

Research Application Summary

Socio-economic contribution of coffee to farmers in Rwanda: A case of Muhondo sector, Gakenke district

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Abstract

This paper presents results from the study which was aimed to analyse socio-economic contribution of coffee to farmers, the case of Muhondo sector, Gakenke district. The study was conducted through Terimbere Kawa Yacu cooperative with sample size of 63 respondents. Data was collected using questionnaires, interviews were tabulated based on the frequencies of responses. The responses were analysed descriptively and reported as percentages as well as presented in charts. The results indicate that coffee growers in the study area, 36 percent of respondents have earned the amount of money above 1080 USD as income per year. The earned income helps coffee farmers to improve farmers' households especially for schooling their children, getting health insurance and starting small businesses. 84 percent of respondents use their own money to invest in coffee production while 12 percent use loan from the bank. The low rate of using bank loans is that people in the study area have no reliable information about profitable business because majority of coffee growers attended primary schools and others never attended schools. The income generated from coffee farming contributes to the livelihoods of farmers where 71 percent of income is used in basic needs including food, clothes and shelter, affording domestic animals and other activities that improve their standards of living, 8 percent is used in schooling of children, 11 percent in health insurance and 10 percent is used for starting small off-farm businesses. Coffee improves social life conditions and economic development of coffee farmers. The researcher recommends the government to improve the partnership between National Agriculture and Export Board (NAEB) and its partners to contribute to increase of investment in industry and infrastructure meant, improvement of technical and skills of growers for adding value to coffee.

Key words: Coffee, contribution, economic, farmers, social

Résumé

Cet article présente les résultats de l'étude qui visait à analyser la contribution socio-économique du café aux agriculteurs, le cas du secteur de Muhondo, district de Gakenke. L'étude a été menée par l'intermédiaire de la coopérative Terimbere Kawa Yacu avec un échantillon de 63 répondants. Les données ont été recueillies à l'aide de questionnaires, les entretiens ont été tabulés en fonction des fréquences de réponses. Les réponses ont été analysées de manière descriptive et rapportées sous forme de pourcentages ainsi que présentées dans des graphiques. Les résultats indiquent que les producteurs de café dans la zone d'étude, 36 % des répondants ont gagné une somme d'argent supérieure à 1080 USD comme revenu par an. Le revenu gagné aide les producteurs de

café à améliorer les ménages des agriculteurs, en particulier pour la scolarisation de leurs enfants, l'obtention d'une assurance maladie et le démarrage de petites entreprises. 84 % des répondants utilisent l'argent de leur propriétaire pour investir dans la production de café tandis que 12 % utilisent un prêt bancaire. Le faible taux d'utilisation des prêts bancaires est que les habitants de la zone d'étude ne disposent d'aucune information fiable sur les activités rentables car la majorité des caféiculteurs ont fréquenté les écoles primaires et d'autres n'ont jamais fréquenté les écoles. Les revenus générés par la culture du café contribuent aux moyens de subsistance des agriculteurs où 71% des revenus sont utilisés pour les besoins de base, y compris la nourriture, les vêtements et le logement, l'achat d'animaux domestiques et d'autres activités qui améliorent leur niveau de vie, 8 % sont utilisés pour la scolarisation des enfants, 11 % pour l'assurance maladie et 10 % pour le démarrage de petites entreprises non agricoles. Le café améliore les conditions de vie sociale et le développement économique des caféiculteurs. Le chercheur recommande au gouvernement d'améliorer le partenariat entre le Conseil national de l'agriculture et de l'exportation (NAEB) et ses partenaires pour contribuer à l'augmentation des investissements dans l'industrie et les infrastructures, à l'amélioration des techniques et des compétences des producteurs pour ajouter de la valeur au café.

Mots clés : Café, contribution, économique, agriculteurs, social

Introduction

Rwanda produces the most wonderful Arabica Bourbon coffee, highly sought after in specialty coffee markets world over. Coffee was introduced to the country in 1904 and was first exported in 1917, quickly establishing itself not only as a major source of income for nearly half a million smaller holder coffee farmers, but also a key of foreign currency for Rwanda. Due to its national importance, the government was closely involved in all stages of the coffee chain: production, marketing and drying milling (Rwanda national coffee strategy 2009 -2012). Coffee has remained one of the most important crops in the country's agricultural landscape, the role of coffee in socio economic activities of the country remained major and never falls below 50%, for the contribution in foreign exchange (MINECOFIN Report, 2003).

The country's long-term development goals are fixed in its vision (Vision 2050) which conceive real growth of 8 percent annually, to be achieved through the deepening of reforms, investment in infrastructure, increased agriculture productivity and skills development. (MINECOFIN 2017). Rwanda Gross Domestic Product (GDP) was worth 10.12 billion US dollars in 2019, according to official data from the World Bank and projections from Trading Economics. The GDP value of Rwanda represents 0.01 percent of the world economy (NISR 2018). Country vision 2020 plan, government set determined goals for its development. Between 2000 and 2020, the country targets per capita GDP growth from 250 USD TO 900 USD, which implies that the overall economy needs to expand by over 60% when population growth is taken into account (Rwanda national coffee strategy 2009 -2012 pp4).

Farmers' associations were created in order to enable coffee farmers to get bargaining power, leading to higher share in the coffee export values. Moreover, the easily obtain technical assistance to produce a higher values coffee. Furthermore, they are likely to invest more in coffee when they are able to sell their product at higher price. The provision of marketing information by OCIR café

to coffee stakeholders is another policy instrument to achieve equity and transparency in coffee industry statement (NAEB, 2015). Coffee is associated with the well-beings of the Rwanda's rural farmers. Hence, there is a need for systematic study to analyze the contribution of coffee production on farmers' well-being. The study was carried out to analyze the contribution of coffee production for the socio-economic development of coffee farmers in Rwanda, especially in Muhondo Sector, Gakenke District.

Coffee research in Rwanda focuses more to its export market, determination of the possible strategic marketing decisions related to the Rwanda coffee export market. In Gakenke District, majority of producers are often small-scale farmers who depend on faceless consumers, involved in subsistence farming with poor living conditions below the poverty line. In most case, the farmers lack sufficient source of income, live in poor housing with poor health conditions. (Mutuelle de Sante). This study sought to analyze the socio-economic contribution of coffee production to the small farmers livelihoods in Muhondo Sector, Gakenke district. The study would help the Government and its partners to formulate policies on how they could improve MUHONDO coffee farmers' livelihoods on the basis of socio-economic contribution of coffee to the farmers.

Description of the study area

Rwanda is a landlocked country in the Great Lakes region of East Africa. Its 26,338 square kilometers are dominated by highlands, giving it the name "Land of A Thousand Hills". The lowest altitude in the country is 950 m above the sea level and it is estimated that 90% of domestic cropland is on slopes ranging from 5% to 55%. Rwanda's climate is conditioned by its landscape: the lower the altitude, the warmer the temperature. The country experiences a long dry season from June to August with heavy rainfall between March and May (Bigagaza *et al.*, 2007). MUHONDO sector is one of 19 sectors of GAKENKE district in northern province of Rwanda. It has 20125 people and it has the area of 54.6 km² and composed with 9 cells which are: Ruganda, Busake, Musenyi, Huro, Musagara, Bwenda, Gihinga, Rwinkuba and Gasiza.

Population and sampling. The study area considered has 108 coffee growers who are normal coming from surroundings area and from this total population, the following formula has been used to determine the sample size:

$$n = \frac{z^2 * p * Q * N}{d^2 (N-1) + z^2 * P * Q}$$

where:

n= Sample size, N= Entire population, Z=coefficient of normal distribution, P= Probability of success, Q= Probability of failure, d= margin error

From the above formula, the selection of respondents for data collection was based on a list of the total coffee growers and selected randomly up to the total of 63 respondents (n=63).

Data collection instruments. Questionnaires were used and a certain number of questions related to the research were designed and given to the farmers located to study area. The questionnaire was prepared in English and translated into Kinyarwanda for the purpose of obtaining accurate information according to the sample that have selected.

Interviews are associated with both phenomenological and positivistic methodologies. Hence, for the study; Structured questions prepared before and interviews had held face to face with interviewer asking and recording answers. The questions were of mixed form that is open-ended and close –ended.

Observation: This method is based on non-verbal behavior and involves sight. The researcher was able to observe the way of living among those farmers, in terms of their houses, lunches, children and ways of living.

Results and Discussion

Educational background of farmers. Results on figure 1 indicate that 56% of respondents have attended primary school, 20% have attended secondary school and 19% attended university school while 5% have never attended the school. The low number of farmers who attended secondary schools and university is due to the low willingness of educated people to engage in farming activities while they are the one who are able to adopt well various techniques of coffee farming and implement new agricultural practices for the aim of increasing the coffee production and income due to high level of critical thinking and ability of making innovation. Education level in Rwanda remains low despite implementation of the policy such as mandatory education for primary school (6 years) and lower secondary schooling (3 years) that is run by state schools. However, the mean number of years that Rwandan spends on education is 3.3 years, which is lower than expectation, lower than the average years of schooling in developed countries and Sub-Saharan Africa, which are 10.0 years and 4.5 years respectively. (HDI report, 2010).

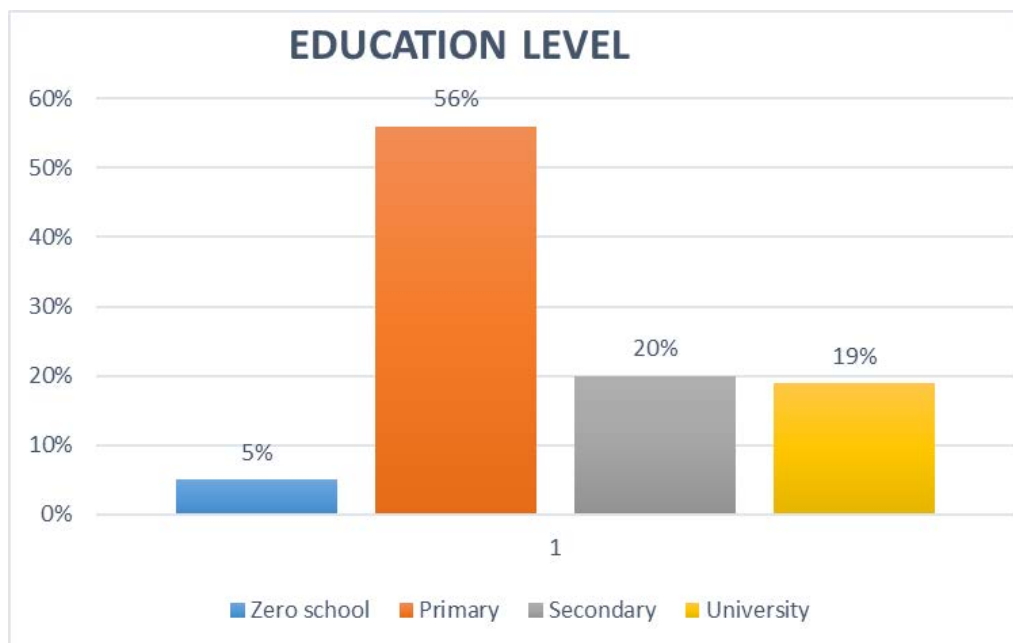


Figure 1. Education level of respondents

Source: Primary data, June 2019

Source of financing investment. Figure 2 shows that 84% of respondents use their own money to invest in coffee production while only 12% are using money from bank as investment, 3% borrow their friend and 1% grow coffee by using donation money as investment. This means that majority of coffee growers use their own money as investment rather than using bank loans. Different reasons may be found behind this. Firstly, people in the study area are not informed about profitable businesses. This can be true in way as this research found, many coffee growers attended primary schools and others never attended schools. Secondly, some of coffee growers are not risk takers, they are afraid of taking risk because they think of falling in loss, and not be able to pay back the loan. This has the negative impact on coffee production and income in way that with a low investment. There will be a low income, and it will not be easy to improve techniques and practices that are being used because some of them will not consider it as a business-oriented activity.

Income generated by coffee. Table 1 indicates that, 36% of respondents have earned the amount money ranging above 1080 USD per year. This means that most of respondents gain more than 90 USD per month. It means that coffee has an important role in this sector, where money earned used in different activities that can improve famers livelihoods. Hence, there is a need to improve coffee farming practices in order to get more yield and money, so the livelihoods of people in that sector will also be improved at higher level.

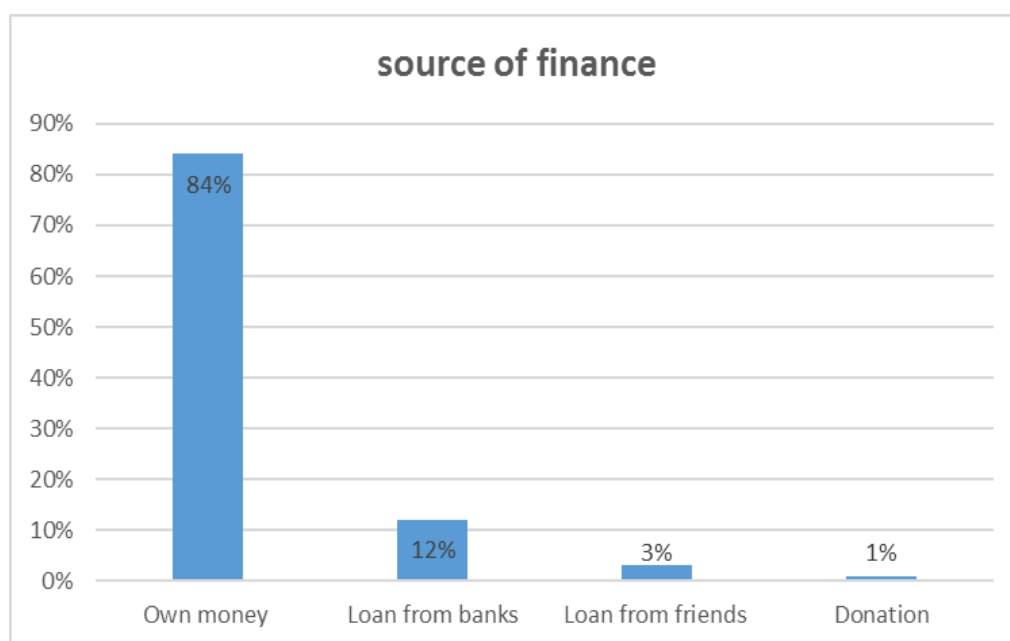


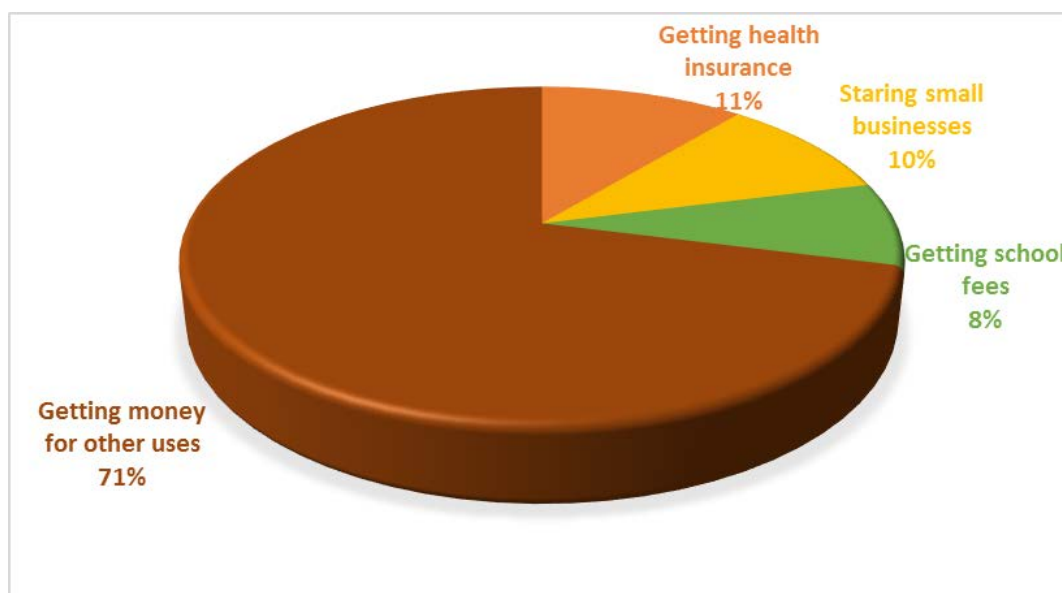
Figure 2. source of financing investment

Source: Primary data, June 2019

Table 1. Amount of money earned from coffee in 2018-2019

Amount of money from coffee in USD	Frequency	Percentage (%)
<360	7	12
360-600	5	8
600-840	13	21
840-1080	14	23
>1080	24	36

Impact of earned income on farmers. Figure 3 results indicate that 71% of money earned from coffee is used for affording daily basic needs including buying food, clothes and shelter, 11% of income is used to pay annual health insurance (Mutuelle de santé) of household members affording domestic animals and other basic activities that improve their standards of living. 10 % of coffee income is used in operating other off-farm businesses, while remained 8% is used for schooling. These results clearly show the positive socio-economic impact of growing coffee in Muhondo sector, where coffee growers are able to: afford their basic needs, afford health insurance, start off-farm businesses and schooling children.

**Figure 3. Coffee Socio-economic impact to farmers**

Source: Primary data, June 2019

Summary and Recommendations

The determination of farmers' coffee income in study area shows that 36% of respondents for instance have earned the amount of money which is above 1080 USD per year of 2018-2019 only. Coffee crops contribute to the improvement of socio life conditions such as numbers of

taking food per day, payment of health insurance of household's coffee farmers. It contributes also to the economic development of coffee farmers such as contribution to the achievement of the field of housing, contribution to the achievement of field of infrastructure, contribution to the investing activities, contribution to the increasing of saving capacity and intervenes in the findings to contribute to education. Thus, coffee crops play a crucial role in increasing national income in our country due to its export. Despite good economic growth and real benefits of liberalizing the coffee sector, more remains to be done to move Rwanda toward its Vision 2020 goal of becoming a stable, middle-income country. Most Rwandans of rural areas coffee farmers leave from the poverty state toward the modern state. Therefore, farmers expect to increase agricultural production hence improving their welfare.

The discussion of results and the conclusion of the study lead to the following recommendations:

- To strengthen the partnership between NAEB and its partners to contribute in increase of investment in industry and infrastructure meant, improvement of technical and skills of growers for adding value to coffee.
- NAEB should determine the strategies to promote and develop Rwandan coffee for the reason that of the role played by this commodity in the national income and economy in general by participating in elaboration of policies for examples: the information may be collected by NAEB and stakeholders on region and international markets and disseminates to local for use and reinforcement of cooperatives.
- Government through local government can group farmers into small group at cell level, where they will be able to save monthly amount for future health insurance and school fees of their children.

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