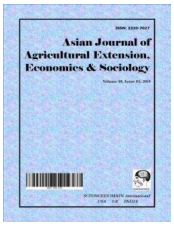

Asian Journal of Agricultural Extension, Economics & Sociology

18(4): 1-11, 2017; Article no.AJAEES.35039
ISSN: 2320-7027

Approaches, Effects and Challenges of Agricultural Advisory Services Experienced by the Program for the Improvement of the Competitiveness of Family Agro-pastoral Farms (ACEFA) in Dja-et-Lobo Division (Cameroon)

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Authors' contributions

This work was carried out in collaboration with all authors. Author GHFF was the lead researcher. Author GHFF designed the study in collaboration with authors MSW and MH. Author MSW did the data collection under author GHFF supervision. Authors GHFF and MH organized the written exercise of the article and shared it with author MSW. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJAEES/2017/35039
Editor(s):
(1) Sait Engindeniz, Ege University, Faculty of Agriculture, Department of Agricultural Economics, Turkey.
Reviewers:
(1) Clement Sohoulande, Texas A & M University, USA.
(2) Muhammad Yaseen, University of Sargodha, Pakistan.
(3) Md. Rezaul Karim, Hajee Mohammad Danesh Science and Technology University, Dinajpur, Bangladesh.
Complete Peer review History: http://www.sciencedomain.org/review-history/20263

Original Research Article

Received 25th June 2017
Accepted 25th July 2017
Published 29th July 2017

ABSTRACT

This article examines the agricultural advisory services support package of the program for the improvement of the Competitiveness of Family Agro-pastoral Farms (ACEFA) and its impacts on Family Agro-pastoral Farms (EFA) and Producer Groups (PG) in the Dja-et-Lobo Division in the Southern Region of Cameroon. The study is based on the survey of 143 Family Agro-pastoral

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Farms, 19 Advisory Agents with 4 Specialized Advisory Agents (SC), 15 Producer Group Advisory Agents (CGP), and the Divisional Technical Unit Head (CTD) of the ACEFA program. It is observed that the agricultural advisory services promoted are done individually and in groups, following a participatory approach at the demand of EFA officials and members of the PG. The actors involve face challenges in the implementation and understanding of the promoted approaches, with some tools that they judged to be too complex. It appears this approach and its tools are not well adapted to suit the profiles and educational level of many EFA and Advisory Agents. The findings contribute to the emerging literature on agricultural advisory services and extension program efficiency. It is suggested that the ACEFA program should adjust its approach and tools to suit the profiles of EFA members and Advisory Agents.

Keywords: Producer groups; family agro-pastoral farms; agricultural advisory services; participatory approach; Dja-et-Lobo Division; Cameroon.

1. INTRODUCTION

The problem of agricultural development in Sub-Saharan Africa has been a major discussion among researchers, some of them outlined the positive effect of agricultural technologies on the food security status [1]. Others focused on insufficient policies and means. For example the top-down approach of agricultural extension, which was the formal method of advisory services based on the diffusion of technical information was experienced and has shown many limitations particularly in terms of taking into account the peasants needs ([2,3,4]). Also, it does not allow the current challenges of improving the decision-making capacities of producers to ensure competitiveness and sustainability of their farms ([5]). Therefore, Ponniah et al. [6] suggest that approaches oriented towards producer's responsibility should be encouraged. In this perspective, agricultural advisory services as a way to aid in the decision and professionalization of EFAs are increasingly being used by producer support organizations in Cameroon. In fact, Havard et al. [7] noted that the agricultural advisory services approach has been experimented since 1998 by the Regional Pole of Applied Research for the Development of Central African Savannahs (PRASAC) in Northern Cameroon, and since 2005 by the Cotton Development Company (SODECOTON) in the same Region. Ngouambé [8] equally reported that this approach has been experimented since 2006 by the Sustainable Development Promotion of the South Agricultural Research Systems project (DURAS) in Southern Cameroon. Since 2008, the Ministry of Agriculture and Rural Development (MINADER) and the Ministry of Livestock, Fisheries and Animal Husbandry (MINEPIA) through the ACEFA program, are experimenting the agricultural advisory services approach in Cameroon. The pilot phase included five of the ten Regions of the country (North, South, West, South West, and Adamaoua) from 2009 to 2013. Agricultural advisory services promoted by the ACEFA program, presently the main support program for MINADER and MINEPIA to, claims to be a different approach from that of other structures/programs supporting rural development such as the National Agricultural Extension and Research Program (PNVRA) put in place in Cameroon since 1990. One of the challenges of the ACEFA program is to see its advisory agents and producers take hold of advisory tools and adapt themselves to the approach being promoted. Thus, after the beginning of the implementation of the ACEFA program in Dja-et-Lobo Division, one wonders what actually makes this package a distinctive approach from that of the PNVRA, and how are producers and advisory agents dealing with this approach. What effects of the ACEFA program are perceived by farmers in Dja-et-Lobo Division? To help answer these questions, this article reports the results of a critical analysis of the agricultural advisory services approach promoted by the ACEFA program and its impact on producers in Dja-et-Lobo from 2009 to 2011.

2. MATERIALS AND METHODS

With a population of about 173 219 inhabitants and a density of 8.7 inhabitants per km^2, Dja-et-Lobo Division in the Southern Region of Cameroon is the area where the data was collected. Its climate is characterized by an average annual rainfall of 1867 mm, and an average temperature of 24.2°C. The data used in this study were obtained through investigations by questionnaires with 103 producers randomly selected through stratified sampling within 61 producer groups (GP). In addition, focus group discussions were conducted with 40 producers, 5

producers per producer group thus 8 groups in total. In addition, semi-structured interviews were conducted with the Divisional Technical Unit Head (CTD); 19 advisory agents amongst which 15 producer group advisory agents (CGP) randomly selected from the 20 who made up the scheme; and 4 Specialized advisory agents (CS). The data from the questionnaire were then analyzed with Microsoft Excel software 2007 and SPSS 17 (Statistical Package for the Social Sciences). Those from semi-directive interviews were transcribed and a thematic analysis conducted.

3. RESULTS AND DISCUSSION

3.1 The Agricultural Advisory Services and Support Model of the ACEFA Program: What Changes with Regards to PNVRA?

3.1.1 Organization of the model

The similarities in the organization of the two models are: the existence of base advisory agents called Area Extension Agent (AVZ) in PNVRA and CGP in the ACEFA program. The specialized advisory agents and an official have to coordinate activities at the Divisional level. The fundamental difference between the two models is the existence of co-management organs (Local Committee of Associations, Divisional Assembly of Associations, etc.) as part of ACEFA's model unlike that of PNVRA where they do not exist. The Monitoring Committee which follows up the extension activities is not operational. Through the co-management organs of the ACEFA program, a greater participation of producers is expected in the definition and implementation of the advisory services and in the management and orientation of the ACEFA program. However, it is early to ascertain full participation of producers in management and in the orientation of the ACEFA program as 93.2% of farmers are not aware of the existence of the co-management organs including their functions and roles.

3.1.2 Intervention approach

Unlike the PNVRA scheme that used a top-down approach, the implementation of the advisory services encouraged by ACEFA is done at the demand of the producers through their affiliated organization and is focused on data collection. Generally, the advisory agents follow these steps in their intervention approach by i) contracting (the signing of an agreement between the CGP and the PG following a demand initiated by the former); ii) characterizing the initial situation and diagnosis of producer groups iii) elaborating the development plans, actions and support (visits, facilitation of co-management organs, etc.) and finally, iv) establishing participative evaluation with the PG and the CGP.

3.1.3 Tools and methods

In the ACEFA program, there is a specific tool for each stage of the intervention process: the convention sheets, producer group characterization records, individual technical and economic specifications of EFA booklets, farm records, monitoring and visit sheets, and evolution of PG. Meanwhile, tools to be used in the intervention process are not specified at the level of PNVRA, which leads to more permissiveness where everyone does what he/she wants in order to get the expected results.

3.1.4 Services rendered

The services offered by the PNVRA are solely agricultural advisory services, especially on technical and financial aspects of productive projects. The ACEFA program offers three types of agricultural advisory services amongst which: (i) technical and economical agricultural advisory services to EFA (through the PG) provided by the CGP and the CTS, (ii) individual management advisory services (to officials of EFA of reference) provided by the CGE and the CGP, and the organization management advisory services provided by the organization management advisory agents (CGO). Moreover, the financing of PNVRA, which was supported by the state budget since 2005 due to the end of the World Bank's support, does not favor the sustainability of its services offered. Further comparison between the elements of PNVRA and ACEFA programs are presented in (Table 1).

3.2 Experiences of Agricultural Advisory Services by Advisory Agents and Farmers

3.2.1 The Profile of agricultural advisory agents

The personnel of the ACEFA program in the Dja-et-Lobo Division is made up of about 45% of advisory agents of age under 45 years, 55% are relatively close to or are of retirement age if we stick to the fact that, for civil servants belonging to the Cameroonian system, the retirement age is 55 years. Moreover, most of them (57%)

Table 1. Some elements of comparisons between the ACEFA and PNVRA programs

Elements of comparism	PNVRA	ACEFA
Training of AVZ	Regular training, 2 times per month in the past and accidentally in the present	No regular training of CGPs
Condition of choice for training topic for AVZ	Programmed at regional and divisional level	Programmed at the national, regional and divisional level and by request of CGPs at the divisional level
Condition of choice for training topic for producers	Following a participative diagnosis with producers done by (AVZ) or done by any other person commission to do it	Following a participative diagnosis with producers done by the CGP
Activities carried out by advisory agents	Centered on the transfer of technological innovation	Centered on management agricultural advisory services
Collection of technical and economic data	Not necessary	Demands that the producers read and write
Training in production approach	Demonstration farm to producers	Absence of demonstration farms

had as highest academic level the "General Certificate of Education Ordinary Level » (GCE O Level) or the "*Certificat d'Aptitude Primaire*" (CAP) with most of them being all CGPs. In addition, 43% of advisory agents had a high school certificate or university degree; they are either CGPs or CS. On the other hand, 37% of advisory agents said they have been in the producer support service for over 20 years, while 31% have been there for less than 10 years. Having used an interventionist approach in the framework of extension for a long time, the transition to a participatory approach as advocated by the ACEFA program has represented a real challenge for a majority of the advisory agents.

3.2.2 The activities of advisory agents

The activities of advisory agents varied depending on whether it was a CS or a CGP. While the CS activities are primarily related to the training of the CGP on mastering and appropriating tools and approaches of agricultural advisory services, technical issues related to production were generally not treated in the framework of this training. Besides, the activities of CGP were much more about structuring the PG (collection of information which can help CGP to follow the stages of ACEFA agricultural advisory services approach). In addition, the observations made during investigations were that the CGPs of less than 45 years emphasized on activities in relation to management agricultural advisory services and are involved in supporting PG in the development of gainful projects. Meanwhile, CGP of over 45 years focused more on technical agricultural advisory services consisting of field visits to the producers and an assessment of difficulties faced in adapting themselves to management tools. (Table 2) provides an exhaustive list of agricultural advisory services activities as outlined by the ACEFA program.

Table 2. Agricultural advisory services activities

Advisory agents	Activities carried out
Technical advisory agents specialize in plant production (CTSPV)	Supports of CGPs through the development of technical specification for cassava maize tomato, watermelon, establishment and management of nurseries, oil palm, cocoyam, fertilizers, COCOA conditioning. In total 15 specifications were developed by the CTSPV;
	Support CGP through practical orientation of PG cultures (pure cultures, profitable association, row planting);
	Deep diagnosis in EFA of the observatory;
	Training in relation to the agricultural advisory services

Advisory agents	Activities carried out
	approach and tools to be used;
	Individual delivery of results to the EFA of the observatory;
	Identification of system pathways to be improved.
Technical advisory agents specialized in animal production (CTSPA)	Supports of CGPs through the development of technical specification for rearing of pigs, chickens, design ponds and hatchery… in total 5 specifications) development of projects for rearing of pigs, chicken;
	Training in relation to the agricultural advisory services approach and tools to be used;
	Individual delivery of results to the EFA of the observatory;
	Identification of system pathways to be improved;
	Development of projects (pigs, chicken).
Farm management advisory agent (CGE)	Support to CGP on the deep diagnosis of EFAs;
	Deep diagnosis in EFA of the observatory;
	Adaptation and provision of farm notebooks administered on the field;
	Follow-up of collection of information in the notebook;
	Analysis of the results found on the farm notebooks using the TOPAZE software program which allows us to carry out economic calculations related to the farm (revenues, expenses, margins, stock value at the beginning and end of the year;
	Individual delivery of results to the EFA of the observatory;
	Identification of system pathways to be improved.
CGO	Support to CGP through trainings (diagnosis, development and management of projects).
CGP	Signing agreements with PG partners;
	Filling of four collective sheets on community life and management of PG, services rendered to the members by the PG and the synthesis of farm systems of EFA who are members of the PG and a techno-economical individual record permitting to know the annual income of each farmer resulting from activities related to agricultural production;
	Diagnosis during which the strength and weakness of the PG are identified;
	Elaboration in a participative way with the members of the PG an annual development plan on the basis of information gotten from the diagnosis;
	Support in the development of projects;
	Support: it is the follow up of the PGs activities through the visits in PG and farms. During which advisory agents provide technical and economic advice following the program elaborated in the action plan to be submitted to individual agricultural advisory services by the CS;
	Choice of EFA must be part of the observatory;
	Support officials of the EFA in individual agricultural advisory services as to how to fill their management notebooks.

3.2.3 Producers involved

75% women and 25% of men make-up the PG followed by the agricultural advisory services - support package of the ACEFA program; most of their ages range between 40 and 50 years. 80% of actors supported by the ACEFA program were mainly involved in crop production. However, it is important to note that, in most PG, there is no common activity for members. Furthermore, 70% of the producers had as highest certificate the first school leaving Certificate (FSLC); 16% declared that they have never been to school. Yet, Djamen et al. [9] outline that the implementation and success of agricultural advisory services requires that producers should be well educated.

Looking at the profile of the producers supported by the ACEFA program, we may wonder if the agricultural advisory services promoted by ACEFA, which aims at bringing the producer to direct their choices in their farms while depending on data collection, technical and economic analysis of data, could produce convincing results and meet the expectations placed by the decision and policy makers in charge of agricultural development.

3.2.4 Participation and achievements of producers in the advisory support approach

The agricultural advisory services approach promoted encourages the active participation of officials of EFA in the package. Thus, 63% of these have already had to fill the farm sheets and participated in the implementation of the characterization and diagnosis of farms with CGP. Furthermore, 90% of EFA officials surveyed deemed it is beneficial combining individual agricultural advisory services approach and group used by advisory agents. This allowed them to address questions not covered during group working sessions and during individual working sessions. Moreover, due to advisory agents, 87% of EFA officials said they gained new knowledge. More specifically, it is knowledge on record keeping and diagnosis and monitoring of farm documentation (49% in the case of crop production systems and 58% for animal production). In addition, 73% of respondents claim to have gained knowledge on simple arithmetic calculations, drafting of the cash budget, calculations of the cash balance, gross margins and profits and drafting of a balance sheet and forecast documents (campaign and budget plan. However, most officials of EFA considered the designing of the cash budget to be complex and rather directed to those responsible for the office of PG (delegate, secretary and treasurer).

3.3 Limiting Factors to Adaptation to the Agricultural Advisory Services Approach

3.3.1 Limiting factors for farmers

These factors are multiple and include the producer's interest for technical advice at the expense of economic advice, where advisory agents put more emphasis. There is much paperwork to be done according to the beneficiaries. A producer told us "the *ACEFA program is chiefly about paper work, schooling, notebooks, sheets* ..." Indeed, the producers with the support of the CGP, took part in filling the numerous sheets amongst which the characterization sheet as well as the initial situation and the evolving sheet; each having more than 25 pages. Finally, there is the taking of notes. Indeed, although producers were supported by advisory agents in filling the farm data sheets, it was the producer who must produce all the information needed in the forms. It was then a difficult activity for most producers. However, as Djamen et al. [9] noted, taking down notes is important in the council because it would be difficult to have a reliable diagnosis and prescribe appropriate advice in the absence of quantitative and accurate data. This raises once again the issue of an adequate profile of the producer.

3.3.2 Limiting factors for advisory agents

About advisory agents, 93% of CGP surveyed said they had difficulties in meeting some of their functions. These difficulties are linked to four factors: age of the advisory agents, their initial training and level of education, the number of advisory agents and frequency of working sessions with producer groups.

3.3.2.1 The age of advisory agents

Indeed, it was found that CGPs above 45 years old (55%), having worked for a long time following the training and visit approach, had difficulties mostly related to the use of data collection tools and analysis of technical-economic data. The latter judged the new approach to be more complex than that

employed in the past. Incidentally, one of the advisory agents said:

> "*I do not understand the calculation of margins." For another, "I am asked to use a GPS to localize the PG; meanwhile I struggle to get by with my telephone*." Still for another "*My real problem is that there are too many documents, sheets, new and very long sheets which needs to be updated it's painful, I'm tired*."

These observations followed those of [10] who discovered that it was already very difficult or impossible for an extension agent who practiced the (top-down) approach for years to be able to work towards the changes necessary to move to the agricultural advisory services approach. This raised once again the issue of an adequate profile of the advisory agents. Although the ACEFA program recruitment logic, which mostly employs civil servants is appreciated especially by public authorities, it must be said that it is also one of the main weaknesses of the program: ageing advisory agents, their extensive experience with top-down approaches and their holding of multiple administrative posts show not conducive to their successful involvement in agricultural advisory services activities.

3.3.2.2 Vocational training and educational attainment

It is found that in 52.5% of CGP specialized in animal production, over 70% of them have difficulties in satisfying their PG and EFA. This is because they have difficulties to articulate the overall farm approach, and tend to guide the activities of producers to animal production. Incidentally, an advisory agent said: "*I am a veterinary nurse, and I know nothing about implanting an oil palm nursery. Specialists are in Sangmélima for this purpose. So, let them come and train the producers as it is not the job of the CGP. As far as I am concerned, record keeping and taking notes are among the items I can bring in to serve the PG. I can also provide them information in connection with my technical skills as a veterinary nurse to help them transfer these skills in raising livestock*. "

For another CGP the question was asked, have you made technical support in relation to crop production in your PG? He said, "*What am I doing in PV* (crop production)*, I'm an aquaculture specialist*." Very often, advisory agents are not taken into account in the drafting of the action plan concerning PG in connection with the activities they have limited mastery. This raises the question of the effectiveness of the device in place and to the ability of advisory agents to meet the expectations of producers in terms of technical advice. However, the situation is less pathetic in CGP having an agricultural technician; the latter being more flexible and having less difficulty in adapting to the specificities of EFA. It is thus easier to find an agricultural technician CGP supervising a livestock project than to find a CGP specialist in animal production accompanying a PG in achieving plant production activities.

The CGP having the highest school certificate was a GCE O level diploma (57% of CGP), they had enormous difficulties in describing what their work as advisory agents is made of in the process of the agricultural advisory services approach. Once more, if they were not able to describe what their own work is made of, how can they explain to others, the work they should do. Moreover, the tools available to advisory agents seemed to be too complex with regards to their profile; causing an advisory agents to say: "*I myself have an old A level that does not leave me, what more those with only an O level*." From then, the success of agricultural advisory services activities require a careful selection of advisory agents, taking into account their academic background and past professional experiences, to ensure their multidisciplinary approach so that they should be able to meet the various expectations of producers.

3.3.2.3 The number and geographical arrangement of PG by CGP

In connection to the operation area of a CGP, it was found that the CGPs whose PG were at a close range (less than 100 km) faced little problems to animate their Local Management Committee (CLG), conducting 2 to 3 visits per month to work with PG. Meanwhile, the CGP with PG which were far and located in various subdivisions performed one visit per month. On the other hand, the CGP having few PG (6 to 8) had a good mastery of the activities of their PG and even had knowledge about the activities of some EFA in their PG, which is not the case with those having 11 to 15 PG. The advisory agents therefore tended to be more effective in their actions when they cover a small geographic area and do not

supervise a large number of PG. This is due to the inadequate resources put at their disposal.

3.3.2.4 Frequency of work between a CGP and a CS

The analysis shows that for 33.34% of CGP regularly working with specialized advisory agents (CTSPA, CGO, CGE and CTSPV), complaints formulated by producers during investigations are rare. In fact, these CGPs through technical sheets developed by specialized advisory agents solved technical problems when they do not have an immediate solution in PG where producers had expressed needs. The performance of the agricultural advisory services being promoted therefore partly depends on the level of collaboration between advisory agents; it allowed the sharing of their knowledge and know-how for more efficiency in supporting PG.

3.4 Effects of Agricultural Advisory Services

The effects of the agricultural advisory services promoted by ACEFA were noticeable on: the technical plan; management and production of EFA, community life, and services provided by PGs to their members.

3.4.1 On the technical plan

The effects of agricultural advisory services on the technical plan are perceived by 25% of producers (Table 3) and mainly concern the adoption of new production techniques for the purposes of improving the productivity and competitiveness of EFA. However, these results remained insufficient compared to those of [11] who noted that with the experience of the association for the development of agricultural farms in the Center (ADEAC) in Akonolinga, in which after two years of implementation of family farm agricultural advisory services, close to 90% of producers have adopted the new cultural practices (development of pure culture, etc.) and noted an improvement of the technical and economic performance of their farms. Improvements are therefore possible for technical agricultural advisory services. Therefore, it is essential that diagnosis be made at the base and that adequate measures are taken to increase the effects on the technical plan.

Table 3. Technical effects of the agricultural advisory services approach of the ACEFA program

Domain concern by change	Change observed	% of respondents who mentioned
Change in terms of conduct with pig rearing, chicken and fishery	Construction of concrete building for rearing in replacement of buildings with local materials; Replacement of local pig breeds by selected breeds (large white); Construction of fishponds while respecting norms.	17,5
Change in crop production techniques and harvest	Introduction of row and column sowing Introduction of cocoa and cassava varieties obtained from research; Establishment of plots with pure crops (maize, cassava, cocoyam, etc.); Introduction of fertilizer (NPK, Urea) for the cultivation of corn; Disease and pest control techniques for the cultivation of cocoa Cacao (suckering, chemical control Lindane, Endosulfan); Introduction of a method for fermentation of Cocoa according to the number of days and the fermentation process recommended (8 days) Introduction of mixed cropping of cocoa with plantain.	25 ,2

3.4.2 Effects of agricultural advisory services on economic management and farm production

The effects of agricultural advisory services with regards to the management of farms and increase in production were analyzed in terms of adoption of handling of the registrar and documents in a PG or an EFA, the collection and analysis of technical and economic data of the PG or the EFA and the forecasts in the beginning of the season. It appears that since they are monitored by advisory agents, 57% of the producers have collected data from their farms concerning: expenses incurred and the quantities produced, consumed and sold. Those who have not collected these data justified this by the complexity of collection sheets put at their disposals. In as much as the filling of these forms required a certain level of intellect and makes use of calculation of which few people master. Incidentally, one of the interviewees said: "*It is painful, it is for young people who are still in school we cannot do this anymore*." The profile of producers being trained therefore constitutes an element that must be taken into account in the designing of working tools of advisory services because if not, the impact of agricultural advisory services can be greatly reduced. Furthermore, 58% of respondents acknowledged a significant increase in their yields. Moreover, thanks to management agricultural advisory services, 44% are now able to achieve economic calculations (calculation of profits, etc.). In relation to the effects of farm management agricultural advisory services, a respondent revealed that "*Before, I sold a kilogram of fish at 700 FCFA and sometimes I did not measure before selling, but since the* advisory *agent led me to take records, I write everything I spend and this has permitted me with the estimates made by my* advisory agent *to fix the selling price of a kilogram between 1000 and 1200 FCFA*." These observations were in line with those of [10] who noticed that, among the peasants who participated in the management advice tests, these are the same words that come, "*we do not do things anyhow again, and we have the will to do well, before we were in darkness…*"

3.4.3 Effects of agricultural advisory services on community life and services rendered by PG to members

For 97.2% of the producers, agricultural advisory services permit them to interact with other producers on issues related to their production. Similarly, for 83.2%, agricultural advisory services permit them to restructure their PG. These restructuring are shown by: the modification of the PG's status; the development of new internal regulations and the minutes after meetings. Furthermore, for 76.2% of producers, the arrival of the advisor helped to empower members of the group who became more active. Furthermore, agricultural advisory services fostered collective action within producer groups. This is how, 95.8% of producers are now ready to contribute to the establishment of experimental plots. Similarly, they engaged in other activities (Table 4).

In addition, the arrival of the advisory agent has sometimes resulted in a change in the number of members in some PG. 48.3% of respondents noted in their PG a reduction in the number of members. This reduction for most would be related to the fact that producers eagerly waiting for funding are discouraged, one of them said, "*we have had enough advise, when will all these be materialized.*" However, 5.6% of respondents noted an increase in the number of members in their PG. An increase generally observed at the beginning of the collaboration with their advisory agents while expectations are still very high.

3.5 Experiences of Agricultural Advisory Services by Advisory Agents and Farmers

The analysis of the strengths and weaknesses of the agricultural advisory services package implemented in the Dja-et-Lobo by ACEFA program has permitted us to address (Table 5).

Table 5. Effects of agricultural advisory services in the establishment of collective action

Common activities to members of the GP	Percentage (%)
Production (group working of members or community farms)	42%
Group buying, sales and purchase	43,4%
Forecasting in the beginning of the season	42%
Joint management of equipment and infrastructure	41,3%

Table 6. Strength and weakness of the agricultural advisory services - Support device of ACEFA program

Strengths	Weaknesses
The overall farm approach and restitution workshops that permits EFA to orientate decisions on their farms.	Low frequency of training of advisory agents.
The making available of tools of data collection, analysis and synthesis to advisors.	Focus placed on management agricultural advisory services at the expense of technical advice.
Offers two services to producers: technical and economic advice and financing	Weak collaboration between CGP and CS not allowing discovery of producers' difficulties.
	Bulky documents and tools are not adapted to the diversified profiles of producers and advisory agents.
	Complexity of the procedure to access finance.

4. CONCLUSION

The Agro-pastoral Family Farm officials (EFA) and the program for the Improvement of the Competitiveness of Family Agro-pastoral Farms (ACEFA) express interest in the new agricultural advisory service promoted. However, they face difficulties in the implementation and understanding of the approach and some tools, especially documents on data collection of their farms, which they considered too complicated. A complexity perceived primarily from the fact that the required profiles are not adapted to some agricultural advisory agents displaying a relatively low level of education. Furthermore, the analysis of the effects of agricultural advisory services revealed that if the impact of agricultural advisory services on farm management and community life of the PG was significant, such impact is less on the technical side. One way to improve the future performance of the promoted agricultural advisory services package is through adapting the approach and agricultural advisory services tools to suit the diversified profiles of the EFA officials and advisors. Furthermore, an additional emphasis should be placed on activities related to capacity building of advisory agents and officials of EFA on the approach and tools of the mew agricultural advisory service. Also, the program should improve synergies between agricultural advisory services and the financing of gainful projects of PG.

According to Havard et al. [7], the success of the agricultural advisory services rests on trust between the actors involved in the advisory system. One of the fundamental factors that can ensure the success of the agricultural advisory services is therefore the relationship between advisory agents and peasants. The advisory agent in many cases is considered to be the cornerstone of the system, as it is the basis for the success of the advisory system approach. ACEFA program has to reinforce the capacities of advisory agents so that they master all the component of the approach promoted. For Hémidy and Cerf [12], three generic indicators are to be taken into account for the success of innovation in the framework of an advisory system: methodological design and instrumentation, skills development and organizational transformation. ACEFA program has to adapt its methodologies and tool to the profiles of advisory agents and farmers. The new approach promoted by the ACEFA program seems to be bearing fruit, and Ndassi's work in 2010 [13], shows that this new support system satisfies almost all (98.2%) of the beneficiaries, with the integration of the management component in their training which would enabled them to improve the way they manage the farms. The management agricultural advisory services which have been experimented for the last 20 years in French-speaking Africa would not have only positive impacts, but to some extent could have negative impacts on farms.

ACKNOWLEDGEMENT

The authors acknowledge ACEFA Program who facilitated data collection and gave advice on the methodology.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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