws stipulate that the primary aim of land consolidation is to remediate land fragmentation, to facilitate the agricultural modern farming techniques such as mechanisation and irrigation for mitigating the economy of scale. The Rwandan Organic Land Law No. 08/2005 of 14 July 2005 stipulates that Land Consolidation is “*a procedure of putting together small plots of land in order to manage the land and use it in an efficient manner so that the land may give more productivity*” (GoR, 2005).

Furthermore, the Ministerial Order of 21/12/2010 which determines the implementation of land consolidation policy in Rwanda defines it as “*the strategy to be used for unification of land parcels in order to make easier and productive farming than the fragmented plots*”(GoR, 2010). From these legal frameworks, it is well seen that the emphasis is on joining small plots by farmers to facilitate cultivation on large scale without changing land tenure system.

It is therefore argued that, Land Consolidation program in Rwanda is a special type and it is quite different from others programs of land consolidation experienced elsewhere in the world. On one hand, Land Consolidation program in Rwanda does not include restructuring of ownership, size, shape, and location of land parcels as land consolidation does in other parts of the world. On the other hand, the Rwandan program includes cultivation of priority crops by farmers, which is not the case for land consolidation programs experienced in different parts of the world(Musahara et al., 2014, (Mbonigaba and Dusengemungu 2013). It is from this regard that, land consolidation is much more understood as a strategy for “consolidation selected crops” to enhance agricultural productivity, and that is why the program is named Land Use Consolidation (LUC), because the emphasis is on the use or management of the farm land, the strategies which can make the land more productive (Mbonigaba and Dusengemungu 2013).

Although some policy documents refer to the program as “land consolidation”, the policy is commonly known as land use consolidation in Rwandan laws and policies. For example, the Ministry of Agriculture and Animal Resources (MINAGRI) who is the designer of the program use the term Land Use Consolidation (LUC), while the Ministerial Order n°14/11.30 of 21/12/2010 introduces it as a Land Consolidation model in Rwanda. The Official Gazette of 16/06/2013, Article 30 of the Law Governing Land in Rwanda used the term ‘Land Use Consolidation’ (GoR, 2013), and it is known as ‘farm land use consolidation’ in USAID funded land projects in Rwanda, it is known . All these terms only refer to the consolidation of the use of farm land where all farmers with closed parcels grow the same priority crop in a synchronized way, keeping their land size and rights for personal ownership of the land ((Mbonigaba and Dusengemungu 2013; Kathiresan, 2012).

In line with this, it is worth noting that the agrarian question is context specific. In the case of Rwanda, consolidation is related to land use or the consolidation of the production, without affecting land tenure system, which is different from other forms of land consolidation in different parts of the world (Musabanganji, 2016).

Moreover, in the context of land scarcity such as Rwanda, land consolidation is not only for economies of scale but also for optimal use of physical space. It is therefore linked to agriculture development as it is used as a tool for the effective intensification of agriculture (Musahara et. al., 2014). As the main pillar of crops intensification program, LUC is designed to drive the process transforming small scale into large scale farming system, and the distribution of improved inputs to increase yields for selected crops (MINAGRI, 2009).

As Dawson, Martin and Sikor (2016) put it however, the question is whether the consolidation of the use of land, though it is a core component of CIP is a sufficient mean to generate the desired agrarian economic growth and to improve the socio-economic conditions of those involved and depend upon farming activities whose the majority are poor, or if the latter is just a strategy for capitalist accumulation. Backing to this concern, it was important for this study to explore about the participation of farmers in CIP implementation process.

#### **3.1.5.4 Farmers participation in CIP implementation process**

The 1990s development discourses highlighted participation as a people centred development approach, and as a one of the conditions for development success. Thus, the notion of local people's participation in development practices that affect their lives has been gaining momentum in the process of human empowerment and development. In this sense, Robert Chambers argues that participation helps to transcend power relations embedded in and hinder inclusion and benefits of people from development policy processes (Chambers 1994).

As such, development scholars and practitioners have been advocating for the inclusion of local people's participation in development practices.

The underlying idea behind this is the belief that consideration should be given to poor people to participate in projects and programmes that affect their lives (Mubita, Libati and Mulonda, 2017). Chambers emphasises on the importance of participatory approaches for rural development in that it creates a sense of ownership of development process by local people and place them in positions to identify, determine and control their priorities for action (Chambers, 1994). In the same vein, FAO stipulates that, for farmers to benefit out of market oriented agriculture, they need a working environment which enable them to become better decision-makers and which facilitates them to access information, to invest financial capitals, to develop skills in agribusiness, and other relevant means for enabling them to be active agent of such agrarian change (FAO, 2013: 8).

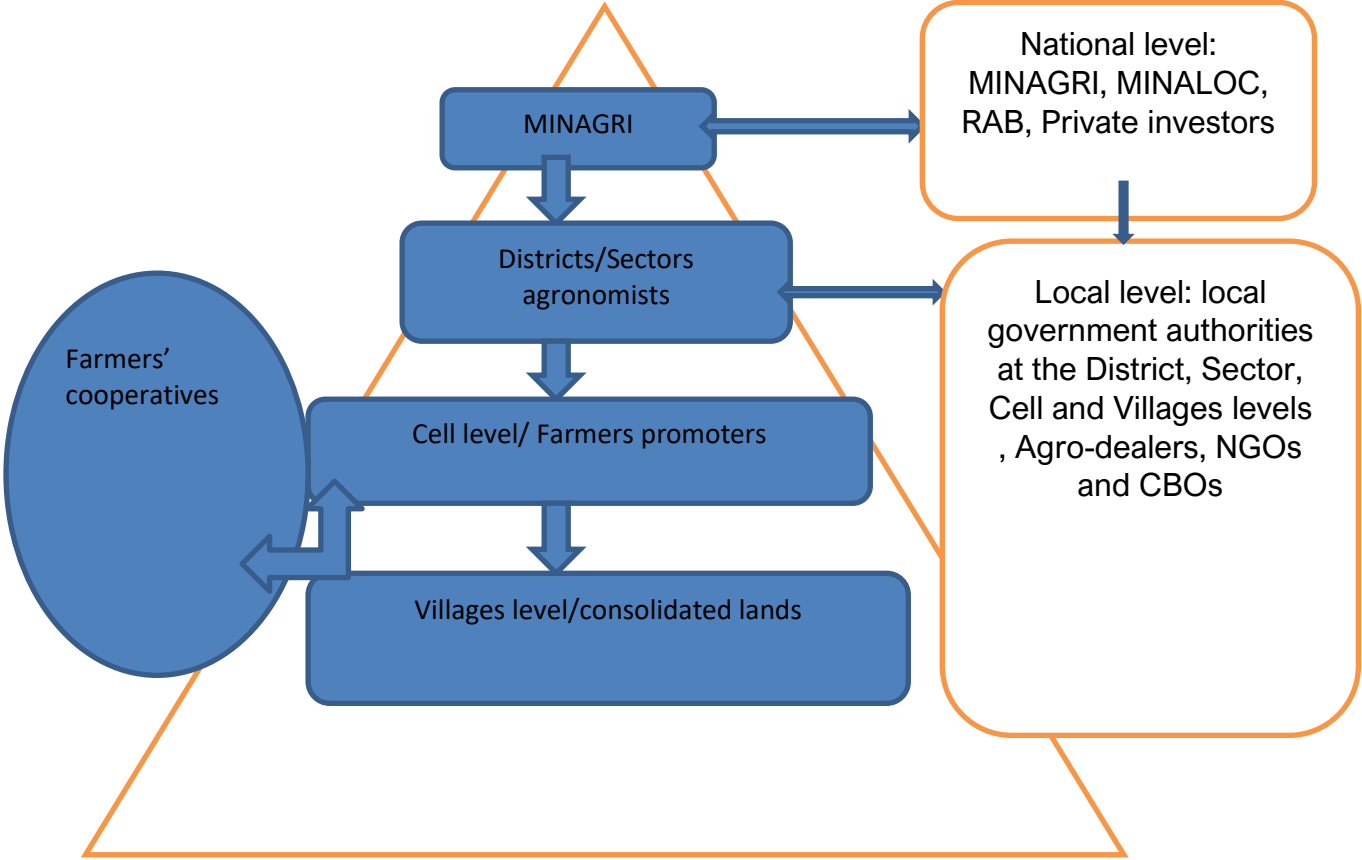
In line with this, it is understood that, for its effective success, CIP will depend mainly upon the commitment and or involvement of the population throughout its implementation process. In other words, the CIP policy process needs to be flexible, and offering to them empowering opportunities, that is, opening a room for farmers to get involved in decision making process as active agents for them to own and benefit from this agrarian change.

However, the policy framework of CIP has been criticised of being a top-down approach limiting farmers' involvement in decision making. Studies demonstrated that, in theory the framework recognise the importance of farmers' participation as a factor which will facilitate its implementation, but, what is written in the policy documents is not reflected in the practice (Huggins, 2014, Ansoms 2009, 2011, Ntihinyurwa and Masum, 2017). For example, article 14 of the Ministerial Order n°14/11.30 of 21/12/2010, stipulates that farmers' participation in Land Use Consolidation should be voluntary. For this, it recommends the application of democratic principles for enabling community members to express their comments on different programs (GoV, 2010). In reality, such principles were not applied, because, since its implementation, growing priority crops under CIP was compulsory for all farmers.

In some cases, local authorities are directed by the target driven system which put emphasis on ‘product’ than ‘process’ and ultimately forces local people to grow the priority crops in order to meet the target figures of ‘performance contract’ in the respective areas(Nahayo et al., 2017; Ntihinyurwa and Masum 2017).

Furthermore, as reflected in the figure below, the implementation process of CIP involves the entire state machinery, with the MINAGRI and its agencies at the forefront.

**Figure 1: the implementation of Crops Intensification Program**



**Source:** adapted from RAB’s description of implementations process of CIP- LUC program (Mbonigaba and Dusengemungu, 2013).

In fact, MINAGRI and its agency Rwanda Agriculture Board establish CIP policy. In collaboration with different ministries such as MINALOC, MiNINFRA, and Districts authorities, they identify the priority crops (maize, rice, Irish potatoes, and wheat, cassava, beans and soya beans) suitable for the various agro ecological zones within each district, for a specific agricultural season.

Rwanda Agriculture Board specifies possible target figures of land area to be consolidated in each district. The eventual figures are then agreed on through negotiations with the mayors, vice mayors and agronomists of the respective localities. The target figures are shared among the sectors of the districts proportionately in accordance with the land availability and the suitability of priority crops. The sector executive secretary and sector agronomist adopt the shared figures of consolidation areas in their annual performance contracts as indicators. At the cell and village level, groups of farmers coordinate the consolidation of land use and resettlement of family households located in agriculturally productive areas. The village leaders communicate to farmers about the decision in the selection of crop to grow and delineate the plots to consolidate for a specific agricultural season.

### **3.2 The implication of agrarian change for gender relations**

Starting by the definition of the concept of gender and its related concepts such as gender relations, culture and gender division of labour, this section discusses the implication of agricultural change on the social relations of gender.

#### **3.2.1 Gender as a concept**

As a concept, gender refers to masculinities and femininities, or “womanhood and manhood”, the power relations between women and men, and the structural contexts that reinforce and create those power relations (Stets and Burke, 2010). In this line, gender is understood as the social meaning given to being a woman or a man in a specific context, and can therefore influence and shapes behaviours, roles, expectations and entitlements of women and men; and provides rules, norms, customs and practices through which biological differences may become social differences (March et al., 1999). This meaning differentiates literally sex, which refers to the biological differences that categorize someone as either female or male; and gender which refers to the socially determined ideas and practices of what it is to be female or male (March et al., 1999; Reeves and Baden, 2000).



In practice, gender refers to the division of people into male and female with their accompanying socially constructed roles, rules of behaviour, activities and attributes (Udry, 1994). In this sense, gender is extremely important since it also determines one's rights, responsibilities and identity. In a more specific terms, Lorber (2008) defines gender as "a social institution based on three structural principles: the division of people in two social groups, 'men' and 'women'; the social construction of perceptible differences between them; and their differential treatment, legitimated by socially produced differences." In this regard, gender identity determines how we are perceived and how we are expected to think and act as a woman and a man, because of the way the society is organized (Parpart et al., 2000).

From this perspective, the definition of gender reflects the concept of gender relations, which are, thus socially constructed and interact with other social relations such as class, ethnicity, age, religion, and so forth. Social relations are rooted in what is termed "culture", which refers to the distinctive patterns of ideas, values, patterns of beliefs, expected behaviour, practices and material objects that constitute people's way of life and relations within a society or a group (Reeves and Baden, 2000).

Culture is produced by social institutions, which also are defined as organizational systems which function to satisfy basic social needs by providing an ordered framework linking the individual to the larger society. This means that the social institutions reflect the normative systems, which may limit or enable individual or collective agency (Ferrant et al., 2014). As illustrated by Sharma (2016), these normative systems operate in five basic areas of life, which may be designated as the primary institutions: (1) In determining Kinship; (2) in providing for the legitimate use of power; (3) in regulating the distribution of goods and services; (4) in transmitting knowledge from one generation to the next; and (5) in regulating our relations to the supernatural. These five basic institutions are generally made of the family, government, economy, education and religion and they are called social institutions.

From this, social institutions restrict the formal and informal laws, social norms and practices, which play an important role in shaping or restricting the decisions, choices and behaviours of groups, communities and individuals (Jütting et al., 2008).

In general, the social institutions set the parameters of what behaviours are deemed acceptable or unacceptable in a society and therefore play a key role in defining and influencing gender roles and relations (Ferrant et al., 2014). The most given example of a social norm is the case of men as breadwinners, and women as home-makers, or men as leaders and decision makers and women as followers and implementers of decisions. In line with the above definitions, gender relations are determined by social institutions(culture), and influence economics, politics, social interactions and individual needs, and it is an active force in the formation of the family, the community and the nation (UNDP, 2001).

Reeves and Baden (2000) argue that culturally determined gender ideologies define rights and responsibilities and what 'appropriate' behaviour is for women and men. They also influence access to and control over resources, participation in decision-making, and often reinforce male power and the idea of women's inferiority. Gender relations are thus the social relationships between men and women which may be the relations of cooperation, connections and mutual support, and of conflicts, separation and competition, of difference and inequality (Oxfam, 1995). Indeed, gender relations consider the relevance of the issues of power, differences and diversity, how identities are defined and constructed and the relationship is shaped, thus influencing positively or negatively the enjoyment of men' and women's rights. Gender identities and gender relations are essential facets of culture as they determine the way daily life is lived not only within the family, but also in society as a whole. They lead and influence social structures and division of social roles or gender division of labour and distribution of resources ((ibid. p.16)

### **3.2.2 Gender roles or division of labour**

Gender roles are the expected attitudes and behaviour a society associates with each sex within the household or community, learned during the socialisation or childhood and adolescence and continuously evolving overtime throughout an individual's life (Reeves and Baden, 2000). Hackman (1992), stipulates that gender roles are considered as means through which one can express his or her gender identity, and a mean of exerting social control between individuals or members of the same community.

As explained by Singh (1992), social change, which, by implication, includes diversity in gender roles as a result of modernisation, occurs through the exchanges among various levels of this hierarchy. In turn, these exchanges lead to the differentiation of system units, establishing mechanisms of integration while increasing adaptive capacity of the system. This author continues arguing that, this process leads to the institutionalisation of gender roles which is achieved through the processes in the social system leading to the formation of a structure of the social structure or dynamic set of relationship (Ibid. P. 13).

Furthermore, gender roles exist because they are functional for the society, and this functionality depends on the societal conditions. For example, in agrarian settings, depending on whether the family is rich or poor, gender roles must be complimentary so as to maintain the family and requirements for running the farm. However, in industrialized societies such role ascriptions may be dysfunctional since technology, and the demands of industrial society render such ascriptions as unnecessary (Dancer and Tsikata, 2015). In other words, the setting of division of labour by gender is due to the nature of the society and how such division is useful for that specific community.

In fact, the gender division of labour” is about the differential value given by society to tasks or roles performed by men and women and how these divisions are seen as natural and functional. The broad division of tasks or responsibilities among women and men is between production and reproduction: men are expected to do more production than reproduction, and women are expected to do more reproduction than production. Consequently, this differentiation has a gendered impact regarding access and control over resources and distribution of awards or incentives (Moser, 1993). Production refers generally to the activities that produce commodities, which therefore contribute to the national economic growth, while reproduction means all those activities that ensure the care and survival of a household and therefore a reproduction of society’s human resources. These activities, known as household work, domestic work or reproductive work are not commodified and affect women’s ability to participate in productive activities, yet the latter are valued and rewarded more in agrarian economy than reproduction (Beneria, 1979, Moser, 1993).

### **3.2.3 Gender roles, class and women's labour**

As noted above, the differences between men and women are not naturally determined but emanate from processes of social and cultural construction (Moser, 1993). The social and cultural construction of gender entails the ascription of labels and assignment of stereotypes to both men and women: a man as the breadwinner versus a woman as the housewife and homemaker, weak woman versus strong man, and superior man versus inferior woman (Butler, 1990; Moser, 1993).

Such difference involves further the notion of class and social differentiation in the sense that society places men and women on different scales and categories. The categories that are socially and culturally constructed are, in turn, assigned contrasting roles, responsibilities and rights with men and women enjoying varying privileges, power and rights (Siu et al., 2012). While socio-cultural norms and practices accord better privileges, power and rights to men, for instance taking on productive work in the formal public labour market and land ownership, women are accorded less privileges, power and rights: they cannot own land, have less control over farm produce, engage in and have secondary rights. Socio-cultural norms and practices delineate social reproduction: "birthing, raising children, caring for friends and family members, maintaining households and broader communities, and sustaining connections more generally", as women's work (Fraser, 2016:99).

Some studies argued that the relations of production and reproduction are important unit of analysis in agrarian political economy, because, as part of intra-household gender relations, they contribute to the shaping of social relations in agricultural production system whereby women and men, as actors in the sector, interact with the state and the market (Dancer and Tsikata, 2015, Tsikata, 2016). The social institutions within which this division of roles is institutionalised produce knowledge regimes which influence social structures and may challenge the dynamic differentiation of gender roles by the social system. Such organisation of roles and responsibilities within the family as a unit of production is tightly related to the structure of power or hierarchical functioning which may lead to women's subordination, especially in

capitalist agricultural production system where women work hard with low wages compare to men (Singh, 1990).

In fact, the capitalist agriculture reinforces women's subordination in that it promotes exploitative working conditions, especially for rural women. The exploitative conditions for women's labour were accentuated by the separation between the productive and reproductive activities of everyday life (Serwajja, 2021). This unfair separation of social roles, allocated productive roles and responsibilities to men, and reproductive ones to women.

Yet, although women's social reproductive contribution is often unrecognised, undervalued and totally disregarded in some cases (while paying full recognition to the work done by men), the outcomes of women's labour both directly and indirectly feed into and are intertwined in the broader capitalistic processes (LeBaron, 2015 quoted in Serwajja, 2021:9). In other words, capitalist production system cannot flourish in the absence of women's household work such as child-rearing, schooling, affective care and a host of other activities which serve to produce new generations of workers and replenish existing ones.

### **3.2.4 The agricultural capitalist production and gender relations**

As earlier stated, reforming agriculture system aims to boost the economic development and improve livelihoods of those involved in farming activities. However, the question that is raised out of this assumption is to what extent does the reform shapes or is shaped by the social relation of gender. This section explores the scholarship perspectives on this concern. In fact, agriculture modernisation implies a process of transformation of the production system from pre-capitalist forms or peasantry production (commonly known as subsistence farming) to industrial capitalism or market oriented (Lewontin, 2000). This process implies the commoditization process of agricultural inputs and outputs as an alternative path to economic development (Shivji 2008). It also involves a change of the farming system whereby farmers will be required to use different agricultural inputs to produce different outputs.

In this respect, farmers need the provision of farm inputs and the transformation of farm outputs into consumer commodities. In other words, farmers need to purchase improved seeds, chemical fertilizers, and other necessary technology to enhance yields productivity (Lewontin 2000: 67). For being effective and beneficiaries of this agricultural technologies, farmers need to become better decision-makers in this (new) business, and this requires them to access to information, to invest financial capitals, to develop skills in agribusiness, to intensify farm labour and other relevant means for effectively running a farm as a business(FAO 2011, Lewontin, 2000).

As argued by different scholars, in the context where farmers or farm producers have low capacities, this situation gives to the capitalist (consumers) the power over the farmers and opportunity to generate more profits, as the efficiency of the latter will depend on the inputs supply, yet the family labour or unpaid labour (normally confined to peasant modes of production) will directly benefits the market ( Naidu and Ossome, 2016, Amin, 2012, Shivji, 2008, Kusz, 2014). Indeed, this situation is challenging for farmers as it limits their choices about the physical process of farm production, what to grow, how much and what types of inputs to use, and they cannot produce inputs for themselves as it is normally under pre-capitalist or peasantry farm production.

Consequently, the system gives an opportunity to industrial capitalists to maintain the control over farmer's choices, and force them into farming process which require them to use high value inputs, and to produce products following the demands of some purchasers who have the power to determine the price of these products (Lewontin, 2000). As the farmers lose the power to choose the nature of the production process they are engaged in, and at the same time losing the ability/possibility to sell the product on a local market, the farmer becomes "a mere operative in a determined chain whose product is alienated from the producer or simply the farmer becomes proletarianized" (ibid. 2000: 98, Amin, 2012). In other words, in commercial agricultural production system, although farmers are the owner of some means of production such as farm land and labour, but they have no economic alternative to use them effectively and consequently there is a loss of control over one's labour process and limited social reproduction.

Studies have revealed that while the drive for capital accumulation does impose a powerful logic on the possibilities open to individuals and groups, the diverse ways in which people organise their working and family lives also exercise upwards pressures on the capacity of global capitalism to shape these possibilities (Kabeer 1999). The consequences of these changes can be traced through various outcomes that emerge from the workings of capital which carry an emancipatory potential for poor and vulnerable groups, or intensify the conditions of their subordination and exploitation (Beneria and Sen, 1982).

For instance, in case of agrarian change, when petty commodity producers revert to subsistence production and free labourers become tied labourers; or when women move from domestic productive work to wage work outside the household or the other way around, the bases and substance of social relations can change (Dancer and Tsikata, 2015). Moreover, In capitalist agriculture, it is argued that both women and men (peasants) produce labour power for capital but without being compensated by capital, that is, the non-commodified work of reproduction, which in some societies accomplished by women has been not valued and yet it contributes to the continuation of capitalist accumulation (Bennhold-Thomsen, 1982, as quoted in Rasavi, 2009).

As pointed out by Dancer and Tsikata (2015), the implications of market driven agrarian system for men and women vary across different models of agrarian change as well as local socio-economic and political contexts. In some societies (mainly agrarian societies like in Africa), men often control more resources: land, labour, capital, technologies and skills than women; and the men have the power to take important decisions as household heads. This situation not only renders women subordinate to men, but also favours men to control women's labour power. This illustrate that gender identities and division of labour are important determinants of gender relations in agrarian economy as they are intrinsically bound with differential access to and control over resources (Razavi, 2009).

In some societies, men are expected to do more production than reproduction, and women are expected to do more reproduction than production.

This also has an implication to socially differentiated impacts of agrarian production on intra-household relations because production is valued and rewarded more in the political economy than reproduction. Production refers largely to the activities that produce commodities, and therefore contribute to the raise of income and the national development, while reproduction refers to all those activities that ensure the care and survival of the household (Dancer and Tsikata, 2015). This division of labour determine incentive for both women and men. As women are more involved in reproduction activities or household work than men, it affects their ability to participate in productive work, thus reduce their economic rewards because of their household responsibilities.

The above discussion demonstrates that a change in agrarian production system engenders another change in social relation of gender and vice-versa. Scholarships on agrarian question need therefore to reflect the impact of such changes if they want ever to provide an alternative solution to the contemporary agrarian question. This implies that researching gender in agriculture should go beyond the description of the role of women in agriculture and capture the interconnection between the domestic arena (or the intra-household relations: that is cooperation, conflict, inequalities in resources allocations and in the division of labour, gender interests and power relation) and the economic and political processes which underpin the agrarian change (Rasavi, 2009, Tsikata, 2015, Okali, 2012).

### **3.3. Conceptual framework**

#### **3.3.1 Agency and opportunity structure in CIP policy process**

To understand the effects of CIP policy on women smallholder farmers, this study uses the concepts of agency and opportunity structure to analyse the social relations of the Rwanda's agrarian change. In other words, the two concepts help this study to grasp the structural factors underlying CIP implementation process, and to understand how such factors affect the living and working conditions of women smallholders. Anthony Giddens defines "structures" as a set of 'rules and resources', one presupposing the other. For him, structures involve 'both the medium and the outcome of the practices which constitute social systems' (Giddens 1979: 27).



Drawing from this definition, Sewell (1992) argued that agency is a constituent of structure, which means that structures shape people's practices, which in turn constitute or reproduce structures. In this sense, human agency and structure presuppose each other. While discussing the process of women's empowerment, (Kabeer 1999) stated that structures influence individual resources, agency and outcome or achievements. For Kabeer, the possibility to access productive resources and the ability to make choices and to pursue a purposeful action determine the life standards of individual women in a specific society.

In the same vein, Amartya Sen underlined this interconnection between agency and structure while discussing women's agency and social change. He argued that agency can play an important role "in removing the inequalities which depress the well-being of women"(Sen 1999: 191). Here, Sen made an effective discussion on "women's agency" making the distinction between capabilities and functioning, as the difference between having rights and being able to exercise those rights. For him, women need capabilities to act, to voice and to convert these capabilities into real functioning. In other words, women's well-being is strongly determined by different variables such as their ability to earn an independent income, their economic role outside the family, literacy and education, property rights, and participation in decisions within and outside the family (Ibid. 1999: 201).

Moreover, Patti Petesch, Catalina Smulovitz, and Michael Walton developed and suggested the concepts of agency and opportunity structure as a framework which one can use to understand and track changes in the relationships between poor people and different actors such as state, markets or civil society as well as gender relations within the household( Narayan, 2005: 4). For them, opportunity structure is defined by the broader institutional, social, and political context of formal and informal rules and norms within which actors pursue their interests. Agency is defined by the capacity of actors to take purposeful action, a function of both individual and collective assets and capabilities (Ibid., p. 6).

Aligning from these concepts, Deepa Narayan argues that, an effective investment in poor people's capabilities requires changes in the opportunity structure within which poor people pursue their interests. In other words, positive outcome of a development policy or initiative requires changes in social and political structures that perpetuate unequal power relations between different actors, and which can limit poor people from taking effective action to improve their well-being individually or collectively and that limit their choices (ibid., P. 6). Studying agrarian change requires going beyond the description of the policy process. Rather, it demands to address the question of social relations engaging different actors under a specific policy change.

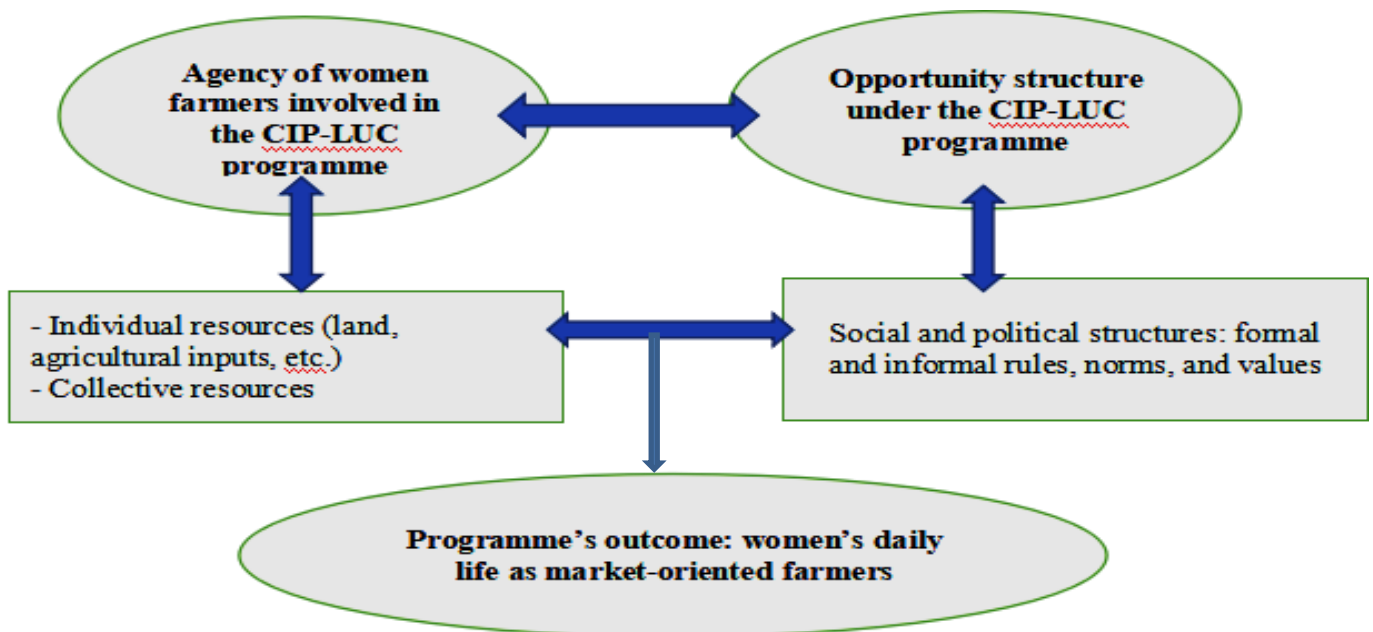
To recognise the complexity of gender relations as they are produced and shaped by the broader economic and social processes; the analysis of the social relations in everyday life and their interconnections with the relations of re/production in the changing local and world economy (Kabeer, 1994). Hence, this study used the concepts of agency and opportunity structure to understand the specific context of CIP policy process, to go beyond of the relationship between women and men (as isolated categories social categories), and analyse the broader interconnecting relationships through which women are positioned as a subordinate group in the division of resources and responsibilities, attributes and capabilities, power and privilege.

Here, it is worth noting that gender relations always interwoven with other social relations such as class, ethnicity and race and have to be analysed in a holistically if the concrete conditions of life for different groups of women and men are to be understood. Beneria and Sen (1981) support this argument by adding that to understand the complexity of gender differentiation underlying capitalist agrarian economy requires an examination of different factors/conditions underpinning the process of production and reproduction in a specific context. While illustrating their argument, these authors show for example that, in the process of accumulation, capitalism employs different mechanisms of exploitation in small holder commercial farms, labour intensive or capital-intensive industries and so forth.

The Implications of such mechanism for the gender division of labour and for women's subordination will depend on the specific forms that accumulation takes and the structure of production in different social formations. In the context of Rwanda, agricultural intensification involves the process of transforming subsistence into market-oriented or capitalist agricultural production system resulting into a fundamental transformation of the modes of production in agriculture engaging different institutions/actors such as the state, market, and the farmers. The system involves a modern farming techniques designed to increase yields per hectare, to increase cropping intensity per unit of land, and to improve the land use from low-value crops or commodities to those that receive higher market prices (Mbonigaba and Dusengemungu 2013); MINAGRI, 2011, 2013).

However, as argued by Shivji (2009), this process of capitalising agriculture requires the state to engage in neoliberal policies, with a high risk of facilitating dispossession of different groups of small-scale farmers and causing capitalist accumulation. To understand the dynamism of this change and its effects on gender relations and women farmers' life, one needs to analyse how the structural change create opportunities or not and it affects the agency of women small farmers as the majority of those involved in the agricultural production system. Through the analysis of CIP policy implementation process, roles, responsibilities and power relation between different actors involved in this agrarian change such as the state, private sector and farmers (women and men), the study will be able to find out gendered differentiated impacts and how the latter affects women's daily survival. The graphic below illustrates the conceptual framework from which the study draws its argument:

**Figure 2: Conceptual framework: agency and opportunity structure**



**Source:** adapted by the researcher from the conceptualisation of agency and opportunity structure by Patti Petesch, Catalina Smulovitz, and Michael Walton (Narayan, ed. 2005).

#### **Explaining the graphic**

As discussed above, the effects of CIP program on women farmers depend, on one hand, upon the opportunity structure, that is, the context or structural factors underpinning its implementation process. On the other hand, they depend on their agency, that is, their access to different types of resources or assets, being physical or financial such as land, livestock, housings, savings and credit or human such as good health, education or other life enhancing skills. These resources enable women farmers to afford the required cost for the agriculture production under CIP program. The limitation of such resources constrains their capacity to take advantage or the act as active agents of the program. As explained by Sen (1999), the social capability includes self-esteem, and ability to aspire to a better future. The collective resources imply the ability to access information, to be member of association or to participate in a political life.

However, for these resources to be productive, one needs a social and political environment which conducive, that is, informal and formal rules, cultural norms and values which shape the individual or collective agency in the process of pursuing individual's functioning (Beneria and Sen, 1989). In other words, the effects of CIP of women farmers will depend of the social, economic and political environment within which women are operating. The study used the concepts of agency and opportunity structure to understand how the living and working conditions enable women to engage or to copy with and benefit from CIP program. To this end, the study argues that, the effects of CIP program on women smallholder farmers depend on their lived and working conditions, that is the lived conditions within their households and working conditions in the agricultural production system under CIP.

In that process, the study had to find out who are those women smallholder farmers involved in CIP in relation to their access to land, capital and labour, and to investigate how their organisation into cooperatives shape or not the effective use of those resources or and capabilities. Furthermore, the study has to find out how formal and informal rules underpinning the CIP policy processes, the cultural norms, values which define intra-household gender relations open opportunities for women to benefit from LUC program.

### **3.3.2 Intersectionality**

For Davis (2008), the concept of intersectionality refers to interaction of multiple identities and experiences of exclusion and subordination that can operate in any given situation. Yuval-Davis pointed out that: "Intersectionality approach challenges us to look at the different social positioning of women (and men) and to reflect on the different ways in which they participate in the reproduction of these relations. As we do this, intersectionality serves as an instrument that helps us to grasp the complex interplay between disadvantage and privilege from within a specific social change" Yuval-Davis (2007: 193). From this definition, intersectionality initiates a process of discovery alerting the researchers to the fact that the world around them is always more complicated and contradictory than they could ever anticipate.

This compels the researcher to grapple with complexity and to engage with it rather than to resort to devices which simplify reality in the name of tidying up the research process (ibid. 2007: 195). Intersectionality refers to the interaction of multiple identities and experiences of structural forms of exclusion and subordination.

Gender intersects with other social relations such as class, ethnicity, and geographical location. This work highlights how farmers in Rwanda and more specifically women are not a homogeneous group, although there are some problems in common, they have different social and economic conditions which affect their daily survival strategies. In this research, an intersectional approach will be used to analyse how those conditions affect women's capability to benefit from opportunities offered by CIP. In other words, this research uses this approach to scrutinise how different factors underpinning the implementation of CIP shape or not its effects on the daily living conditions of women farmers.

For concluding this chapter, it is worth to note that agrarian change has been regarded as a strategy for boosting the economic growth and development. In line with this assumption, the World development report of 2008 recommends the development of African agriculture and the adoption of green revolution policies as the last resort policy measures for boosting the growth, and responding to the highly growing population (World Bank, 2007). The post genocide Rwandan context was very complex and highly demanding a rapid and responsive policy framework to facilitate the country recovery. The adoption and implementation of green revolution strategies was thus an alternative measure for developing agriculture sector as an important source of subsistence for the majority of the population.

The process involved reform in land use and management and in agricultural production system whereby farmers were required to adopt agricultural technologies such as chemical fertilisers, hybrid seeds and pesticides and to consolidate the use of land in order to intensify the farming process. Farmers were mobilised to change their traditional farming methods, which are considered and mediocre and to produce for market rather than home consumption.

However, it is worth to note that, like elsewhere in Africa the green revolution policies in Rwanda have been criticised for being too ambitious, as the states and farmers (mostly smallholders) were not were prepare to undertake this highly demanding agrarian change. To understand the effects of this agrarian reform on the smallholder farmers particularly women, this study used the concept of agency and opportunity structure together with intersectionality to analyse the complex context from which the program is implemented, and how this context shape or not women's capabilities and the power relations between different actors involved in CIP.

## **Chapter IV: Research methodology**

The aim of this study is to understand the effects of agricultural intensification programs on the daily living condition of women smallholder farmers in Rwanda. For doing this, the study explore the scope of change as per the implementation of CIP policy, that is, how the policy processed, what is the role/position of farmers in decision making process, what are the opportunities does the agrarian change offer to smallholder farmers ; and appraise the effects of this policy process on intra-household gender relations . In this respect, the study draws from the experience of women members of farmers' organisation, known as "CIP cooperatives". As noted in the previous chapters, for the government to implement the new agrarian model, farmers were organised into cooperatives, and everyone who needs a plot of land in marshlands has to join these cooperatives. This chapter presents in details the research approach, the methods and techniques used for collecting and analysing data, ethical issues and difficulties encountered throughout the research process.

### **4.1 Research approach**

This study is exploratory and used a qualitative approach, as it seeks to understand women's experience in relation to agriculture change as per the implementation of CIP program by recording their perspectives. In this endeavour, the research process used different techniques to collect primary and secondary data and to exhaustively comprehend the topic under the study. Those techniques involved meticulously the combination of documentation, interviews and participant observation. The data collection process is described in the following section.

### **4.2. Data collection process**

#### **4.2.1 Organisation of the field work**

The field research for this study was conducted for a period of three months, from December 2019 up to February 2020, in two districts of the southern province of Rwanda, which are Gisagara and Huye (see appendix III).



During this period, I visited different farmers' cooperatives in the marshlands where members of CIP-LUC program are farming selected crops. To proceed, I had to present myself to the district office as a researcher, explaining mainly my research interest with supporting documents, in order to get the authorisation by the mayor in each district, allowing me to visit and conduct interviews with farmers.

After this step, I was put into contact with leaders of different cooperatives in which farmers were grouped under CIP-LUC program. The following step was then to contact these leaders -one by one, and introduce myself explaining what I need from them. From there, I was given the permission to attend different meetings of cooperatives from which I could interact with different farmers and or proceed with the observation.

With the help of the leaders of farmers' cooperatives, I was able to get into contact with individual women to whom I could introduce myself and ask them if they can accept to participate in my research or to do interview. Once accepted the interview could be conducted immediately or I could make an appointment for further meeting. As women are not a homogenous group, the purpose was to include different categories of women basing on different characteristics such as the level of education, their social status, their age category, the economic activity or their main source of income, and the size of land holdings under CIP. In addition to this, my interest was about the geographical location, that is, to take both rural and urban areas, with an assumption that geographical settings can shape or can have an impact on the CIP process, or can have effects on intra-household gender relations.

As such, I believed that I could collect varied and relevant materials enabling to understand the magnitude of the gains of women farmers from the newly introduced agrarian model. The field research was organised for a period of three months: from December 2019 to February 2020.

#### **4.2.2 Sampling**

Studies demonstrated that there is a number of sampling techniques which can be used in qualitative research (McMillan & Schumacher 2014; Savin-Baden & Major 2013; O'Leary 2010). This study used purposive and simple random sampling techniques. Purposive sampling, also known as judgmental or subjective sampling, relies on the judgement of the researcher while selecting the units of data such as people, organisations, events, and so on. With such technique, the researcher makes the decision about individuals to be involved in the study upon a variety of criteria (Rai, 2015). With such technique, the researcher does not know at the beginning the size or the number or constituents to be involved in the data collection process. This means that, I purposively selected the three categories of respondents, which are namely women farmers, members of CIP program, the leaders of those cooperatives, and government officials in charge of agriculture at the Sector level. In addition, I have chosen to focus on two geographical settings (urban and rural areas).

As noted above, I selected different setting, rural and urban because I wanted to explore if the geographical location can shape or not the way the CIP policy is implemented, and if the program has different effects on women farmers as per the geographical location. Considering that gender based perception and practices are strongly influenced by cultural values and practice, urban and rural areas differ fundamentally in their culture and lifestyle so that, and this can influence their behaviour in coping or dealing with the agrarian change.

In an urban community, there is always division of labour and specialization which influence job allocation. This is different from rural areas where such allocation is quite static due to the character of daily activity dominated by agriculture, and mostly attached to their traditions and beliefs. Hence, the differentiation between urban and rural settings triggered my interest while selecting the participants to this research in order to capture perspectives of people from mixed values of urban areas, and those from the rural community deeply attached to their traditions. On the other hand, the two districts were chosen due to my previous research experience.

As I conducted different field works for my previous studies in this region, I could easily get the trust from the local authorities, and the research participants, and this facilitated the data collection process. It is highlighted in the first chapter that one of the problems that the Rwanda's agriculture sector is facing is the fragmentation of land due to the demographic pressure. The southern province is among the regions which are facing this problem at the high level (NISR, 2016). My interest was then to see how farmers, particularly women smallholders have experienced CIP, how did they manage to consolidate their fragmented land, and what have been its effects on their daily living conditions.

Furthermore, I have purposively chosen maize cooperatives, because, before the introduction of intensification programs, maize was regarded as a food crop, belonging to the category of women's crops since it has been produced for home consumption only (Rietveld, 2017). Hence, this research wanted to explore if the change brought by new farming system has transcended the local conception of maize or to what extent did the program impacts the mind-sets of farmers in the process towards the market oriented farming.

Lastly, I was interested by marshlands, because, farmers here are well organised into cooperatives, which make it easy to get into contact with them. And, according to District authorities, since the marshlands belong to the government (as per the land law of 2005, as amended in 2013), the CIP program has been successful in the marshes, the land located in the valleys compare to the individual private land, mostly located on the hillside. From this, all women participants in interviews and focus groups discussions were members of KOAGIMPA and KOABIDU cooperatives, in Huye and Gisagara District respectively.

I was advised by district authorities from each locality to do my field work in those cooperatives basing on their experience, organisation and their performance in producing maize. It is worth noting that although the government official reports claim unprecedented success of CIP throughout the country, such achievement is not felt at the ground or at the local level.

Local authorities are still encountering challenges to mobilise the mass of farmers' population, who, to some extent try to resist to the policy change. Thus, even if the so called CIP cooperatives are numerous, but, those that are well organised, with regular records of their daily activities, are not many.

Nevertheless, the study used also simple random sampling to determine the individual participants from each category of respondents. Basically, after selecting purposively different categories and setting some criteria from which individual women should be selected, I had to share all these with the leaders of each cooperative. With their help, I could then identify randomly individual woman who could participate in interview. As many women could fit into the given criteria, the random sampling was helping to select few from the long list.

#### **4.2.3 Selecting the respondents**

The study selected purposively four categories of respondents namely women smallholder farmers, District officials in charge of agriculture and the leaders of farmers' cooperatives. In line with my research questions, I had to specify which kind of data or information I expect to get from each category of respondents. As the main category of respondents, were supposed to answer all the five questions (see the interview guide on the appendix no II).

The category of district officials in charge of agriculture was also selected to inform this research more about the CIP program process and the role of different actors or stakeholders, who are directly involved in the implementation of the CIP program. Those are namely farmers (in) cooperatives, the private sector/market/agro-dealers and the government. The leaders of farmers' cooperatives under CIP program to inform about the role and the position of farmers' cooperatives as a grass-root organisation and key actors in the implementation of the program.

As noted above, the study did not fixe the number of respondents to be interviewed. Rather, I was choosing an individual for the next interview depending on the need identified from the previous one until when no new or different information is provided. In this process, I was explaining to the leaders of cooperatives the

characteristics or categories of women I want to interview, and they could contact her, as they almost know every farmer. After selecting them from the list, the next step was to call her for the introductory meeting, from which we could organise further meeting for interview. The study did not want to set up the number of women who will participate in my research before starting, but rather, as far as I conducted interviews, I was taking time to make an analysis slightly. And from that analysis, I could decide who could be interviewed next. I followed this approach till I reached to the point when I was not getting new information as per my research objectives. The table below presents the number of participants by categories and cooperative affiliation:

**Table 1: the research participants**

| Category of participants                                                                                                                         | number | Cooperative affiliation                                       | Geographical location                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------------------------------------|----------------------------------------------------------|
| Women who participated in interviews                                                                                                             | 7      | KOABIDU(Cooperative of farmers of maize in Duwani marshland)  | Gisagara District ( Sectors of Ndora, Kibirizi and Save) |
| Those who participated in focus groups discussion                                                                                                | 7      |                                                               |                                                          |
| Participants in interviews                                                                                                                       | 8      | KOAGIMPA (cooperative of farmers of maize in Mpazi marshland) | Huye District (Sectors of Tumba and Mukura)              |
| Participants in focus groups discussion                                                                                                          | 5      |                                                               |                                                          |
| Leaders of cooperatives                                                                                                                          | 2      | 1 from KOAGIMPA<br>1 from KOABIDU                             | Gisagara and Huye District                               |
| Government officials in charge of agriculture                                                                                                    | 2      | Kibirizi Sector<br>Tumba Sector                               | Gisagara District<br>Huye District                       |
| <b>In total 31 people participated in this study: 27 women farmers, 2 agronomists at the sector level and 2 leaders of farmers' cooperatives</b> |        |                                                               |                                                          |

#### **4.2.4 Techniques used to collect data**

As noted above, the study used focus group discussion, interviews, participant observation and documentation for gathering both primary and secondary data. The details about how each technique was used are provided in the following paragraphs.

##### **4.2.4.1 Focus group discussion**

A focus group “is a group interview where people are brought together for a discussion. They may have experience in common or be strangers to each other, or drawn from an existing community group” (Laws, Harper and Marcus 2003: 298).

As the study aimed to draw from women’s experiences and perspectives, this technique was initially used to involve their views as much as possible. However, after organising two focus groups, the researcher realised that participants could not speak easily. As the topic was quite sensitive, a group could be influenced by one dominant view. To deal with this issue, the study used individual interviews for the remaining part of the field research. As presented in the above table, twelve women farmers participated in two focus groups from KOABIDU and KOAGIMPA cooperatives.

##### **4.2.4.2 Interviews**

An interview is described as “a conversation that has a structure and a purpose. The interview is more than the spontaneous, everyday exchange of opinions; it is a way for the interviewer to receive carefully tested knowledge. The respondents do not only answer formulated questions, but rather they express in a dialogue, an understanding of his or her world” (Laws, Harper and Marcus 2003: 297).

In the course of this study, open-ended and semi structured interviews were used for being able to get a secured and effective in-depth conversation with individual women farmers involved in CIP program, the leaders of cooperatives and the government officials in charge of agriculture at the Sector level.

As mentioned in the first chapter, the Rwanda's post genocide context is challenging for researchers who want to conduct in-depth research as the population is highly sensitized and politically controlled up to the bottom of the community (Treidl, 2018, Huggins, 2017). The pleasure from the centralised state is felt up to the micro or individual level, and as a result, even ordinary citizens are well disciplined in rehearsing the official discourse of success (Treidl, 2018: 80). Given how the agrarian question is a mattering issue for both citizens and the government, the study deemed well to use individual interviews to complete and cross-check qualities of information collected through focus group discussions.

Basically, participants were not free to talk in groups to the extent that one speech (depending on the social position of the person in the community, for example if she is a member of the ruling party, or any other position connecting her to the political power) could influence the speech of the whole group. That is the reason why the study combined interviews and focus group as a strategy enabling participants to have a relatively free and comfortable or secured environment to make an effective conversation. As reflected in the above table, nineteen interviews were conducted: 15 women farmers, two leaders of cooperatives and two government officials in charge of agriculture at the Sector level.

#### **4.2.4.3 Participative field observation**

Moreover, the study used participatory field observation whereby during the field research, I attended different meetings of farmers organised by their cooperatives or by the local government officials in charge of agriculture. It was an opportunity to observe more on farmers' involvement in decision making and how they interact with government officials and or cooperatives' leaders. During this time, I could also interact with farmers (informally) and gather some information on the CIP policy process, their appreciation vis-à-vis the change, and so forth. My participation in these meetings was so beneficial, in that, I could know much more about the reality of what is going on, and I was taking enriching notes, compare to the formal conversation.

This is because, in formal interviews, participants have tendency to reproduce the government discourse concerning the processes of the program, while in informal discussion, they were free to speak from their heart, as they did not fear of being recorded or noticed by their leaders.

#### **4.2.4.3 Documentation**

This technique was used to complement the primary data with the secondary data. This involved reviewing the existing literatures, reports, policy documents and all other relevant materials on agrarian change and gender, focusing mainly on the context of agricultural intensification, particularly the case of Rwanda.

#### **4.3 Data analysis methods**

The study used content/thematic analysis approach to analyse the collected materials. For doing this, I first did the transcription and translation of the interviews as they were recorded in Kinyarwanda; I had to translate them in English. Then, I had to summarize the amounts of data collected into manageable and understandable patterns following each category of respondents as well as each research question. At this stage, I used MAXQDA, the software for qualitative data analysis, by which I was able to develop different codes, and different themes respectively. From these themes, findings were organised and presented. For the analysis and discussion of research findings, I tried to confront different themes to the social and economic background or the context of women farmers in order to understand how different factors such gender, class and CIP process intersect, and the implication of such intersection on women smallholder farmers.

#### **4.4 Validity and reliability**

Validity and reliability are concerned with the accuracy and truthfulness of scientific findings. They are about rigor and quality in qualitative paradigm (Blink, 1993). It means that the research findings should reflect or represent reality rather than being the effects of extraneous variables.



Further, the research validity implies the extent to which the representation or reflection of reality is legitimately applicable across different groups (ibid, P.35). To reflect the reality, this study used different methods or techniques for collecting authenticated data from different categories of respondents and to ensure that the sources of data are authentic. As this study is exploratory, the findings and or conclusion reflect the specific empirical reality, meaning that they won't be generalised.

#### **4.5 Ethical consideration**

As specified above, the field research for this study was conducted at the local level. For that, I addressed my request to the Mayors of the districts, from whom I received the recommendation for different authorities to facilitate the meetings with whoever I need to participate in this study. The aim of this study was to reflect women's perspectives or open an opportunity for them to raise their voice, and to share their experience from CIP implementation process.

In this respect, the interviewees are treated as participants rather than as informants as such, from whom I collected "facts". I am interested in them as persons and in their specific knowledge in relation to what they are experiencing and know first-hand and through their own observations. Consequently, I have not analysed the information in terms of what is true and what is false. Instead, the information has been treated as a foundation to better understand different perspectives among different groups of respondents. In each case, interviewees were given the opportunities to express their feelings and opinions on how the agricultural change impacts intra-household gender relations and the daily living conditions of women involved in CIP program.

Before starting each interview or focus group discussion, I had to introduce myself, explaining the objectives of the study and kindly requesting participant to voluntary participate, and providing the guaranty of anonymity.

Given that the Rwanda's context is not conducive for a free public opinion, all participants did not accept to sign the commitment form, and some of them refused to provide their names and to be taken in picture. During the interviews, some of them refused to be recorded, and I had to take notes instead of recording.

Throughout the research process, I had to respect the respondents' opinions, to treat them with respect and courtesy, and to maintain the confidentiality. Also, I had to pay the transport fees for the participants who preferred to meet on the office of the cooperative, and communication fees for the leaders of the cooperatives to facilitate them to contact individual women for organising our meeting or to contact me when there is a need.

#### **4.5 Difficulties encountered in carrying out this research.**

While carrying out this study, I realised that the research topic is regarded as sensitive. As discussed above, the political structure in the post genocide Rwanda has been characterised by the state control reaching the micro level. The agrarian reform in Rwanda involved a radical change from which the government entails a closed eye to avoid farmers resistance.

Consequently, the political pressure underling the implementation of agricultural intensification policies engenders non conducive environment for research in this aspect (Ansoms, 2008, 2011; Huggins, 2017). Furthermore, to my knowledge, no research has been conducted before on agrarian reform and gender. This made it difficult for me to access secondary data or to ask people to talk about their views frankly. In some areas, people were not willing to respond to my questions. To face this, I had to change to study cite, and to take much time explaining about myself, the study objectives and anonymity.

Given the political history of Rwanda, it was not always easy to share opinions with the interviewees, for instance on sensitive topics like identity and governance system. However, because I know very well the place where I conducted the interviews, I knew how to talk to them, and I was able to understand their local references, expressions, or language code/metaphors.

As mentioned already, this study used semi-structured and open-ended interviews. These were chosen so that people would feel less constrained in giving their opinion in ways that were meaningful for them. This process of „opening up“ debates on agrarian change and its implications for gender relations and women’s daily life, produced a vast amount of data, as participants are from different categories. For the researcher, such richness is both rewarding and problematic since what the data gain in authenticity by not being forced into pre-coded categories may be lost without careful and systematic interpretation. For this, at each research question (where necessary), the analysis has taken into consideration many nuances of different voices, within and between categories of respondents.

## **Chapter V: Presentation of research findings: perspectives of women farmers involved in CIP**

This chapter presents the study findings, which reflect the lived experience of women smallholder farmers involved in the CIP in the southern province of Rwanda. Aligning from the research questions presented in the first chapter, different themes have been developed and findings are presented respectively. Those themes are namely the social and economic characteristics of women farmers involved in the CIP program, the types of agricultural changes as per the implementation of the CIP program, women's participation in decision making, gender relations, the opportunities structure or challenges that women are facing under CIP, and strategies they proposed to enhance the effectiveness of this agricultural change. Each one of these themes is detailed in a section of this chapter. To carry out a sound analysis of the empirical materials gathered from the interviews, I first summarize systematically the information provided by different categories and then link it with the concepts or literature to shape the discussion of empirical materials.

### **5.1 Who are women smallholder farmers involved in the CIP program?**

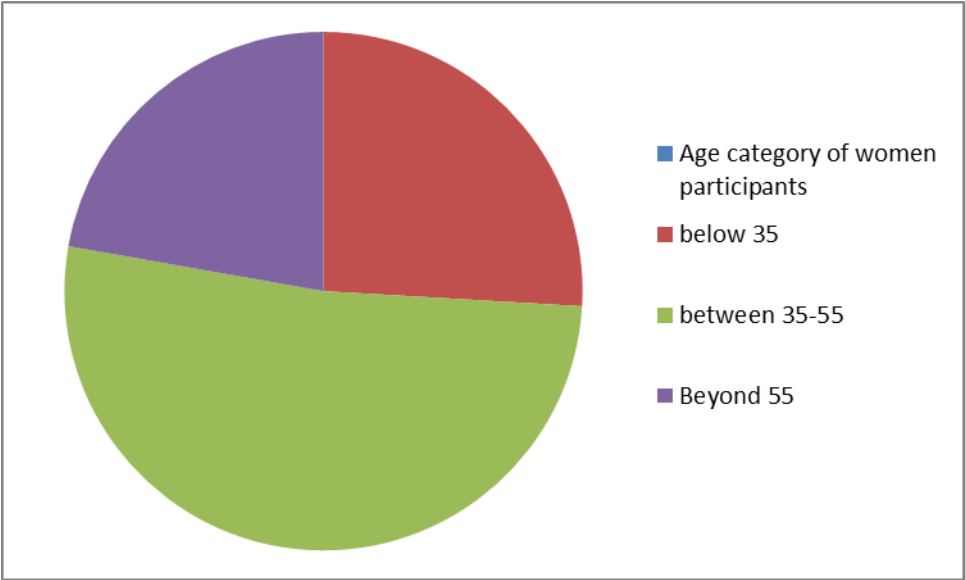
Women farmers involved in the CIP program are heterogeneous group. To understand the effects of the CIP on their daily life of women smallholders, it was important for this study to explore different aspects which characterise their social and economic background. Those aspects include their age, the level of education, the marital status, the economic activity or the main source of income and the size of land holdings under CIP. The findings of this research demonstrated that, though all are farmers, they are not a homogeneous group. In other words, these women are living in different conditions, and, as it is detailed below, those conditions shape in one way or the other their ability/capabilities to cope with and benefit from the agricultural change under CIP.

#### **5.1.1 Women farmers involved in CIP are relatively young**

The study was interested to know about the age category of women involved in CIP.

As presented in the graphic below, the study settled three categories of age: the youth category or those who are below 35 years, the middle age or those who are between 35 and 55 years, and the advanced age category, that is, those who are beyond 55 years old.

**Figure 3: Age categories of women participants**



**Source: Interviews and focus groups (November 2019-February 2020)**

The data presented above show that, women involved in farming under CIP are relatively young. In fact, out of 27 women who participated in this study, fourteen are in the middle age, that is, between 35 and 55 years, seven are below 35 years and six are beyond 55, a category of those in advanced age or who are getting old.

On one hand, having many women who are in active age is advantageous for the sector of agriculture. At this age, it is a period when one is active, focused and productive. This means that, they are in good position to learn and to entrepreneur, and such characteristics reflect women’s ability as the actors of CIP. On the other hand, in the context of Rwanda, at this age, women have children, small or of mixed age, and caring about these children increases their daily workload, and require a lot of time and energy. However the age category intersects with other characteristics such as education and marital status, and the activity of women farmers depend upon the intersection of those characteristics.

The findings also show that the category of youth or those who are below 35 is less represented in the agriculture sector, and different factors can explain the low interest of young people in farming activities. For example, the government of Rwanda has made an effort in promoting education for all, and by this, the majority of youth have at least completed secondary or technical school.

With such education, youth prefer to look for an off-farm job rather than farming activities as the latter are regarded as less remunerating and energy demanding. In addition, the Rwandan society is facing the problem of land scarcity whereby land is becoming much more fragmented and due to that, many people are leaving agriculture sector. This situation discourages the investment of young people in agriculture as it is difficult for them to get farmland and to survive from it. Rather, they are encouraged by different actors including the government to develop entrepreneurial skills and to invest in agribusiness projects. Nevertheless, apart from being less interested by farming activities, this category involves young women, who often have small children. As noted above, with small children, women have difficulties to use more time outside their home, and if they do that, they have to carry their children on their back. This situation, not only limit the productivity of women's activity in farming but also it increases their burden as it is too tiring( see further details in the third section of this chapter).

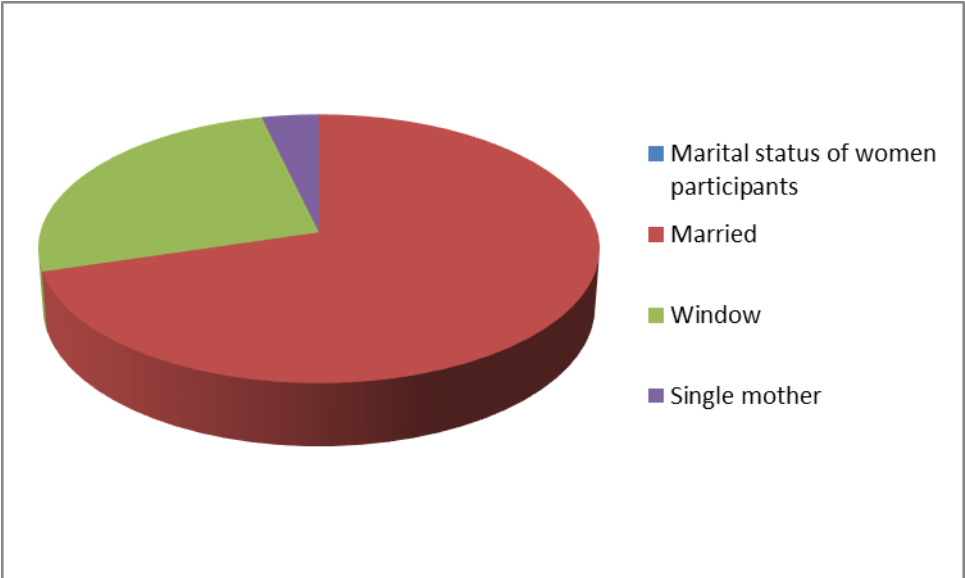
Furthermore, six out of the twenty seven participants were of advanced age or more than 55 years old. This shows that some of those involved in the agriculture sector are more or less old. At this age, women are facing different challenges including low physical capacity and low income as they have limited physical mobility and opportunities for proactive activity. In most of cases are living alone, widowed or their children have grown and left them alone. Further, women with that age category face difficulties in finding an off-farm job when needed especially during the period when they are waiting for the harvest.

This situation makes them more vulnerable, as, sometimes, these women don't have another alternative to get food or income during this sensitive period, and consequently, they live in a vicious circle of poverty.

**5.1.2 Most of women farmers are married and live with their husbands**

The marital status was also another aspect which interested this study for understanding the socio-economic background of women farmers involved in CIP. For this aspect, the study focused on four elements: finding out if they are living with their husbands as a couple or if they are the heads of their households (if they are living on their own, as single mothers, divorced or widowed), and the number of their children if they have them. The following table illustrates the social status of women who participated in this study:

**Figure 4: the marital status of women participants**



**Source: Interviews and focus groups (November 2019-February 2020)**

Concerning the marital status, the study found that out of 27 participants, nineteen are married and are still living with their husbands, seven are widows, and only one case of single mother was registered. Further, the study found out that all these women have children, and around 44 per cent of them have small children.

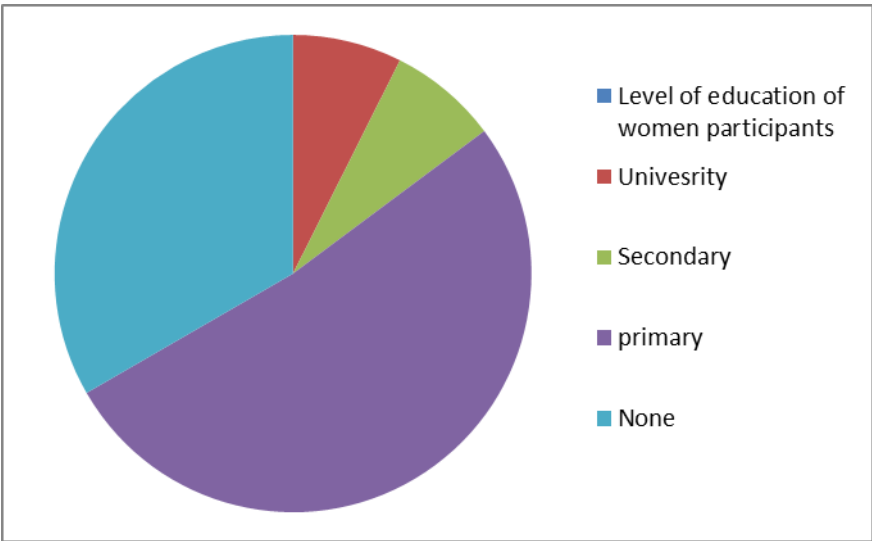
Women's social status may either shape or constraint their opportunities from the CIP. The national household survey conducted in different periods demonstrates that the households which are headed by women are among those largely affected by poverty (NISR, 2012, 2014, 2018).

As claimed by participants in this research, this is because poor and old women head of their families in rural areas face difficulties in accessing income generating activities as most of them have low level of literacy and the cultural norms do not offer them chance to get off-farm jobs, as it does for men.

**5.1.3 Most of women farmers have low level of literacy**

The data presented in the graphic below demonstrate that, out of twenty seven women participants in this study, fourteen attended primary school, two reached the secondary school, two graduated from the university and seven did not attend school. These data imply that the low level of schooling or high rate of illiteracy is another challenge ahead of women involved in agriculture.

**Figure 5: level of education of women participants**



**Source: Interviews and focus groups (November 2019-February 2020)**

Some of these women informed this study that they are facing difficulties in accessing information or in using agricultural technology, such as chemical fertilizers, pesticides, and post-harvest processing techniques, as such modern techniques require some a moderate level of knowledge in foreign languages and in counting.

Furthermore, it is noticeable that agriculture is a sector of those who do not have educational qualification. As such women farmers have limited chance to engage in entrepreneurial activities or innovative agricultural related projects.

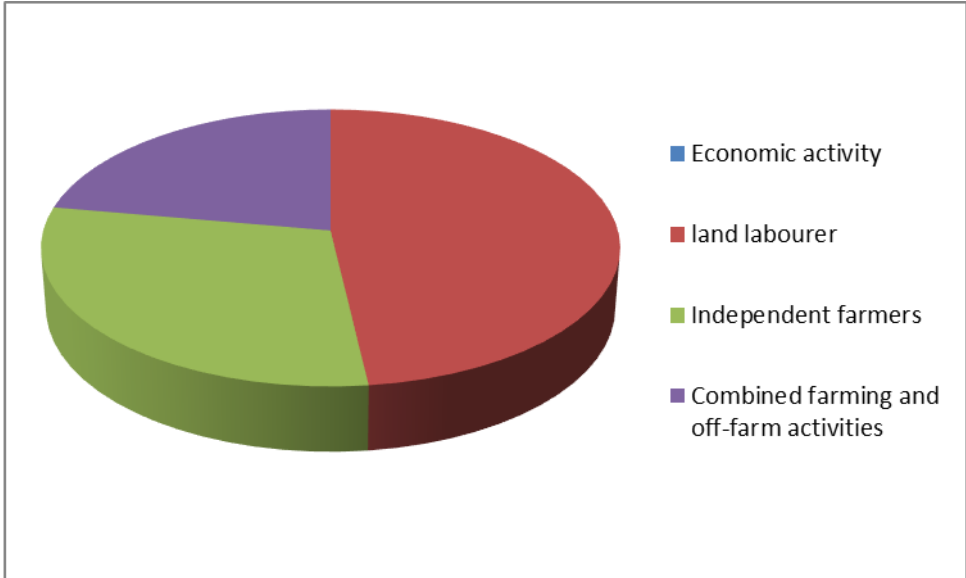


As a result, this situation reinforces their social position as subordinate to men or their possibility to get into the process of emancipation.

**5.1.4 Most of women farmers are wage labourers**

The economic activity exercised or the main source of income was also another aspect which was interesting this study to understand their living conditions and the effects those conditions on the activity of women farmers under CIP. Here, the intention of this study was to see if agriculture is the main economic activity and or only the source of income, or if they have other opportunities for generating income, exercising off-farm activities such as commerce, arts or have a permanent job from private or governmental entities. The figure below demonstrates the distribution of economic activities among women farmers who participated in this study:

**Figure 6: The main source of income for women involved in CIP**



**Source: Data from interviews and focus groups (November 2019-February 2020)**

The data presented in the above figure show that, the majority of women who participated in this study, that is, thirteen out of twenty seven are casual wage labourers in farming activities for their daily survival, eight are independent farmers,

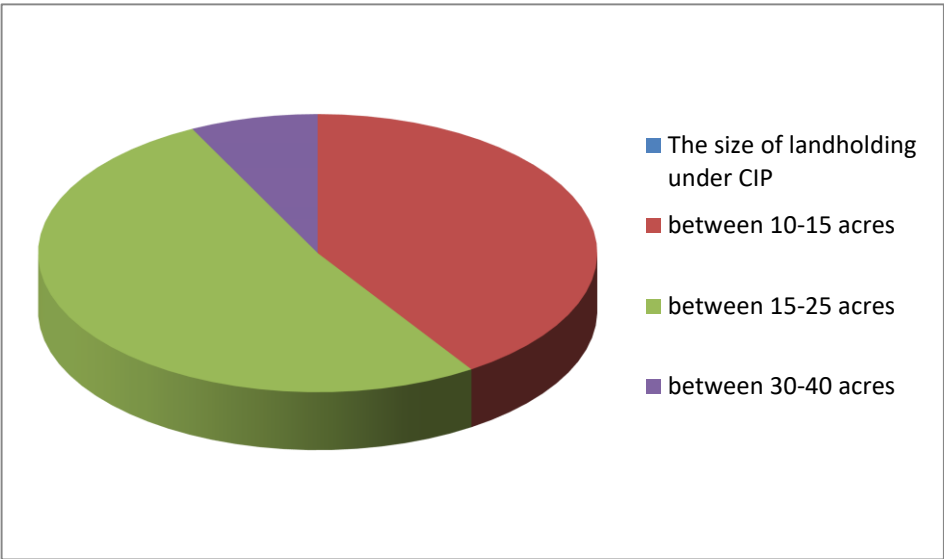
and six combine farming a with off-farm activities in different domains. This information demonstrates that the main source of income for the majority of women farmers is not the agricultural production. Whatever production they may get out of this program, they need to find another strategy for the daily survival.

As discussed in the following sections of this chapter, these data demonstrate that the majority of women farmers are poor, in that, they have limited access to productive or income generating activities. This implies that they are facing difficulties to cope with the agrarian change introduced through CIP. From this, one's question can be to what extent are women benefiting from CIP, as the latter has been claimed to be an effective tool for boosting the agricultural growth, what is the place of poor women farmers in relation to that growth?

**5.1.5 Most of women have limited access to land under CIP**

Concerning the average size of landholdings for these women farmers being in marchlands where the CIP is implemented or their private land located mostly on the hillside, the study found that their landholdings under CIP vary between one and eight plots.

**Figure 7: The size of landholding under CIP**



**Source: Interviews and Focus groups (November 2019-February 2020).**

Note that one plot of land under CIP measures between 4 and 5 acres. It means that the land holding for all farmers involved in CIP (in the area of this study) varies between 5 acres and 50 acres. As demonstrated by the table below, apart from two women who informed this research that they have between 0, 50 hectares and 0.80 hectares of private land on the hillside, other participants rely mainly on the government land or their plots under the CIP program.

As stated above, the data presented in this table demonstrate that, the majority of women participants to this research have between three and five parcels under CIP that is between 15 and 25 acres. Concerning private land, as it was not possible, during the field research to measure the land for every participant, the study preferred to use the word “around” to mean, more or less. It is well seen that the majority, that is, twenty five women out of twenty seven possess small land, between one and five plots, and fifteen out of twenty seven do not have access to private land.

Although the agricultural productivity per unit of land was not part of the object of this study, but, drawing from these data, one’s question would be to what extent or how productive is CIP for landless farmers, and to how can such category of farmers survive by such production, whatever level of agricultural intensification. In other words, women smallholder farmers are facing limitations in accessing land, and the available land is too small for generating enough income for their daily living. Despite the intensification of the farming system, and the productivity it may generate, the findings of this study demonstrated that it is becoming quite impossible for women smallholders to live by agriculture.

As mentioned at the beginning of this section, although women farmers are involved in farming activities, and depend, in one way or the other, upon those activities, they are different. The findings presented above show that, these women have different age categories, have different level of education, some are married while others are widows, and some have land while others are landless, and so on. Hence, they experience CIP differently, as the latter depend on their social and economic background. In other words, their living conditions determine or influence their working conditions under CIP and vis-versa.

## **5.2 Types of changes engendered as per the implementation of CIP**

This section explores different changes as by the implementation of CIP. As revealed by research participants, CIP policy triggered different changes in the farming system and in the social relations between different actors or stakeholders of agriculture sector. Those changes involves different aspects such as access to and the use of land, farming techniques, the organization of farmers, the marketing of inputs and outputs and the roles of different stakeholders in the agricultural production system.

### **5.2.1 The procedure to access and use land in the marshes has changed.**

As it is mentioned in the previous chapters, the aim of CIP is to address the problem of land fragmentation and shift from small scale to large scale farming. In other words, CIP is regarded as the government strategy to promote agricultural intensification and commercialisation for boosting macroeconomic growth, and to address the country's problems of land scarcity and fragmentation, which are regarded as the sources of unproductive subsistence agriculture.

To achieve such ambitious goal, the government engaged different policy change in terms of land use and management. In this respect, the government initiated land use consolidation program (LUC) as the pre-requisite condition for the implementation of CIP. It is worth noting that, historically, Rwanda's society has been facing structural land scarcity due to demographic pressure. Consequently, land fragmentation has increased, soil fertility has deteriorated, conflicts related to land keep increasing, and the size of land holding for a farm household has been gradually reducing to the extent that in 2021, 77.2 per cent of agricultural households operate on a farm size of fewer than 0.5 hectares (Musahara& Huggins, 2004, National Institute of Statistics of Rwanda, 2021).

Land use consolidation was adopted as a strategy to address these problems and to facilitate the efficiency of the Crops Intensification program to address land fragmentation and enhance the large-scale farming system.

In the process of this reform, the government enacted a new land law in 2005, as amended in 2013, from which the land tenure system was changed. From this law, the national land is divided into two property regimes: the public domain which includes the marshlands and non-agricultural lands, and the individual private property mainly located on the hillside. In other words, apart from the hillsides, where a process of land registration and distribution of private land titles for long-term leasing (up to 99 years) was launched, the above-mentioned land law marks marshlands as state's property (Ngoga, 2019, Treidl, 2017).

As revealed by the research participants, before the initiation of CIP, although being in public domain, access to the marshlands was less regulated. They were administrated by local authorities and were informally distributed among the surrounding communities. Once distributed, the owners were entitled all rights to use and manage that land as if they own it. With the implementation of CIP, this procedure changed. Those who usually were holding plots in the marshlands had first to lose their entitlements or ownership and were requested to adhere to CIP and to consolidate the use of the land as a condition to get back or access land in the marshes.

For this, farmers' organisations known as CIP cooperatives have been dealing with the new management system of land in the marshes, and the distribution follow the CIP policy regulations. In other words, plots in the marshlands have been reallocated, and farmers can get temporally entitlements after payment of a specific amount of money (the amount to pay depends on the size of the land and the elected crop for such specific land), and by respecting the working conditions under CIP program.

Those rules involve the consolidation of the use of their lands, which means that farmers who have neighbouring plots have to grow the same priority crops in a synchronized manner to address land fragmentation and enhance large-scale production systems. In addition, farmers have to produce as per the performance contract (see the details in the following section) and accept to consolidate the production, that is, to sell their products via the cooperative. By adhering to all these conditions, farmers obtain the usufruct of the land in the marshes.

However, such usufruct can be lost anytime in case one can fail to comply with one of those conditions. As the owner of the marshlands, the government used the new land management system to reinforce the implementation of the land use consolidation program under the framework of the Crops Intensification Program.

As it was underlined by the government officials who participated in this study, although the plan was to implement CIP throughout the entire country (in public and private land), the program is much more successful in the valleys compare to the hillside. According them, the new land management regime facilitate the success of CIP in the valleys in that, farmers accept to join the program just for them to be able to access land in the marshes as the land is a scarce and important resource for one to survive especially in rural areas. In other words, the new tenure system gives the government power over farmers, and the possibility to easily control the CIP policy process including farmers' cooperatives compared to the hillsides where the control of each farm is very hard (see the picture below).



The land is more fragmented on the hillside and every farmer cultivates as he/she wants, it is very hard for government officials to reinforce or coordinate the land use consolidation process.

However, this process has been criticized of being exclusive vis a vis the poor or farmers with less resources, because, as explained by the participants to this study, landholding in the marshes depends upon the individual economic capacity and is not permanent: "...the land parcel here is not our property, whenever the government wants it, it can take it, we are renting it, every year we pay one thousand Rwandan Francs as tax or rent for one plot in the marshland" (Interviews December 2019). As it was further explained by the leaders of cooperatives, the distribution of land under CIP follows the principle of making the land more productive. It means that, farmers not only have to pay rent regularly, but also have to make the land more productive, that is, to invest the required means in terms of money and labour for generating the targeted production. If one does not have the capacity (which involves capital and labour) for him/her to fit into the conditions of the CIP farming system, there is no possibility to get access or to uphold the usufruct of the land in the marshes.

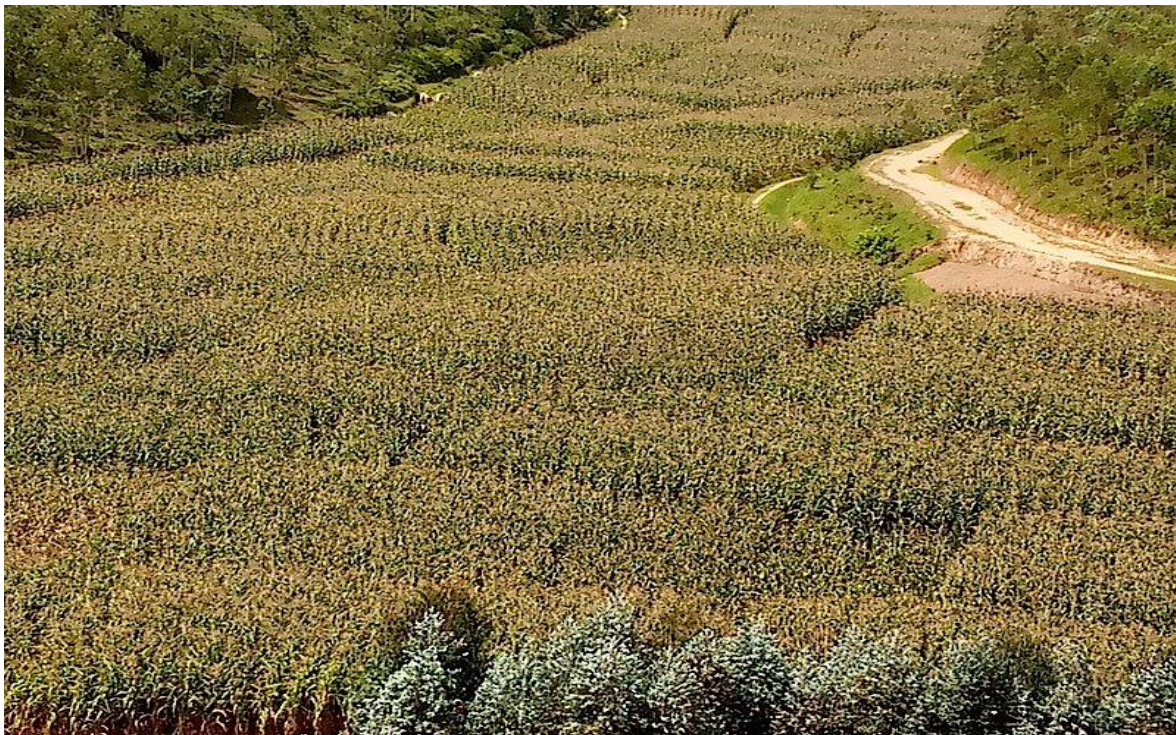
This means that, for one to cultivate in the marshland, the person has to farm the selected crops and join the cooperatives for consolidating the production. Also, the production by the unit of land follows the targeted performance as per the farming contract, with a high risk of losing the land in case of failure. In other words, not only farmers do not have access to land, because it belongs to the government, but also, they don't have usufruct, that is the right to use the land as they don't enjoy or profit the fruits of the land as they choose. This context demonstrates that farmers don't own land as they don't have rights/autonomy to manage or to enjoy the usufruct.

### **5.2.2 Under the CIP program, farmers practice mono-cropping**

Before the implementation of CIP, Rwanda's farmers were practicing intercropping system, that is, to mixing diverse crops. Under this system, one could combine two or more crops in one farmland depending on local conditions. The most common combination is about mixing maize and beans, maize and sorghum, or in some cases maize is intercropped with sorghum and cassava. Under CIP however, this system has been burned. Farmers are required to practice monocropping, that is, to grow one among the six crops selected by the government.

Those crops are namely maize, wheat, rice, Irish potato, cassava and different types of beans. In other words, in the area where CIP is implemented, farmers are required to switch from intercropping to monocropping and such regulation is a prerequisite for anyone to get land in the marshes.

In the area where I conducted my field research, farmers are required to cultivate maize as one of the six selected crops under CIP, especially for the first season (what the government calls season A) of each year because it is the rainy period (between October and February). In the agricultural seasons B and C, they can farm other crops, which do not necessitate heavy rain or do not take a long time to grow such as beans. At the beginning of each agricultural season, government officials inform farmers via the cooperative leaders about what crop to cultivate, when and where. One-crop farming has been settled as a condition to access and farming in all marshlands, and CIP is known as a program which promotes monocropping or which facilitates land use consolidation for promoting large-scale commercial farming system. As it is shown by the picture below, the monocropping is practiced in all the marshlands as a CIP strategy to increase the production and to facilitate market oriented production system.



**CIP is much more practised in the marshlands or the government's land**



However, when women farmers were asked about their experience concerning this change, they provided diverging opinions. On one side, those who have possibilities to grow other food staples in their private lands appreciated the monocropping system for its contribution to increase the productivity of selected crops.

During the interview, one participant expressed that: “any change brings a challenge: at the beginning, it was not easy to change our mind-set about the program, but, as the time goes, I understood that, the good way to increase production and to get money is to grow one crop by the unit of land” (Interview with WF7: 7). This point was supported by the government official in charge of agriculture who also note that, before CIP program, farmers were farming many crops in the same plot of land, but the production was very low, and they were facing difficulties to access the market once produced since the majority of those crops were traditional or locally consumed.

On the other side, some of the participants, especially those who depend upon government’s land for food production, highlighted the loss or the gap in food production or the loss in food diversity as a result of practicing monocropping. For them, before the CIP program, when they were mixing different crops on the same unit of land, they could easily produce diverse food staples at the same period of time. However, with the new model, they depend much more on food purchase and the money they get out of one crop production not only take a long to be paid by the business company but also, it is not enough to cover all the needs in food provision.

This is a great problem because, according to Rwandan tradition, women are responsible for food provision and preparation for their families (Rietwelt, 2017, MINAGRI, 2011). This role requires them to organise farming activities in the way that crop rotation or plantation facilitate the production of diversified food crops. As revealed by the above presented data, the majority of women smallholders have limited access to private land, and depend upon what they hold under CIP as their main land resource. Hence, if women have to produce one crop on that small land, and have to sell almost the whole produced quantity, they inevitably face shortage of food provision for their families.

This is what one participant expressed when she was asked about her experience with CIP: “The problem is that due to all these restrictions, one cannot grow anything else apart from maize, you grow only one plant and you cannot eat it whenever you want! (Interview with WF1: 33).

This statement shows that farming one crop is a problem, but also, producing for the market is another problem, because, whatever quantity they may produce, they don't have rights to eat it as they want. This implies that, despite the production under CIP, women are still struggling for getting enough food for their families. Nevertheless, some participants noted that before the implementation of this agrarian change, women could easily produce varied food crops in one unit of land as they had the autonomy to organise and coordinate all farming activities. In other words, women could decide on the type of food crops to grow, when and where, which is not the case under the CIP program. Brief, those who do not have enough resources or different alternatives for the daily survival preconize intercropping system for producing diversified food crops on a small land.



Nonetheless, CIP adopted monocropping as the strategy to shift from intercropping and small scale subsistence to large scale market oriented agricultural production

system. The new system is appreciated by those who have possibility to get a relatively big land as it help them to increase the agricultural productivity and much more profit particularly for market oriented crops such as maize.



### **5.2.3 CIP is implemented through farmers' cooperatives**

Agricultural cooperatives have been highlighted as an important tool for the collective organisation of farmers because their entrepreneurial collective action becomes the source of empowerment for their members (Nsingize 2013). In the context of poverty, the collective organisation helps the poor to overcome the challenge of being voiceless and to access resources, and take advantage of opportunities to effectively utilize or expand their assets or exercise their rights (Narayan, 2005).

However, to accomplish this mission, the members of cooperatives need to unite voluntarily, and have common economic, social and cultural needs and aspirations, in a democratic working environment. It means that members need to participate in decision-making processes at all levels for them to negotiate with different actors involved in agricultural production (FAO, 2012).

As narrated by the leaders of cooperatives who participated in this study, farmers' organisations known as CIP cooperatives have been created as the arena through which CIP is implemented. They facilitate organisation of farmers, their mobilization and coordination of farming activities. It is via cooperatives committees that any authority can communicate with farmers about the government rules or regulations concerning the farming process. Further, the committees coordinate interactions /relationships between different stakeholders of CIP, such as government bodies, business companies, NGOs or other community-based organizations.

According to the participants in this research, the organization of farmers into cooperatives was the first step of CIP implementation process, whereby access to land in the marshes was under the condition of being a member of such cooperatives. In other words, as it is illustrated by one participant in the quotation below, the CIP cooperatives are entitled to distribute land in the marshes on behalf of the government authorities:

“Before the program, I owned land here and I was cultivating here as I want (in this marshland) choosing myself what to crop and when such as sorghum, beans, sweet potatoes, etc, then , one day they (the government) came and told us to get organised into cooperatives and grow maize” (Interview with WF4: 5)

Furthermore, in collaboration with the government authorities, the cooperatives committees are in charge of coordinating the farming process under CIP. The process includes but not limited to the activities such the distribution of parcels, selling inputs to farmers members of CIP, coordination of farming activities and farmers performance contracts (the targeted production by the unit of land by every individual farmer), selling inputs (chemical fertilisers, seeds, and pesticides), the management

of the facilities for handling and consolidation of the harvest, and the mobilisation of farmers or transmission of information from above and from below.

In short, farmers' cooperatives are the tools through which the government can enhance the daily management of agricultural intensification programs, and farmers can get access to agricultural extension services. The most mentioned service is access to chemical fertilisers, pesticides and improved seeds, which farmers can easily get on loan and at a low price due to the subsidies provided via cooperatives.

However, as expressed in the quotation below, some farmers criticised the approach that is being used by cooperatives explaining that, the latter have been using an overwhelming control that brings much pressure and limits individual freedom to the extent that farmers cannot even eat maize whenever they need it:

“Before joining the program, you could sell maize as you wanted and do what you needed to do with the money: you could sell a bowl of maize and buy sugar or beans ... but now, we can be hungry with maize in the land. I think that this helps a person who has something else to support him/her. But someone poor like me, it does not help... we grow maize but we do not eat it!”  
(Interview with WF3: 20, December 2019)

The above view shows that, some farmers, especially those who are facing the problem of food shortage, do not appreciate the organisation structure underlying the farming process under CIP. For such category of farmers would like to be free to make choices regarding the management of maize products and the market dynamics.

#### **5.3.4 Agricultural production under CIP follows the performance contract system**

As described above, under CIP, all farmers in the same location have to plant one crop for each agricultural season, and the committees of the cooperatives ensure the daily monitoring of the respect, formal and informal rules under the CIP-LUC program throughout all farming seasons.

In collaboration with local government authorities, at the beginning of each farming season, the cooperative inform farmers on how they will rotate crops. Most of the time, maize is grown in season A, which is between October and February. In seasons B and C, farmers can grow different crops such as beans, soya beans and vegetables. What matters for the program is that farmers in cooperatives have to grow one crop by each season. As explained by the leaders of cooperatives who participated in this study, on behalf of farmers, each cooperative agrees with a business company about their commitment in terms of quantity and quality of maize that to be supplied. Following this agreement, individual farmers are assigned the quantity of production to be produced for every unit of land or for each plot under CIP. This means that every individual farmer sign or at least commit him/herself to achieve such targets.

The overall targets by each cooperative are reported to different levels of local authorities (Sector and District) for being compiled with others in different domains in line with their regular performance contracts regarding agricultural production. In the same vein, cooperatives leaders collaborate with agronomists for a regular monitoring of the farming process. The aim of this monitoring is to reinforce different strategies undertaken by different actors for supporting farmers and ensure that the targeted quantity of harvest is produced.

As such, the farming environment under CIP affects the working conditions of farmers, especially those who are not in good position for coping with all these conditions. This is what one participant expressed in the following quotation: *“...it is just to avoid losing this parcel, though at the end I will lose it, don't you see that I am not able... I have been trying my best to keep holding this plot, but I am getting weaker, so I will abandon* (Interview with WF4: 21, February 2020).

From this quotation, one can easily feel how the working environment under CIP bears much pressure, how this woman farmer was tired of the farming system under CIP, too many regulations, from the government and the cooperative, and all this makes the implementation of CIP more complex and tiring especially for those who do not have enough resources enabling them to cope with the changes.

Participants to this study, particularly the leaders of cooperatives reported that according to the new land policy and law (enacted in 2005 and as reviewed in 2013), from which CIP draws; in case one may fail to produce a such targeted quantity, she/he may faces a risk of losing the plot of land under CIP, and the cooperative has the right to give it to another person, who can exploit the plot and makes it more productive.

This situation does not only put much pressure on the farming process, as farmers fear losing their land if they fail to produce the required quantity; but also, they face a risk of not getting enough quantity for home consumption as they have first to supply the required quantity to the market. Although the study did not register the records about the cases of people who were evicted from land under CIP (as this was beyond its scope), one participant informed this study that she joined the program after an old woman failed to make two plots of land productive as per the required conditions under CIP, and she was given that land to make it more productive (Interview with WF5, February, 2020).

#### **5.2.5. CIP has fostered a market-oriented agricultural production system**

One of the objectives of Rwanda's agrarian change has been to transform the agricultural production system by shifting from producing for home consumption to producing for the market. when women farmers were asked about how they getting involved in this process, some were enthusiastic about it as one can read in the following quotation: "*...we used to grow whatever crops such as sorghum, sweet potatoes, etc, but now we grow one selected crop and it is beneficial because we get money than in the past where we were farming traditionally for eating only*" (Interview with WF8, January 2020).

The majority of those who participated in this study demonstrate that the program brought a great change in the way that people used to farm but also in their mind-set about agriculture as a productive and profit-making sector.

For these women, although they were growing many crops of their choice including maize, selling the production was not something they could think of; just because not only the production was low and also the crops they used to grow were not market seductive. Those crops are namely sorghum, beans, sweet potatoes, and other traditional food crops; since they are commonly known as traditional foods, which are mostly consumed locally and cannot be exported. Moreover, as emphasized by most women farmers, what made this market-driven production system possible is to grow market-driven crops as selected by the government like maize, rice, banana, and potatoes, just to mention a few, but also to set up different rules which facilitate the government to control the production process via cooperatives. As it was articulated by the district officials in charge of agriculture, under the CIP program, due to the supervision by the cooperative's committee, farmers have dropped away what she termed " their habit of harvesting maize before it gets fully ripe for eating it grilled".

From that statement, it is well understood that the program has been established for market interest, not for food provision/security for poor farmers. Usually, poor farmers (or those who face a shortage of food) can harvest maize before it gets ripe and eat it grilled, as they don't have another alternative for food provision. While analysing the above perspective of agricultural officials, the question for this study was whose interest is the agricultural production system under the CIP program if it is not for farmers' food self-provision.

It is argued that the ambitious goal of the Rwandan Government for implementing agricultural reform through intensification programs is significantly undermining the livelihoods and food security of subsistence households (Pritchard 2013). While discussing this issue with women farmers, they didn't hide their frustration arising from the approach used by the government for controlling the production process and gathering, as much as possible, the entire production for the market without taking into consideration the needs of farmers in food. As expressed by farmers, it is not logical for them to produce maize and not be able to eat it.



Due to many restrictions underpinning the production process, instead of generating pro-poor development, the program engenders insecure and unsustainable livelihoods for subsistence farmers. Also, grouping them into cooperatives facilitated the consolidation of production and the negotiation of the market collectively.

#### **5.2.6. Under CIP, farmers have to use modern farming techniques**

Another change in the farming system as per the implementation of the CIP program is to shift from the use of traditional to modern farming techniques, that is, to plant in straight lines, to use improved seeds, mixing organic and chemical fertilisers while planting and to use pesticides. For the program to be more efficient, the cooperative leaders and agronomists have to ensure that all farmers use these techniques throughout the farming process. For this respect, in collaboration with different partners in agriculture, they organise regular trainings for farmers to acquire knowledge about these techniques and skills to practice them. After being trained, farmers receive instructions regarding the whole farming process and the cooperative committee has to monitor the entire process.

Participants in this research revealed that what is challenging in the use of those techniques is that while planting maize, they have to mix chemical fertilisers with organic manure and it is not easy to balance the quantity of both types of fertilisers. Hence, guidelines about the quality, quantity and how to use chemical fertilisers and modern seeds are regularly provided to farmers by the ministry of agriculture and its partners. Trainings are basically organised for agriculture counsellors at the village level and the members of the cooperatives' committees, who are trained for training all members of cooperatives

As mentioned above, farmers have to mix chemical fertilizers with organic manure, and the required quantity of the latter has so much increased compared to the period before joining the intensification program, which increased the cost of production. Farmers have to buy chemical fertilizers, hybrid seeds and pesticides from the cooperatives. According to the government officials who participated in this study, to ensure the quality of seeds and quantity of fertilisers which are required for one unit of land and enhancing productivity, all farmers have to buy seeds and chemical

fertilisers from the cooperatives. In this regard, the government provides subsidies for seeds and chemical fertilisers and has to ensure the supply of these inputs to farmers' cooperatives, which in turn ensures its distribution among farmers.

This is the reason why farmers are not allowed to buy the seeds outside their cooperative, that is, from agro-dealers of their choice or to produce the seeds themselves, but rather, they have to use what is provided by the government. When women farmers were asked about their experience regarding their access and use of all required agricultural inputs such as fertilisers, pesticides and seeds, all of them appreciated the contribution of these inputs in increasing productivity, and also highlighted the difficulties they have in accessing them given that their cost is quite high for a less resourceful farmer.

They underlined that, at the beginning of the program, the government was supplying the seeds for free to all farmers involved in CIP, and subsidising chemical fertilisers. After some time, the government reduced subsidies, and only chemical fertilisers are supplied with a price reduction. For example, one Kilogram of NPK (a chemical fertiliser made of Nitrogen, Phosphorus and Potassium) cost 460 Rwandan francs under the subsidise scheme (commonly known as NKUNGANIRE) while it is 600 Rwandan francs from the private agro-dealers, involving 140 Rwandan Francs of difference.

It is worth noting that, only members of CIP cooperatives can benefit from this reduction of price or subsidies of chemical fertilisers. In case farmers may fail to have the cash to buy inputs during the period of farming, some cooperatives provide loans schemes from which farmers get the needed fertilisers at the beginning of the farming season, and pay them after harvesting. In some cases however, like in KOABIDU cooperative (one of the cooperatives in which this study was conducted), do not offer such opportunity to their members. In this case, farmers with less resource face problems for getting the required quantity of inputs. Moreover, organic manure is one of the required fertiliser for the intensification of maize, and they have to find it by their own means, as there are no subsidies provided in this respect.

Thus, the participants to this study underlined that it is very hard for many farmers to get this fertiliser as the required quantity is very high compare to the situation before joining CIP and most of them claimed of not having domestic animals, a necessary condition for producing such important input. The use of modern farming techniques under CIP implies also for farmers to follow a very tight time frame within which they have to accomplish all farming activities.

At the beginning of every agricultural season, all farmers are informed via the committees of their cooperatives about the time frame in which all farming activities such sol preparation, planting, weeding and harvesting will be accomplished. According to the leaders of cooperatives, such a strategy facilitates the coordination and or monitoring process of all farming activities within a consolidated area, as this is one of the conditions for achieving the targeted production.

Failing to follow this farming schedule induces penalties including losing the plot of land under CIP by anyone who fails to respect this condition. Such tough penalties are justified by the that, if one fails to respect the time frame for farming activities, he/she risks of not achieving the targeted production per unit of land, and if many farmers failure to cope with this requirement, it affects the overall production by the cooperative.

#### **5.2.7 Under CIP farmers have limited involvement in decision-making process**

As stated by the respondents, before the implementation of the CIP program, farmers had full autonomy regarding the management of land, inputs and outputs. In other words, they were concerned with all decisions regarding the agricultural production process, namely the selection of crops to grow, when and where, the seed and fertilisers to use and the management of the harvest and post-harvest handling system. This section narrates the perspectives of women farmers about the decision-making process under the CIP program to understand its effects on their working conditions as the main actors of the program. In other words, the study tries to assess the relationship between different actors involved or concerned with the implementation of crop intensification programs.

In this vein, the study investigated the approach (either top-down, bottom-up or partnership) that is used by different parties under the program while deciding on the above-mentioned issues with an assumption that if women farmers participate directly in decision-making within the program, that means that their interests are taken into consideration by CIP program, hence, women are not only the beneficiaries but rather the active agents of this agrarian model.

To begin with, the respondents were asked about how they proceed or what happens when there is a need to decide on the selection of the crop to grow, the price or any other issues related to the management of the production. The question was addressed to two categories of respondents, that is, women farmers, and leaders of cooperatives, as they are all involved in handling different matters arising from the daily management of the program.

The purpose of the study here was to understand the approach that is used for taking decisions or who decides about what from within the program and see if it is either a top-down, bottom-up or partnership approach. As asserted during the interviews with women farmers ( see some quotations below), the decision-making process under the CIP program follows a top-down approach whereby the government takes almost all decision and inform farmers about them in the form of instructions via their cooperatives:

"...before the program, I owned land here and I was cultivating here as I want (in this marshland) choosing myself what to crop and when such as sorghum, beans, sweet potatoes, and, one day they (the government) came and told us to get organised into cooperatives and grow maize (Interview with WF4: 5) " ... the committee of cooperative in collaboration with District authorities select the crop to grow for each season and look for the business company which buys the production"... (Interview with WF8: 23).

As it is well articulated from the above quotations, farmers receive decisions in the form of instructions and the cooperative's committee plays the role of coordinating the transmission of information between farmers and the government.

In fact, concerning the price, at the end of every agricultural season, the government via the Ministry of Trade and Industry, publishes the price of one kilo for all selected crops under CIP including maize. This means that no one can change or negotiate this price, but rather all actors on the market have to follow these decisions/instructions. Regarding the selection of the crops to grow at each agricultural season, farmers are informed at the beginning of every season about which crop to farm under CIP, and in case there may be a need for change, farmers get information via their cooperative committee which organise a regular meeting or general assembly.

In January 2020, when I was doing my field research, I was able to attend one meeting of the general assembly of one cooperative in the marshland of DUWANI in Gisagara District. The meeting was supposed to decide about the crop to grow in season B, which is after harvesting maize (between February and May). The local authorities at the Sector level namely the executive secretary and agronomist were present and were the main speakers. In that meeting, I was expecting to see a discussion between the two stakeholders of the program: farmers and the government (local authorities). However, my observation was that the decision about the crop to grow was already taken, and those authorities with the strong support of the cooperative committee came just to inform farmers about what to do. Despite that, a good number of farmers tried to express their concerns about that decision, which was to farm vegetables (cabbage, carrots, onions, etc) instead of beans/soya beans, but nothing was changed. I waited to see if the leaders of the cooperative could advocate or argue for the change, but that was not the case.

As the production unit, cooperatives have regulations up to the extent of not allowing farmers to eat what they produced as they want. In this respect, the cooperatives have set up a security system from which guardians watch over the maize plantation until maize gets fully ripe and dry to avoid thieves and cheating cases by farmers who may need to harvest maize before it gets dry for eating it grilled, or for taking some quantity at home before taking it to the harvest to the cooperative for counter verification as per the production contract.

This regulation implies that farmers in general do not decide on how to use or manage their production, as it is upon the cooperative to determine how much quantity to sell, and the quantity of food is known after satisfying the market. In general, the findings of this study revealed that the management of the whole production system is in the hands of the government.

As it is underlined below by one government official who participated in this research, such control of the agricultural production process is for protecting farmers' interests:

*"...the government deals with market dynamism: identify the market/business company which can buy the product and decide upon the price for every type of selected crop under the CIP-LUC program. Here the state intermediate between business companies and farmers' cooperatives just to protect the interests of farmers or their benefits and to make sure that the product is supplied to the market/business company". (Interview with DO1: 15).*

Nevertheless, as it is seen in the quotation below, the government's view is not supported by farmers: *"...The problem is that due to all these restrictions, one cannot grow anything else apart from maize: you grow only one crop and you cannot eat it when you want! (Interview with WF1: 33).*

For farmers, their interest is to have freedom for making choices regarding the type of crops to grow, when and how to grow it, and for the management of the production: to decide about how much quantity for selling and the one for eating. While analysing the justification by the government officials regarding the government's intervention and control over the production process of the selected crops under the CIP, it is correlating with the impetus of this agrarian reform which is to increase the national economic growth by 13 per cent every year for Rwanda to reach middle income as stated in development strategies including the Vision 2020 (Huggins, 2014). According to different development policy frameworks such as agriculture policy, and EDPRS I and II, agricultural commercialisation and growth are identified as key elements of Rwanda's economic expansion (Ansoms, 2009).

To achieve this ambitious objective, the government authorities, at least those who are concerned with the implementation of the agrarian reform, have to watch over to ensure that there is an increase in yields and that the whole produced quantity reaches the market. Some of the consequences of this strategy are that the agency of farmers is limited as they are not involved in the policy process apart from farming or the provision of labour. Aligning with this reality, one's question may be how the farming system under CIP impacts the daily working and living conditions of women smallholder farmers, and more particularly those who are poor or less resourceful.

### **5.3 Do the changes in farming system impact intra-household gender relations?**

In this section, the study to understand the relationship between the agrarian changes engendered by CIP and Intra-household gender relations. In this regard, the section presents women's perspectives on how the changes in farming system affect the labour relations between female and male members of their families, the gender and the power relation in management of resources such as land and agricultural products.

#### **5.3.1 The farming system under CIP increases women's burden**

After recording all the changes in the farming system resulting from the implementation of CIP, the study was interested by knowing to what extent those changes affect intra-household gender relations within the farm family. Gender relations here involve the division of labour or the distribution of farming activities between different members of the household. Women's perspectives on this issue were different as they depend upon the social structure of each household. For example, the gender division of labour within a male headed household is different from the one within a women-headed household (in the case of a widow of a single mother); a family with grown up children is different from one with small children, and so forth.

In Rwanda like in any other patriarchal society, the distribution of roles and responsibilities within the household follows gender norms. In this sense, men

(husbands) are considered as the heads of the family, and breadwinners and are not concerned by what is called "household work or reproductive work". Such kind of work is merely the responsibility of the female sex (all categories of female members of the family). Those roles include mainly cleaning a house, caring for children and elders, cooking, fetching water, firewood gathering, provision of food and its management and in some cases subsistence farming. Men are mostly concerned with productive or income-oriented activities such as paid labour in farming, construction, business or more professional jobs.

Whereas women are concerned with both reproductive and productive work, men are responsible for productive work or income/money-generating activities. In this regard, the productive work for women from rural areas is mainly in farming activities as it is very hard for them to find an off-farm job due to lack of skills in different domains, and often due to reproductive roles from which women are bounded from within their homes or to work from a place nearby their home.

As it was explained by the participants in this study, before the implementation of agricultural intensification programs, men were not much interested in farming activities, as the majority of subsistence farmers were producing food crops for home consumption only. Hence, the sector was regarded as less productive, and less interesting. Consequently, women were responsible for the entire farming process or the majority of farming activities. Those activities include but are not limited to the preparation of the land, planting/seeding, weeding, harvesting and post-harvest handling. As the head of the family, men could decide on the use of the land and related property, that is, decide about the type of crops to grow for different seasons, how and where; and decide about the quantity of the product to sell or to use for home consumption. In this process, both men and women have the responsibility to produce seeds and protect them or store them for the next agricultural season.

Following the new farming system under CIP, although gender hierarchies did not change, but, men are getting involved in farming activities. This is because, under CIP, farmers have to follow specific standards in modern farming such as digging holes, planting in lines, mixing organic and chemical fertilisers, and so on. Such kind of standards increase the volume of work required throughout the farming process.



That is the reason why the participants in this study underlined the need for the support or extra labour resources for a smooth performance of farming activities under CIP. The following quotation illustrates that:

It must be very hard for a woman without someone to help (a husband) because it implies a lot of work. For example, for someone like me with a small baby, collecting organic manure and cultivating with the baby on my back... I have to find a way for taking care of the young child whom I have to leave at home because the marshland is far away from home... you understand that I cannot go that way with two children” (Interview with WF3: 14, January 2020).

From this statement, it is well understood that men are obliged to engage in farming activities or simply provide support for the farming process because it is highly demanding in terms of physical energy and inputs. Men have to do some activities such as digging holes, and transporting organic manure, and women put the fertilisers and seeds into holes, and so on.

As specified by all participants, the system intensified farming activities, and men's attitudes towards farming activities also changed, or at least they understand how heavy they are, and if possible they try to assist their wives throughout the production process. This change in men's attitude is also motivated by the fact that under CIP, agriculture is treated as a business project; it is about producing for the market, which implies getting money. Hence, men can either participate in farming or provide financial support to pay for additional labour to ensure the farming process goes smoothly, as they expect to get more profit out of such investment. This is what was expressed by some women in a focus group discussion: *“men are much more involved in farming activities... they have seen that as you produce more, as you get much money, so men follow up the process of farming to make sure that everything is done well* (Focus group discussion, December, 2019)

However, in cases of poor families where members need to find alternative means to get money for food provision, women are mainly responsible for farming activities. This is because, in rural areas, men have more chances to get off-farm jobs as they can move easily from one place to another, and be able to do energy-demanding jobs such as construction, transport of goods, and so on. Due to household work, which includes taking care of children, cooking, fetching water and cleaning, women have

less chance to get an off-farm job or just to move far from home. As a result, men don't get fully involved in farming, and in some cases they fail to get the money for supporting the farming process. In that case, women suffer of the intensified farming activities as the latter is an addition on the heavy workload of women resulting from the combination of reproductive and productive work.

For the category of women heads of their families (widows or separated), those who have resources said that sometimes they have to get a loan/credit for hiring someone to help them with all these activities. The problem was for those who are poor or old widows who cannot pay labour and cannot get a loan as they failure to fulfil the required conditions for one to get a loan from the cooperative or any micro-finance institution. As one expressed in the following quotation, It is very hard for them to cope with the requirements and to produce as per the farming contract.

Furthermore, it is worth noting that although the character or the nature of the CIP program (the intensified farming activities and inputs) has pushed men to have more interest in agriculture, women are still the main labour or more responsible for farming activities. Hence, the combination of the two roles induces an increase in women's oppression or burden. This is because, even if the husband can participate in farming activities, after farming, a man can relax, go look around, in bars, and briefly get some leisure time, while women have to continue with a lot of work regarding food preparation, care of children and or elderly, and in some cases, they combine both farming and care of children. In line with this context, some women see the farming system under CIP as over-burdening them, as expressed in the quotation below:

... "to be sincere, during the farming period, I feel that I want to leave the house (run away) due to the big workload with so many activities. ...

I cannot find the words to express the pain I feel during that period...as a woman I have a big burden compared to my husband, because, besides the farming activities, I have to do other activities like cooking, caring for children, fetching water, while my husband takes a break and relax" (Interviews with WF6, January 2020).

Compare to their counterparts men, it is well seen that women farmers, especially those who do not dispose enough means, are highly suffering during the farming period. For those who have small children they have to carry them on their backs while digging or weeding, and even attending farmers' meetings or any other activity, as it is expressed in the following quotation: “... *with the new farming system, a woman is overloaded: can you imagine how painful is to cultivate while carrying a baby on the back* (Interview with WF3, January, 2020).

The following quotation bears another example which justifies how poor women endure more burden as per the agricultural change under CIP:

“... I don't know much about CIP because I don't cultivate...there are activities that I cannot do, for example digging holes, transporting the organic manure or planting in straight lines. I get occasional part-time jobs, and I use some of that money to pay farmers. However, my husband is the one who is involved in farming activities, and I often hear from him the instructions regarding CIP policy process...” (Interview with WF5, February, 2020).

From the view of the participant named “WF5”, a woman who graduated from the university and whose husband attended three years of secondary school, it is well understood that, the burden of women depends upon their social and economic conditions. It means that, those who have financial means do not suffer at the same level of those who do not own resources. The fact that WF5 can easily get off-farm job compare to her husband prevent her to get involved in farming activities as she can extra labour to work on her behalf. She joined CIP being conscious about the commercial agriculture. For her, farming is doing business, and this is different from many women for whom farming is the only resource of income and food provision as well. As it can be observed on the pictures below, poor women combine reproductive and the productive work, they attend cooperatives meeting while caring their babies:



Farmers are attending the cooperative meeting organised by the district authorities

Compare to their counterpart men, the gender division of labour in rural Rwanda increases the volume of the work of women as they have to combine reproductive with productive activities. Some women attend the meeting while taking care of their small children.

### **5.3.2 Despite their important role in agricultural intensification program, women are still subordinate to men**

In addition to the gender division of labour within the farm family, another aspect which was important for this study was to know the change in the farming system has affected or brought change in power relation between women and men members of the men headed households. In this respect, the study focused mainly on the decision making concerning the management of land and related property such as inputs, outputs and income from agricultural production.

For this concern, respondents replicated that, as per CIP regulations, all farmers collect their harvest and take them to the office of each cooperative. From here, the harvest is handled to a business company, which sell it after processing some transformation. In other words, cooperatives compile the production of all members and handle it to the business company. After selling, farmers have to wait for a period which varies between one to three months, for them to get the payment from the business company.

The company transfer the money to the account of the cooperative and pays the cooperative which in turn has the responsibility to transfer the money at each farmer's bank account respectively to the quantity produced. Depending on the organisation of each cooperative, the money can be either paid in cash or transferred via SACCO (Saving and Credit Cooperative), a governmental microfinance organisation established in each locality to facilitate the rural population to access bank services.

Following this regulation, farmers face different problems depending on the living conditions of each family. As it can be understood from the quotation below, the collection of harvest follows the estimated quantity of production for each plot of land (the farming contract) at the beginning of agricultural season:

“A farmer is allowed to take home some quantity of production. But if he/she produces less quantity compare to the expected/required for one unit of land, he/she risks of not taking anything at home ... the important issue is to supply the market first and food come as the second” (Interview with DO1, January, 2020).

From the above perspective by the district official in charge of agriculture, for getting the product to take home, farmers need to produce more that the estimated production as per the farming contact. In case one may produce just the quantity that was estimated, the whole production will be sold, since, the interest of CIP (or the interest of the government) is in supplying the market, and not for home conception. If one manage to produce more that the targeted production, he/she has chance to take the remaining produce for home consumption.

As it is noted above, this situation affects differently the categories of farmers. For example those who have other sources of income and who can buy the food from the market, and those who have more private land where they produce different food staples, they have interest in selling more quantity for getting much money. Whereas those who have limited alternatives for getting income, those who depend mainly on the CIP land, they need to get some product for home consumption.

However, as expressed by some participants to this study, it is not frequent that farmers in the third category, meaning those who depend on CIP for food provision, have possibility to get enough quantity of maize for home consumption. That is why, during the interview with the participant named “WF 1”, she was appreciating the way the benefits of CIP in increasing farmers’ skills/knowledge in modern farming technique. While she was asked if she is now professional farmer, her response was as follow: “...*how can I become professional if I cannot take anything to eat at home? They give us a little quantity to make some porridge, and the rest is taken away (Interview with WF1: 37, December, 2019).*”

Although the participant “WF1” has 4 plots of land under CIP, with small private land on the hillside where she can grow other food staples, she has limited resources for the daily subsistence as she has to work as a land labourer for getting what to feed her six children. This means that, for farmers whose living conditions are similar to those of “WF1”, it is not easy for them to produce more than the targeted production, as it requires a resourceful investment in terms of inputs and labour, which, the majority of the poor farmers do not have. However, during the production process, farmers may encounter problems related to climate change, plant diseases and less quantity of fertilisers. All these factors may alter the productivity of maize by the unit of land and the loss in the harvest.

Following the post-harvest handling process under CIP as described above, it is well noticeable that such process affect the decision making process within the farmers’ families. First, the aim of the program is to produce for the market, and all inputs and outputs belong to the government, under the management of cooperatives leaders. This context implies that, compare to the situation before joining CIP, farmers, being women or men, lost the power to decide about the use of resources like land, seeds

and fertilisers, the price of agricultural products, and the quantity for selling or for consumption. The remaining power lies in deciding about the use of money they get out of their products or what they call income from CIP.

Regarding the management of money from the produce, like for any other income, the wife and the husband discuss how to spend that money depending on the needs of their family. And if they disagree on the list of priorities, as the head of the family the husband can take decision. In other words, the power relation between men (in this case the husband) and women (or the wife) did not change despite all other changes induced by the agricultural production system under CIP. As it can be observed in the quotation below, men have always the last say in decision making process, as many women prefer to keep quiet if their husbands do not value preferences just to avoid disputes or violence:

*“After getting the payment from the cooperative, we sit together and discuss how to use the money. In case we may not have a consensus, I have to keep quiet and let him do as he wants because he is the head of the family (Interview with WF5: 15, February 2020).*

From the above quotation, men, as the head of their families, have the full right to take the decision and women have to be subservient to safeguard the interests of the family (to get harmony in the family). In other words, the power relation between the members of the farm families does not depend upon the external factors such as the change in economic production, or the role of those members in production process, rather, it depends upon gender norms and or ideologies from within the society. In this respect, women are treated as the heart of the family "umugore ni umutima w'urugo", meaning that they have to sacrifice their personal interests or even their well-being for the welfare of the entire family. In line with this situation, however, the question of this study is to what extent do women benefit from CIP if they cannot enjoy nor have command over the produced income even at home, yet they pay the high cost in the agricultural production process.

## **5.5 CIP offers opportunities to enhance women's skills as modern farmers**

Another interest of this study was about the experience of women smallholder farmers concerning what they have gained or the opportunities provided by the new agrarian model. For this aspect, women were asked to share their experiences comparing before and after the implementation of the CIP. This section presents the gains of women farmers from CIP as narrated by the participants.

### **5.5.1 CIP program increased maize productivity by the unit of land**

As expressed by some participants, compared to the situation before the agrarian change, the intensification programs contributed to increasing the productivity of maize by the unit of land. The use of modern farming techniques such as improved seeds, chemical fertilisers and monocropping, brought a positive impact on boosting agricultural growth. For the participants in this study, before joining CIP, they were using traditional methods to cultivate maize, with low productivity. But now, they learnt how to grow maize in a modern way, which increases the production and their income.

Although the objective of this study was not to evaluate CIP in terms of agricultural productivity, after hearing about women's views about it, and knowing the problem related to the size of land under CIP, the study was interested in understanding how these women benefit from the increased productivity and asked them to elaborate much more about their experiences. In this respect, one participant narrated her story as follows:

*“...in the first production, I got 40,000 FRW and I bought 2 pigs (7,500 FRW each). I also managed to buy seeds and fertilizers for the next season, and then I planted and weeded. When it was ripped, I sold it at 180 RWF/kg, I got 52,000 RWF and I sold the two pigs and I bought a cow of 80,000 RWF and I grew Soja again where I had harvested maize. After that, the next production was not good; I got 15,000 Rwanda francs. Fortunately, the cow was grown, and I sold it at 220,000 FRW. In 2016, I continued working because my husband left me with a land of around 60 a, I was then able to repair my house (Interview with WF 2: 3, December 2019).*



Taking the above quotation as an example, one can easily observe how productive her land has been, as she holds two plots of land under CIP, and one plot equals five acres, which means that her land is around 10 acres. Taking the highest production, she has got in recent years which is 80,000 Rwandan francs (or 80 U S dollars), and taking into account the cost of farming (fertilisers, labour, pesticide, and so on), one can easily question the relevance/validity of such an appreciation of the program concerning productivity.

Also, while reading her interview, it can be observed that the reason why she got even that "increased production", and managed to achieve a certain level of welfare such as buying a cow and renovating her house is that she holds a relatively big land outside CIP, that is, on the hillside. Such resources enabled her to afford all the required inputs such as chemical and organic fertilisers, and pesticides, to pay for labour, and then managed to process farming activities within the program's timeframe.

However, although all participants share the common view that the program contributed to the increase of productivity of maize as a result of applied modern farming techniques such chemical fertilisers and improved seeds; the participants have different perspectives.

Here are different narratives:

“...I think that this (the program) helps a person who has a big land, who has something else to support him/her...but someone poor like me, it does not help, because I have a small land...”(Interview with WF3: 20, January 2020) .

“...us who are poor, when we were cultivating beans, sorghum, sweet potatoes, we were not having any problem...this maize, I am not even able to eat it...of course when you don't have debt/loan from the cooperative you can get money, ... but .. ahaa we don't have benefit from the program if you want me to say the truth (Interview with WF4: 9, 11, February 2020)

From their perspectives, it is well seen that women farmers are not a homogeneous group, they in different categories depending upon their socio-economic conditions.

Looking at the above views, it is well observable that, it is not all categories of women who enjoy the increased productivity of maize as per the implementation of CIP. For example, those who do not have private land or any other source of income, those who have small land and who cannot get capital to buy the required quantity of fertilisers or other required investment, or simple those who are still practicing subsistence farming, are not in a good position to invest the income from maize production in a long-term income generating project. This is because, their primary interest is to satisfy the basic needs, and the food provision is one of those needs.

Furthermore, it is worth noting that a good number of participants highlighted that the money they get out of their products helps them to pay for health insurance, the family pension, and the taxes for the land under CIP government program which normally bring much trouble in case one fails to pay the required amount on time. As the only source of income, many farmers use it as an investment to pay labour and inputs for the following farming season. From this, one can question the potentiality of the program in promoting sustainable welfare of poor farmers, if the growth generated serves as the main source for the daily subsistence for the majority of smallholders.

### **5.5.2 CIP enhanced women's professional skills in modern farming techniques**

The program organises different sessions of training depending on the needs of farmers. To organise such training, government officials in charge of agriculture at the District and Sector level collaborate with cooperatives committees to assess the existing needs and submit the needs to the Ministry of agriculture or Rwanda Agriculture Board, which in turn contacts agencies with the necessary expertise to offer training in accordance to assessed needs of farmers. In most cases, the needs in training are aligned with the farming process – planting on rows, how to use different fertilisers and pesticides and the harvesting and post-harvest handling techniques. As it is illustrated by the pictures below, depending on the topic or their objective, training can be organised in the farmers' fields or free spaces nearby their fields.

The training materials or handbooks are provided to every individual and translated into Kinyarwanda, the language that is spoken in Rwanda since the majority of farmers have a low level of literacy rates.



This was one of training materials on post- harvest handling process, which was offered during the training organised for all farmers.

Trainers are also farmers who, in most cases, are members of the cooperatives committees, and who get first what is called "training for the trainers" (offered at a different place, sometimes at the office of the company/organisation in charge of offering the specific training) and who, in turn, organise training for the entire group of farmers. They organise them in small groups to facilitate communication and practical demonstration.

The participants in this research assume that, due to different pieces of training that they have received under the CIP program, they are becoming much more professionals of modern agriculture as they know much more about how to use chemical fertilisers, to differentiate between hybrid seed and other types of seeds, planting in lines, how to use pesticides or to treat different diseases, and so on.

Some of them revealed that, at the beginning of the program, they tried to resist the change by looking at how the program was established; involving many changes from which many farmers were hopeless, and were expecting more failures than success. However, after some years, they realised how important the program is especially in terms of productivity. For them, even if the program is highly demanding, but, it helped them to change their mind about the importance of market-oriented agriculture, and to a certain extent their life is changing as they are shifting from subsistence farmers to commercial agricultural producers.



Farmers are organised in small groups to facilitate the training on how to dry maize after harvesting.

### **5.5.3 CIP program added value to women's work in agriculture.**

When a district official in charge of agriculture was asked about what she thinks about the benefits of the CIP program for women smallholders, she noted the following:

“...before joining the CIP-LUC program, farming was not a job/work, it was not productive as it was just for subsistence. But now, farming is a business, which means

that the work of women is now valued (since it is their main work), agriculture is like a commodity, hence the work of women is more productive, and it increased the ability and value of women within the household and in the community. Women are now able to hold the family in the absence of men /their husbands! In the past, it was known that if the husband dies or if he is absent for long time, the family will have difficulties for surviving, because, he is the only one able to look for money, to ensure the daily survival. Now it is well seen that a woman as a head of the household can provide for the needs of her family through the new farming system” (Interview with DO1: 21).

From the view of this government official, the transformation of the farming system through CIP brought a positive impact on the daily life of women, not only in terms of productivity but also in terms of emancipation and making her work visible and or valuable. Before joining the intensification program, women working in agriculture were regarded as less productive given that it was for subsistence or producing food for home consumption, thus, farming was not a “work”. With the CIP program, farming is much more regarded as a business-oriented activity, which has to generate regular income like any other income-generating activity. Hence, the new system has proved to society (men and the community) that women farmers are also able to provide for the family's subsistence.

## **5.6 Challenges of women smallholders while coping with agriculture intensification program.**

As already noted, while trying to cope with the agrarian change as per the implementation of CIP, women smallholders have been facing various challenges. Those challenges include but not limited to the management of cooperatives, access to resources such as land and fertilisers, climate change and government interventionism in the program process.

### **5.6.1 The management of cooperatives**

The findings of this study demonstrated that farmers complain about the leadership of the CIP cooperatives in terms of their leadership skills and organisation.

For them, the cooperative committees have weaknesses in the daily management of the so-called "farmers' property", and this, to some extent, limits their benefit from the CIP. This property is mostly made of the membership fee paid by all members and the profit they make out of the marketing of improved seeds and chemical fertilisers. In fact, the cooperatives are supplied inputs (made of chemical fertilisers, seeds and pesticides) by the government agencies involved in the implementation of the intensification program. In turn, the cooperative committees organise the process for selling them to its members either on loan or cash payment.

In this process, using the membership fee (this includes the fee that is paid by every new member, and also the annual rent of every plot of land by all members), the cooperative play the role of an agro-dealer, and holds the monopoly of the market for these inputs. Farmers do not trust their leaders concerning the management of all the financial treasuries. For them, the cooperative rules or management policy do not open a room transparency and or accountability concerning the daily management of their property. Furthermore, some participants also revealed their concern regarding the procurement procedure through which the leaders of cooperatives collaborate with district officials in charge of agriculture for marketing the harvest. Farmers argue that their leaders stand on the side of business company while during with the market dynamics and fail to stand or fight for farmers' interest.

### **5.6.2 Government interventionism in the program process**

The findings of this study demonstrated that the agricultural intensification program is a top-down government initiative. As such, the latter regulates every stage of the policy process. Women farmers who participated in this study underlined this intervention or over-control as a great challenge for them. Too many rules/regulations constitute a burden or limitation of farmers' opportunities under this agrarian model, rather, increase farmers' oppression.

The problem that was mostly highlighted is the fact of not allowing farmers to make choice concerning the crops to grow or crops rotation throughout agricultural seasons. One participant expressed that as follow:

“... the problem we have is that they (the government) do not allow us to choose what to grow and when. Like now they (the government) don't want us to grow beans after maize, and that is the easiest and most productive way because we risk not getting into the market if everyone farms vegetables in season B. I wonder how we can develop such a system (Interview with WF 14: 3, February, 2020).

From the above quotation, it is well understood that government intervention is a great burden for farmers as it hinders them to participate or limits their autonomy in decision-making, and according to them, it hinders them to enjoy opportunities offered by this agrarian change.

The limitation of the choices of farmers under the program is also reflected in the marketing of inputs and outputs. In this regard, the government regulates the price of agricultural products, seeds, chemical fertilisers and pesticides. However, all participants emphasized that the price fixed by the government for maize is always low compared to the market price. Given that farmers follow their performance contracts for selling their product, some of them get obliged to sell all their products. As such, when they need maize flour, they have to buy it from the general market. Here, they buy at a high price the same maize after being transformed into flour. In other words, farmers produce maize that they don't eat: they sell their products at a low price which does not allow them to afford the price of the same products at the market.

In addition to the high cost of farming, women farmers explained how the fixation of the price by the government induces their loss in terms of benefit from CIP. For them, despite the increase of productivity, if you compare the cost of production and the income they generate out of that production, they are losing. Here, some of them did not hide that, the over-control by the government renders the program much more oppressing.

The program is highly demanding as they have to pay each and everything: hiring additional labour for farming, transporting organic fertiliser, buying chemical fertilisers, seeds, and pesticides, security guardians, rent the land, transporting the harvest from the land to the drying place, and so on, yet they don't have the autonomy to decide about the management of their products. This loss by farmers is recognised by the government as it was explained by a district official in charge of agriculture in the following quotation:

“...the government is aware of complains by farmers since most of the time the price fixed by the government is less than what is on the market, and this situation causes a loss for farmers ... the gain is below the invested cost as they sell their products on low price while they have to buy the same product on high price” (Interview with DO2: 16, January 2020).

### **5.6.3 Low access to resources such as land and agricultural inputs**

Although the government provide subsidies for chemical fertilisers, improved seeds and pesticides, the cost of such inputs is still high for the majority of women smallholders. In addition, the program requires a high quantity of organic manure to mix with chemical fertilisers, and it is very difficult to pay for it, as in most cases, women do not have domestic animals, especially cattle for livestock. All these make the cost of inputs very high and not easy to afford for poor women farmers. Here, there is a need to note that, the members of the CIP program do not have room for them to bargain the price or to buy inputs from outside the cooperative. In other words, the cooperative keeps monitoring all farmers to know which seeds or fertilisers are used, just to ensure that all farmers use the same type of inputs. This implies that, if the cooperative gets supplied with low-quality inputs, particularly improved seeds, all members risk getting low production.

Another challenge that was revealed by participants in this research is related to farmers' limited access and control over land under the CIP program.



As it is already noted, the marshlands belong to the government and they are distributed to farmers by cooperatives 'leadership under two conditions for the tenants: paying the rent every agricultural season (the amount of the rent varies depending upon the type of crop and the size of the plot), and the effective performance in relation to the farming contracts.

However, as it can be observed from the following quotation, participants in this study demonstrated that the procedure/system that is used for one to get or to lose the land in the marshes engenders tenure insecurity: “when you fail to follow cooperative’s rules/ instructions and you fail to produce the targeted harvest, you leave it in the hands of cooperative, and the latter gives it to another person who is able to exploit it effectively! (Interview with WF1: 41, December 2019).

As it is mentioned above, under CIP, one of the cooperatives’ regulations underlines that, if one fails to perform as per the performance contract, or to get the targeted harvest for each season, he/she leaves the plot of land in the hands of the cooperative, and the latter has to give it to another person who can exploit it efficiently. This regulation narrated as a challenge, because, under this condition, not only they work under pressure as they can lose any time that land, but also, they don't see their farming activities as a sustainable project which deserve long-term investment.

#### **5.6.4 Plant diseases and climate change**

In addition to the above presented challenges, participants highlighted also plant diseases and climate change as another type of challenge. In their view, most of the time, they face unpredictable heavy rain or long period of dry season, and such situation affect the farming process and productivity. During the interviews, participant pointed out some examples:

“... our challenges are related to climate change, there is a time we get less productivity, like in this season, and the rain has been heavy and rained for long time than usual, which spoiled the harvest. Also, last year, we faced the same problem while growing the soybeans, and we harvested almost nothing!! (Interviews with WF6: 19, January 2020).

Further, they maize diseases as another problem which reduced dramatically the productivity, and as per their experiences, those diseases have been rising in recent years. The participants informed this study that the government is aware of these challenges, and established different measures to support farmers. An example of such initiatives that was given is an assurance scheme which has been created by the government. As specified by the leaders of cooperatives and government officials, the aim of the scheme is to support members of the CIP cooperatives in case of diseases or climate change (heavy rain or long period of dry season) , by providing some money or what they call “compensation” for the loss that farmers endured due to the crops diseases, floods and drought. However, as these measures by the government are just starting, participants were not able to assess their effectiveness in responding to climate change-related problems.

#### **5.6.5 Food (in) security**

While participants in this study claimed the positive effects of the CIP program, especially in increasing agricultural productivity, some of them complained about its negative effects in terms of food security. One participant expressed her concern as follows:

"Before joining CIP, you could sell maize as you want and do what you needed to do with the money: you could sell a bowl of maize and buy sugar or beans. But now, we can be hungry with maize in the land. I think that this (the program) helps a person who has a big land, who has something else to support him/her. But someone poor like me, it does not help...we grow maize but we do not eat it!" (Interview with WF3: 20, December, 2019).

From the above quotation, it can be observed that the fact that the cooperatives do not allow farmers to harvest maize any time or depending upon their needs leads them to feel unsecured in relation to the food provision. It is like if they don't own that production. In other words, the program did not improve their food provision despite the increase in productivity by the unit of land. This is because, what they produced under CIP, is not satisfying their needs in food provision.

For poor farmers, the important preoccupation is to produce enough food before selling their product. The above quotation shows that, the less resourceful category of farmers are still struggling to produce enough food for their families. They consider the government regulation about the management of the production as a constrain limiting them to enjoy the increased productivity under CIP.

For this regard, different participants underlined that it would be good if the government allows them to manage the production, that is, to decide about the quantity to be sold, and the one for home consumption, the time for harvesting and so on. The justification for such perspective is that, even if all farmers consolidate the production under CIP, every individual farmer produces as per the size of his/her land holding. This implies that if one is obliged to sell the entire produce for the market, and yet he/she does not have another source for food or income, there is a high risk for him/her to face a food shortage, in case of no other means of subsistence.

The consequence of this situation is that many of the women participants depend on "guca inshuro" or as farm labourers, meaning that, they need to work on somebody's farm for their daily survival. In the views of those women(as in the above quotation), it is like if they are producing for others, and it is not understandable how they can endure all the pain or the costs/investment required for the operation of farming activities under CIP and end up not getting enough food.

When district officials were asked about the farmers' concern about the management of their production, their view was that "the objective of the CIP is to produce for the market. Farmers have to supply first the market and supply their food consumption after". On this, they further noted that the government is aware of farmers suffering "since most of the time the price fixed by the government is less compare to the normal market dynamics, and that, their gains are below the invested cost" (Interview with DO1: 16, January 2020).

### **5.7. Women's wishes concerning the effectiveness of CIP**

One of the objectives of this study was to give a voice or offer an opportunity to women smallholder farmers involved in CIP to propose the strategies which can address the above challenges and enhance their benefits from the this agrarian model. To this end, the following are their recommendations: provision of means to facilitate them to grow livestock, reduce the price of chemical fertilisers and get them on credit, improve payment modality by the business companies, and moderate government intervention.

To start with, the common wish of women smallholders is to get the provision of livestock, cattle or small animals, which can help them to produce organic fertilisers and address the high cost of such input. Despite the effort by the government to facilitate farmers to access inputs, the latter still face difficulties to produce organic fertilisers since the intensification of agriculture requires an enormous quantity of organic manure and the majority of them cannot produce it on their own. Hence, any support in livestock provision can enhance the capacity of poor farmers and can reduce the high cost of inputs. Although the government subsidise chemical fertilisers, women farmers expressed that its cost is still high. Their wishes here is to get a reduction in the price or to get facilitated by the cooperatives to get them on credit/loan, as some cooperatives have been slow in offering such service. Another recommendation is about the payment modality. As demonstrated in this study, it takes a long for farmers to get paid by the business company for their agricultural products. For them, the business company should pay their money on the same day of packing their products.

Regarding the government intervention/control in the daily management of the program, during our interviews, one participant expressed the following: *"It would be good if authorities allow us to grow what we want. For example, if I could have farmed beans, I would be harvesting them. But now, I have to wait until March!"* (Interview with WF3: 24, January, 2020).

In the same vein, another participant also argued that: *“Instead of making choices for us, if the government could provide many pieces of training for us to know and farm in a modern way, this can promote more development. For example, recently they said that we have to farm vegetables; can one survive from vegetables only?”* (Interview with WF5: 22, February, 2020).

These statements show that the system would be more effective if the government can reduce its control over the daily management of the program process, that is, to give to them freedom in deciding about the type of crops to grow, when and where, the quantity to be sold, the price and the market. In short, to empower them, to let them participate directly in the decision-making process and enjoy their autonomy throughout the production, as the active agent of the program.

## **Chapter VI: Reflecting on agency and opportunity structure under CIP to scrutinise its effects on women smallholder farmers**

This chapter discusses the key findings of this study. To this end, it draws from the concept of agency and opportunity structure and other relevant concepts (as discussed in the third chapter), to grasp the effects of the agrarian change as per the implementation of CIP program on women smallholder farmers. The study argues that the social economic conditions of women farmers shape the effects of CIP. In other words, the effects of CIP on the daily life of women farmers depend upon the conditions underlying the policy process of CIP, meaning the context (social, economic and political environment) within which the program is implemented.

The discussion addresses four aspects which the study thought to be prominent for detracting the impact of CIP on the daily life of women smallholder farmers. Those aspects involve namely women's access and control over resources, gender relations, the power relation between different actors involved in CIP, and the implication of agricultural growth generated by CIP for in the daily life of women smallholder farmers. In fact, women's access to resources is regarded as a sine quo none condition for them to cope with and to be active as the main actors of the new agrarian model. It is also important to reflect on gender power relations within the farmers' households headed by men, focusing mainly on women's labour in productive and reproductive work, and how the latter shapes or skew women's opportunities and or their capability to act and benefit from the program. Further, the discussion scrutinise the power relation between different actors involved in CIP to understand how the program is inclusive or exclusive and its implication concerning women's status under CIP. Last but not least, it is worthy to reflect on the meaning of the agricultural growth generated out of this change or it is beneficial for the daily survival of women smallholder farmers.

## **6.1 Women's access and control over resources, a prerequisite for coping with the agrarian change under CIP**

As highlighted throughout this paper, the aim of Rwandan agricultural reform introduced through the Crops Intensification Program is to transform the agricultural production system as a condition to enhance agricultural growth and to improve the well-being of those involved in farming activities, whose majority are poor women (MINAGRI, 2010, 2013, NISR, 2015). Such transformation involves a transition to capitalist agricultural system, which requires an enormous investment in terms of inputs- land, seeds and fertilisers; and in terms of labour and the necessary technologies for producing targeted outputs.

As argued by different scholars, in the context where farmers or farm producers have low capacities, this situation gives to the capitalists(the corporates engaged in commercialization of agricultural products) the power over the farmers and opportunity to generate more profits, as the efficiency of the farmers depend upon their capacity for to access or supply inputs. Yet most of smallholders, particularly in Africa do not have that capacity, apart from the family labour or unpaid labour (normally confined to peasant modes of production), and consequently, the system generates market's benefits to the expenses of produces (farmers) (Naidu and Ossome, 2016, Shivji, 2008).

To understand the effects of the Rwanda's agrarian reform on women smallholder farmers, it was important for this study to investigate how capable those women are to engage the required resources, considering their social and economic conditions; to see what the government has been doing to empower them or to enable them to access such resources; and what might be the effects of this change If these women fail to get the necessary means financial and labour. All these concerns constitute the object of this section.

The findings of this study revealed that the operationalisation of CIP program involved various changes in the agricultural production system with a great emphasis on the shift from subsistence to a modern farming system.

As announced earlier, the subsistence farming system refers to farming organised for simple reproduction for supplying the family's food. The system is often used to illustrate small-scale farming which is accomplished by peasants in pre-capitalist or traditional societies (Bernstein, 2010).

Changing the subsistence to a modern farming system implies the development of the capitalist agricultural production system which alters the social and economic character of small-scale farming. Capitalist agricultural production system aims to generate growth through the increase of yields per hectare, it requires cropping intensity per unit of land or other inputs and changing land use from low-value crops or commodities to those that receive higher market prices or pretty commodities (Pretty, Toulmin and Williams, 2011). Consequently, farmers are required to find alternative means enabling them to cope with such change. Those are namely to increase the farming land as they have (shift from small scale to large scale farming), use of modern seeds, chemical fertilisers and pesticide, the intensification of labour, and so forth. However, one's question is about what happens when farmers do not possess all the required means or capabilities to enable them to fit into the new production system.

The implementation of the agricultural intensification programs in Rwanda involved various changes with which farmers have to find a way to cope with. These changes are mainly related to the farming system whereby farmers have to shift from subsistence to market-oriented farming strategies. These strategies involve the increase of farming scale (from small to large scale farming), and the intensification of inputs and labour. It is worth noting that the program aims to increase the productivity or yields of the selected crops as well as the amount of land dedicated to these crops and to increase the production of the agricultural sector (MINAGRI 2013).

To uphold this radical transformation of the agricultural farming system, smallholder farmers need to have access to and control over resources particularly land and financial means for them to purchase the required inputs and pay for the intensified farm labour (Lewontin, 2000).



This is the situation for Rwanda's women smallholder farmers involved in CIP. The findings of this study demonstrated that smallholder women farmers are a heterogeneous group, meaning that they are in different categories depending on their social economic class. The category of poor farmers or those without resources is facing several limitations hindering them to buy inputs such as modern seeds, fertilisers, and pesticides and to pay for labour, as modern farming systems which reduce labour intensity such as mechanization and herbicide are not yet available to them.

Concerning land, the study revealed that the majority of women farmers involved in CIP do not have land; they only rely on the government land in the valleys. This situation is due to the structural land scarcity that Rwanda has been experiencing, from which the average size of farmland per household has been gradually reducing to the extent that 77.2 per cent of agricultural households operate on a farm with a size of less than 50 acres and about ten per cent of the households are landless (National Institute of Statistics of Rwanda, 2021). This problem of limited access to land is explained by not only the rising population density but also the limited off-farm activities, particularly in rural areas (Kim et Al., 2022). In such a situation, the marshlands are the only hope for these landless women farmers. Yet, as stated in the previous chapters, with the new land law of 2005 as amended in 2013, the marshland belongs to the public domain, which means that they are state property.

Consequently, to access the land in marshes, like other farmers, women have to pay regularly a commission and have to use the given plot of land as per the farming contract with a risk of losing this land in case she may not respect the contract. Furthermore, the findings revealed an informal regulation regarding the distribution of marshland whereby a household landholding cannot exceed eight parcels of 5 acres each.

This means that under CIP, farmers are not allowed to possess beyond 0,50 hector in the same locality. Yet, the study revealed that the majority of smallholders involved in this study hold between two and five parcels under CIP or between 0,10 hector and 0,30 hector.

From that, it is well seen that like other farmers, a good number of women farmers do not possess the land because they don't have their private land due to the factors explained above, and the conditions to access the government's land in the marshes are much challenging for them. Henceforth, most of them remain poor, despite the overall growth generated by the program because every individual farmer gains the production as per the size of owned land.

Although one of the objectives of CIP is to promote the economy of scale through the consolidation of the use of land as a strategy to address land fragmentation, the reality shows that this statement can have a meaning on the hillside(individual private land) but not in the marshlands, because the latter are controlled and managed by the government. In other words, if farmers are not the owners of the lands, they are not in a good position to take advantage of or use them for their interests.

This is what Narayan (2005) was insinuating while stating that the limitation of poor people's physical assets like land can severely constrain their capacity to negotiate fair deals for themselves and can increase their vulnerability. In the context of land scarcity like in Rwanda, where even the small farmland is in the hands of the state, it is too idealistic to assume that women smallholders can benefit from an agricultural intensification program, because their low capability prevent them to behave as active agents of the program.

Other important resources that women need for them to act actively under CIP and benefit from it are different types of inputs, more particularly the improved seeds, chemical and manure fertilisers and pesticides. The findings of this study on the social economic background of women farmers involved in CIP demonstrated how their living conditions impact negatively the farming process as they do not enable them to take and enjoy the agrarian change as a new opportunity. The collected data on the socio-economic background of these women show that agriculture is the main source of income.

Some of them work only in their farmlands and others sell their labour as farm labourers to complement the production from their farmlands for daily survival.

Although the productivity by a unit of land has increased as a result of intensification, the overall income or production from farming activities is still very low, and it cannot cover all the required costs of inputs and labour as the latter is relatively high.

Moreover, given that women farmers are not a homogenous group, their social and economic conditions affect differently their capabilities to cope with and benefit from the agrarian change. The findings of this study revealed that, in addition to the low income of smallholder women, other social features such as age, education, and social status reinforce their low capacity for performance as market-oriented producers.

For example, an old woman who did not attend school has a lower chance to get an off-farm job or sell her labour for supplementing her income, as well as to provide intensified labour under the program. Thus, it becomes difficult for such a person to act as a professional or market-oriented farmer, that is, to fit into the policy framework of CIP. As revealed by the research findings, the government of Rwanda recognises the low capability of smallholder farmers in coping with the required farming conditions, particularly their access to inputs.

To address this problem, the government collaborated with private business companies and established a system through which farmers involved in CIP program can access subsidised inputs. In this respect, all farmers involved in CIP program benefit from a price reduction for chemical fertilisers. Consequently, farmers are not allowed to buy all agricultural inputs (chemical fertilisers, improved seeds and pesticides) outside the government inputs supply scheme. For this, cooperatives play the role of intermediate agents in this process of marketing and supplying subsidized inputs among farmers. In other words, the government has the monopoly of supplying inputs to CIP related cooperatives countrywide.

However, given the organisation and functioning of this system, it is noticeable that the latter is serving much more the interest of corporate interests, as farmers have limited choices for the inputs marketing. Moreover, it is not all inputs that are subsidised, the subsidies are provided for chemical fertilisers only, seeds and pesticides are not included though they are sold from within the same scheme.

Yet, the system could provide an advantageous opportunity for poor farmers if all inputs were subsidized. This means that in reality, the cost of inputs did not reduce. In addition, organic fertilisers are not sold by this government inputs supply scheme, and it is very expensive and hard to get because, the majority of smallholders are facing difficulties to grow livestock, especially cattle.

Nevertheless, as argued by different studies, the system promotes the profit of business corporates, while limiting not only farmers' opportunities to play with inputs marketing but also farmers' diverse strategies to produce and reproduce their seeds (Huggins, 2014, Ansoms, 2011). As noted earlier, like in other countries of sub-Saharan Africa, Rwanda's agricultural intensification programs draw from green revolution policies. The debate on this agrarian change has been critical of the tenacity of such policies questioning the state's financial capacity to integrate this change and the extent to which farmers are empowered for them to cope with the new farming system (Ansoms, 2011, Kim et al., 2022).

In the context of Rwanda where the majority of farmers are smallholders and do not hold enough resources, and the government faces difficulties to finance green revolution policies, the only resort was to involve private corporates to finance the production process, especially the provision of inputs, and therefore use this as an opportunity to penetrate the agricultural production system (Huggins, 2010). In the same vein, FAO(2011, 2013) underlines that the success of agricultural development through green revolution policies in sub-Saharan countries will depend on how smallholders farmers (who are the majority of farmers in this part of the world) will be empowered, meaning how will they access resources needed to shift from traditional farming to commercial/market-oriented farming as well as the skills for managing the farm as a business (to make the choice about which technology to use and how).

## **6.2 Intensifying farming system or intensifying women's labour: the nexus between productive and reproductive work**

Aligning from the general objective of this study, which is to analyse the effects of the agricultural intensification program on the daily living conditions of women

smallholder farmers, this section discusses the implication of this change on gender relations between different female and male members of the farm families.

In fact, gender roles follow gender norms which establish gender hierarchies within each family and society. These roles are different depending on the type of family, its social structures, its geographical location and the working sector. These roles however can be changed as a result of modernisation or any other social, economic and political phenomenon, and they are used as a means to exercise control between individuals (Reeves and Baden, 2000). In Rwanda, cultural norms define gender relations in all sectors. Here, it is worth noting that, men are the head of the household and in case of his absence the wife can take over this responsibility. As the head of the family, men are the managers of all productive resources like land and other related property. Women are responsible for the large majority of the domestic or reproductive work, and any other responsibility has to be added to domestic work.

The findings of this research demonstrated that before the implementation of agricultural intensification programs, men were less interested in farming activities as the latter was less productive and much more for subsistence or family consumption. Hence, women were responsible for all farming activities from plantation up to post-harvest handling, and in that sense, women were relatively independent in deciding on the farming process. However, after joining CIP program, the situation changed. Under CIP program, men have much more interest in farming activities because the farm is managed as a business, to produce for market and not for subsistence. As a capitalist production system, the leading principle under the Crops Intensification Program is that, for producing more, one needs to invest more (FAO, 2011).

In other words, the intensification of farming activities involves intensified capital for facing the increased use of industrial inputs, that is, the chemical fertilisers, seeds and pesticides, and makes the farming system more labour intensive. In this respect, members of the household (the husband and his wife) have to find an alternative to respond to that need or to get the required resources. The findings of this study demonstrated that farmers will respond differently to this situation depend on their social economic class.

Given that men are much more interested by farming activities under CIP, and, as the heads of the households, men need ensure that the farming process goes smoothly. For this, they have to find the capital for the required inputs, and to hire labour to supplement women's labour. However, there is a need for one to question the implication of these changes for gender relations and for women's daily lives or how do gender relations resulting from intensification programs skew women's opportunities from this agrarian change?

Beneria and Sen (1981) argue that the introduction of new technologies in agriculture involving contract farming and modern supply chains of high-value agricultural products presents different opportunities and challenges for women as they do for men. This is because gender norms which determine gender hierarchies influence the vulnerability and gains produced by social and economic changes. In other words, women's and men's interactions with the environment, land use and labour relation are inspired by their perception of gender roles (Ingabire, et al., 2019). In line with this vein, two issues need to be highlighted as the structural factors underlying opportunities and or challenges of women farmers under CIP.

These factors involve namely gender power relations grounded in patriarchy which inspires the distribution of roles or gender division of labour in agriculture, and the socio-economic class or living conditions of women farmers. This means that gender relations and class influence the agricultural production process and its benefits for women (Carlson, 2017).

Findings of this study revealed that, in addition to farming activities, women are responsible for household work commonly known as reproductive work. For all these activities, women's labour is considered as a "free family labour". As the head of the family, a man commands the organisation of social and economic activity, with an assumption that he has the responsibility to enhance the welfare of all members of the family. The economic activity includes also the agricultural production process from which he has to ensure that the productivity increased. This position reinforces the subordination of women as it gives men the power over women's daily living.

As noted above, women farmers are in different categories, and their social and economic conditions justify their position in agricultural production process. Meaning that, the change in the agricultural production system affects them differently. Those who come from a relatively wealthier economic background have more possibility to benefit or face fewer challenges from such production system.

The agricultural change under CIP impends greatly on the daily lives of smallholder women from poor background. This is because, men from such context are not able to provide the need investment in terms of labour and capital due to two issues: (1) they don't have sufficient resources to hire supplement labour; and (2) as they need to get a paid labour job either in farming or off-farm activities for the daily survival of their families, they are not in a good position to work with their wives in CIP farms. Yet, as demonstrated by the findings of this study, the change in the farming system under CIP involves new tasks requiring more physical energy and technical skills, which makes it hard for women to accomplish them.

Consequently, poor women will have to work hard or intensify their labour to respond to the required conditions of the program. It is worth noting that, in addition to the intensified farming activities, women have to accomplish all the reproductive work, which increases their daily workload and their burden. For instance, if a woman has small children, she will have to carry the baby on her back while digging the soil or doing other farming activities, which she has to accomplish within a limited time frame and following specific techniques such as planting in line and specific measures for inputs.

Findings revealed that, during the CIP farming period, some women from poor families face much pain to the extent that they would prefer to leave their home though this is not a good option. Similarly, those who are in advanced age and whose children are grown up and are no longer living at home face different problems as farming under CIP require much of physical energy and she is does not dispose means for hiring labour. This implies that, the living condition of poor women, not only limit their performance under CIP, but also makes the program overburdening.. In the case of a relatively rich family however, the situation is different.

Although, in both cases gender regimes put men in the position of power, which allows him to control the labour of his wife, at least he can hire additional labour to supplement the family' labour, which reduces women's burden.

From the above discussion, it is well observed that the intercourse of gender and class strengthens women's oppression in capitalist production. As argued by feminist studies, under the transitional capitalist system, the production makes use of existing gender hierarchies to place women in a subordinate position (Pai, 1987, Razavi 2003,). This means that the new agrarian system under CIP uses labour relations grounded in unequal gender hierarchies as an opportunity to exploit/profit from the free labour of poor women. If the farm is managed as a business as assumed in market-oriented agriculture, women's labour should be counted as an important capital, and therefore its intensification merit appreciation; but rather, this is not the case since it is considered as a "family-free labour". In other words, women's work in farming activities is treated like their work in reproduction. On this stand, it is worth for this study to underline that, it is not only the gendered labour relations which underpin the exploitation of women's labour by the capitalist production system, but rather some factors intersect with gender relations.

As demonstrated by the findings of this study, those factors include the low level of education, and the reproductive work: a good number of rural women are not able to find an off-farm job due to the low skills in arts, business or construction, and also due to their responsibility of caring children, elderly, and so forth.

As a result, they are condemned to work in farming activities either on the family's farm or from their neighbourhood, whereby they can combine both productive and reproductive work. Tsikata (2015) argued, this situation increases not only women burdens as it worsens their daily living conditions, but also justifies the feminisation of rural poverty. This is because, under neoliberal policies including market-oriented agriculture, the main actors, that is, the family, market and the state are all preoccupied with profit accumulation. To achieve this end, the family sacrifices the family labour and the state withdraws its role of protecting social welfare.



Drawing from the above discussion, one's concern can be if the married women who live with their husbands are the only ones that are facing the increased burden or workload resulting from the combination of reproductive roles/work and intensified farming activities. Drawing from the findings of this research, it is clear that the intersection of gender and class reinforces the oppression of poor women though the shapes of the latter are different. More specifically, in the context of Rwanda, gender power relations are grounded in society's cultural norms and beliefs.

This means that being normative systems, gender norms regulate social interactions and connect individuals to the community. In this sense, poor women farmers, despite their social status (being married, single mothers or widows) are confronted with this reality of oppression. Moreover, the prevalence of poverty among women has been associated with female household headship (Razavi, 2011), which means that those categories of women who are not living with their husbands are much more vulnerable or confronted with hardship. As the production system in the agricultural intensification is highly demanding, women heads of poor households, although they have autonomy in taking decision within their families, have less capacity to afford the required capital and labour.

### **6.3 Power and participation: inclusivity versus exclusivity under CIP**

Participation has been regarded as an important tool in the development process as it is linked to the concept of "power". Mubita et al., (2017) argues that it enhances the empowerment of local communities by providing to local people with the opportunity to think and develop solutions oriented development alternatives. However, social, economic and political context matters for participatory approaches to be effective. The policy document of CIP specifies three actors which are concerned by and involved in the implementation process of this program. Those actors are namely the government authorities, mainly the ministry of agriculture and its agencies, and the ministry of local government; farmers and the business companies or the market (Mbonigaba and Dusengemungu, 2013).

To understand the impact of CIP on women smallholder farmers, it was important for this study to tease out and discuss the power relation between these actors in the decision-making process as the main stakeholders. To this end, the study assumes that the position of women farmers in this process can shape or not their opportunities to benefit or not from the program or to act as agents of this agricultural change.

Here, the study tries to analyse approaches used in communication between different actors or how the information flows from one body to another, and to take decisions in the daily management of the program. In other words, the study wanted to see to what extent farmers are involved or allowed to make choices throughout the production process: the choices for joining the program, selecting the crops to grow, marketing inputs and outputs.

Although each of these actors has its roles and responsibilities in the program, they are in a close and permanent relationship as they all have stakes and are interested in the success of the program. Before continuing with the discussion about the power relation between the three actors, it is worth describing the first such relation, that is, the roles/responsibilities of each of them as indicated in the policy document (Ministerial order non°14/11.30 of 21/12/2010, MINAGRI, 2013) and confront them with what is happening on the ground (in reality) as demonstrated by the findings of this study. The above ministerial order stipulates that the implementation of CIP program is based on negotiations among all stakeholders along with the voluntary participation of farmers and private investors. The ministry in charge of agriculture shall facilitate the policy/program process, ensuring optimum productivity. This ministerial order insists on the collaboration between the Ministry in charge of agriculture, land owners and land tenants throughout the implementation process.

Furthermore, on the side of government, in addition to the Ministry in charge of agriculture, different bodies such as the Rwanda Agriculture Board, the Ministry of Local Government, Districts, Sectors, Cells and Village authorities, are involved in CIP program as stakeholders (Ntihinyurwa and Masum, 2017).

As demonstrated in this study, farmers are organised into cooperatives to facilitate the daily management of the farming process and their interaction with other stakeholders. In general, farmers are considered landholders, though, in reality, all lands, especially marshland belong to the government. Despite that different governmental documents about the CIP program preconize a democratic approach from which all stakeholders negotiate and hold a balanced bargaining power during the decision-making process (GoV, 2010, MINAGRI, 2013), the study findings proved the contrary to that assumption.

The reality on the field is that all the decisions are taken from above and farmers are informed about it. In this regard, the government, via its different institutions such as MINAGRI, RAB, MINALOC and local authorities take decisions regarding the farming process, the marketing of inputs and the management of the harvest or agricultural production. as demonstrated by some studies on agrarian change in Rwanda (Huggins, 2017, 2014, Ntihinyurwa and Masum, 2017, Cioffo, G., Ansoms, A. and Murison, J. 2016), the decision making under CIP program follows a top-down approach, which makes it exclusive vis-à-vis smallholder farmers, and evolves negative implication for them, especially for poor women involved in this capitalist agrarian model. Before discussing such implications of such government control of the agricultural production system, it is worth discussing first what could be the reasons or factors underlying the adoption of such an approach by the government.

As articulated by different scholars and also by the government officials who participated in this research, the government interventionism in CIP program is not independent on its own; it is rather associated with the complex post-genocide context and the economic governance system as an alternative strategy to address that complexity. On one hand, compare to other African countries, Rwanda has high population densities in rural areas.

In addition, the country has been facing structural land scarcity leading to high fragmentation, less productivity in agriculture, and a shortage in food security or self-sufficiency (Mbonigaba and Dusengemungu, 2013). These challenges emerge from a history of conflict and violence which culminated in the genocide of 1994 and the need to rebuild the country.

Hence, in the view of the government, those elements are the prerequisite for the agricultural intensification program and the government has to intervene to ensure the smooth implementation process of such a program and its effective performance towards the expected outputs. In other words, for Rwanda's government to feed the increasing population with a small land, there is a need for that population to work hard for producing more, and the role of the government in this process is to push and push the people for them to change their mind and work hard (Huggins, 2017). As per this justification, state interventionism is exercised in the public interest.

On the other hand, the approach used by the governmental institution in coordinating/controlling the agricultural process through land use consolidation programs is allied to the political and administrative system which was adopted by the post-genocide state (Booth and Mutebi, 2011). In fact, in the aftermath of war and genocide, in the face of destroyed social and economic infrastructure, and a fragile political contention, the government had a great task to find out governance alternative strategy responsiveness towards the consolidation of the political order, rehabilitation of the social tissue, and promotion of economic progress. Although the political legitimacy remains problematic, this context was used by the post-genocide leadership as an opportunity to initiate neoliberal policies for attracting donors' interest and funds.

Nevertheless, as it is presented in the first chapter, in the post-genocide reconstruction process, the government embraced on market-driven or neoliberal policies such as privatisation, performance contract, and public-private partnership to boost economic efficiency (Strauss and Waldorf 2011). In this regard, the government managed to mobilize the population by suppressing the political divisions and reinvigorating the political values embedded in the Rwanda's political culture.

Some of those political values involve but not limited to unity, heroism, patriotism and resilience. Such values have been emphasised by the political leadership under the monarchy regime, whereby through their political discourses, different Kings were using expressions reflecting those values.

The most known among Rwandan political traditions is “Irivuze umwami ukomayombi”, which means literally “whatever the monarch says, you obey or whatever the king says people must be subservient”(Gatwa, 2005, Newbury, 2011). This expression states that, a good citizen has to obey or not oppose the state leaders' order and has to sacrifice personal interests for safeguarding the general/national ones. Those historical political values which characterized the Rwanda's leadership before the colonial time have been imported by the post genocide government as a strategy to mobilise and promote the massive involvement of the population in the post genocide reconstruction process (Newbury, 2011).

As such, those principles contributed to the consolidation of a highly centralized state, and a smooth implementation of the neoliberal policies (Abbott and Malunda, 2015). In other words, by fusing traditions with modernity, the government gained much attention in the public discourse, and those policies were easily adapted or captured by different institutions at all levels of society. The public spectrum gained by these policies is justified by the fact that, besides the economic performance which was expected by many Rwandans, such historical values were regarded as the tools for promoting a shared political identity, and the latter was needed to facilitate the rehabilitation of a fragile tissue of the society.

For instance, the idea of a "performance contract is grounded in Rwandan traditional practice “imihigo” from which traditional leaders and chiefs in precolonial Rwanda would set targets to be achieved within a specific period”, by following some principles and having the determination to overcome the possible challenges. Imihigo was also used during the war whereby warriors would throw a spear into the ground while publicly proclaiming the feats they would accomplish in battle (Baikirize and Muyoboke 2020). As such, in case leaders and chiefs would fail to achieve their stated objectives, they would face shame and embarrassment from the community.

Aligning with this political context, the government authorities at different levels have to regularly sign results-oriented or performance contracts with the president of the Republic, and the latter organises periodical assessments. In line with these, various policy reforms have been initiated in almost all sectors including agriculture.

One of the consequences of such political pragmatism is that the effort of state authority is, in most cases, in promoting corporate interests, given that the agency of farmers/people is underestimated throughout the policy process (Huggins, 2014, Cioffo, et. al., 2016).

Findings of this study revealed that the government interventionism in CIP implementation process limited their involvement or effective participation in decision-making, and yet, they are the main actors of this agrarian change. In this vein, farmers are not allowed to make any choice regarding the type of crops to grow, when and where, the marketing of inputs and outputs, and to decide about the quantity of production to be used for home consumption.

From this, one can assume that, the agricultural production system under CIP is not facilitating farmers' empowerment as it does not involve them as active agents, but rather treats them as the manpower or the free labour force of the new agrarian model.

#### **6.4 Economic growth or dispossession: the enigma of contract farming system under CIP**

The general objective of CIP program is to transform small-scale subsistence agriculture toward a modern and professionalized farming system, shifting from producing enough to producing surplus (MINAGRI, 2011).

As demonstrated by the findings of this research, to achieve this ambitious goal, the government adopted different strategies for transforming the farming system. Some of those strategies include shifting from intercropping to monocropping and the introduction of a contract farming system. It is argued that those strategies contributed in increasing yields of maize and other crops selected under CIP and such increase is testified by the participants in this study. However, even if this can be a reality, it is important to question about who is benefiting from such growth or how smallholder women farmers benefit from such growth?

Yes, there was an increase of yields of maize by unit of land, and, as a result of the binding conditions under the contract farming system; farmers are conscious of producing for the market. Yet, critical effects arose out of this situation. In fact, producing one crop, though its productivity can increase, result is shortage in self provision of diversified food. This means that, on a land unit where normally a farm family could intercrop two to three crops like sorghum and maize or bean, maize and cassava, in the intercropping system, one grows maize only under CIP. It is true that with intensification techniques maize can produce more yield than what it should give when intercropped with beans or other food crops on the same size of land, but, the system limits the efficiency use of land, as well as farmers' possibility to access different varieties of food crops.

This is because, as argued by participants in this study, in the context of land scarcity (where farmers rely mainly on the government land under CIP), and where agriculture is the main source of daily survival, farming together different crops on a small unit of land can help smallholder farmers, especially women, who are mainly responsible for food provision, to access balanced food production. In short, the shift from crops diversity or intercropping regime to one crop production generate social economic effects at the household level as farmers have to market more of their produce (for procuring diversity in food crops), since they cannot subsist on a single crop.

Moreover, as discussed above, the contract farming system introduced under CIP policy is aligning from the performance contract system known as *imihigo*, a tool that is used by the government in all sectors, to ensure that specific development targets are shared through a hierarchical structure of obligations at all levels of political administration up to the household level (Huggins, 2017, Baikirize and Muyobokey, 2020). Associated with the value of “patriotism”, *imihigo* in agriculture involves the targeted production to be achieved during a specific farming season.

The village leaders are normally in charge of distributing templates containing the priorities to the householders, and to ensure the evaluation of performances. At the district level, performance contract include precise agricultural targets for specific crops and targets for fertilisers use.

Basing on the market demands in a specific period of time, these targets are captured by Farmers cooperative, and reflected by the individual farming contract under CIP program.

It means, every farmer is informed about the quantity to be produced and or to be sold at the beginning of the agricultural season, for him/her to act accordingly. From this system, it is well understood that, the objective of CIP is really to serve the market's interest, and not for improving household food self- provision. Here, it is worth noting that, beside the objective of increasing productivity, the government broad vision is to achieve an agrarian transition from an agricultural to a service based economy, that is, to reduce the number of people relying on agriculture (MINECOFIN 2000). That is why even the policy documents of this agrarian change recognise that the policy will leave some farmers behind.

At the beginning of the program, the government was also sharing the same view that the “implementation of green revolution policies will leave some farmers behind” (MINAGRI 2011:9). This statement by the government demonstrate that, although CIP program was regarded as an effective strategy in boosting the agricultural growth with high contribution in reducing poverty; the government is aware that there will be farmers who will not benefit from the growth despite their participation in generating that growth. In other words, although the CIP program increased yields of maize and other selected crops, the reality shows that, their benefits from such growth are not encouraging given that the program is highly demanding, and their position in the system does not facilitate them to deal with the market dynamism. Rather, the system places corporates or agribusiness companies in a good position to enjoy the accumulation of surplus or the growth generated out of the program through a set of regulation of market dynamism. As a result, it is difficult for farmers who do not possess resources to afford the market price when they need to consume those products. Nevertheless, agricultural intensification programs have been contested to be not an effective strategies in addressing the challenges that smallholder farmers face in their daily survival, particularly regarding the self-provision of food or self-sufficiency, and the balance between the invested cost and return (Cioffo et al., 2016, Huggins, 2014, 2017, Clay, 2018).



The impact of such agricultural strategies on the livelihoods of those involved in agriculture, especially poor farmers, depend upon the extent to which those farmers get involved in the growth generated out of those strategies.

Although the agricultural productivity was beyond the scope of this study, it was important to understand to what extent women smallholder farmers are benefiting or enjoying the increased productivity or agricultural growth. In other words, the study wanted to understand how the claimed "increase of agricultural production" benefits the smallholder women, who's the majority have been living in deplorable economic conditions.

The findings of this study revealed that, farmers who are able to cope with the required investment by the program become professional and enjoy the growth/surplus, while others who fail to apt to the new agro-economic structures will exit agriculture, with a high risk of becoming landless and poorer.

Furthermore, it is important for this study to point out that, one of the binding impacts of CIP program is the dispossession of smallholder farmers, who's the majority, are poor and land less. Jacques and Racine Jacques (2012) argue that the loss of food diversity is one of the negative effects of green revolution technologies. The political and economic arrangements of the green revolution and its focus on economies of scale or export-oriented growth replaced high-yield single varieties of crops for various varieties which may resist different problems related to pests, diseases and changing climate conditions. For these authors, those policies affect not only the production of varied food crops for the farm family and the community,, but, also limits the innovation and cultural values concerning food production.

In the case of the CIP program, the imposition of production of one high-yield selected crop for smallholder farmers engenders food insecurity for poor landless farmers. This situation is justified by the fact that the majority of the participants in this study are living by selling their labour to get their daily food (guca inshuro), yet, the government oblige them to sell their products. It has been claimed that CIP produced unprecedented agricultural growth since its implementation from which yields of selected crops have doubled and even tripled.

This was even supported by participants in this research, particularly government officials. Alongside this achievement, however, findings demonstrated that this growth is for the macro level gains. Due to CIP program, one can assume that the government achieved its goal: the agriculture sector increased the national economic production as it has been the government target. But, at the micro level, the conditions of farmers, especially poor women did not change.

From the above discussion, some questions arise out of this situation: to what extent women smallholder farmers benefit from the new agrarian model or how the change is in the agricultural production system inclusive or exclusive if, despite the increased yields of maize, the food provided for them did not improve?

What is the role of the farming contract system introduced under CIP if farmers cannot provide for their needs in food and enjoy the result of their effort before supplying the market? Is the agrarian reform initiated through the CIP program a strategy to enhance the well-being of those involved in farming activities, or it is just to advance a new liberal agenda, and a tool for capitalist accumulation at the detriment of the poor? Aligning from these inquiries, this study, argues that CIP program is a strategy for proletarianisation of the labour of farmers: they work in the Government's owned land for the interest of the market.

## **Chapter VII: General Conclusion**

This chapter summarises the key findings and formulates the argument or the contribution of this study to the existing scholarship debate on agrarian change and gender in developing countries, particularly in Rwanda. To begin with, the aim of this study was to understand how the agricultural change initiated through CIP program, impacts the daily living conditions of women smallholder farmers. To achieve this objective, the study drawn from two men's experience with CIP, and was interested to learn from their daily struggles while coping with the new agrarian model. From this, the study used use seven research questions from which different themes were formulated and discussed. Those themes involve the following aspects: the social and economic class of women farmers, the types of changes generated as per the implementation of CIP, opportunities offered by the program, the decision making process under CIP, the changes in intra-household gender relations, the challenges and strategies to enhance women's chances as the main actors of this program.

The findings of this study demonstrated that women farmers are heterogeneous group and this heterogeneity shapes the effects of CIP on their daily living conditions. Furthermore, the implementation of CIP involved various changes in the farming system and in the social relations between different actors of the program. Concerning the farming system, under CIP, farmers are required to consolidate the use of the land or the agricultural production, and to grow one selected crop (to integrate mono-cropping system). Further, they are required to use modern farming techniques such as chemical fertilisers, improved seeds and pesticides, for boosting the yields by unit of land. To achieve the targeted productivity, the program, adopted contract farming system from which individual farmers are assigned the quantity to be produced at the beginning of every agricultural season. As the interest of CIP is to produce for the market, farmers have to serve market interests before satisfying their needs in food provision.

Concerning the involvement of women farmers in decision-making, the government used a top-down approach to design and implement CIP. The government uses formal and informal rules to regulate or control the production process under CIP.

In this regard, farmers are informed about what type of crop to grow which kind of seeds and fertilisers to use, when and how to harvest, the quantity to be sold, the price and the market for selling their product. In addition to this, the land belongs to the state and farmers get the usufruct, which they can lose any time, in case they may fail to fulfil all required conditions by the program. Those changes engendered two sided effects on women farmers. On one hand, the program offered different opportunities for women compare to other farmers that are not involved in CIP. In this vein, women have been trained in modern farming techniques, which made them more professional market oriented farmers. The productivity by unit of land has increased, and this has relatively increased the family's income from agricultural production. From this, farming is regarded as a business has been given value compare to the time when they were farming for subsistence only. On the other hand, the new farming system made the program highly demanding in terms of capital and labour.

Furthermore, as a result of CIP farming system, intra-household gender relations have changed as a result of the agricultural change generated by CIP. As agriculture has become an important source of money, men have got much interest in farming activities. They intervene directly (getting involved in the farming activities) or indirectly (by hiring labour to support/add on the free family labour) in the farming process to ensure that it goes smoothly. In other words, men are much more interested by the money from agricultural production, and engage more investment in farming activities. This has given more value to the work of women as they accomplish almost all farming activities.

On the other side, the new farming system under CIP requires farmers to invest financial means to buy the required inputs and to intensify the family free labour or pay for wage labourers to supplement the familial labour, which makes the farming process very hard, given that the majority of women smallholders are from poor background.

Moreover, as farmers lost their power in taking decision about the farming process, women who, traditionally are food providers or managers of food within their households, have lost their power in decision-making about crops rotation, that is, in selecting the types of crops to grow, when and how, and their power to produce and manage the seeds for different crops, as they depend upon hybrid seeds distributed by government supported agro-industries under CIP. Also, as the head of the family, men lost their power as decision makers about the use of the land or land management. As the head of the family, the cultural norms give them the privilege of deciding the management of the family's property, which put them in a good position to enjoy the production from CIP compare to women.

This situation has a great impact on women's daily life, especially those who are poor, as they have to face two-sided pressure, one from their husbands and another one from the government via the cooperative leaders, as each side wants to enhance as much profit as possible. Although the CIP farming system increased yields of selected crops, poor women have limited chance to enjoy that growth. The study demonstrated the majority of them survive by occasional jobs in farming, and face problem to afford the market food price.

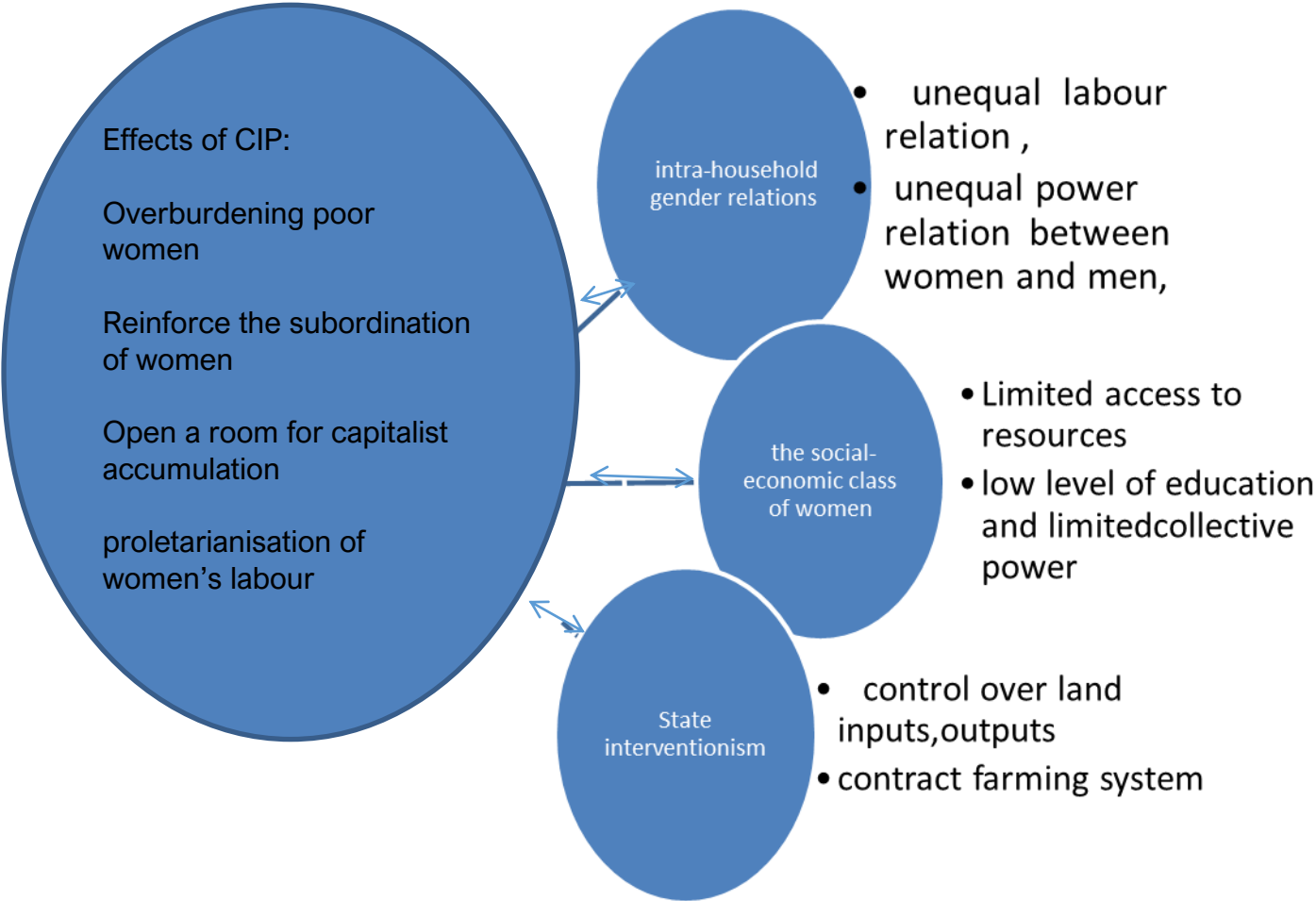
To sum up, the study pointed out the following as the effects of CIP:

- The agrarian change introduced through the CIP undermined land tenure security by farmers, particularly the marshlands which belong to the state. Although farmers pay taxes and the rent for the plots in the mashes, they work under pressure of losing that land at any time, in the case of not failure to cope with all the conditions imposed by CIP;
- The Program use the gendered labour relation as an opportunity to reinforce the exploitation of women's labour;
- The contract farming system and the state/government interventionism promoted women's proletarianisation, particularly those who come from poor families, because, in addition to their reproductive roles, they have to intensify their labour in farming activities to mitigate the expected agricultural outputs without having control over these outputs;

- As the implementation of the CIP program follows a top-down approach, different rules/regulations generate the exclusion of farmers in general (both women and men) from the decision-making process, hence, they are treated as passive recipients instead of being active agents of that change. In other words, their agency is undermined by the program process, which limits their benefits and opportunities;
- Although government provide subsidies for women farmers to access inputs, still the required investment in that regard is beyond the capabilities of many of them. This challenge makes it difficult for some farmers to produce as per the targeted quantity by the performance contract;
- The absence of democratic governance in cooperatives may constitute an opportunity for leaders to enrich or get profits in various ways at the expense of the members;
- the monocropping system and dependence on hybrid seeds reduces farmers' access to food diversity and women's customary power and innovation in producing and management of seeds for different food crops;
- Although the productivity by the unit of land increases, the production by the household is still low as the landholdings are small, and the income for every farm family depends on the size of individual plots under CIP;
- CIP program increases agricultural growth at the expense of farmers' dispossession: despite their involvement in CIP, and the increase of yields for selected crops like maize, most of the smallholder women remain poorer and suffer from food insecurity. Given that, the majority of them afford hardly the targeted production by the farming contract, and they end by selling the whole produced quantity, and they face difficulties in affording the market price for their food provision. As a result, they depend upon selling their labour, mostly in farming activities as farm labourers (or guca inshuro) for their daily survival, while agro-industries are making much profit, and the elite class enjoy the increased food supply.

In line with the above points, this study argues that, despite the important role of women farmers in CIP, and the opportunities offered by the program, the social and economic status of women from poor background did not change. In other words, the interconnection between structural factors such as gender, class and state interventionism, have been limiting the capabilities of smallholder women to cope with and benefit from this agrarian change. Rather, CIP may be regarded as a strategy to enhance capitalist accumulation at the expense of poor women's exploitation and dispossession. The figure below illustrates the argument of this study:

**Figure 8: The intersection of gender, class and state interventionism under CIP**



From the above figure, it is well seen that the effect of the intensification program on women farmers is conditioned by the intersection of three structural factors rising from the social economic and political context within which the program is implemented. Those factors are namely intra-household gender regimes, which define unequal power and labour relation between women and men, the class or social economic conditions of women farmers, and the state/government rules and regulation which induces control over the program process.

As highlighted in the first chapter, feminist studies on agrarian change and gender have highlighted the role of women in agricultural production and reproduction, and how gender inequality within the farm family skews their benefits from the agriculture sector. In other words, studies underline the role of patriarchy in hindering women's access and control over resources such as land and related property and the exploitation of women's free labour by the capitalist agricultural production system. The contribution of this research, however, was to go beyond that and investigate other factors which might limit women's opportunities in capitalist agricultural production. The findings demonstrated that in addition to the patriarchal system underpinning the relations of production and reproduction within the farmers' households, the social, economic and political conditions of women and state interventionism are other factors which reinforce women's subordination and exploitation in capitalist agriculture.

Another argument of feminist scholarship, the participation of women in income generating activities, can promote the transformation of gender hierarchies towards gender equality. This study proved also that, in Rwanda's context that is not the case. Although the important role of women in the farming activity under CIP increased production and rendered their work more appreciated by men and the community, it did not change gender power relations and women are still subordinate to men. Hence, the study goes further arguing that, for smallholder women to benefit from the CIP there is a need for a policy alternative to address these factors. In other words, women need to be empowered for them to be active agents in the program. As discussed in the third chapter, Kabeer (1999) defines empowerment as a process



of gaining an improved "ability to make choices". For her, empowerment implies a process of change and can be thought of in terms of three elements: resources (not only material but also the multiplicity of social relationships conducted in various institutional domains which make up society), agency (the ability to define one's goals and act upon them) and achievements (outcomes). To these three elements, Narayan (2005) adds the opportunity structure as another factor for a development initiative to empower the poor. In the words of Sen (1999), development without freedom is not development, because, for him, human freedom is both the primary end objective and the principal means of development; economic measures are merely the means to this end.

Aligning with these ideas, the conditions and effects of CIP on women smallholders can be explained by the following Rwanda's sayings or metaphors: "*imbuto z'umugisha zisoromwa kugiti cy'umuruho*", which means: "the fruits of blessing are gathered from the tree of sorrow; and "*ubuze uko agira agwa neza*", which means "in the absence of alternatives or choices, one might be subservient". As a top-down government initiative, it was not a choice of women or farmers in general to join the agricultural intensification program. In the absence of other alternatives to access the land, which is a scarce and important resource, and owned by the government as per the land reform since 2005, farmers have no alternative apart from joining Crops Intensification Program and try their level best to cope with the requirements. However, the findings of this study demonstrated that poor women endure hardship under this agrarian model, which limit their benefits from the program.

Nevertheless, it is worth noting that, for women to benefit from the CIP program, the government needs to review its policy framework. This is because, the main problems that poor women farmers involved in the CIP program are facing are related to access and control over resources such as land, inputs and the limited autonomy in decision making concerning agricultural inputs and outputs. In fact, if the government owns the land, and manages the inputs supply, that is the type of seeds and fertilisers to use for every agricultural season and decides about the price and the market for the agricultural production, women have neither choices nor alternatives under CIP.

In other words, if women cannot exercise their agency or if they cannot make any choice, the program is oppressing. Even if gender relations can be enhanced, still, women cannot benefit from this agrarian model. Henceforth, the study argues for an empowering strategy which can transform the power relation between different actors of CIP, that is, the government, the market/private corporations and farmers.

Nonetheless, the scope of this study is not sufficient to extensively analyse the effects of the Rwanda's agrarian change on women smallholder farmers, as the problem is multifaceted. As such, further researches are necessary to explore the subject and formulate effective recommendations. In other words, for generating more concrete policy strategies which can enhance women's opportunities and benefits from the new agricultural change in Rwanda, there is need for more studies to which can involve more women farmers to share their experiences throughout the country and to explore different aspects of the program. In this regards, studies which can be organised to address the following areas can facilitate the attainment of that goal:

- An analysis of the relationship between gender relations and capitalist accumulation;
- investigation of the distribution of interests or gains of the CIP between different actors such as farmers, corporates and the state to analyse who is benefiting from the program in reality;
- Investigation about specific strategies to empower women and to enhance the transformation of the social relations of agricultural production system.

## List of references

Abbott, p. and M. Dixon. (2015): *The Promise and the Reality: Women's Rights in Rwanda*. Oxford Human Rights Hub. University of Oxford. Available online at [https://www.eupublishing.com/doi/full/10.3366/ajicl.2016.0173](https://www.euppublishing.com/doi/full/10.3366/ajicl.2016.0173)

Abbott,P. L. Mutesi and L. Norris ( 2015). *Gender Analysis for Sustainable Livelihoods and Participatory governance*. Oxfam International, Kigali, Rwanda.

Ansoms, A. (2007). 'Striving for growth bypassing the poor? A critical review of Rwanda's rural sector policies'. Discussion Paper/2007.02. Antwerp: Institute of Development Policy and Management, University of Antwerp.

Ansoms, A. (2008). 'A green revolution for Rwanda? The political economy of poverty and agrarian change.' Discussion Paper No. 6. Antwerp: Institute of Development Policy and Management. University of Antwerp.

Ansoms, A. (2011). 'Large-scale land deals and local livelihoods in Rwanda: The "bitter fruit" of a new agrarian model'. *Journal of Peasant Studies* 56(3): 1–23.

Ansoms,A. (2013): *Large-Scale Land Deals and Local Livelihoods in Rwanda: The Bitter Fruit of a New Agrarian Model*. In *Afr. stud. rev.* 56 (3), pp. 1–23. DOI: 10.1017/asr.2013.77.

Ansoms, A., E. Marijnen, G. Cioffo, and J. Murison( 2017). 'Statistics versus livelihoods: Questioning Rwanda's pathway out of poverty'. *Review of African Political Economy* 44(151): 47–65. doi: 10.1080/03056244.2016.1214119.

Baikirize, M. and A. Muyobokeye (2020). *Performance Contract Scenario and Socio-Economic Development of Rwanda. A case study of Gatsibo district in Eastern Province*. East African University Rwanda . DOI: 10.29322/IJSRP.10.08.2020.p10486

Bayisenge, J.; H. Staffan and E. Margareta (2014): *Women's land rights in the context of the land tenure reform in Rwanda – the experiences of policy implementers*.

In *Journal of Eastern African Studies* 9 (1), pp. 74–90. DOI:

10.1080/17531055.2014.985496.

Bayisenge, F. (2008). *The Quota System in Rwandan Local Government: Women's Representation and Political Empowerment*. A Master's Thesis, Institute of Social Studies, The Hague, The Netherlands.

Beneria, L. and G. Sen (1981). 'Accumulation, reproduction, and women's role in economic development: Boserup revisited'. *Development and the Sexual Division of Labor* 7(2): 279–298.

Bernstein, H(2017). *Political Economy Of Agrarian Change: Some Key Concepts And Questions*. University of London, UK. DOI: 10.22363/2313\_2272\_2017\_17\_1\_7\_18

Biglera, C., M. Amackera, C. Ingabireb and E. Birachic.( 2019). *A view of the transformation of Rwanda's highland through the lens of gender: A mixed-method study about unequal dependents on a mountains system and their well-being*. *Journal of Rural Studies* 69 (145-155).

Birner, R. and D. Resnick (2010). *The Political Economy of Policies for Smallholder Agriculture*. *World Development*, 2010, vol. 38, issue 10, 1442-1452

Bizoza, A.R. and J.M. Havugimana (2016). 'Land use consolidation in Rwanda: A case study of Nyanza district, Southern Province'. *International Journal of Sustainable Land Use and Urban Planning*, 1(1): 64–75.

Bullard, R.K. (2007). *Land consolidation and rural development*. *Papers in Land Management*, 10, Anglia Ruskin University, Cambridge & Chelmsford

H.I.L. Brink, H. I. L. (1993). *Validity and Reliability in Qualitative Research*. A Conference Paper. A Paper delivered at SA Society of Nurse Researchers' Workshop-RAU. *Curationis* 16(2):35-8, DOI:10.4102/curationis.v16i2.1396

Burnet, J. E., *African Affairs*, 107 428, 361-386. (2008). *Gender balance and the meanings of women in governance in post-genocide Rwanda*. *African Affairs*, 107(428), 361-386.

Cioffo, G.D., A. Ansoms, and J. Murison (2016). '*Modernising agriculture through a 'new' Green Revolution: The limits of the crop intensification programme in Rwanda*'. *Review of African Political Economy* 43(148): 277–293.

Carlson, C. (2017) Rethinking the agrarian question: Agriculture and under development in the Global South. *Journal of Agrarian Change*.

Davis, K. (2008). '*Intersectionality as a buzzword: A sociology of science perspectives on what makes a feminist theory successful*'. *Feminist Theory* 9(1): 67–85. doi: 10.1177/1464700108086364.

Dawson, N., A. Martin, and T. Skor ( 2016). '*Green revolution in Sub-Saharan Africa: Implications of imposed innovation for the wellbeing of rural smallholders*'. *World Development* 78: 204–218. doi: org/10.1016/j.worlddev.2015.10.008.

Debusscher and A. Ansoms (2013). *Gender Equality Policies in Rwanda: Public Relations or Real Transformations?* *Development and Change* 44(5): 1111–1134. DOI: 10.1111/dech.12052

De Janvry, A. 1981. '*The role of land reform in economic development: Policies and politics*'. *American Journal of Agricultural Economics* 63(2): 384–392.

FAO ( 2011). *Women in Agriculture: Closing the Gender Gap*. Rome: Food and Agriculture Organization of the United Nations.

FAO (2012). *Agricultural Cooperatives: paving the way for food security and rural development*. Available at: <<http://www.fao.org/docrep/016/ap431e/ap431e.pdf>.

FAO( 2013). *Market-oriented Farming: an Overview*. Farm Management Extension Guide. United Nations, Rome.

FAO (2016). *Rwanda, Country Fact Sheet On Food And Agriculture Policy Trends Food and Agriculture Policy Decision Analysis. Country situation and role of agriculture*. United Nations, Rome.

Gatwa, T. (2005): *The Churches and Ethnic Ideology in the Rwandan Crisis 1900-1994*. United Kingdoms: Regnm Books International, Oxford Centre for Mission Studies.

Giddens, A. (1979). *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*. Berkeley: University of California Press.

Government of Rwanda (2005) Organic Law 8/2005 of 14 July, Determining the Use and Management of Land in Rwanda. Kigali: Official Gazette of the Republic of Rwanda.

Government of Rwanda (2008). *Ministerial Decree Appointing the Conditions on Agricultural Land Use Consolidation in Rwanda*. Kigali: Ministry of Agriculture and Animal Resources.

Government of Rwanda (2013): Law No 43/2013 of 16/06/2013 governing land in Rwanda. Republic of Rwanda. Kigali, Rwanda.

Government of Rwanda (1999): *Matrimonial Regimes, Liberalities and Successions*. Law No 22/99. In Government Official Gazette N°22.

Government of Rwanda (2004): *National Land Policy*. Available online at <https://urbanlex.unhabitat.org/law>, checked on 2/11/2019.

Government of Rwanda (6/16/2013): *The New Land Law*. In : Official Gazette no Special. Available online at <http://gmo.gov.rw>.

The Government of Rwanda (2019). *Leveraging Private Sector Strategy*. MINAGRI, Kigali, Rwanda

Huggins, C. (2013). *'Consolidating land, consolidating control: State-facilitated "agricultural investment through the "Green Revolution" in Rwanda'*. Land Deal Politics Initiative Working Paper 16.

Huggins, C. (2014). *'Curbs on land rights in Rwanda: The "Bundle of Rights" in context'*. A Technical Report. <<https://www.researchgate.net/publication/275521892> /

Huggins, C. (2017). *Agricultural Reform in Rwanda: Authoritarianism, Markets and Zones of Governance*. Zed Books Ltd, The Foundry, 17 Oval Way, London, UK.

Ingabire C., P. M. Mshenga, M. Amacker<sup>3</sup>, J. K. Langat, C. Bigler and E. A. Birach (2019). *Agricultural transformation in Rwanda: Can Gendered Market Participation Explain the Persistence of Subsistence Farming*. University of Berne.

Izabiriza, Jeanne (2005): *The Role of Women in Reconstruction: The Case of Rwanda. Consultation on empowering women in the Great Lakes Region*. A conference Paper on Violence, Peace and Women's Leadership. Addis-Ababa, Ethiopia, 2005.

International Food Policy Research Institute (2014). *Gender in Agriculture: Closing the Gender Gap*. IFPRI, Issue Brief.

Jesse, E. (2020). *There Are No Other Options?': Rwandan Gender Norms and Family Planning in Historical Perspective*. Cambridge University Press.

Kabeer, N. (1999). *'Resources, agency, achievement: Reflection on the measurement of women's empowerment'*. *Development and Change* 30(3): 435–464.

Kathiresan, A. (2012). *Farm Land Use Consolidation in Rwanda, Assessment from the Perspective of Agriculture Sector*. MINAGRI, Kigali. Rwanda

Kathiresan, A. (2011): *Strategies for Sustainable Crop Intensification in Rwanda. Shifting focus from producing enough to producing surplus*, MINAGRI, Kigali-Rwanda.

Kim, S. K., · F. Marshall and · N. M. Dawson(2022). *Revisiting Rwanda's agricultural intensification policy: benefits of embracing farmer heterogeneity and crop-livestock integration strategies*. Food Security <https://doi.org/10.1007/s12571-021-01241-0>

Kusz, D. (2014). *Modernisation of Agriculture versus Sustainable Agriculture*. Rzeszów: Rzeszów University of Technology.

Lewontin, R.C. (2000). *The Maturing of Capitalist Agriculture: Farmers as Proletarian*. Havard University.

La Mattina, G. (2012). *When all the Good Men are Gone: Sex Ratio and Domestic Violence in Post-Genocide Rwanda*. Boston University.

Laporte, R., J.F. Petras and J. C. Rinehart (1971). The Concept of Agrarian Reform and its Role in Development: Some Notes on Societal Cause and Effects. *The Pennsylvania State University*

Manirakiza, V., and Ansoms, A. (2014). Modernizing Kigali: *The struggle for space in the Rwandan urban context*. In Ansoms, A., and Hilhorst, T. (Eds.), *Losing your land dispossession in the Great Lakes*, (new edition). New Jersey, USA: Boydell and Brewer.

Malhotra and Schuler et.al, 2002). *Measuring Women's Empowerment as a Variable in International Development*. <https://www.researchgate.net>.

Mbonigaba, M. and L. Dusengemungu (2013). *Land Use Consolidation. A Home-Grown Solution for Food Security in Rwanda*. Kigali: Rwanda Agricultural Board (RAB).

MIGEPROF (2010): *National Gender Policy*. Government of Rwanda. Kigali Rwanda.

MINAGRI (2009). *Strategic Plan for Transformation of Agriculture in Rwanda. (Phase II)*. Kigali.

MINAGRI. (2009). *National Agricultural Extension Strategy*. Kigali, Rwanda.

MINAGRI ( 2007). *'Crop Intensification Programme'*. Kigali, Rwanda



MINAGRI (2010). Agriculture Gender Strategy. Kigali, Rwanda

MINAGRI (2013). Strategic Plan for the Transformation of Agriculture in Rwanda (PSTA III). Kigali.

MINALOC. (2011). Decentralization Implementation Plan 2011-2015. Kigali, Rwanda

MINALOC (2021). National Decentralisation Policy. Kigali, Rwanda

MINECOFIN (2000): Vision 2020. Kigali, Rwanda.

MINECOFIN. (2013) Economic Development Poverty Reduction Strategy. Kigali.

Ministry of Natural Resources. (2004). National Land Policy. Kigali, Rwanda: Government of Rwanda.

*Mubita, A., M. Libati and M. Mulonda (2017). The Importance and Limitations of Participation in Development Projects and Programmes. European Scientific Journal February 2017 edition vol.13, No.5 ISSN: 1857 – 7881.*

Mukabera, J. (2017). *Women's Status and Gender Relations in Post-Genocide Rwanda, Focusing on the Local and Everyday Life Level*. Globethics net Series 24.

Musahara, H., B. Nyamurinda, and T. Niyonzima (2014). '*Land use consolidation and poverty reduction in Rwanda*'. A paper presented at the World Bank Conference on Land and Poverty, Washington D.C., 24–27 March.

Musahara, H. and C. Huggins (2005): *Land reform, land scarcity and post-conflict reconstruction: A case study of Rwanda*. In *From the Ground Up: Land Rights, Conflict and Peace in Sub-Saharan Africa*.

Musabanganji, E., Antoine Karangwa, A., Philippe Lebailly, P (2016). *Intensification of smallholder agriculture in Rwanda: scenarios and challenges towards a sustainable transformation*. Paper presented at 5th AAE International conference - September 23-26, 2016, Addis-Ababa, Ethiopia.

Mutamba, J. (2005) „*Strategies for Increasing Women's Participation in Government. Case study of Rwanda*“. <http://www.un.org/africa/osaa/report>

Naidu, S. and L. Oosome, (2016). *The Agrarian Question and Gendered Labour*. University of the Witwatersrand.

National Electoral Commission of Rwanda. 2013. Parliament Election, Final Report. Kigali, Rwanda.

National Institute of Statistics of Rwanda (2021).. Rwanda Integrated Household Living Conditions Survey 2013/2014 - Thematic Report- Agriculture. Kigali

National Institute of Statistics of Rwanda (2016): Integrated Household Living Conditions Survey(EICV, 4). Thematic Report-Economic Activities. Republic of Rwanda. Kigali, Rwanda.

National Institute of Statistics of Rwanda (2016): Poverty trend analysis report, 2013/14. Kigali Rwanda.

Ndushabandi, E. (2017). Crop Intensification Program (CIP) Satisfaction Survey-2017. Kigali: Institute of Research and Dialogue for Peace.

Newbury, D. (2011). Rwanda under Mushingira 1896- 1931. Africa and the Diaspora: History, Politics, Culture, Pg 304, ISBN 978-0-299-28144-1.

Newbury C. and H. Baldwin (2000). Aftermath: Women in Postgenocide Rwanda. Working Paper, 303. Center for Development Information and Evaluation U.S. Agency for International Development. Washington.

Ngoga, T. (2019). *A quick, cost-effective approach to land tenure regularisation: The case of Rwanda*. <https://www.theigc.org/wp-content/uploads/2019/03/Land-tenure-regularisation-the-case-of-Rwanda-March19-FINAL.pdf>

Nsingize, G(2013). *The contribution of agricultural cooperatives to small holder farmers' household income: A Case of COAMV Cooperative, Burera District, Rwanda*. A Masters Thesis. Hogeschool, University of Applied Sciences. Wageningen, The Netherlands.

Ntihinyurwa and Masum,( 2017). *Role of farmers' participation in Land Use Consolidation in Rwanda: From principles to practice*. Surveying the world of tomorrow - From digitalisation to augmented reality Helsinki, Finland,

O'Laughlin, B. (2008): *Gender justice, land and the agrarian question in Southern Africa*. Peasants and globalisation, pp. 190–213. eBook ISBN9780203891834.

Okali, C. (2012). *Gender Analysis: Engaging with Rural Development and Agricultural Policy Processes*, Working Paper. [www.future-agricultures.org](http://www.future-agricultures.org).

OXFARM (2010). *Women and Culture*. Oxfam (UK and Ireland), 274 Banbury Road, Oxford OX2 7DZ, UK

Payne, G. (2011). Land issues in Rwanda's post-conflict law reform. In Home, R. (Ed.), *Local case studies in African Land Law*. Pretoria: Pretoria University Law Press, pp. 21-38.

Powley, E. (2005) „Rwanda: Women Hold Half the Parliament“ in J. Ballington and A. Karam (eds) *Women in Parliament Beyond Numbers*, pp 154-163. Stockholm, International IDEA. <http://www.idea.int/publications>.

Petesch, P., C. Smulovitz, and M. Walton (2005). 'Evaluating empowerment: A framework with a case from Latin America'. In *Measuring Empowerment: Cross-Disciplinary Perspectives*. D.Narayan, Ed., Washington D.C.: The World Bank, pp. 39–67.

Pretty, J., C. Toulmin, and S. Williams (2011). 'Sustainable intensification in African agriculture'. *International Journal of Agricultural Sustainability* 9(1): 5–24. doi: 10.3763/ijas.2010.0583.

Pritchard, M. F. (2013): Land, power and peace: Tenure formalization, agricultural reform, and livelihood insecurity in rural Rwanda. *Land Use Policy* 30 (1), pp. 186–196.

Prunier, Gérard (1997): *The Rwanda crisis. History of a genocide*. New York: Columbia University Press.

Rai N. (2004). *A Study of Purposive Sampling Method in Research*. Forma Printing Press. Kathmandu.

Randell, S. and M. McCloskey (2014). 'Sustainable rural development in Rwanda: The importance of a focus on women in agricultural extension'. *International Journal of Agricultural Extension*: 107–119.

Razavi, S. (2003). 'Introduction: Agrarian change, gender and land rights'. *Journal of Agrarian Change* 3(1-2): 2–32.

Razavi, S. (2011): *The gendered impacts of liberalization. Towards 'embedded liberalism'?* London: Routledge (UNRISD research on gender inequality in an unequal world).

Reeves, H., & Baden, S. (2000). *Gender and development: Concepts and definitions*. Report prepared for the Department for International Development (DFID) for its

gender mainstreaming intranet resource, Institute of Development Studies, BRIDGE report Number 55, Brighton

Rietveld, A. (2017). *Gender Norms And Farming Households In Rural Rwanda :A Gennovate Case-Study for The Nyamirama Sector In Kayonza District* . ARTV working Paper. CIALCA, Gennovate, Enabling Gender in Agriculture.

Rombouts, H.(2004) „*Gender and Reparations in Rwanda*“ <http://www.ictj.org/static/Africa/Rwanda> (accessed 22th May 2008).

Sen, A. (1999). *Development as Freedom*. Oxford: Oxford University Press.

Shivji, I.G. (2009). *Accumulation in African Periphery: A Theoretical Framework*. Dar es Salaam: Nkukina Nyota Publisher.

Sewell, W.H. (1992). ‘*A theory of structure: Duality, agency, and transformation*’. *American Journal of Sociology* 98(1): 1–29.

Straus, S. and Woldorf, L. (2011), *Remarking Rwanda: State Building and Human Rights after Mass Violence*. The University of Wisconsin Press, London, England. ISBN 978-0-299-28264-6. Retrieved on <https://uwpress.wisc.edu/books/4876.htm>

Schwartz, H. (2004) „*Women's Representation in the Rwandan Parliament*“. Master's thesis.

Pai, S (1987). *Class, Gender and Agrarian Change: An Analysis of the Status of Female Agricultural Labour in India*. *Social Scientist* , Vol. 15, No. 6 (Jun., 1987), pp. 16-32

Treidl, Johanna (2018): *Sowing gender policies, cultivating agrarian change, reaping inequality? Intersections of gender and class in the context of marshland transformations in Rwanda*. Available online at DOI:10.14672/ADA2018138877-95.

Tsikata, D. (2015). ‘*The social relations of agrarian change*’. IIED working paper. London: IIED. <<http://pubs.iied.org/17278IIED/> Accessed on 17 June 2019>.

Twesigye-Bakwatsa, C. (2010). *Baseline Analysis of the Gender Dimensions in the Provision of Agricultural Services in Rwanda*. Journal Article - Kigali: Gender Monitoring Office and UNIFEM.

USAID (2011) A Comprehensive Assessment and Recommendations on Strengthening the Rwandan Agricultural Extension Services, Modernizing Extension and Advisory Services (MEAS) Country.

Vansina, J. (2004). Antecedents to Modern Rwanda: The Nyiginya Kingdom. The University of Wisconsin Press.

World Bank (2007). World Development Report 2008: Agriculture for Development. Washington D.C.:The World Bank.

World Economic Forum (2014). The Global Gender Gap and Its Implication. Geneva.

Yuvil-Davis, N. (2007). '*Intersectionality, Citizenship and contemporary Politics of belonging*'. Journal of Critical Review of International Social and Political Philosophy 10(4): 561-574. doi.org/10.1080/13698230701660220.

## Appendix

### Appendix I: The guiding questions for interviews and focus group discussions with women farmers involved in CIP

| Research question                                                                                              | The sub-questions                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Who are women farmers involved in CIP?                                                                         | Could you tell me about your life as a woman farmer? on this question the participant was providing the information about her social and economic background                                                                                                                                                                                                                                   |
| What changes have occurred in the agricultural farming system following the implementation of the CIP program? | <ol style="list-style-type: none"> <li>1. Could you tell me how you know about CIP program?</li> <li>2. When did you join the program?</li> <li>3. Could you tell me about your experiences with CIP program?</li> <li>4. Compare to the situation before did you experience any change in farming after joining CIP program?</li> <li>5. Could you tell me more about that change?</li> </ol> |
| How have the changes in farming system affected intra-household gender relations and women's daily lives?      | <ol style="list-style-type: none"> <li>1. Could you tell me how is the distribution of responsibilities in farming activities between you and your husband?</li> <li>2. How was these distribution before CIP-LUC program?</li> <li>3. When there is a need to decide</li> </ol>                                                                                                               |

|                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                     | <p>about income/production from CIP at home?</p> <p>4. Could you share with me how this is done? or who decide about the use of land</p> <p>5. What happen after harvesting maize?</p> <p>6. How is the production managed?</p> <p>7. how do you feel about the introduction of this new system with regard to your daily activities as a woman farmer?</p> |
| How are women farmers involved in decision-making under the crop intensification program?                           | <p>1. Could you tell me how do you do when there is a need to take a decision within the cooperatives?</p> <p>2. Tell me briefly about the decision making process in this cooperative</p> <p>3. Could you share with me about your role in that process?</p>                                                                                               |
| What kind of opportunities offered by CIP to women farmers ?                                                        | Could you tell me shortly about your life after joining the CIP program?                                                                                                                                                                                                                                                                                    |
| What challenges that women are facing while coping with this new agricultural change?                               | Are there problems that are constraining your agricultural activities in CIP                                                                                                                                                                                                                                                                                |
| What strategies do women farmers propose which can enhance their performance and benefits from the CIP-LUC program? | What do you think can be that for you to overcome those challenges?                                                                                                                                                                                                                                                                                         |

## Appendix II: The social and economic background of women farmers involved in CIP

| Women who participated in interviews | Education |           |            |             | Marital status |        |                 | Children    | Age               |                     |                   | Size of land under CIP |               |               |                | Economic activity   |              |                            |
|--------------------------------------|-----------|-----------|------------|-------------|----------------|--------|-----------------|-------------|-------------------|---------------------|-------------------|------------------------|---------------|---------------|----------------|---------------------|--------------|----------------------------|
|                                      | no ne     | pri mar y | secon dary | unive rsity | Mar ried       | Wid ow | sin gle mot her |             | belo w 35(yo ung) | Mid dle age( 35-55) | Advan ced (55++ ) | 5- 10 acr es           | 15- 25 acr es | 30- 40 acr es | priv ate lan d | Indepe ndent farmer | land laborer | Farmin g+off-farm activity |
| WF 1                                 |           | x         |            |             | x              |        |                 | 6 mixed age |                   | x                   |                   |                        | x             |               | 0.30 ha        |                     | x            |                            |
| WF2                                  |           | x         |            |             |                | x      |                 | 6 grown up  |                   | x                   |                   | x                      |               |               | 0.50 ha        |                     |              | x                          |
| WF 3                                 |           | x         |            |             | x              |        |                 | 5 small     |                   | x                   |                   |                        | x             |               | 0              |                     | x            |                            |
| WF 4                                 | x         |           |            |             |                | x      |                 | 4 grow up   |                   |                     | x                 | x                      |               |               | 0.20 ha        | x                   |              |                            |
| WF 5                                 |           |           |            | x           | x              |        |                 | 2 small     | x                 |                     |                   | x                      |               |               | 0              |                     |              | x                          |
| WF 6                                 |           | x         |            |             | x              |        |                 | 6 mixed age |                   | x                   |                   |                        |               | x             | 0              |                     | x            |                            |
| WF 7                                 |           | x         |            |             |                | x      |                 | 4 grown up  |                   |                     | x                 |                        |               | x             | 0.60 ha        | x                   |              |                            |
| WF 8                                 |           | x         |            |             | x              |        |                 | 5 small     |                   |                     | x                 |                        | x             |               | 0.20 ha        | x                   |              |                            |
| WF 9                                 | x         |           |            |             | x              |        |                 | 5 mixed age |                   | x                   |                   |                        | x             |               | 0              |                     | x            |                            |
| WF 10                                | x         |           |            |             | x              |        |                 | 6           |                   |                     | x                 |                        | x             |               | 0              |                     | x            |                            |



|                                               |   |   |   |   |  |   |  |             |   |   |  |   |   |  |         |   |   |   |
|-----------------------------------------------|---|---|---|---|--|---|--|-------------|---|---|--|---|---|--|---------|---|---|---|
|                                               |   |   |   |   |  |   |  | mixed age   |   |   |  |   |   |  |         |   |   |   |
| WF 11                                         |   |   | x |   |  | x |  | 1 small     | x |   |  |   | x |  | 0       |   |   | x |
| WF 12                                         |   | x |   |   |  | x |  | 3 small     |   | x |  |   | x |  | 0.20 ha | x |   |   |
| WF 13                                         |   |   | x |   |  | x |  | 2 small     | x |   |  | x |   |  | 0.30 ha |   |   | x |
| WF 14                                         |   | x |   |   |  | x |  | 3 mixed age |   | x |  | x |   |  | 0       |   | x |   |
| WF 15                                         | x |   |   |   |  |   |  | 2 small     |   | x |  |   | x |  | 0       |   | x |   |
| <b>Those who participated in FGD KOAGIMPA</b> |   |   |   |   |  |   |  |             |   |   |  |   |   |  |         |   |   |   |
| WF 16                                         | x |   |   |   |  | x |  | 4 grown up  |   | x |  | x |   |  | 0       |   | x |   |
| WF 17                                         | x |   |   |   |  | x |  | 2 grown up  |   | x |  | x |   |  | 0       |   | x |   |
| WF 18                                         |   | x |   |   |  | x |  | 5 mixed age |   | x |  | x |   |  | 0.35 ha | x |   |   |
| WF 19                                         |   |   |   | x |  | x |  | 2 small     | x |   |  |   | x |  | 0       |   |   | x |
| WF 20                                         |   | x |   |   |  | x |  | 3 small     | x |   |  | x |   |  | 0       |   | x |   |
| <b>Those who participated in FGDs KOABIDU</b> |   |   |   |   |  |   |  |             |   |   |  |   |   |  |         |   |   |   |
| WF 21                                         | x |   |   |   |  | x |  | 5 grown up  |   | x |  |   | x |  | 0.25 ha | x |   |   |
| WF 22                                         |   | x |   |   |  | x |  | 2 small     | x |   |  |   | x |  | 0       |   | x |   |
| WF 23                                         |   | x |   |   |  | x |  | 4 mixed     |   | x |  |   | x |  | 0.40 ha | x |   |   |

|       |   |   |  |  |   |   |  |                   |  |   |   |   |   |  |            |   |   |   |
|-------|---|---|--|--|---|---|--|-------------------|--|---|---|---|---|--|------------|---|---|---|
|       |   |   |  |  |   |   |  | age               |  |   |   |   |   |  |            |   |   |   |
| WF 24 | x |   |  |  | x |   |  | 3<br>grown<br>up  |  |   | x |   | x |  | 0.30<br>ha | x |   |   |
| WF 25 |   | x |  |  |   | x |  | 2<br>mixed<br>age |  | x |   | x |   |  | 0          |   | x |   |
| WF 26 |   | x |  |  | x |   |  | 3 small           |  | x |   |   | x |  | 0          |   |   | x |
| WF 27 | x |   |  |  | x |   |  | 4<br>grown<br>up  |  |   | x |   |   |  | 0.35<br>ha | x |   |   |

Appendix III: The area of field research

