

Examining Success Factors for Sustainable Rural Development
through the Integrated Co-operative Model

Section Five

Rwanda Country Research Report

Vincent Rutaremara, Dr. Ngamije Jean, Dr. Veronique Tumusabyimana,
Dr. Javan Semana, Dr. Gabriel Habiyaremye, Emmanuel Hakizimana,
and Anastase Butera

University of Lay Adventists of Kigali, Rwanda
March 2016

Contents

1. Purpose of the Research	381
1.1. Rationale	381
1.2. Background Information	381
1.3. Research Problem	383
1.4. Research Objectives	384
2. The Co-operative Movement in Rwanda	385
2.1. National Co-operative Policy	386
2.2. Structure and Working	388
3. Research Methods	389
3.1. Research Design	389
3.2. Description of Study Area	389
CORIKA Co-operative	390
COPRORIZ AGASASA Co-operative	390
3.3. Study Population	391
3.4. Sample Size Determination	391
3.5. Sampling Techniques	392
3.6. Data Collection Techniques	393
3.7. Data Analysis	393
4. Research Results	394
4.1. Household Surveys	394
4.1.1. Household Demographic Characteristics	394
4.1.2. Access to Financial Services	398
4.1.3. Welfare of Household Members in Different Types of Respondents	399
4.1.4. Water Supply and Sanitation	400
4.1.5. Benefits from Co-operatives	400
4.1.6. Changes in the Community among Types of Respondents	401
4.1.7. Training of Household Members	402
4.1.8. Gender Equity across Households	403
4.1.9. Comparison of Co-op Members and Nonmembers in Terms of General Aspects	404

4.2. Focus Group Discussions	405
4.2.1. Findings from the Focus Group Discussion Analysis	406
i) Gender Considerations	406
ii) Services Offered by Co-operatives	407
iii) Training	408
iv) Strengths, Weaknesses, Opportunities, and Limitations	408
v) Aspirations	409
vi) Services Received from SACCOs	411
vii) Suggestions	412
4.3. Validation Workshops	412
5. General Conclusion	413
References	415

1. Purpose of the Research

1.1 Rationale

This collaborative research, being carried out in Rwanda, Tanzania, Uganda, and Northern Canada, is designed to examine the role of the Integrated Co-operative Model (ICM) in rural development and poverty reduction in rural African communities, as well as a type of co-operative integration in Canada.

1.2 Background Information

Co-operative Integration

It is recognized in the business literature that integration is important for business efficiency, but that it must also be balanced with differentiation (Lawrence and Lorsch 1986). Lawrence and Lorsch defined integration, for a single organization, as the “state of collaboration that exists among departments that are required to achieve unity of effort” (1986). They found that most successful organizations simultaneously achieve high levels of both integration and differentiation, defining the latter as “different departments having different structures and orientations (e.g. short versus long-term time orientation, relationship versus task focus, and high versus low formality of structure)”. This research will look across and between co-ops rather than departments. Co-ops work together (to “achieve unity of effort”) when this can help them to meet the needs of members.

The word integration can mean different things in different contexts. Co-ops can be integrated horizontally or vertically, or can be part of vertical financing systems involving other organizations, which may or may not be co-operatives. Some types of integration, and co-ordination, among co-ops include the following:

Vertical integration includes joint administration, in the same company, of two or more stages of production and marketing (Harte 1997). Hobbs, Cooney, and Fulton, from the Department of Agricultural Economics at the University of Saskatchewan, note that vertical integration involves multiple functions within a single organization, and that this should be seen as distinct from vertical *coordination*, which involves multiple organizations in a **vertical value chain network** (2000).

Value chain financing is another area in which a type of co-operative integration may take place. Access to sufficient and well-timed financial services for all actors in the value chain is a key element for business success (see, for example, KIT and IIRR 2010). This financing can come in many forms — through other businesses involved in the chain, through banks, micro-finance organizations, or financial co-operatives (credit unions). The inter-dependent linkages of a value chain and the security of a market-driven demand for final products can provide those throughout the chain (suppliers, producers, processors and marketing companies) with more secure channels for access to and sale of products.

One of the reasons that co-ops also work together is that “co-operation among co-operatives” is one of the co-operative principles that all co-ops strive to achieve: The 6th Co-operative Principle states that “Co-operatives serve their members most effectively and strengthen the co-operative movement by working together through local, national, regional and international structures” (ICA 2012). In this research, “**integration**” is used to refer to various ways in which co-operatives work together to increase their own business success, thus better meeting the needs of their members.

The Integrated Co-operative Model

In this context, the Canadian Co-operative Association (CCA) has been working with partners to support them in building their own tools and solutions for sustainable livelihoods, through owning and operating their own co-operative enterprises. One model that has emerged helps to improve the livelihoods of rural farmers in the developing world through the integration of three functions:

- Agricultural production
- Marketing
- Access to financial services

These three areas of co-operation are essential ingredients of the model’s holistic approach to rural development.

Working within this integrated model, co-op members identify opportunities and make choices, working together to attain both individual and collective goals that increase food production and productivity, create linkages to larger markets and access to better prices, and provide access to affordable financial services. Accumulated research and experience show that while small farmers acting alone do not always benefit from higher market prices, those acting collectively in strong producer organizations and co-operatives are better able to take advantage of market opportunities and mitigate the negative effects of food and other crises (FAO 2012).

Whereas much co-op development focuses on supporting a single co-operative or group of co-ops at a time, this integrated model supports the joint development of three distinct but interconnected, networked co-operatives (production, marketing, and finance), for a holistic and integrated approach to rural development.

1.3 Research Problem

Agriculture is the backbone of the majority of economies in the developing world, accounting for between 30 and 60 percent of the gross domestic product of many countries, yet the majority of farmers in developing nations are poor and face serious challenges, such as lack of access to capital; high cost of inputs; low price for commodities during harvest seasons; limited infrastructure for storage and transport; and climate change. These challenges can lead to a cycle of poverty, in which farmers borrow money at high interest rates to purchase seed and other inputs, often experience low yields under increasingly unpredictable climate conditions, and then must sell their products at harvest time, when the market is flooded and prices are low. This results in difficulty in repaying loans and in accumulating savings. Farmers are not in a financial or socio-economic position to tackle these challenges individually. They therefore remain trapped in a vicious circle of poverty.

Poverty can be defined in terms of income and livelihood assets. Income alone is insufficient for understanding or alleviating poverty, as people also need to have the resources and capabilities that will allow them to take advantage of novel or expanding economic opportunities (Krantz 2001). The research will use both income-based and asset-based definitions of poverty (individual level and community level).

Rural development attempts to address these problems. Rural development, understood as “the sustained improvement of the population’s standards of living or welfare” (Anriquez and Stamoulis 2007, 2), Co-ops are seen as drivers of rural development. Anriquez and Stamoulis (2007) make a very clear case for the link between rurality and poverty; they then go on to make a strong case for the role of agriculture in rural development. Co-ops have a strong and successful history of supporting agriculture and sustainable rural development in the world. Research indicates some benefits of co-operatives for addressing several of the problems faced by rural dwellers; particularly smallholder farmers. Birchall (2003) has examined the historical record of co-operatives around the world in poverty reduction, and has concluded that co-operatives can play an important role in reducing poverty in developing countries. He argues that not only do co-operatives “succeed in helping the poorest and most vulnerable people to become organized” (p.62), but where there are several possible forms of organization possible “cases demonstrate that the co-operative form is — for the aim of poverty reduction — superior” (62).

1.4 Research Objectives

The research aimed to add to the knowledge of how to improve livelihoods and reduce poverty in a sustainable way in rural communities. The general objective of this research was to improve programming in rural development both in Africa and in Canada by obtaining new knowledge about integrated co-operative models in practice.

The research explored the added value of an integrated approach to co-operative development as a tool for rural development, in excess of the benefits offered by development of a single co-operative. The research will assess whether rural development through co-operatives works better when the co-ops are integrated, and if so, under what conditions this integration works best. Results would apply directly to CCA’s programming.

The research aims to add to the knowledge of how to improve livelihoods and reduce poverty in a sustainable way in rural communities. The general objective of this research is to improve programming in rural development both in Africa and in Canada by obtaining new knowledge about integrated co-operative models in practice.

Specifically, the research was able to:

- A) Explore selected models of co-op integration in Uganda, Tanzania, Rwanda, and Canada, to seek new knowledge and assess the impact of the model (by comparing situations in which the model is employed to those in which it is not, considering effects at both the individual household level, and the co-op enterprise level).
- B) Compare the livelihood assets, satisfaction and social capital of individuals who are in the Integrated Co-operative Model in Canada, Rwanda, Tanzania, and Uganda with those who are not. Also compare development at the co-operative level (considering business linkages, access to inputs and markets, presence of warehouse receipt system, etc.) of the co-operative businesses involved.
- C) Identify key elements of an enabling environment that allow the model to achieve its full potential and rural development results (in terms of poverty reduction, increased economic activity, etc.). Building on this, identify necessary conditions for implementing the model with beneficial results.

2. The Co-operative Movement in Rwanda

The first attempt to institutionalize co-operatives in Rwanda began with the enactment of the Co-operative Ordinance of 1949 that operated until another law, No. 31/1988, was enacted on 12 October 1988. Like in most African countries, co-operatives were first introduced in Rwanda by the Belgians in the colonial period as instruments for driving the agenda of the government's socio-economic goals. The interest of colonial governments was to get resources from Rwanda for the development of their own countries. For instance, people were used to cultivate coffee, tea, etc. but they could not get any benefit since all would be exported to colonialists' respective countries. Another case in point is minerals. All these activities could be done under forced conditions.

Traditionally, Rwanda had its own self-help forms (Policy, *ibid.*) that conform to the principles of self-help and self-responsibility. Some of these forms such as Ubudehe (working together), Umubyizi (assisting each other) and Umuganda (community work) have survived to the present day. What is true is that to date, some efforts have been again made to consolidate this traditional

philosophy of mutual assistance into economic and social oriented development initiatives through co-operatives.

In addition, to the foregoing negative effects on the co-operative movement the State and development agencies including donors introduced the culture of dependency by conditioning external assistance to the formation of co-operatives and other forms of associations. Thus, members looked at a co-operative as a means of only getting financial assistance from donors rather than as an economically productive enterprise.

Therefore, the existed inefficiencies of co-operative movement in Rwanda necessitated the formulation of a comprehensive policy in March 2006 and update the laws governing co-operative societies, promulgated in the official gazette in September 2007 as amended to date, as well as establishing Rwanda Co-operative Agency in August 2008 as a Government arm in charge of co-operatives promotion, registration, education and training and regulation.

2.1 National Co-operative Policy

With Reference to the National policy on co-operatives in Rwanda, the government aims to facilitate development of the co-operatives in the country in order to make a significant contribution to the national economy particularly in areas which require people's participation and community efforts. In so doing, it intends to focus on a number of targets.

First, to increase the numbers of co-operatives formed countrywide and ensure good quality of the co-operatives through training, education, information and research so that members attain the ability to perform their co-operative business in an autonomous way.

Second, to build a strong co-operative movement which is able to serve its members efficiently, will contribute significantly to poverty alleviation as well as to social integration and will fully participate to the economic and social development of the country.

Third, to create an environment helping co-operatives to be autonomous and viable private enterprises and to contribute to member empowerment, decent job creation and enhancement of

production and productivity. Fourth, to enhance the access of co-operatives members to Information and Communication Technologies so that they can access to capacity building opportunities and to best practices in co-operative management.

Fifth, to encourage active participation of the youth, women, the handicapped and demobilized soldiers in the co-operative movement. Promoting co-operatives that are fully autonomous and viable private enterprises would require that the policy on co-operatives promotion in Rwanda is guided by the following pillars:

- Co-operatives are private enterprises business organisations, implying that they are owned by their members who manage and control their business activities. Government does not own the co-operatives nor does it have any powers to dictate any business decisions unless when common good demands.
- Co-operatives are public organizations, in which members of the public are free to join and participate as customers or client subject to the by-laws of the co-operatives.
- Co-operative Societies are “self-help” Organisations and are believed to be one of the best ways for communities to organize themselves, in a business manner, to achieve common objectives and help share the realizable benefits of economic development.
- Co-operatives require a democratic environment to develop. Members of co-operatives need to have freedom of speech, association, movement and trade in order to be able to make their co-operative societies work. At the same time, members are entitled to adequate levels of co-operative education so that they can be informed of their rights and duties. This freedom should be exercised within the co-operative organization.

Currently, the co-operatives’ situation (RCA February 2015) stands as follows:

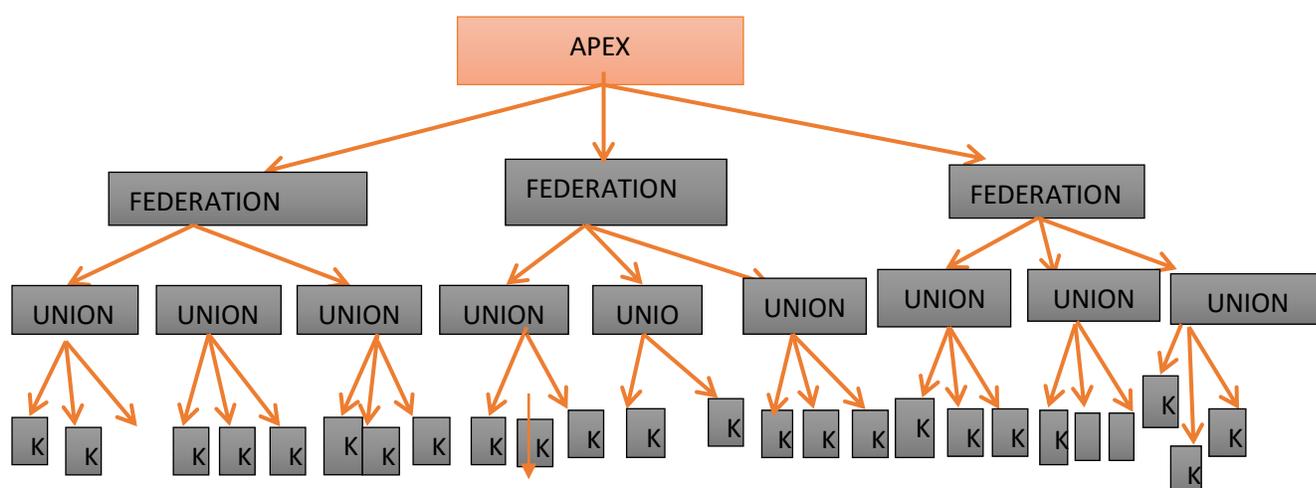
Type of Co-op	No.	%	Membership						Share capital (Frw)
			Male	%	Female	%	Group	Total	
Agriculture	2,210	30.3	135,387	59	94,474	41		229,861	4,114,594,000
Livestock	1,520	20.9	42,539	51	41,230	49		83,769	3,439,530,000
Trading	1,087	14.9	28,153	53	25,337	47		53,490	7,878,662,200
Service	809	11.1	19,299	53	17,109	47		36,408	1,327,242,200
Handicraft	741	10.2	11,795	46	13,703	54		25,498	1,537,972,000
Transport	479	6.6	19,531	89	2,400	11		21,931	1,656,179,000
Transformation	73	1.0	1,745	48	1,917	52		3,662	318,065,000
Housing	130	1.8	4,373	73	1,628	27		6,001	4,579,380,000
Fishing	88	1.2	3,123	76	969	24		4,092	156,679,000
Mining	99	1.4	1,523	78	439	22		1,962	461,242,800

Other	50	0.7	2,015	54	1,727	46		3,742	650,817,000
Sub Total	7,286		269,483		200,933			470,416	26,120,363,200
U-SACCOs	416		1,246,633		939,037		215,161	2,400,831	8,804,175,787
Other SACCOs	32		136,986		85,834		4,899	227,719	3,013,222,500
Total	7,734		1,653,102		1,225,804		220,060	3,098,966	37,937,761,487
Union	129								161,018,000
Federation	14								59,220,000

Source: RCA, Feb, 2016

2.2 Structure and Working

Currently, the co-operative movement is built on a **four-tier structure** with primary co-operative societies at the grassroots level, secondary co-operative societies at the regional level, federations and confederation (APEX) at the national level, as presented in the structure below:



Co-operatives are promoted based on the specific value/commodity chain. In Rwanda, multipurpose co-operatives are not many. Although co-operatives are found in every economic or income generating venture in Rwanda, most co-operatives are found in agricultural production and marketing, livestock, mining, arts and crafts (handicraft), housing, fisheries and fish farming and services which include transport, commercial and saving and credit (SACCOs).

Co-operative unions and federations are established to facilitate the development of primary co-operatives in order to respond to their members’ needs. Some of the services offered by these umbrella organizations to their members include:

- Strengthen primary co-operatives in advocacy, access to good markets and fertilizers or raw materials
- Conduct education and training
- Provide advise and/or arbitration
- Promote the savings culture among co-operative members and
- Conduct supervision to their members for improvement purposes

3. Research Methods

3.1 Research Design

This research combined qualitative and quantitative approaches. The quantitative approach helped to get quantitative information from respondents through an individual questionnaire while the qualitative approach helped to get testimonies and most significant changes from respondents through focus group discussions. It gave a great opportunity to describe how there is a lot of integration by default in co-ops in Rwanda, but noticed that there are a few co-ops that are less integrated (e.g., CORIKA) and it was interesting to explore whether they (and their members) are doing as well as other co-operatives and co-operative members.

3.2 Description of Study Area

The research was conducted in the rural sector of the Gasabo District of the City of Kigali, and the rural sector of Nyanza, a district of Southern Province. The sectors that were chosen from these districts are typically rural and are characterized by agricultural activities. The rural sectors of Gasabo are Jabana, Nduba, Gikomero, Rusoro, Bumbogo and Rutunga. The rural sectors of Nyanza are Nyagisozi, Kigoma, Mukingo, Muyira, Ntyazo, Kibilizi, Busoro, Cyabakamyi and Rwabicuma. Among these rural sectors, the Ntyazo sector of the Nyanza District and the Jabana sector of the Gasabo District are dominated by rice agriculture which is emerging as a cash crop in Rwanda.

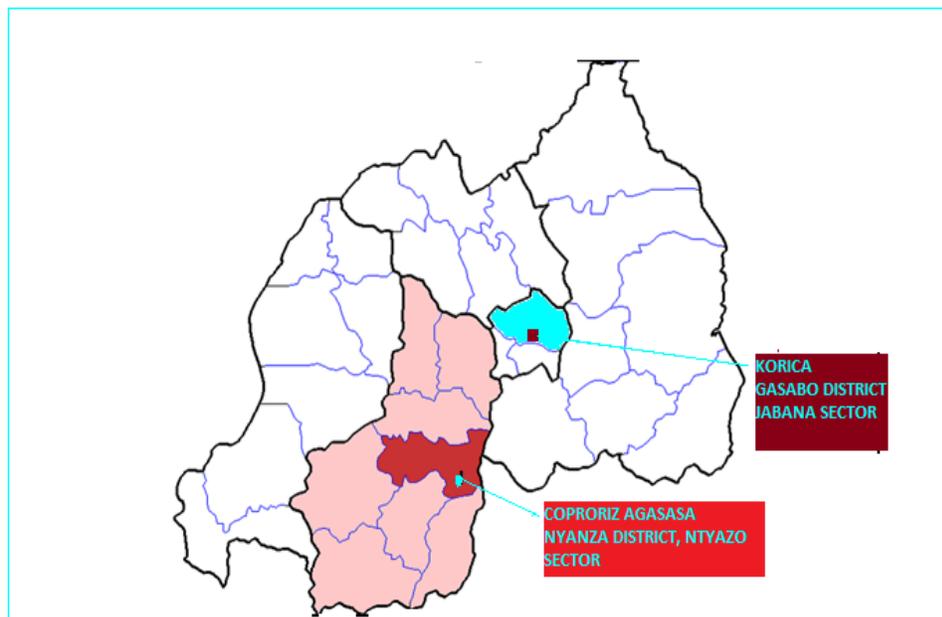


Figure 1: Location of COPRORIZ Agasasa and CORIKA co-ops

In the two sectors mentioned above, farmers group themselves into agriculture co-operatives to access agriculture extension services and to minimize rice production costs.

CORIKA Co-operative

It is situated in Kigali City–Urban as a primary (rice-growing) co-operative, which is not affiliated to any union but affiliated to a rice federation, waiting for other similar co-operatives to form a union as per the law. It is a member of JABANA (Umurenge) SACCO, members and also its members are members of JABANA SACCO. It sells its paddy rice to a private rice milling company but they are striving hard to have its own milling plant

COPRORIZ AGASASA Co-operative

It is situated in Ntyazo Sector (Southern Province) — far rural area and is a primary rice-growing co-operative. It is a member of a rice union which facilitates its members in production, governance and marketing services and a rice national federation. Its union has shares in Gikonko Rice Company and has IMPAMBA SACCO. In the same sector, there is another Umurenge SACCO nearby that also gives financial services to co-operative members.

The sites selection criteria focused on co-operatives which do the same activity, but in different areas — one being in far rural and another one in real urban. Farmers involved in rice agriculture were given priority because the rice production is emerging and viewed as one of the crops which are uplifting the livelihood of rural households in Rwanda.

3.3 Study Population

The study population included all rice farmers in the area of the research whether or not grouped into co-operative organizations. The study targeted co-operative members and their leaders as well as nonmembers who grow rice in the same areas. The study population was composed of 1,325 farmers (624 in COPRORIZ Agasasa and 701 in CORIKA) grouped in co-operatives. There was a problem with getting the exact figure of farmers who are not members of rice growing co-operatives. Nevertheless, the number was approximated to be less than that of co-operative members. The low approximation is motivated by the fact that, in the above-mentioned districts, most of the rice growers are grouped into co-operatives.

3.4 Sample Size Determination

Because we did not have an exact number of the study population of non-co-operative members, we first determined the sample size for co-operative members. Then we made an approximation of what should be the sample size for non-co-operative members based on the assumption that the population of nonmembers is slightly less than that of co-operative members.

To determine the sample size for co-operative members, the following formula of Yamane

(1967) was applied: $n = \frac{N}{1 + N(e)^2} = \frac{1325}{1 + 1325 (0.07)^2} = 176$. Assuming that more than 10 percent

of our respondents may not respond to some questions, we adjusted our sample size in order to

minimize the non-response rate, as follows: $\frac{176}{1 - 0.12} = 200$ respondents from co-operative

members.

By taking into consideration that the population of farmers who are not members of rice growers' co-operatives in our area of study is slightly less than that of co-operative members, we

purposefully took a sample size of 185 respondents from non- co-operative members. We therefore used a total sample size of 385 respondents.

3.5 Sampling Techniques

A mixture of sampling techniques was used during the selection of respondents. For respondents who are members of co-operative organizations, systematic random sampling technique was used. This technique implies that every respondent was selected independently of every other element and each respondent on the whole list of the population co-operative members had equal probability of being selected. The starts by calculating the interval size denoted by k :

$$k(\text{size of interval}) = \frac{N(\text{population size})}{n(\text{sample size})}$$

In our case, it was: $k = \frac{1325}{200} = 6.625 \cong 7$. Thereafter, random selection of one number between 1 and 7 was done; let say 4. Therefore, when done numbering, all people numbered 4 on the list have been investigated. This is similar to lining everyone up and numbering off ‘1, 2, 3, 4, 5, 6, 7: and 1, 2, 3, 4, 5, 6, 7: etc.’ and each 4th individual is selected.

Because we couldn't get the exhaustive list of nonmembers, the convenience sampling technique was applied to obtain respondents from that type of our target population. This technique attempted to select respondents because they happen to be in the right place at the right time. Nonmembers were reached through the sector authorities, who invited them to meet the research team.

For focus group discussions (FGD), a purposive sampling was used to reach co-operative members including women, leaders and management, district and sector co-operative officers, union leaders and confederation as well as NCCR and RCA.

In so doing males and females were involved in focus group discussion. Here the number of females to participate in focus group discussion was determined basing on a quota of 30 percent set in Rwandan constitution.

Table 1: Distribution of participants of focus group discussion in two co-operatives and nonmembers

Gender	AGASASA operation area			CORIKA operation area		
	Committee members	Ordinary members (GA)	Nonmembers	Committee Members	Ordinary members (GA)	Nonmembers
Male	5		4	4		3
Female	4	8	2	5	7	2
Total	9	8	6	9	7	5

We held FGD with all the committees (board and supervisory) of the two sites; each co-operative had eight with its manager, making it nine for each co-operative understudy. We also held another FGD for women only. In CORIKA we met seven and in AGASASA there were eight. Nonmembers met in FGDs included eleven from the two sites. We equally held a FGD with the union (where AGASASA is a member), and met with the executive committee and its manager and accountant. Again we visited district co-operative officers for the two districts (Nyanza and Gasabo) where the two co-operatives operate from. We visited NCCR, RCA, and FUCORIRWA.

3.6 Data Collection Techniques

The selected respondents were convened in different convenient sites where each respondent was given a questionnaire under the facilitation of a trained enumerator to fill it out. Respondents who could not write were assisted by enumerators.



Figure 2: Enumerators filling questionnaires for respondents in AGASASA

3.7 Data Analysis

Data preparation was done before analysis. It consisted of taking data from its raw form and converting this into a format that could be read by the computer. Consequently, this data preparation was started with data validation, and then editing the data, followed by data entry, and data tabulation.

After data preparation, basic statistics and descriptive analysis were performed. The analysis provided frequency tables that report the percentage and parameters that were easy to interpret and understand. Numbers, parameters and percentages were produced by using the statistical package for social sciences: SPSS for windows. Some statistical tests like Chi-square test for independence and Student-t test were also performed in order to make inference to the whole population.

4. Research Results

4.1 Household Surveys

The general observation from the research findings is that it was a great opportunity to notice how there is a lot of integration by default in co-operatives in Rwanda, but noticed that there are a few co-ops that are less integrated (e.g., CORIKA) and it was interesting to explore whether they (and their members) are doing as well as other co-operatives and co-operative members.

Although the two co-operatives in the research are not integrated at the same level, they have access to production, marketing as well as financial services. The difference is not very significant. Significant difference is on co-operative members and nonmembers, which will be more focused on, in this research findings and analysis.

4.1.1 Household Demographic Characteristics

A total of 385 farmer respondents were surveyed, 200 of whom were members of co-operatives. As it is indicated in Table 2 below, among the 385 respondents, 51.1 percent were members of co-operatives and 48.9 percent were nonmembers. It is also important to note that among member respondents the percentage of women was 38.5 percent while among non-member respondents the percentage of women was 60.0 percent. This indicates that the women farmers' membership in agricultural co-operatives is still low compared to men farmers. This corroborates with the figures that are found in the reports produced by the Rwanda Co-operative Agency where it was indicated that the percentage of women membership in co-operatives is 44 percent against 56 percent male (RCA 2014). The logic behind this low percentage can be explain by the fact that most women are involved in own-use production works while men are mostly involved in work for pay or profit.

Table 2: Demographic characteristics of households by type of respondents

Variable	Co-op members (n=200:51.1%)	Nonmembers (n=185:48.9%)	χ^2	P-value
	Male (61.5%)	Male (40.0%)		
	Female (38.5%)	Female (60.0%)		
Gender of household head (%)			17.62	0.00
Male	61.5	40.0		
Female	38.5	60.0		
Marital status (%)			28.56	0.00
Never married	8.0			
Married	80.5	80.9		
Married polygamous	0.5			
Divorced/separated	3.0			
Widow//widower	8.0	19.1		
Main occupation (%)			31.76	0.00
Farming	94.8	79.8		
Salaried employment	2.1	6.0		
Self-employment off-farm	1.0	14.2		
Others	2.1			
Education level (years of schooling) (%)			57.9	0.00
No studies	20.6	21.7		
1-3 years	16.5	0.0		
4-6 years	44.7	43.3		
7-9 years	18.0	35.0		

It is important to note that in research findings, a big percentage of respondents in both co-op members and nonmembers is married. This is not surprising since married people, in rural areas, have more economic and social responsibilities that can be fulfilled once they are farming.

The figures in Table 2 above indicate that farming was the main occupation of households for both co-operative members (94.8 percent) and nonmembers (79.8 percent). It can also be observed that the percentage of respondents who are self-employed off-farm as the main occupation tends to be higher (14.2 percent) in nonmembers' households than in members' households (1.0 percent).

During the research, it was found that 20.6 percent of members and 21.7 percent of nonmembers have no formal schooling. Most of respondents in both members (44.7 percent) and nonmembers (46.3 percent) have completed 4 to 6 years in the primary school. Many nonmembers (35 percent) against 18 percent for members have completed 7 to 9 years (post primary school).

The p-value found indicates that there is an influence of the household' characteristics mentioned in the table on the type of respondent.

The table 3 below indicates that females in rice agriculture are not behind males in the level of education. In fact, comparing both male and female sides, one can observe that difference is not significant. This is confirmed by the Student t-test where t-statistics is 0.516 and P-value is 0.618.

Table 3: Household head studies and gender of respondent

Household head studies	Gender of respondent		Total
	Male (194)	Female (186)	
No. of studies	10.2%	10.7%	20.9%
One	1.6%	0.3%	1.9%
Two	0.8%	1.3%	2.1%
Three	2.7%	1.9%	4.5%
Four	1.3%	0.5%	1.9%
Five	5.1%	5.1%	10.2%
Six	17.4%	15.0%	32.4%
Seven	4.0%	4.3%	8.3%
Eight	4.3%	6.7%	11.0%
Nine	3.7%	3.2%	7.0%
Total	51.1%	48.9%	100.0%

The study also made a comparison of dependency ratios among different types of households.

The child dependency (CDR) and the total dependency ratios (TDR) were calculated as follows:

$$CDR = \frac{\text{Number of children (0 – 17 years)}}{\text{Number of adults (18 – 64 years)}}$$

$$TDR = \frac{\text{Number of children (0 – 17 years)} + \text{Number of elders (above 65 years)}}{\text{Number of adults (18 – 64 years)}}$$

Difference in child dependency ratio and total dependency ratio in Table 4 were statistically significant at 5 percent. Both ratios were higher in nonmembers of co-operatives. This means that households in nonmembers have more children and elders they have to look after.

Table 4. Dependency ratios among the different types of co-operatives

Dependency ratio	Co-operative members (n=200)	Nonmembers (n=185)	t-statistic	P-value
CDR	1.38	1.76	-75.00	0.008
TDR	1.46	1.83		

In Rwanda, the percentage of youth (ages 16 to 35) in the population is 69.3 percent (2012). Youth are considered as the future of the co-operative enterprise and sustainable rural development. The figures in Table 5 below indicate that the youth membership in selected co-operatives is 22 percent, which is low compared to other age categories of respondents. The table also indicates that the percentage of youth respondents who are not members of co-operatives is higher than that of youth who are members of farmer-selected co-operatives.

Table 5: Age of respondents for co-operative members and nonmembers

Age	Members		Nonmembers	
	Frequency	Percent	Frequency	Percent
18-36	44	22.0	82	44.3
36-60	132	66.0	90	48.6
60 and above	24	12.0	13	7.0
Total	200	100.0	185	100.0

Thus, as unemployment in Rwanda affects young people (16–35 years) more than adults and taking into consideration that economic activity rate was found to be higher in rural areas (75 percent) compared to urban areas (68 percent), there is urgent need to continue to put much effort in the implementation of Rwandan co-operative policy and seven-year government programs in which the issue of full participation of youth in co-operative organizations is highlighted.

4.1.2 Access to Financial Services

Findings also revealed significant difference regarding access to financial services by members and non-members of co-ops. Co-operative members save more in SACCO (88.0 percent) than in VSLA (75 percent). Most of the nonmembers save much more in VSLAs (67.6 percent) than they do in SACCOs (17.1 percent).

Table 6: Access to financial services

Variable	Co-operative members	Nonmembers	χ^2	P-value
Save with SACCO	88.0	17.1	176.2	0.00
Save with VSLA	75.0	67.6	28.46	0.00

Looking on the gender aspect, men saving with SACCOs are 56.2 percent while women are 43.8 percent. This is because women spend much of their income in family needs. About loan, males having received loan are 69.3 percent and females are 30.7 percent. Females fear to take risk of loan and they have problem of collateral.

Furthermore, results from focus group discussions showed that loans were mostly taken for production purposes, social activities, purchasing and repairing assets, and for repaying previous loans. In particular, women borrowers mostly took loans for social activities and for repaying previous loans. In most cases, loans were used for the stated purpose; in some cases, however, loans taken for one purpose were diverted to other purposes. Women members often did this to spend money on the neediest aspects of the household.

Those members who had taken loans for a number of different purposes usually had made profit out of them. Higher profit was generated when members used higher amount of last loan in diversified income-generating activities. In addition, the larger the size of the last loan taken and the number of skill development training inputs received, the higher was the profit.

The most important uses included purchasing food and other household stuffs, which was the best thing they could do with their profits.

4.1.3 Welfare of Household Members in Different Types of Respondents

Having better shelter is one of the benefits that could be got from co-operatives. It is against this background that types of house for members and nonmembers were looked at during this research. The key elements that were looked at are type of walls, type of roofing and type of flooring of the main house.

The high portion of respondents who live in houses with iron sheet roofing may be justified by the fact that there recently has been a “Turwanye Nyakatsi campaign,” which consisted of removing all houses with grass-hatched roofing. This has also coincided with regulations of the Rwanda Environment Management Authority, which limited the volume of tiles available, resulting in higher use of iron sheeting in construction activities.

Table 7 below indicates that the type of walls owned by a household was the asset that had the highest index score across the types of respondents. Co-operative members have the highest asset index (1.43), indicating that they opt to invest more in houses with brick wall plastered and many rooms (index is 1.18)

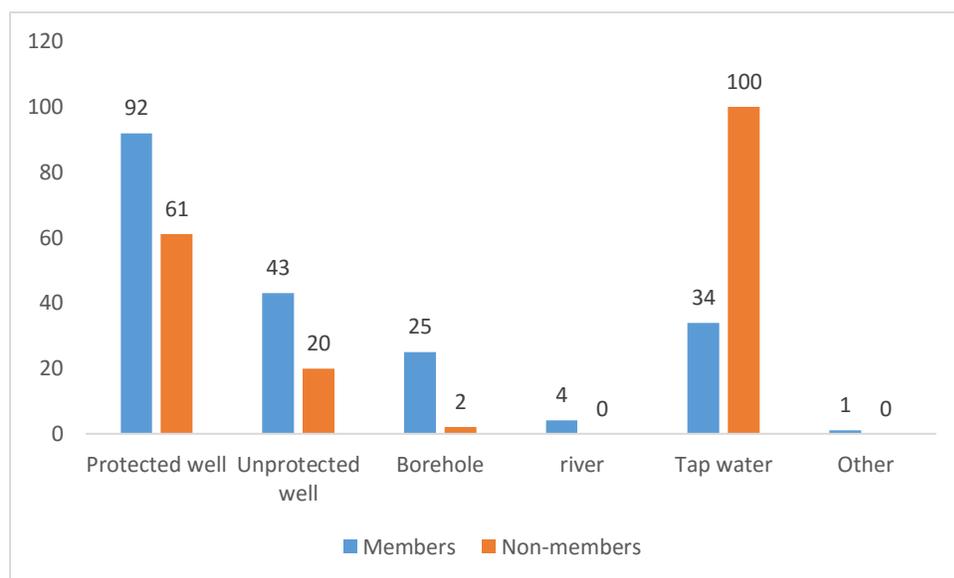
Table 7: Asset indices variables by type of respondent

Variable	Co-operative members (n=200)	Nonmembers (n=185)
Type of wall	1.43	1.14
Type of roof	0.85	0.73
Type of floor	0.36	0.18
Number of rooms	1.18	0.79
Latrine	0.96	0.82
Kitchen	0.95	0.75
Water source	0.39	0.66
Radios	0.84	0.67
Clocks	0.24	0.21
Bicycles	0.40	0.47
Mobile phone	0.87	0.73
TV	0.13	0.13
Moto-cycles	0.05	0.13
Sofa sets	0.36	0.40
Land	0.40	0.85
Average asset index	0.627	0.577

4.1.4 Water Supply and Sanitation

Figure 3 indicates that respondents have declared that they collect water from improved water sources (i.e protected well, tap water, and borehole). In fact, in Rwanda, access to improved water sources does not correspond to membership or nonmembership in co-operative organizations. In most cases, water infrastructure is provided by the government for public benefit.

Figure 3: Main source of drinking water



4.1.5 Benefits from Co-operatives

In Table 8, members of co-ops reported various experiences on the benefits acquired from their co-operative membership. For co-op members, the most benefits are activities of development (62.2), procuring farm inputs (60.7), get loan (40.7) and prompt payment (39.3). In FGD respondents highlighted the role of co-operatives in the marketing of member produce in rural areas of Rwanda and enabling members to access big markets which they could not have accessed if they were not members of a co-operative society.

Focus group discussions revealed that benefits provided by the co-operatives have contributed to increasing the incomes of the members. Similarly, capacity-building activities such as technical services, training, etc provided through co-operatives for their members has contributed to

creating self-employment opportunities and increasing their incomes. In addition, the involvement of co-operatives in community development activities has contributed to the development efforts of the country as well as to addressing the development issues of the Millennium Development Goals (MDGs).

Table 8: Benefits to household members by type of respondent

Benefits	Co-operative member (%)	Nonmember (%)
Benefits from co-operatives	n=182	
Market crop	26.4	
Get loan	40.7	
Easy training	33.0	
Benefits from co-operative union	n=89	n=155
Procuring farm inputs	60.7	27.1
Accessing extension services	23.6	38.7
Accessing loans	5.6	5.8
Accessing storage facilities	2.2	14.8
Accessing transport services	4.5	0.0
Accessing market for farm produce	2.2	6.5
Collective marketing	1.1	7.1
Benefits by selling the produce through the co-operative	n=183	
Agriculture inputs	33.3	
Selling the produce once	6.6	
Permanent market	7.7	
To acquire a loan	13.1	
Prompt payment	39.3	
Benefits on socio-economic development	n=135	
Health insurance (Mutuelle)	7.4	
Activities of development (build a house, buy land and home items, etc.)	62.2	
Collect produce	11.9	
Project planning	18.5	

4.1.6 Changes in the Community among Types of Respondents

The Table 9 presents findings about community changes related to the existence of co-ops. The deep community changes in co-op members are realized in farming or running household (91.2

percent), eating food that you did not eat 5 years ago (76.1 percent), buying land (65.1 percent), having bad changes in farming last 5 years (61.4 percent), building a house (39.1 percent),

Table 9: Community changes by type of respondent

Changes	n	Co-op members (%)	Nonmembers (%)	χ^2	P-value
Changes in farming or running household as a result of co-op membership	193	91.2			
Health insurance	181	10.5			
Stock farming	181	17.1			
Build a house	181	39.1			
School fees	181	8.8			
Farming more land than it did 5 years ago	353	14.9	8.9	3.034	0.057
Buy land	377	65.1	87.9	26.889	0.00
Had good changes in farming last 5 years	364			78.901	0.00
Increase of crop	364	29.2	36.5		
Land consolidation	364	7.8	0.0		
Good health	364	18.8	49.7		
Savings	364	24.0	13.8		
Build a house	364	17.5	10.0		
Had bad changes in farming last 5 years	350	61.4	69.9	2.766	0.060
Eating food that you did not eat 5 years ago	371	76.7	12.9	151.515	0.00
Eating food 5 years ago that you do not eat any more	343	23.0	79.9	111.046	0.00

There was, however, observed some challenges for both co-operative members and non-members which affected negatively positive changes that would have been reached in absence of those challenge. The main challenge that was faced was insufficient rain which consequently caused reduction of rice production as it was declared by both types of respondents

4.1.7 Training of Household Members

For this question respondents were only co-op members. They declared that they have been trained as indicated in the table below. We can observe that the level of training is still low.

There is a need for training on co-operative management, leadership, good agricultural practices,

rules and regulations, rights, loans, advocacy, marketing and communication, use of appropriate fertilizers and pesticides to all members. Also, there is a need for training managers and boards of co-operatives to inform members about all activities.

Table 10: Training by category of respondent

Type of training	n	Co-op members	Nonmembers	χ^2	P-value
Agriculture (by CCA)	150	2.7			
Crop management (by CCA and RSSP)	150	12.0			
Rice farming (by CCA)	150	36.0			
Gender balance (by CCA)	150	0.7			
Checking fertilizers and financial management (by co-op manager)	150	4.7			

During the research, gender issues were also considered. The p-value in Table 11 shows that training was delivered without gender bias.

Table 11: Training by gender

Type of training	n	Males	Females	χ^2	P-value
Agriculture (by CCA)	150	1.1	5.5	6.898	0.228
Crop management (by CCA and RSSP)	150	16.7	5.5		
Rice farming (by CCA)	150	36.7	36.4		
Gender balance (by CCA)	150	1.1	0.0		
Checking fertilizers and financial management (by co-op manager)	150	4.4	5.5		

4.1.8 Gender Equity across Households

During the pre-colonial time and all the time before the genocide against Tutsi, gender inequality was defined as a hierarchical view of gender relations, with men above women, and women regarded as inferior and less valuable by virtue of their sex. The following table shows that there is a significant difference between sexes in terms of who collects water and no significant difference in terms of who mostly sells crop. Our findings have also revealed that there is no significant difference in education and in training. This corroborates with the national policy of at least 30 percent of females in all programs. The problem of loan highlighted in this research needs mobilization of women to transcend the fear of loan.

Table 12: Gender equity/woman empowerment

Gender equity	n	Males	Females	χ^2	P-value
Who collects water?	377			6.043	0.110
Parent		13.9	23.5		
Child		75.3	66.1		
Servant		9.8	9.8		
Other		1.0	0.5		
Who mostly sells crop?	361			65.658	0.00
Man		27.5	43.6		
Woman		8.2	32.4		
Both		64.3	24.0		

Involvement of women members in decision-making in various matters, such as opting for family planning, buying and selling assets, participating in community development, participating in community meetings, voting, taking loans, using loans and profits, was higher than that of non-member women. In addition, women members were more informed about human rights and women's rights than nonmembers were. Their involvement in various exposure programs and community development activities of co-operatives had made their mobility much higher than that of nonmembers.

4.1.9 Comparison of Co-op Members and Nonmembers in Terms of General Aspects

Table 13 consists of comparing non-co-operative members with co-operative members. Non-co-op members themselves recognize that co-operative members are advanced. This is because they report that co-operative members are significantly better-off with regards to many aspects. (See third column).

Table 13: Comparison of co-operative members with non-co-operative members

Comparison	I (Nonmember) am better (%)	They (Members) are better (%)	We are not different (%)
Type of residential house	13.2	60.4	26.4
Size of cultivated land	15.3	77.1	7.6
Number of livestock kept	7.7	85.2	7.1
Quantity of crop harvested	7.1	85.8	7.1
Quantity of crop surplus for the market	7.1	78.7	14.2
Food security for your household	21.9	78.1	-

Affordability of children's school fees	16.6	58.6	24.8
Ease of access to markets for your produce	7.1	92.9	-
Ease of access to markets for agriculture inputs	21.3	64.5	14.2
Ease of access to credit	7.1	78.7	14.2
Prices you get for your produce	-	100	-
Ease of access to agriculture extension services/advice	-	91	9
Training on agricultural production	6.5	93.5	-
Knowledge on gender issues	-	100	-

About mobilizing financial capital, the co-operative model has also mobilized collective investment from its members. Members were mobilized to subscribe about 9,657 Frw when the co-operative was founded and this had increased to 408,612 Frw by 2014. In 2014, the distribution of shares was concentrated around the mean. This is shown by the low coefficient of variation of 4.8 percent and it means that co-operative spirit of developing together is achieved.

In the same vein, focus group discussions revealed that incomes of co-operative members noted higher increases since they joined the co-operatives as compared to non-member households. This fact was supported by evidence of higher increases in the assets of member households compared to non-member households.

4.2 Focus Group Discussions

For supplementing the findings from survey and more understanding things at a deeper level, the focus group discussions were held with rice cultivation farmers including members of co-operatives and nonmembers. The focus group created an accepting environment that puts participants at ease and allowed them to thoughtfully answer questions in their own words which really added meaning to survey findings. It is on that background that a group of fifteen participants from operations area of AGASASA Co-operative and fifteen participants from operation area of CORIKA were asked a series of questions and given statements to which they freely shared their opinions, ideas and reactions. All their responses were viewed and studied to examining success factors for sustainable rural development through co-operative in Rwanda.

The approach that was used during the focus group discussion was that each question was averagely discussed by three to five participants and other participants used to concur with them. The questions that were asked to participants were in three folds including engagement questions that were concerned with introducing participants to and make them comfortable with the topic of discussion, exploration questions that were concerned with getting to the meat of the discussion, and exit question that were concerned with checking to see if anything was missed in the discussion.

4.2.1 Findings from the Focus Group Discussion Analysis

This section summarizes findings of different FGD's perceptions. The results, in general corroborated with those obtained during analysis of survey data. It was however found a slight different on participants' perceptions about comparison of wellbeing between co-operative members and non-co-operative members.

The analysis was mainly focused on five components of this research as elaborated below:

i. Gender Considerations

The focus group discussion in AGASASA and CORIKA revealed there were no specific roles/activities of men and women regarding rice agriculture. They declared to have performed the same activities during rice growing without considering their gender status. One of them mentioned that "In Rwanda there is no longer agricultural task specific to men or women. Everyone is entitled to perform any agricultural related task".

In regard to taking leadership in co-operatives, the participants answered that each co-operative member is entitled to elect for leading his/her co-operative. It was also found when choosing the leaders of their co-operatives, they considered the genders issue. They said that "in our bylaws it is mentioned that there shall not be discrimination against any person on account of religion, race, sex or political belief either in joining or leading our co-operative. And the law governing co-operatives in Rwanda stipulate taking into account gender balance, where possible, while electing co-operative Leaders."

It was mentioned in CORIKA, however, that the number of women leadership of co-operative is still low and that they were still not yet committed to become leaders of their co-operative under the pretext that their household's responsibilities would not allow the time for adequately leading co-operative.

Also, while the youth represent 40 percent of active population in rural area, it was highlighted the big issue related to a little number of youth in agricultural sector in general and agriculture co-operatives. And the youth members were declared to be less active in activities of co-operatives than adult members. But the women participants showed a different view by saying that youth and adult members participate equally in co-operative activities.

ii. Services Offered by Co-operatives

The analysis of answer from participants of focus group discussion revealed through their co-operative organizations, they can access a number of services to farmers including easy access to rice fertilizers, improved seeds, training on modern rice growing practices, good market for their produces and coordination of rice production activities. Indeed, one woman from AGASASA Co-operative said that "... There isn't any inequality in our co-operative. We all equally access to the services provided through this co-operative. The use may differ but access is the equal."

In addition, the nonmembers declared that they indirectly enjoy the service provided by rice agricultural co-operatives as they learn so many good practices of rice production from co-operatives members. Also, the president of CORIKA indicated that their co-operative contributed to GIRINKA program where it has so far provided cows to some poor families that are located in the Co-operative's operations area.

Regarding the question about differences observed among members compared to nonmembers, the focus group discussion results indicated that co-operative members are more skilled and knowledgeable compared to nonmembers, and they are trustable during loan applications from the banking and support service providers' institutions.

It was also highlighted that, during focus group discussion in AGASASA's operations area, members have easily accessed to health insurance and better shelters compared to nonmembers. This corroborated with survey results where nonmembers confirmed that members were better off compared to them.

The nonmembers have, however, raised the issues of mismanagement that characterize co-operatives and negatively affect co-operative members while it is not the case for nonmembers.

iii. Training

Leaders, employees and members of co-operatives declared to have received training from different providers such as: RCA, NCCR, FUCORIRWA, RAB, Extension service providers, DCOs, and Extension service providers from sub counties.

Particularly for AGASASA, others providers such as: Nyanza DCO and SCO — Ntyazo, CCA — IWACU, UGAMA, development partners in rice sector and Gender monitoring office, trained beneficiaries.

The training was based on Co-operative Management and governance, Agronomic practices, Collective bulking and marketing, Enterprise selection and planning, Rice growing techniques and diseases control, Effective application of inputs/fertilizers, Gender mainstreaming and Co-operative internal control systems.

iv. Strengths, Weaknesses, Opportunities, and Limitations

In promoting/improving the livelihoods of members and the community, strengths are the following:

- Organized members who are willing to support each other either morally or financially although more sensitization is needed for attitude change.
- The share capital increases every year, Social benefits like health insurance, accessibility to small loans for school fees, etc.
- Stronger and active AGASASA members. Benefit training and education to members which increase their capacity, Constant supervision of RCA Inspections.

Weaknesses are:

- Mismanagement of co-operative in the past which discouraged nonmembers from joining as well discouraging members from active participation in group activities.
- There is a problem of plots of rice where enough water does not reach. This reduces production. In both co-operative operation areas, opportunities do exist: Putting together individual's meager resources together in activities that generate income for all members in the community; improved leadership, people share common interests and respect each other, and improved governance.
- Also, both areas share challenges and limitations hindering them from performing to their best: price of paddy rice is still low compared to the cost of production, fluctuations due to liberalization policy where prices are not fixed by government, marshlands not well maintained because they are expensive, parts of our marshlands don't have water and this reduces production.

v. Aspirations

Both co-operatives AGASASA and CORIKA visibly changed in the last five years: put rice growers together and provide extension services to its members, improved the yield and productivity, easily available inputs and market, gender mainstreaming where women are also members of the co-op like men and have equal say, women are also getting and manage their money like men. There is a balanced consensus in homes than before because of co-op's principles and values.

The causes of these changes are: Good government policies and laws on co-ops, commitment of members, support of development partners including government, continued various trainings and education.

AGASASA particularly became shareholder in Gikonko Rice Company through union — UCORIBU.

Supplementing his colleagues, a respondent said *“Luckily, when Rwanda Co-operative Agency intervened, issues were sorted out against bad leaders and local authorities who had*

negatively interfered in our affairs. Our major wish is to have good leaders; those who do not focus on their own interest or the interests of their family members. Otherwise, we (ordinary people) are fine and we live sociably.”

The community also has changed in both good and bad: many households have acquired assets (livestock, furniture at home, etc.) and school fees; people bought new land, constructed new houses, diversified activities that generate extra incomes; small animals have been acquired and shelter, health care improved.

The role of the co-operatives in the community as far as these changes are concerned are: Employment opportunities, enhanced child education, improvement in social welfare of the community, infrastructure development, social support and cohesion, business development (small shops were introduced around).

In some years to come, the community will have reduced poverty at household levels, based on the good working environment in the country. Co-operatives will be very strong, highly income generating than today and highly responsive to the members’ needs than it is today.

An old respondent reported that “... *Working individually could not reduce my poverty, and as you see I am old. Yet, I had to survive! I joined others because I believed that they will help me. Now you can see; I am fine. I do hope for a better future”.*

Another one added “... *Currently, I cannot invest the money I get from rice growing, because I pay all the money received for the school fees of my children and they are many. But when they finish their studies, I shall be able earn, save and invest like others”.*

Focus group discussion members declared that most children may join service co-ops but not agricultural co-ops. They wish their children to do more income generating jobs than what their parents are doing.

vi. Services Received from SACCOs

All AGASASA members have accounts in Impamba SACCO because it has been created by rice growers under UCORIBU including AGASASA co-op. All members of CORIKA have accounts in Jabana SACCO.

FGD members revealed that SACCOs offer them different services such as: Credit, advisory and trainings, profits/commissions at end of the financial year depending on shares held, and interest (profits) on savings.

Furthermore, members of each one of both co-operatives pointed out they are the ones to benefit services and dividends of their co-op.

FGD members reported that there special benefits for the union members which other members do not get: easy acquisition of inputs and marketing of produce, easy transport, group security in buying shares in rice processing plant, easy acquisition of inputs and marketing of produce, easy transport, strengthen primary co-operatives in advocacy, access to good markets and fertilizers or raw materials, conduct education and training, provide advise and/or arbitration, promote the savings culture among co-operative members and AGASASA is affiliated to UCORIBU. Both CORIKA and AGASASA are members of federation (FUCORIRWA). The federation also gives better services of capacity building.

In addition, members declared that men and women are equally served by SACCOs. For nonmembers SACCOs can only offer loans and savings culture promotion. And this is equally done as well as for men and women.

The existence of SACCOs in the rice growers' areas allowed the adjacent community to access to financial services which was not the case before. Both co-operative members and nonmembers, all benefit from the SACCO services because they are all members.

Commenting on the permission of rice growing co-operative members to have double or more membership in SACCOs, a respondent from CORIKA underlined that “We are happy that the

law allows us to be members of different SACCOs, joining *different SACCOs helped me to get loans and invest in different income generating activities. I have paid back and now I intend to go back.*” However, caution is needed to avoid defaulters to increase, seeking loans from different SACCOs.

SACCOs helped to promote education of children, development of farming and stock farming and equally help to promote the livelihood of the surrounding community which commend the existence of SACCOs close to them.

vii. Suggestions

Participants of FGDs (members, leaders and employees of co-ops) wish more trainings on project design and management, good governance, financial management, rice growing extension services and exalt the co-operative spirit through principles and values.

4.3 Validation Workshops

We conducted three validation workshops as had been indicated in our action plan. One was held at AGASASA with the general assembly. The attendance was seventy-five, including fifteen nonmembers and two local leaders.

The second validation workshop was held at CORIKA, with eighty participants from the general assembly, two local leaders including SCO and nine nonmembers. It was hard to get a big number of nonmembers since it required more time for the local leaders to invite them, which is normally simple to get them during the community work (Umuganda) that is held every last Saturday of every month.

The third validation workshop is the one that was held on February 26, 2016, at UNILAK; that brought together participants from NCCR, RCA, CCA, Umwalimu SACCO, researchers from different Institutions and UNILAK and Few students from Co-operative management from UNILAK. We had twenty-five participants.

Major recommendations from the validation workshops include;

1. There is need to update the policy, as the one being used was formulated and approved in March 2006. It should be updated to cater for the current situation
2. Trainings on co-operatives' members, leaders and employees should be inevitably intensified, as they increase members' ownership, thereby transforming co-operatives into member-owned, member-controlled and member-benefited
3. NCCR and Local authorities and development partners were urged to assist in youth and women mobilization to join and actively participate in Co-operatives affairs
4. Increase on the gender awareness in co-operatives
5. Mobilize nonmembers to join or form formal co-operatives and be facilitated to get legally registered
6. Government and development partners to continue their support to co-operatives, especially in capacity building
7. There is a wish to conduct similar researches to other sectors like services, mining, coffee and tea, horticulture and diary subsectors respectively.
8. The co-operative movement of Rwanda should intensify on networking with other regional co-operative movements for information and best practices sharing.

5. General Conclusion

This collaborative research, which was carried out in Rwanda, Tanzania, Uganda, and Northern Canada, was designed to examine the role of the Integrated Co-operative Model (ICM) in rural development and poverty reduction in rural African communities, as well as a type of co-operative integration in Canada.

Based on this research findings, one can confidently affirm that working within this integrated model, co-op members identify opportunities and make choices, working together to attain both individual and collective goals that increase food production and productivity, create linkages to larger markets and access to better prices, and provide access to affordable financial services.

The research aimed to add to the knowledge of how to improve livelihoods and reduce poverty in a sustainable way in rural communities. We can affirm that the research fully achieved all its objectives.

Although we can say that co-operatives are integrated by default; with regard to the co-operatives structures of production, marketing and accessibility to financial services through (Imirenge) SACCOs in place; a lot more needs to be done under the combined efforts of the policy-makers, actors, practitioners, development partners and all other end-users; to make this movement more viable and vibrant; for it to respond to its members' needs. More efforts are needed on capacity building — skills and know-how knowledge provision to members, leaders and employees of co-operatives, as well as the co-operatives extension services providers.

References

- Birchall, J. (2003). *Re-discovering the co-operative advantage: Poverty reduction through self-help*. Geneva: International Labour Organization, pp 20-25.
- Chambo, S.A. (2009). “Agricultural Co-operatives: Role in Food Security and Rural Development.” Paper Presented to Expert Group Meeting on Co-operatives held on 28 – 30 April, 2009, New York. pp 3-10.
- Chambo, S.A. (2011). “The Role of Co-operatives in Socio-Economic Development of Africa; Opportunities and Challenges.” JOINT ICA/SCC-Vi/IFAD Rural Finance Thematic Workshop, Moshi-Tanzania; pp. 1–12.
- Chapman, Jessica Marie. (2012). “Co-operatives and poverty reduction in Rwanda,” available at [www. Hampshire.edu/news/20963.htm](http://www.Hampshire.edu/news/20963.htm).
- COOPAFRICA. (2009). « Coopératives en Afrique : l’âge de la reconstruction — Synthèse d’une étude menée dans neuf pays africains. » Document de travail n° 7, Tanzania.
- CORIKA. (2015). Annual Activity report, Gasabo, Rwanda.
- COPRORIZ AGASASA. (2015). Annual Reports, Nyanza, Rwanda.
- Enrique, C.G. (1986). “Co-operatives in Third World Development: Workshops on basic issues and case studies.” Nova Scotia, Canada, pp. 33–41.
- Develtere, P., Pollet, I., and Wanyama, F. (2008). *Cooperating out of Poverty: The renaissance of the African co-operative movement*. International Labour Office and World Bank Institute, Geneva.
- Kantengwa, Angélique. (2010). “Financial Co-operatives in Rwanda: Historical Background and Regulation.” Kigali, Rwanda, pp. 3–12.
- Ministry of Finance and Economic Planning. (2015). “Economic Development Indicators Report.” Kigali, Rwanda.
- Ministry of Trade and Industry. (2006). “Policy on Cooperatives Promotion.” Kigali, Rwanda.
- National Institute of Statistics of Rwanda. (2016). “Researchers and Surveys on Agriculture.” Kigali, Rwanda. www.statistics.gov.rw.
- Pollet, Ignace. (2009). “Co-operatives in Africa: The age of reconstruction — Synthesis of a survey in nine African countries.” CoopAfrica/ILO, Dar es Salam, Tanzania; pp. 4–25.

Republic of Rwanda. (2007). Law N0. 50/2007 of 18/09/2007, as amended to date providing for establishment, organization and Functioning of Co-operative Organization in Rwanda, Official gazette. Kigali, Rwanda.

Rwanda Co-operative Agency. (2015). "Annual Activity Report," Kigali, pp. 3–43.

Tripathy, S.N. (2010). *Co-operatives: Its Growth and New Dimensions*. Discovery Publishing House, India.