

Full Length Research Paper

Role of farmers' organizations (FOs) in the strengthening of the technical and organizational capacities of farmers in Mezam Division of the North West Region of Cameroon

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This study was carried out from January 2018 to March 2019 in Mezam Division of the North West Region of Cameroon on the role of farmers organization (FOs) in the strengthening of the technical and organizational capacities of farmers, particularly the case of the Program for the Improvement of Competiveness of Family Agro-pastoral Farms (PCP-ACEFA) and the North West Farmers' Organization (NOWEFOR). The objective of the study was to analyze the role of FOs on the technical and organizational strengthening of the capacities of farmers and the organization in Mezam Division of the North West Region of Cameroon. Secondary sources data were reviewed. Primary source data were obtained directly from the field. Two hundred and eighty (280) farmer members of the farmers' organisations were interviewed using a semi-structured questionnaire and 7 leaders were interviewed using an interview guide. In addition, direct observations were made. The data obtained were analyzed using SPSS. The findings showed that the contribution on the development of technical and organisational capacities of the farmers was overall positive as farmers had improved skills in input supply (51.42%), production (38.57%), and market access (27.14%) compared to non-beneficiaries. The contribution on the strengthening of the organisation as a whole was overall positive since it had permitted FOs to respectively employ technical staff (52.85%) and boosted membership (45.71%) and improved group input supplies and group sales in the organisation. This study concluded that farmers' organizations are pivotal in the strengthening of the technical and organisational capacities of farmers and their organisations.

Key words: Contribution, farmers, farmers organisation, technical and organisational, rural development.

INTRODUCTION

Farmers' Organizations (FOs) emerged in the world due to farmer-felt needs such as sharing of local resources

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and inputs (seeds, breeds, know-how and experience) and market pressures such as prices and access to markets (Msuta and Urassa, 2015:2343). NOWEFOR (2017:2) signaled that farmers organizations play a pivotal role in providing training, sharing of experiences on production and marketing techniques; organization of wholesale purchases of inputs and group sales of farm produce. Gouët et al. (2009:75) highlighted that farmers organizations (FOs) promote rural development by serving as a corridor for sharing information, co-ordinating activities, making collective decisions, creating opportunities for producers to get more involved in value-added activities such as input supply, credit, processing, marketing and distribution on the one hand and create awareness in view of defending farmers interest on the other hand.

In the North West Region of Cameroon, FOs have services such as trainings in agriculture to members, to boost income and well-being at large. Fongang and Fru Mbangari (2017:3) reported that the farmers targeted in order to improve their living conditions through capacity building and training in production and group marketing, appear not to have been empowered in such a manner that will guarantee the sustainability of the farmers' movements. Besides, several studies have been carried out on the evaluation of farmers organizations (Benoit, 2006:15; NOWEFOR, 2012:25) but it appears no impact assessment has been carried out at the individual and organizational levels to show whether the role of strengthening the capacities of by FOs have a positive impact on the farmers. It is for this reason that this study was undertaken to determine the technical and organizational role which have been brought about by FOs on the target population at the levels of the individual and organizational within the framework of poverty alleviation. The objective of the study was to analyze the role of FOs on the technical and organizational strengthening of the capacities of farmers and the organization in Mezam Division of the North West Region of Cameroon.

MATERIALS AND METHODS

Study area

The study was carried out in Mezam Division of the North West Region. Mezam Division is located between latitudes 5°40' and 7°50' North and longitudes 9°80' and 11°51' east of the Greenwich Meridian (<https://en.wikipedia.org/wiki/Mezam>). Mezam has a total surface area of 1,841.45 km² with a total population of 524,127 inhabitants in the 2005 census. The agricultural population is estimated at 258467 inhabitants representing 43.07% of farm families (Republic of Cameroon, 2015). This population belongs to a large set of Ethnic groups, made up of several tribes such Ngemba (Awings, Mankons, Bafuts, Nkwens, Pignins, Akums and Njongs), Mugahkah (Bali), Bei (Baba IIs, Bafochus), etc. (Figure 1). The climate is of the tropical savannah type with two distinct seasons: The rainy and the dry seasons. The rainy season starts from mid-March to mid-October. The dry season is characterized by

winds and runs from late October to mid-March. Vegetation comprise dotted parches, artificial and natural forest, short and thick grasses, hence its name "Grass-field".

Data collection

A descriptive and cross-sectional research design was used to generate data for this study. Data for the study were obtained from two sources: Data from secondary and primary sources. Secondary source data were obtained from relevant literature existing in documents and archives of several structures such as: The central library of the University of Dschang, British Council library in Bamenda, DDARD annual reports, ACEFA activity reports, project reports, evaluation reports and from the internet, etc. In order to characterize these FOs and analyze their activities, secondary source data from DDARD annual reports, ACEFA activity reports, project reports, evaluation reports, baseline studies reports, mission reports and additional information from administrative authorities were used. The information were summarized such as to bring out a clear picture of the type of FOs operating in the region on the one hand and analyses of its partners on the other hand. Primary source data were obtained via observations, interviews (focus group discussions, meetings) and the administration of questionnaires to the beneficiary farmers covered by the FOs.

Sampling

A stratified random sampling method was used. The population of the study is divided into strata. Firstly, out of the five Divisions, Mezam Division was chosen because it has the highest number of FOs constituting 41% of the 16425 FOs in the North West Region. Secondly, 1% of the 6725 FOs in Mezam division of the NWR was obtained to constitute the sample size which gave us 70 FOs. Reasoning being that the 6725 FOs was information from the Regional Delegation of Agriculture and Rural Development, but as we went to the field, it was noticed that the information gotten from PCP-ACEFA and NOWEFOR in Mezam, based on accessibility and security was only 403 FOs as shown in Table 1. As such 17% of the 403 FOs in Mezam were obtained to constitute the sample size which gave us 70 FOs. Thirdly, for comparison purposes and following aid intervention, the sample size was also broken down into 40 beneficiary FOs and 30 non beneficiary FOs. Fourthly, Four (04) members belonging to each of the farmers' organisations in the seven Subdivisions' of the aid in Mezam Division were interviewed. These data obtained were analysed using Statistical Package for Social Sciences (SPSS). The non-descriptive statistical tools were used to analyze the findings. These findings are presented in form of simple cross-tables, frequencies distributions percentages and bar charts

Theoretical framework and concepts

Asante-Addo et al. (2016:1) reported that farmer organizations in Ghana contributes or play an important role in the granting of credit and its services to farmers, training them in their activities and increasing membership in their organization. Farmer organizations involve in credit programs because of improved loan access for farming purposes and savings mobilization. Such market smart strategies have the potential to improve farmers' access to timely credit and to reduce rural poverty. For Gouët et al. (2009:3) farmer organization are characterized based on their history, reason of existence, objectives, and ambits of actions, degree of formalization, and their domain of intervention.

All impact assessments embody three main elements: A model of the impact chain that the study is to examine; the specification of

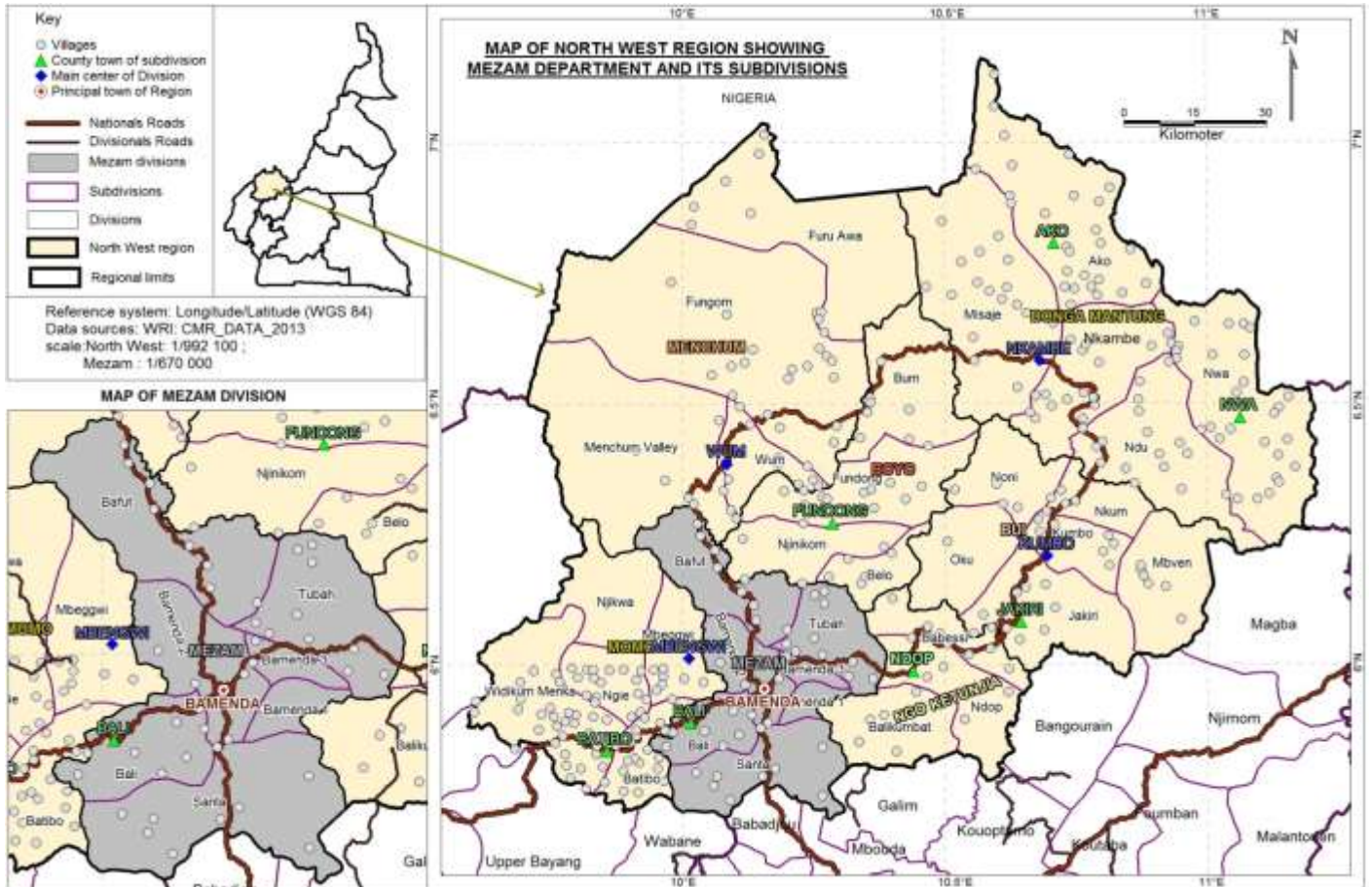


Figure 1. Map of the North West region showing Mezam division.
Source: World Research Institute, 2019.

Table 1. Treatment, control and differences before and after in impact assessment.

| | Treatment | Control | Difference |
|-------------------|-----------|----------|------------|
| Before | 6 | 8 | -2 |
| After | 12 | 10 | 2 |
| Difference | 6 | 2 | 4 |

Source: Bilal (2014).

unit(s) or levels, at which impact is assessed and the specification of the type of impact that are to be assessed. Impact Assessment (IAs) measure the difference in the key variables between the outcomes on "agents"(individuals, enterprises, household, community, etc.), which have experienced an intervention against the values of those variables that would have occurred had there been no intervention aid program (Hulme, 1997). Masud and Yontcheva (2005) measured the impact of external aid on Human Development indicators such as infant mortality and illiteracy using regression and the findings revealed that increased health expenditure per capita reduces infant mortality as does greater NGO aid per capita. In order to conduct a valid impact assessment, researchers first need to define their overall strategy which sets the

course for the rest of the research process (Hulme, 1997; Koehler et al. 2007). Another non-experimental methods of impact assessment as agreed upon by the World Bank is the difference-in-differences and this method relies on key assumptions. For instance difference #1 compare over time, the situation before and after the program whereas difference #2 compare the treatment and control groups so as to measure changes between the outcomes on individuals, organizations, communities, etc. He argued that impact assessment is better achieved when the before-after and with-without approaches are combined to an overall treatment effect (Bilal, 2014) as indicated in Table 1.

Alternatively the study sought the indicators of role of FOs on the technical and organizational strengthening of the capacities of

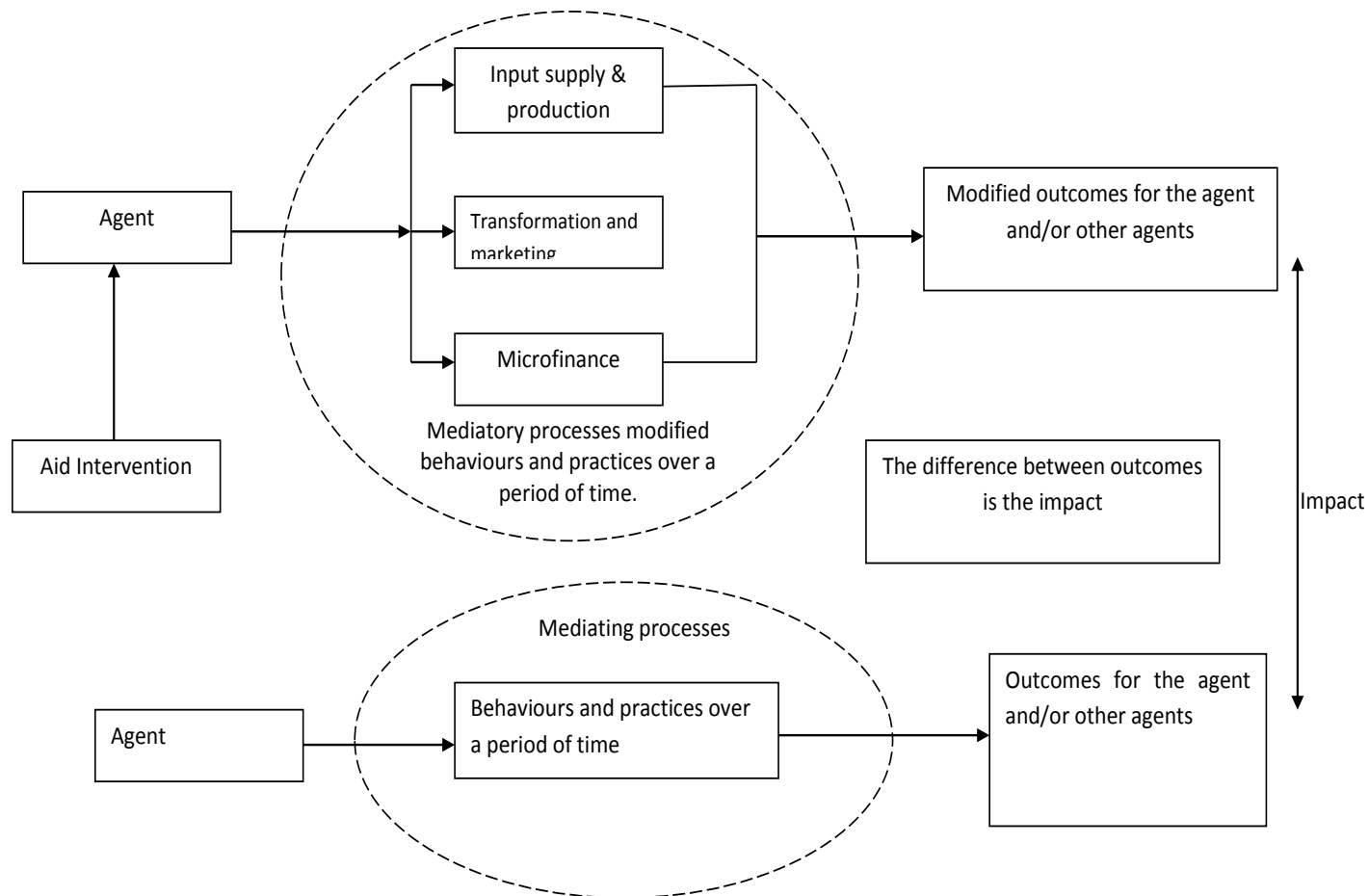


Figure 2. The operational model of the Impact chain for the study. Source: Adapted from Hulme (1997:26).

farmers and the organization in the Region through an impact assessment of the observable and measurable changes between the outcomes on “agent” (individuals and organization) that have experienced aid interventions against the values of those variables that would have occurred had there been no aid intervention as shown in Figure 2. The findings will help concerned policy makers (PCP-ACEFA, SOS Faim Luxembourg and European Union) to take appropriate decisions in formulating aid assistance strategies that will help improve the living conditions of farmers and FOs.

RESULTS AND DISCUSSION

Socio economic characteristics of respondents

The main characteristics concerned here are sex, age, marital status, education and main income generating activities illustrated in Table 2.

As revealed by Table 2, women generally constitute 52.85% and men constitute 47.14% of the total respondents mean while the fraction of women beneficiaries stands at 27.14%. The percentage of women beneficiaries (27.14%) could be explained by the fact that

one of the priorities of FOs was for their contribution to reach out to more women who were considered as the marginalized group in the division. The predominance of men in crop and livestock production as observed in this study is in agreement with the findings of Defang et al. (2014) who report that pig production is dominated by men in the urban and peri urban zones in Dschang-West region Cameroon.

Overall, 71.42% of the total respondents were between the age group 25 and 45 years. The mean age of the respondents was 40 years (± 5) indicating that a high proportion of the middle age respondents were involved in production. This is in line with the findings of Defang et al. (2014) who signal that majority of the adult (middle age) population of the society are involved in livestock production. A fraction of the active rural population of this division found between 25 and 45 years is therefore looked upon as the initiators of the development of crop and livestock production. Thirty percent (30.00%) of the respondents are aged 55 years. This increased in number of the old population could be explained by the

Table 2. Distribution of respondents by sex, age group, marital status, level of education and main income generating activity.

| Parameters and characteristics | Category of beneficiaries | | |
|--|---------------------------|-----------------------|----------------|
| | Beneficiaries (%) | Non beneficiaries (%) | Total [280(%)] |
| Sex | | | |
| Male | 84 (30%) | 64 (22.85%) | 148(52.85%) |
| Female | 76(27.14%) | 56 (20%) | 132(47.14%) |
| Age groups | | | |
| 25-35 | 56(20%) | 96(34.28%) | 152(54.28%) |
| 36-45 | 32(11.42%) | 16(5.71%) | 48(17.14%) |
| 46-55 | 20(7.14%) | 12(4.28%) | 32(11.42%) |
| >55 | 52(18.57%) | 4(1.42%) | 56(20%) |
| Marital status | | | |
| Single | 16 (5.71%) | 36(12.85%) | 52(18.57%) |
| Married | 128(45.71%) | 76(27.14%) | 204(72.85%) |
| Widow(er) | 16(5.71%) | 0(0%) | 16(5.71%) |
| Divorced | 0(0%) | 8(2.85%) | 8(2.85%) |
| Level of Education | | | |
| Primary | 28(10%) | 24(8.57%) | 52(18.57%) |
| Secondary | 8(2.85%) | 24(8.57%) | 34(12.14%) |
| 2 nd cycle secondary | 52(18.57%) | 72(25.71%) | 124(44.28%) |
| Higher | 32(11.42%) | 0(0%) | 32(11.42%) |
| Main income generating activity | | | |
| Market gardening | 32(11.42%) | 20(7.14%) | 52(18.57%) |
| Broilers | 64(22.85%) | 40(14.28%) | 104(37.14%) |
| Piggery | 72(25.71%) | 52(18.57%) | 124(44.28%) |

fact that they were already based in the rural areas. Eleven percent (11.42%) of the respondents were between the age group 45 to 55 years.

As revealed by Table 2, 72.85% of the respondents were married and among them 45.71% were aid beneficiaries. Eighteen percent (18.57%) of the respondents are single and only 5.71% of them are beneficiaries. This 18% of the respondents who were single appears to be those who were found between the age group 15 to 35 years. This could be explained by the fact that they do not have responsibilities and access to land for farming. The high percentage of married respondents in the study zone agree with the results of Defang et al. (2014) and Fotso et al. (2014) in the West Region of Cameroon who highlighted that majority of the adult population of a society consist of married people. The implication of this is that housewives were still predominantly used as family labour for light farm operations.

As shown on Table 2, 100% of the respondents have a level of education comprising between primary, secondary and higher schools and 42.85% of them are beneficiaries. The high rate of the respondents in this study who had formal education agrees with the findings of Defang et al. (2014) who reported that a higher percentage of pig

farmers in the urban and peri - urban zone of Dschang - West Region of Cameroon had formal education. Education may be of assistance to extension and FOs staff for easy communication and understanding of extension message, especially for application of new technology in swine production and management. The fact that 100% of them are literate could facilitate trainings, extension, advice, monitoring and evaluation. The implication is that literate farmers might be more likely to adopt good farming and health-management practices.

As shown in Table 2, 18.57% of the respondents are involved in market gardening as their main source of income. They are mostly youths who are single and found between the age group 15 to 35 years. This could be explained by the fact gardening requires much physical efforts and adequate technical know-how. Thirty seven percent (37.14%) of the respondents who are involved in broilers production are found between the age group 35 to 55 years. This could be explained by the fact that broiler production requires little physical efforts and is very profitable and also one of the conditions for farmers to received support in poultry was for them to have a poultry house. Forty four percent (44.28%) of the respondents who are aged 55 years and above and are

Table 3. Distribution of respondents by acquired skills and abilities in farm business.

| Parameters characteristics | and | Category of beneficiaries | | |
|-----------------------------------|-----|---------------------------|-----------------------|-----------------|
| | | Beneficiaries (%) | Non beneficiaries (%) | Total [280 (%)] |
| Input supply skills | | | | |
| Increased | | 144 (51.42%) | 24 (8.57%) | 168 (60.00%) |
| Constant | | 8 (2.85%) | 96 (34.28%) | 104 (37.14%) |
| Decreased | | 8 (2.85%) | 0 (0%) | 8 (2.85%) |
| Improved production skills | | | | |
| Increased | | 108 (38.57%) | 32 (11.42%) | 140 (50.00%) |
| Constant | | 28 (10.00%) | 68 (24.28%) | 96 (34.28%) |
| Decreased | | 24 (8.57%) | 20 (7.14%) | 44 (15.71%) |
| Improved marketing skills | | | | |
| Increased | | 76 (27.14%) | 32 (11.42%) | 108 (38.57%) |
| Constant | | 28 (10.00%) | 64 (22.85%) | 92 (32.85%) |
| Decreased | | 56 (20.00%) | 0 (0%) | 56 (20.00%) |

Table 4. Group marketing of produce (gardening, broilers and piggery) in NOWEFOR.

| Period | Speculation | No. of group sales | Quantities sold | Average prices per unit (in FCFA) |
|-----------|-------------|--------------------|-----------------|-----------------------------------|
| 2007 | Gardening | | 2010 tons | 140 per kilogram |
| | Broilers | 40 | 50000 birds | 3200 per chicken |
| | Pigs | | 800 pigs | 65000 per average pig |
| 2008 | Gardening | | | 2600 tons |
| | Broilers | 76 | 70000 birds | 3500 per chicken |
| | Pigs | | 1000 pigs | 72000 per average pig |
| 2009 | Gardening | | | 3500 tons |
| | Broilers | 114 | 95000 birds | 3700 per chicken |
| | Pigs | | 2000 pigs | 76000 per average pig |
| 2010 | Gardening | | | 4700 tons |
| | Broilers | 225 | 110000 birds | 3800 per chicken |
| | Pigs | | 2100 pigs | 82000 per average pig |
| 2011-2014 | Gardening | | | 5500 tons |
| | Broilers | 950 | 150000 birds | 4000 per chicken |
| | Pigs | | 4000 pigs | 85000 per average pig |
| 2015-2017 | Gardening | | | 6000 tons |
| | Broilers | 970 | 140000 birds | 4000 per chicken |
| | Pigs | | 45000 pigs | 90000 per average pig |

mostly involved in piggery. It is observed that the old are mostly involved in piggery because it requires little technical knowledge and physical efforts though not very profitable compared to poultry.

Contribution of FOs to technical and organizational capacities of farmers

The contribution of FOs on improved production skills,

organization of group sales and input supplies are presented in Tables 3 and 4.

Contribution at the level of the farmer

As revealed in Table 3, 51.42% of input supply skills and abilities of the beneficiary farmers increased compared to 8.57% of the non-beneficiaries. Table 3 also reveals that 38.57% of improved production skills and abilities of the



Figure 3. Training of trainers' workshop at NOWEFOR.



Figure 4. Training of farmers in Mforyah on improved techniques on reduced chemical residues tomatoes production.

beneficiary farmers increased compared to 11.42% of the non-beneficiary farmers. Twenty seven percent (27.14%) of improved marketing skills and abilities of the beneficiary farmers increased compared to 11.42% of the non-beneficiary farmers. This could be explained by the fact that FOs has empowered their members or farmers through capacity building sessions and workshops so as to enable them to fully assume their roles and pilot their farm businesses. Figure 4 shows a training session conducted by FOs at Mforyah Integrated Farmers Union (MIFU). Also the mission of FOs is to improve the internal organization, strengthen the economic and financial capacities and service delivery to members. As agriculture is the main stay of the people, investing in its promotion and the strengthening of the capacities of farmers is important for poverty alleviation and farmers empowerment

The farmers were trained on input needs assessments skills, improved production techniques and marketing for

viable commodity chains such as market gardening, poultry piggery, ginger, etc.. Usually before any training of farmers commenced, a training of trainers' workshop was organized that brought together farmer resources persons, agriculture and livestock officers of the Ministries of Agriculture and that of Livestock and local partner organizations to harmonize the training packages per subsector of production like market gardening, poultry and piggery. The farmers were trained on thematic areas such as joint inputs needs assessments, joint commands and negotiations for bulk inputs, group supplies and distribution as shown in Figure 3.

The following strategies were used to implement the training at the farmer level in and around Mezam Division.

Building farmers capacities: After more than ten years of collaboration between NOWEFOR and farmers both parties recognized that NOWEFOR had acquired

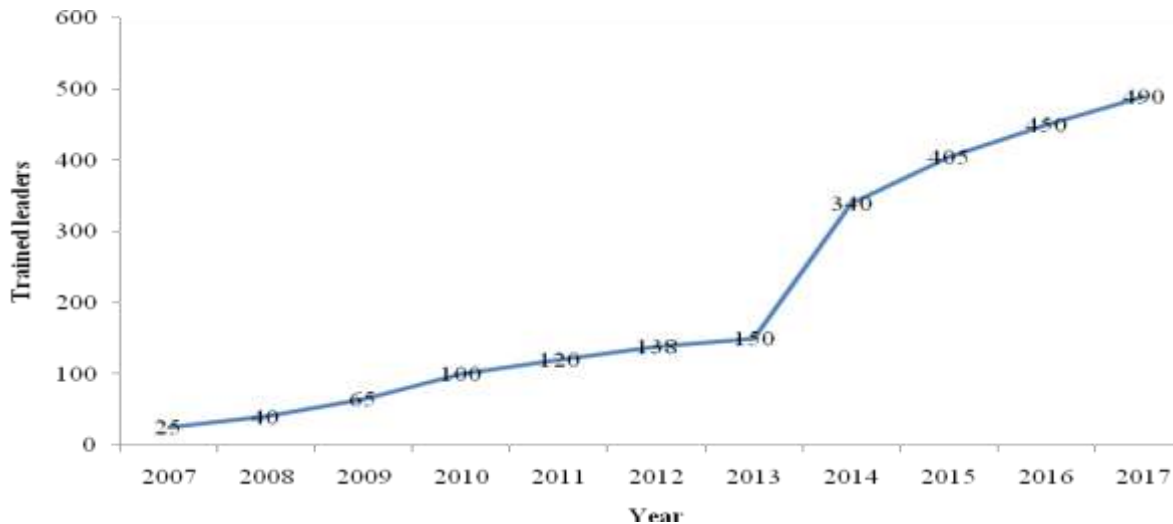


Figure 5. Evolution of trained farmers of NOWEFOR.

sufficient capacities to assume its organizational responsibilities. In 2008, NOWEFOR put in place a successful system of peer training which has been extended to all unions and farmers. This system consisted of identifying elite farmers and some who have capacities to organize trainings for other peer farmers. These resource persons collaborated with project staff to design training modules and technical slips and implemented the trainings. These training modules served as guides to farmer resource persons to continue offering training to other farmers after the workshop ends. The technical slips were distributed to farmers as reference during farm management. Participatory adult learning tools and skills were used to facilitate the trainings. This included brainstorming, group works, restitution, role plays and exchange visits.

The number of trained farmer resource persons or leaders increased with time from 25 leaders in 2007 to 490 leaders in 2017 as illustrated in Figure 5

Evolution of the contribution and targeting: The FOs followed a rolling approach in implementing the trainings. They proceeded from a nucleus of farmers who met up with the performance criteria as follows:

1. Have paid annual dues and all other levies in the union
2. Been registered in the credit house
3. Not be a delinquent member
4. Been a producer (have a current farm)
5. Been saving at least once a month in the credit house
6. Must have been in the union for at least 2 years
7. Must be resident in the Zone
8. Must not be on a permanent salary

The trainings sessions or workshops started up with more experienced farmers and peer training system was used,

thus reducing training cost and at the same time built a strong success base for subsequent expansion. New farmers were therefore taken care of when they have also met their minimum performance criteria as it played a big role on material obligations and financial contributions.

Production sector approach: The commodity chain approach was used here to develop crop and livestock production. This entailed working on key areas along the value chain from production to marketing of products. In this approach farmers were organized around the main commodities; market gardening, poultry and pig production. This organization was needed to facilitate training of farmers and exchange of experiences amongst a critical number of farmers involved in a particular production chain. Once farmers were organized, group input need assessments, group commands and supplies of inputs were easily carried out as illustrated in Figure 6. To succeed in this approach, local management committees were elected and trained to handle the input supply mechanisms. This was needed to ensure the continuity of the actions by the local farmer leaders after the initial aid period. Group commands and better negotiation of prices developed the negotiation capacities of the individual farmers. It also enhanced economies of scale and gains in price reductions during the purchase on inputs. Because large quantities were commanded at a time, the transportation of the supplies was facilitated. Farmers had inputs on time in their communities. This approach also facilitated timeliness in farm activities and thus increased the productivity of the agricultural enterprises.

Integration of livestock and crops / promotion of organic manure: Crop and livestock integration was the



Figure 6. Group input supply of cement and chicks to boost poultry subsector in Bambui.



Figure 7. Farmers in Mfoyah receiving piglets and feed through FOs to boost pig subsector.

principle promoted. These farmers were trained amongst others to manage organic manure from their livestock farms and to integrate this in their gardens. NOWEFOR has experience in manure management and the production of low external input – chemical residue free market gardening crops. This focus on biological agriculture was needed to maintain the quality of the products and therefore fetch better prices for the farmers. The integration of organic manure also promoted soil fertility conservation and improvement. As the province is witnessing rapid fertility depletion, organic manure will help redress this situation and maintain high yields. The integration approach reduced future dependence of

farmers on inorganic, expensive, scarce and environmentally unfriendly manure.

Direct production assistance: Farmers after receiving training on improved production skills per subsector were provided with necessary productive resources to scale up or start up their enterprises. The external input was combined to local dynamics and local contributions to realize the projects. And as such this partnership was needed for the appropriation of the actions. Inputs provided included seeds, piglets, chicks, manure, agrochemicals, etc. as shown in Figure 7. However, farmers were trained to control the use of these products

in the expansion of their farms. Farmers were also trained on integrated pest management and product handling. All of these were to ensure that the products were of high quality and with very low chemical residue value. Farmers had developed competencies in low chemical residue value tomatoes production. By combining the use of low levels of agrochemical inputs and natural methods of crop protection, farmers had produced tomatoes with less than 5% chemical residue values.

Participatory approach: FOs works in a participatory manner in its intervention approach. The idea to professionalize the production chain was identified in November 2006 during the follow up mission of SOS FAIM to NOWEFOR. After three days of field visits and discussions with leaders, the two parties saw the need to professionalize a limited number of agricultural speculations amongst which were market gardening, poultry, pig production, ginger, etc. These were chosen according to their economic contribution, the sustainability of the production systems and their contribution to organizational development. Farmer leaders, staff and SOS FAIM's partnership officer carried out joint reflection sessions to put in place the full project proposal and the budget. This process led to the definition of the methodology, the design of poultry houses and profitability thresholds for the production activities, the responsibilities of the farmers, the intervention zones and speculations and sustainability strategies amongst others. The farmers and their leaders contributed materially, financially and provided labour during execution of their self-help assistance projects. The local management committees and animators were to oversee the monthly review of project activities during monthly zonal meetings. The board of directors and executive committee steered the project execution, monitoring and evaluation in collaboration with SOS FAIM and staff.

Input capitalization fund: NOWEFOR had put in place a fund that should permit the farmers to continue to have access to productive resources after aid ends. To build this fund, farmers made financial contributions of up to 10 to 20% of the value of the inputs they received. Without contributions from the farmers, there is a risk of poor appropriation of the project. The approach also enhanced partnership and the development of a self-reliance spirit in the farmers. This fund had as objective to reduce the dependency on future assistance for the acquisition of inputs. An input capitalization bank account was created to host the fund. At the level of the community, the NOWEFOR savings and credit schemes assisted in the collection of the percentages. These percentages were centralized in the input fund's account. At the start of each farming season, community local animators assessed the collective needs of farmers and apply for funds to acquire the inputs as a revolving fund.

To build this fund further, a system of obligatory

savings and commissions on group sales was set up and it served as the farmers' savings. All the commissions and savings were credited to the member's individual savings accounts. The commissions were placed in the time savings account¹ and therefore can only be accessed at the start of farming seasons by the member. Increased savings permitted the farmer to get access to inputs, increase farm sizes, reinvest into the farming activity.

These findings agree with the Community Development Exchange (CDX, 2008) and Horton et al. (2004) who reported that technical skills would enable more people to play an active role in the decision making that affect their organizations. These findings tie with Penunia (2011:2-3) who highlighted that FOs are essential institutions for the empowerment, poverty alleviation and advancement of farmers and the rural poor as follows: Politically, farmers' organizations (FOs) strengthen the political power of farmers, by increasing the likelihood that their needs and opinions are heard by policy makers and the public. These findings confirm with those of Msuta and Urassa (2015:2343) and Shrestha (2015:3) who both highlighted that FOs help farmers gain skills, access inputs, form enterprises, process and market their products more effectively to generate higher incomes. By organizing, farmers can access information needed to produce, add value, market their commodities and develop effective linkages with input agencies such as financial service providers, as well as output markets. FOs can achieve economies of scale, thereby lowering costs and facilitating the processing and marketing of agricultural commodities for individual farmers. Marketing-oriented FOs can assist their members purchase inputs, equipment, meet quality standards and manage the drying, storage, grading, cleaning, processing, packing, branding, collection and transportation of produce.

Conclusively the contribution of FOs on the increased on improved input need assessment and supply skills, production skills and marketing skills was overall positive.

Contribution at the level of the organization

This section presents the contribution of FOs to group marketing and input supplies, evolution of technical staff and membership.

As revealed by Table 3, 27.14% of improved marketing skills and abilities of the beneficiary farmers increased compared to 11.42% of the non-beneficiary farmers. This could be explained by the fact that FOs aims at improving the living condition of farmers. This is usually done primarily by identifying agricultural speculations that are economically viable and facilitating the acquisition of technical and financial assistance to indulge in the

¹ This is a savings product in the NOWEFOR credit houses. Here the farmer saves a predetermined amount over a fixed period of time. He can only access the savings at the agreed period.



Figure 8. Reflection meetings with farmers on how to make the gardening subsector profitable.

production.

Experience of group marketing of tomatoes by market gardening farmers of Mforyah Integrated Farmers Union (MIFU) on the local mastery of the market and organized group marketing

Background

Farmers in Mforyah affiliated to NOWEFOR identified tomatoes cultivation as an important income generating crop in 2009. The farmers in Mforyah Integrated Farmers Union (MIFU) were organized into a gardening sector and received technical and financial assistance to get involved in the production of tomatoes and other assorted garden crops. The gardening sector mobilized a lot of youth farmers in the Mforyah community. It was therefore an important activity to increase the adhesion of youths to NOWEFOR. Tomatoes cultivation entails the used of agro chemical to combat pests. The farmers in this production subsector were trained to limit application of these chemicals to the minimum levels possible so as to chemical residues in the produce. There organic farming was the method being promoted in this subsector. Forty (40) young men and women were involved in the sector in 2009.

High supply and low prices for tomatoes

With the technical and financial assistance received from NOWEFOR, the farmers realized increased production. Each farmer moved from 6 buckets of 15 L of tomatoes per week to between 25 and 40 buckets of 15 L of tomatoes per week. The local markets in Mforyah as well

as the nearby Bambui and Bamenda main markets were therefore flooded with tomatoes and this led to a price drop from 4000 F CFA per 15 L bucket to between 2000F CFA to 2500 F CFA. This situation was not comfortable as the farmers were not receiving satisfactory returns for their produce. The farmers in this production subsector reflected on how to make the production subsector more profitable as illustrated in Figure 8.

Two ideas came up namely how to reduce the supply of tomatoes in the local market and also how to pool the local farmers produce and look for external market outlets.

The farmers adopted a sequential production so as to limit the supply of tomatoes in the local market. Members of the market gardening subsector were grouped into five groups and planting calendar agreed upon to separate planting dates by weeks intervals among the subgroups. This meant that the farmers harvested at different intervals or times and in this way not all farmers took tomatoes to the local market at the same time.

In search for new market outlets, two market gardening sector members were sent to carry out market research in Douala and Limbe. Two bulk buyers were identified respectively in Douala and Limbe.

Pooling of tomatoes and group sales

The buyer in Douala showed a lot of interest and requested the farmers to send 225 kg of tomatoes by mid-December 2009 to be tested for chemical residues. The test on the tomatoes scored 91% while other producers who had also tendered to supply scored respectively 86 and 62%. The bulk buyer (leader price) agreed to buy the produce. The first command or order was placed in December 2009 for the supply of 2.5 tons

of tomatoes at 3500FCFA per basket of 20 kg compared to the 2500FCFA at the local market. The contact farmer mobilized the other members of the production subsector and some of them pooled their tomatoes on the agreed date. This was collected and then delivered to the bulk buyer (Leader Price) in Douala.

Negotiating better marketing arrangements

The farmers experienced constraints in transporting the produce to Douala. These constraints were costs and handling of produce. The problem was presented to the buyer who agreed to take over the transportation aspect. Therefore, a new arrangement was arrived at which entailed farmers to mobilize their produce at the level of the village at the request of the buyer. The buyer then came to the village and paid for the produce and took them to Douala.

The farmers also observed that the perishable nature of the tomatoes meant that they should be the ones to determine when the tomatoes were available. This was also discussed and agreed upon with the buyer. New arrangements were made that the buyer gives the quantities needed for a period of six month and this was to be supply on a weekly basis. Therefore, a contractual agreement was signed between this farmer's organization and the buyer for a six months period on minimum quantities of tomatoes to be supplied monthly. The produce was supplied at a constant rate during the period.

Quality concerns

With the first supply of tomatoes to the buyer, 150 kg of tomatoes (about 10 buckets of 15 L) were rejected for poor quality. This prompted the group members to request for training on integrated pest management from NOWEFOR. Improved techniques on limiting agro-chemical applications to the minimum were dwelt upon and the farmers were fully capacitated in this area. The next supply of tomatoes scored 95.5% after the test. Also the supplies in March and April 2010 scored 100%. In April the farmers received a letter of congratulations from Equatorial Guinea and Gabon. The buyer also called on the farmers to maintain the quality with prospects of increasing the buying price in the future given the quality.

Supplies and incomes

Between December 2009 and September 2010, a total of 25.2 tons of tomatoes were supplied to this buyer. This brought a total income of 4,032,000FCFA to the market gardening farmers in Mforyah. The massive exportation reduced the abundance of tomatoes in the local market.

Farmers producing other varieties for sell in the local market now experience better prices.

Impact of this group marketing of tomatoes in Mforyah zone and NOWEFOR

1. There was secured and regular income for farmers' tomatoes.
2. The farmers were able to acquire inputs as a group from Douala at low prices
3. Improved qualitative and quantitative production by group members (yields changed from 9tons/Ha to 14 tons/Ha)
4. The constant good quality of the tomatoes has prompted the buyer to request other produce namely water melon, sweet pepper, etc.
5. Most idled youth in the community have found employment in market gardening and increased their commitment (annual due contributions) in NOWEFOR activities.

Challenges and perspectives

The challenges and perspectives identified in this market gardening subsector were:

1. Sometimes the farmers are unable to supply the quantity demanded. There is therefore need to increase production while maintaining the quality.
2. This increased in production would there also enable the group contract other buyers to reduce the risk of relying on one buyer,
3. Other farmers from the organization have witnessed the regular income from gardening and have expressed the interest to join the gardening subsector. This means that there is need for assistance to train new farmers who become interested in tomatoes cultivation.
4. Resources are required to indulge in quality production of other produce being demanded by the buyer
5. The Mforyah group marketing experiences has been shared to other communities namely Nchum, Babungo, Batibo, etc. The experienced was first copied from Bambui Union of Sustainable Self-help Groups (BASSUG).
6. More 60 youths are now involved in market gardening production in Mforyah.
7. Production in the zone had increased and new prices of 4500FCFA per basket have been negotiated with buck buyers.
8. Annex business of packaging materials such as baskets is gradually increasing and creating jobs.

In a nutshell, this experience shows that pooling together farmers produce can enable them access special market segments. In this case organic tomatoes are seen to

Table 5. Distribution of respondents by membership strength.

| Parameters characteristics | and | Category of beneficiaries | | |
|----------------------------|-----|---------------------------|-----------------------|-------------------|
| | | Beneficiaries (%) | Non beneficiaries (%) | Total [280(100%)] |
| Membership strength | | | | |
| Increased | | 128 (45.71%) | 24 (8.57%) | 152 (54.28%) |
| Constant | | 16 (5.71%) | 76 (27.14%) | 92 (32.85%) |
| Decreased | | 16 (5.71%) | 20 (7.14%) | 36 (12.85%) |
| Staff strength | | | | |
| Increased | | 148 (52.85%) | 8 (2.85%) | 156 (55.71%) |
| Constant | | 16 (5.71%) | 84 (30.00%) | 100 (35.71%) |
| Decreased | | 8 (2.85%) | 4 (1.42%) | 12 (4.28%) |

have insatiable demand compared to inorganic. This has also engaged a disadvantaged segment of the population (youths) in agriculture. The challenge faced by farmers now is how to increase production while maintaining the quality as they are a ready market. However, the practices involved in the process are not institutionalized. The farmers brought their tomatoes for group marketing at their free will. Also, the bulk buying of inputs at the level of the Douala was done by viable farmers who put money to pre-finance the purchased.

The contribution of FOs on the organization of group sales is presented in Table 4. From 2007 up to 2017 as illustrated in Table 4, the increase in pig, assorted gardening crops, and broilers production continued and the problem of marketing was posed. Once these produces were produced, it was bought at low prices by middlemen who in turn sell them in urban towns at a much better price. The challenge was how to increase the producer's own part of the income from these activities.

Based on this problem raised, NOWEFOR in bit to address this built the capacities of union leaders on improved marketing and group marketing techniques; put in place a marketing network and a marketing fund that would all facilitate the marketing process. After all the necessary measures were taken to ensure good marketing of farmers produce, the number of groups sales or marketing of pigs, assorted gardening crops and broilers as revealed by Table 4 increased from 40 in 2007 to 225 in 2010 making an overall increase of 82%. This increment could be explained by the fact there was easier access to information and trainings, harmonization of marketing strategies and the existence of marketing network that strived for better prices for farmers produce. As a result of this a large number of new producers joined the NOWEFOR unions, based in Based in Bafut, Mforyah, Nchum, Mundum 1 and Bambui. According to the Community Development Exchange (CDX, 2008) an empowered organization is one which is confident, inclusive, organized, co-operative and influential. It is therefore important to reflect on possibilities of

committing members to supply during group marketing as well as participation in bulk buying of inputs.

These results also agrees with NOWEFOR (2017:2) who outlined that farmers organizations also play a vital role in providing training and sharing of experiences on production and marketing techniques; organization of wholesale purchases of inputs and group sales of farm produce; and the implementation of awareness practices that preserve the environment

This finding agrees Fongang and Forbah (2007:2) who reported that farmers' organization (FOs) in Bambui zone of the North West Region of Cameroon contributes in the facilitation of group marketing of tomatoes products for farmers. They further said between December 2005 and September 2006 a total of 25.2 tons of tomatoes were marketed as a group and this brought in a total income of 4,032,000 FRS to the farmers in areas.

It also agreed with Gruère et al. (2009:39) who reported that farmer organizations tin South India play a critical role in the commercialization of underutilized plant species for the benefit of the poor and the conservation of agro-biodiversity.

Furthermore this findings agrees with Fischer and Qaim (2012: 1255), who reported that farmer organizations of small banana holder farmers in Kenya contribute as important catalysts for innovation adoption (trainings, improved varieties, etc) through promoting efficient information flows.

It stemmed from Table 5 that the 45.71% of beneficiary FOs membership rose/increased meanwhile only 8.57% of membership of non-beneficiary increased. The result reveals that 52.85% of the beneficiary FOs staff strength increased against 2.85% of non-beneficiary FOs. This implies that the aid from partners facilitated the increased in membership of FOs, number of trained leaders and the number of technical personnel of the federations.

The evolution of membership and technical staff of NOWEFOR are illustrated in Figure 9. The data in Figure 9 reveals that the membership and technical staff of NOWEFOR respectively rose from 923 and 2 in 2007 to 3100 members and 7 technical staff respectively in 2017.

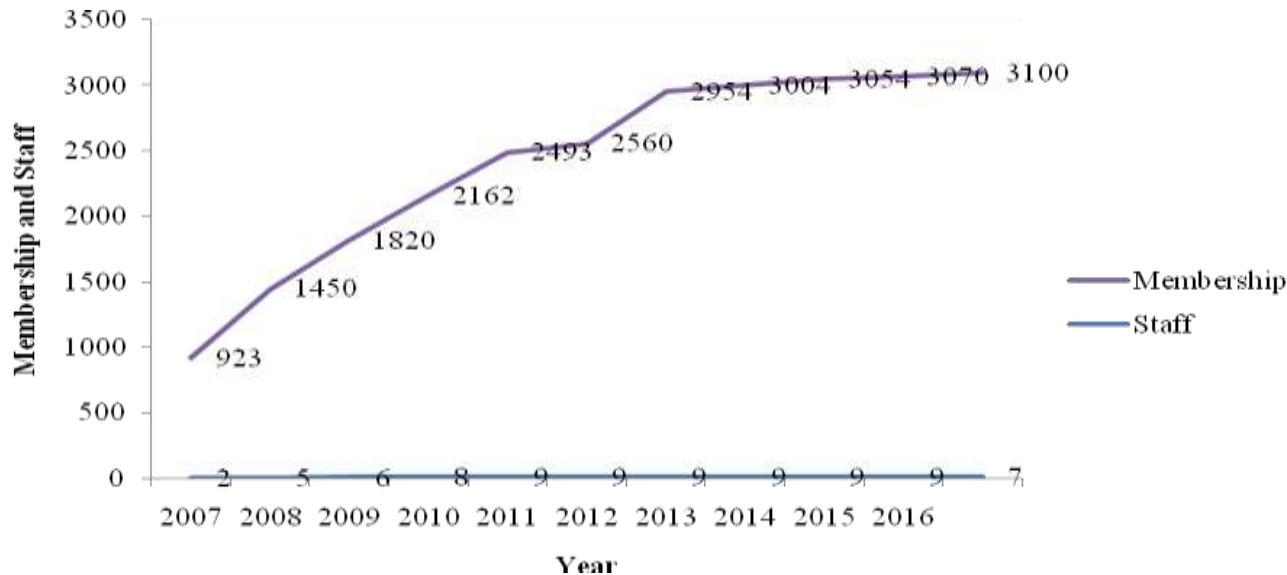


Figure 9. Evolution of membership and staff of NOWEFOR.

It could be concluded from Table 4 and 5 and Figure 9 that the contribution of FOs was overall positive on the increased in membership and technical personnel of the federation. These findings are in line with Czuba (1999) who reported that empowerment is a multi-dimensional social process that helps people gain control over their own lives. These results also affirms with those of Fongang and Fru mbangari (2017:139) who reported that FOs contribution to the promotion membership development and staff strength of organization in the rural community. Furthermore, these findings agree with those of Asante-Addo et al. (2016:1) who reported that farmer organizations in Ghana contributes or play an important role in training farmers in their activities and increasing membership in their organization.

These findings also agree with Arouna (2018:1) who report that FOs involved in group sales in Benin increased the farm income of rice farmers on average by USD 148/Ha and these increases in farm income were boosted by membership in a farmer group, training, and agreement on price. He also stressed that better training and well-functioning farmer groups facilitate group marketing.

Conclusion

Farmers' organizations play a vital role in reinforcement of the technical and organizational capacities of farmers. This study carried out from January 2018 to March 2019 in Mezam Division of the North West Region of Cameroon is therefore aimed at assessing the role of farmers' organizations (FOs) on the strengthening of the technical and organizational capacities of farmers and

organization. Following the findings from the study, it can be concluded that beneficiary FOs members access more than is the case with non-beneficiary members as a result, this enable them to have improved skills in input supply (51.42%), production (38.57%) and market access (27.14%). Lastly, it is concluded that improved technical staff (52.85%), increased membership (45.71%) and improved group input supplies and group sales are strengthened in the organisation. This study concluded that farmers' organizations are very vital in the reinforcement of the technical and organisational capacities of farmers and organisations.

CONFLICT OF INTEREST

The authors have not declared any conflict of interests.

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