

How to address up-scaling and sustainability of innovative advisory services: the case of management advice for family farms in Africa

Guy Faure¹, Aurélie Toillier² and Ismail Moumouni³

¹ CIRAD, UMR Innovation, France, guy.faure@cirad.fr

² CIRAD, UMR Burkina Faso

³ Université de Parakou, Bénin

Abstract: In Africa exists a plurality of forms of advisory services provided by several actors. In this context experiments in MAFF (Management Advice for Family Farms) for nearly two decades in many Francophone African countries have sought to promote comprehensive advice to farms, one that is based on learning methods. Questions now arise on how to increase the number of producers with access to advisory services (AS) and how to improve institutional and financial sustainability of advisory mechanisms.

To address such questions we carried out a participatory evaluation of existing AS in order to identify the constraints and perspectives to scale them up and/or out and to improve the sustainability. We used four main criteria : (i) modalities of mechanism of governance, (ii) MAFF funding modalities, (iii) modalities for capacity and skill building for advisers and other actors, and (iv) modalities to adapt advisory services to regional or national situations. Internal assessments based on this analytical framework were carried out by various MAFF systems. A workshop was organized in 2013 in Benin with the actors involved in the internal assessment to help draw out lessons.

The results show that scaling out and scaling-up issues entail to address the institutional dimensions of advisory services. In the case of MAFF, there are evidences of the need to strengthen the role played by Producers' Organizations in the governance mechanisms in order to better orient advice, reduce the costs and increase the sustainability beyond the projects' investments. Farmer extension workers appeared as a key factor for sustainability and extension of advisory services to a larger audience. New promising opportunities to train advisors are observed in order to better insert training programmes in permanent national organizations. Funding of advisory services remains a challenge even if some relevant experiences do exist. Efforts are made in reshaping delivery models with less costly and time-consuming methods. But all the analysed cases face difficulties to address these questions related to the scaling-up and scaling-out.

Keywords: Management Advice, Evaluation, Africa, funding, governance, advisory services, advisor, producers' organization

Introduction: From agricultural extension to Management Advice for Family Farms

In developing countries, including those in West Africa, advisory services are undergoing radical changes (Christopolos, 2010). The withdrawal of the state from this sector, and the poor performance of certain government advisory services, has inspired institutional reforms now underway (Rivera and Alex, 2004). Rethinking the role of the state and public and private advisory services is required for these reforms to be effective (Anderson and Feder, 2004). Today, different actors

(producers' organizations, NGOs, agro-industries, input suppliers, public institutions, etc.) are able to provide advisory services through diverse institutional arrangements, including public/private partnerships (Swanson 2008).

Institutional reforms raise a number of interlinked questions (Faure et al., 2011a, Cristovao et al., 2012). The first deals with the governance of advisory services: given the complex relationships between farmers, the state, and the private sector, what should orient advisory services? For example, Swanson (2006) indicates two main options currently under debate: advisory services oriented by farmer demand (demand-driven extension system) or advisory services oriented by market requirements (market-driven extension system). Second, the disengagement of states and the emergence of the private sector raise the question of the funding of the advisory services (Kidd et al., 2000). It is generally admitted that the majority of farmers, and not solely those in developing countries, cannot assume the total cost of advisory services. The share of costs among stakeholders including the state and the private sector therefore is under permanent debate, with solutions depending on local contexts. Third, the roles and skills of agriculture advisory officers also have come under question because they need to be able to take into account new challenges that go beyond agricultural production (Remy et al., 2006) and to design new relationships with farmers that avoid top-down approaches (Cerf and Hemidy, 1999, GFRAS 2013). Fourth, there is a debate over the best methods to provide relevant advice at an acceptable cost. There is no silver bullet but a need to adapt the methods to the local and national contexts (Birner et al., 2009 ; Faure et al., 2011 b). Such institutional reforms lead to the emergence of innovative advisory services supported by different coalitions of actors (private companies, public services, NGOs, POs, or donors). However, the extension, institutionalization and sustainability of such innovative advisory services are under debate which goes beyond the need to increase and stabilize the financial and human resources of these services. This debate entails other questions related to the needs of better coordination and synergies between various advisory services, the enrolment of new actors such as POs to participate in the governance of the advisory services, or the identification of new funding mechanisms negotiated between the private and the public sector.

In West Africa, new methods named Management Advice for Family Farms (MAFF) are under development. The experimental programs to promote such methods have received methodological and financial support from several French cooperation institutions (Djamen et al., 2003; Faure and Kleene, 2004 ; Moumouni et al., 2009). Some have been operating for over 20 years and become imbedded in institutions and include a significant number of farmers. Currently, advice based on this approach is provided by NGOs, producers' organizations, private companies as cotton companies or agricultural ministry. MAFF approach aims to strengthen farmers' ability to manage their farms and improve their autonomy with regard to their economic and social environment. It is based on participatory methods providing (i) self-analyses to modify farmers' and advisers' representations and perceptions of the problems addressed, and (ii) decision-support tools based on technical and economic records (book-keeping) to produce new knowledge and generate learning processes. In this regard, management is perceived as a cycle consisting of different phases: analysis, forecasting, action, monitoring, adjustment, and evaluation. The advisor carries out a joint analysis of results obtained by each farmer. Exchanges between farmers about their results always are encouraged through regular meetings (training, field visits, on-farm experiments, etc.), as these exchanges stimulate strong dynamics. MAFF distinguishes itself from extension services which aimed primarily at transferring knowledge and new practices to farmers, notably in the field of agricultural production.

However, MAFF as many others advisory services face difficulties to involve a larger number of farmers (scaling-out) and to address the institutional and financial sustainability of advisory mechanisms (scaling-up). Such discussions take place in the African countries through national

platforms and the drawing up of strategic documents on the agricultural advisory services. MAFF is thus currently being debated in this context in various countries (Burkina Faso, Benin, etc.).

The objective of this article is to draw out lessons on the up-scaling, out-scaling and sustainability of MAFF approach in Africa based on a participatory evaluation carried out during a three days' workshop organized in Benin (Bohicon) in November 2012.

The analytical framework and method

The workshop brought together 70 participants from over 10 African countries with participation by representatives of POs involved in the implementation of MAFF mechanisms, coordinators of advisory programmes, advisers, farmer extension workers, representatives of ministries of agriculture, entities providing support for advisory services, researchers, and donors. This workshop was organized to examine the different existing MAFF experiences valorising thirteen participatory assessments carried out before the workshop by the actors involved in these experiences. These participatory assessments were based on a grid designed by the steering committee of the workshop which included the researchers (authors of the article). This grid included different topics : history of MAFF experience, actors involved and relationships, type of activities carried out, human resources, monitoring and evaluation, costs, funding mechanisms, coordination with other rural services, and perspectives or strategies to deal with up-scaling, out-scaling and sustainability. The researchers had opportunities to interact with actors of the thirteen MAFF experiences in order to enrich the participatory assessments. Previous to the workshop these participatory assessments were analysed by research (Toillier, 2012). During the workshop participants presented some MAFF experiences and other advisory experiences. The main conclusions of the participatory assessments were discussed and further enriched at the workshop. Four main areas of inquiry were discussed during the workshop: (i) modalities of governance mechanisms, in order to define the orientations of MAFF, and the coordination mechanisms to create synergies between advisory services actors, (ii) MAFF funding modalities by focusing on the contribution of different organizations to this funding, (iii) modalities for capacity building for advisers, farmer extension workers, and all others involved in managing advisory mechanisms, and (iv) modalities of adapting advisory methods to local or national situations depending on available skills and funding but also in terms of the needs of farmers. Each of these four areas (governance, funding, competencies and methodology) has an influence on other areas of MAFF, which means that each MAFF experience is perforce original. This framework is based on previous research on MAFF (Faure et al. 2011 b). Lessons were drawn out by crossing participants' viewpoints during specific sessions organized around the four areas. At the end of each session participants were asked to write their main conclusions which were shared and improved in plenary session. For the article the conclusions were checked with other studies carried out on MAFF. The validity of the results could be discussed because of the participatory approach used without data collected by external actor with classical surveys. But we assumed that the point of view of a large diversity of actors involved in MAFF is what matters to address issues of up-scaling, out-scaling and sustainability and identify relevant recommendations.

The table 1 presents the main characteristics of the MAAF systems analyzed by the actors. Table 2 presents the entities involved in MAFF mechanisms.

Table 1: MAFF experiences presented at the workshop and involved in participatory assessments

Country	Name of MAFF experience	Main actors involved in the MAFF experience				Starting year	Nb of auditors	Nb of advisors /Nb of farmer extension worker
		Main AS provider	Coordination	Technical support provider	Main donor			
Burkina	UPPC/SNV	PO at provincial level	None	National and int. NGO	Bilateral cooperation	2002	1934	0/385
	PRFCB	Cotton company	PO at national level	Project unit, research	Bilateral cooperation	2012	250	31/Not functional
	UGCPA-BM	PO at provincial level	None	Int. NGO	Int. NGO	2009	240	5/11
	CAGEF	PO devoted to advice	None	Int. NGO	Int. NGO	2001	277	3/0
	Réseau-Gestion (RG)	POs	Network unit	Int. NGO	Int. NGO	2001	>500	None
Benin	PADYP	PO at national level, national NGOs	Project unit	Project unit	Bilateral cooperation	2008	19176	75/216
	Procoton	PO at national level	PO	Nat and int. NGO	Bilateral cooperation	2009	3237	34/140
Senegal	CGER-vallée	PO devoted to advice	None	Project unit	Bilateral cooperation	2009	52	2/4
Togo	ICAT	Independent public organization	None	Int. NGO	State	2010	62	20/0
Cameroun	ACEFA	Ministry of agriculture	Project unit	French AS provider	Bilateral cooperation	2008	32900	1972/0
Guinea	FPPD	PO at regional level	None	Int. NGO	Int. NGO, Bilateral cooperation	2004	845	13/52
Madagascar	Cap-Malagasy/FERT	Private entity devoted to advice	None	Int. NGO	Int. NGO	2011	3188	17/28
	BV-Lac	National NGOs, consultancy firm	Project unit	Int. NGO, French research	Bilateral cooperation	2008	486	18/70

Governance mechanisms of advisory services

Contradictory objectives

Participatory internal evaluations have highlighted the diversity of modes of MAFF governance mechanisms in order to orient and assess the service provision. To a large extent, such governance mechanisms depend on the nature of the organization providing advice (PO, management centre, project, NGO), on the history of the advisory service implementation and funding arrangements. Table 2 proposes a typology based on the nature of organizations involved in governance of advisory services. It shows a large diversity of situations.

Table 2: typology of governance mechanisms of MAFF experiences presented at the workshop

Type of MAFF	Cases
MAFF implemented and controlled by POs with variable support of other actors (NGO, Project Unit)	FPPD UGCPA-BM UPPC/SNV PROCOTON RG PADYP (one part)
MAFF implemented by an entity devoted to providing advice and with participation of POs in its management	CAGEF CAP-Malagasy/FERT CGER-Vallée
MAFF implemented by NGO with the strong support of Project Unit	BV-Lac PADYP
MAFF implemented by a private company under the control of PO	PRFCB
MAFF Implementation by a public service	ACEFA ICAT

When the MAFF experience involved many actors, the strategic interests of every actor could be different beyond the common objective to provide advice to strengthen the managerial capacities of farmers. The role of the main service provider is key to orient the advice.

Table 3: Different objectives

Main service provider	Main purpose of the service provider	Main objectives of MAFF	Examples
PO	Strengthen Farmers	Helping and guiding farmers in their projects Building up their capacities Improve managerial and technical skills to improve farm productivity	FPPD UGCPA CAP-malasy
PO	Strengthen local POs	Support local POs (management skills, design of strategy and projects) Support farmers in order to have reliable members (management skills, management of credits, increase of marketed production)	CGER-Vallée
Private firm	Support the strategies of the private firm	Improve managerial and technical skills to improve farm productivity Increase the production (quantity/quality)	PRFCB
Public service	Support the public policy/priorities	Improve managerial and technical skills to improve farm productivity Address national priorities such as food security and production of exported crops	Acefa Icat

An important but difficult role for FOs in the provision of well-fit advisory services to farmers

The analysis has highlighted the strong role played by POs in the MAFF governance mechanisms. POs are involved in the direct implementation of advisory services in many countries (e.g., MAFF experiments in Burkina Faso with the POs participating in the “management network”, in Guinea with FPF, or in Benin with FUPRO involved in PADYP and PROCOTON, see table 1). In two other cases the implementation of advisory services by POs is indirect. In Burkina Faso (case of PRFCB), UNPCB enters into contracts with the cotton company which provides advisory services on behalf of UNPCB. In certain geographic areas with higher agricultural incomes, service centres have been tried out (e.g., CGER in the case of the Senegal River valley), with services primarily directed towards first-level POs but also available to farms. Such service centres are controlled by PO representatives. Only three MAFF experiences don't involve any POs (ACEFA, ICAT, BV Lac). The direct implementation of advisory services by a PO requires that PO already has adequate human and financial resources. This option is supposed to allow advisory services to be more in line with farmer needs. It can also help strengthen PO itself by letting it offer an additional service to its members, which relies on more in-depth knowledge on constraints and opportunities of its members' farms. Furthermore, such an option may facilitate the scaling-out of the advisory service because POs are able to involve more farmers and could lead to more sustainability because POs are able to maintain the service after the experimental phase supported by projects.

But the main key problem is that MAFF is often developed with the support of a project that aims to promote it without taking into account the overall strategy of the PO. Because MAFF is poorly integrated into the PO's plans, direct management often may weaken POs due to risks relating to the dispersion of PO's activities, difficult management of salaried advisers or risky management of financial equilibriums. Moreover, except in some cases such as FPFS in Guinea, POs are not really able to fully orient the provision of advice based on the needs of their members because leaders are not fully aware of the challenges. However, improving connection between MAFF and other services provided by the POs would better meet the needs of their members and create synergies between the main activities of the PO (supply of inputs, access to credit, marketing). By instance, the case of UGCPA in Burkina Faso illustrates a way to better integrate MAFF with all the PO's activities. MAFF became a transversal service that should lead to an improved planning of credit provided by the PO to its members and of cereal delivery by members to the PO. MAFF also supports other PO activities on managing soil fertility. However, these challenges require financial and human resources largely beyond the project periods. It calls for rethinking global strategies and approaches to strengthen PO's capacities.

Coordination mechanisms at local levels

The relationships between MAFF mechanisms and other actors involved in advisory activities in the same territory (small region) were analyzed (technical advice provided by the Ministry of Agriculture or by agro-industrial companies, credit providers, input supplier providing advice, etc.). First, participants noted some cases of competition between MAFF experiences supported by different projects in the same area (in the case of Benin with PADYP and PROCOTON or Burkina Faso with the case of PRFCB and UPPC/SNV, for examples). In both cases, the presence of same OP in the two MAFF experiences (FUPRO in Bénin, UNPCB in Burkina Faso) is not sufficient to harmonize the objectives and activities of the two MAFF experiences demonstrating the lack of POs' capacities or willingness to counter-balance the influence of the projects.

Second, participants noted a lack of communication and coordination between various advisory providers working in the same territory. There is no formal platform to facilitate such communication or coordination which are needed to address scaling-up issues. However, initiatives – still

too few as emphasized by participants – were undertaken to establish relationships between MAFF mechanisms with other advisory mechanisms or with actors who devote part of their activities to provide advice. These initiatives take the form of alliances with other stakeholders to develop common actions (e.g., literacy efforts undertaken by other actors and MAFF, credit managed by microfinance institutions and MAFF, etc.), of the creation of local platforms for exchanging experiences that can be used by a municipality (one case in Benin), of the management of PO networks that allow innovative experiences to be capitalized (case of the “network management” in Burkina Faso) or of informal networks between advisers working in various systems for coordinating their day-to-day activities.

The workshop highlighted that organizations providing support to MAFF actors (international NGOs such as AFDI or national NGOs, foreign advisory centres such as the French CERs) can combine both direct implementation of MAFF in some areas (particularly in the experimental phases to assess how MAFF is perceived by farmers) and support to POs and their advisers or other advisory service providers in order to strengthen their capacity to implement MAFF through training, assistance in managing MAFF mechanisms and monitoring systems. In the perspective to reinforce durably POs capacities, these structure should also play an important role in providing support at the institutional level in order to link the national advisory structures (POs in particular) with relevant financial and political actors. Such an issue is key to properly address scaling-up challenges by taking into account the institutional context of each country.

Financial mechanisms displayed for MAFF delivery

The workshop allowed us to take stock of the still critical situation regarding funding available for advisory services in general and for MAFF mechanisms in particular. MAFF mechanisms remain highly dependent on external funding (foreign donors or technical partners), which makes them highly vulnerable and sometimes prevents them from innovating by valorising local initiatives due to the prevalent role of foreign donors or technical partners. However, participants noted some real openings and two main strategies to initiate financial sustainability of MAFF systems were highlighted: the cost savings in advisory services and the diversification of funding sources.

Table 4: cost and funding of MAFF

Example (Name of MAFF experience)	Cost/ farmer/an	Distribution of sources of funding			
		Farmer	PO	Supply chain	Donor
UGCPA-BM/FARM	165€	3%	0	0	97%
FPFD /AFD	67€	To be defined	To be defined	0	Most of the costs
UPPC /SNV	11€	0	0	100%	Only training
CAGEF/AFDI	72€	10%	0	0	90%
CAP Malagasy/FERT	32€	0	0	0	100%
CGER-Vallée/AFD	NF	<i>Partially financed by participants' fee</i>	Fees related to services provided for PO management	0	To be defined
PRFCB	134€	0	33%	66%	(pay for PO at the first stage)
PADYP	52€	3%	0	0	97%
BV LAC	NF	0	0	0	100%
PROCOTON	119€	0	0	0	100%
ACEFA	69€	0	0	0	100%
ICAT	NF	0	0	0	100%

Service providers propose cost savings by relying primarily on farmer extension workers

It should be noted that MAFF appears to be still expensive because the cost of all activities required to implement it are included in the overall cost : operator providing methodological support to service providers, training of advisers and literacy programmes for producers to enable their full participation in MAFF. Different options are feasible to reduce the cost of advisory services per participant in order to address scaling-out issues. The first one is the increase of participant per advisor by increasing the groups' size or the number of groups per advisor limiting as far as possible a reduction of the advice quality. Another cost saving avenue pursued was through the merging of project adviser training programmes with training courses already existing in the concerned countries within the universities or other educational centres. The development of PO-implemented MAFF is also perceived to ultimately reduce the costs, particularly those related to coordination of activities. But the need to invest in capacity building of POs precludes any hope of a reduction in costs in the short term.

However cost savings in advisory services have been mainly attempted by many MAFF experiences through reliance on the growing numbers of farmer extension workers or adviser-farmer extension worker¹⁵ to increase the number of farmers who can access the advisory service and thus reduce wage costs. Such an option asks for more discussion around the role and capacities of farmer extension worker both from the point of view of the service providers and the farmer extension workers.

¹⁵ A farmer extension worker is a farmer who acts as an advisor. Depending on the different MAFF experiences he could play various roles. He can only communicate information from top to bottom and vice versa. He may also act as a facilitator and, when necessary, as an advisor closely working with one official advisor.

Contributions from farmers and their POs is limited

Obtaining direct contribution from farmers remains difficult; many experiences proved to be inconclusive over the long term. In fact, since MAFF is an intangible service whose effects are not immediate neither easily quantifiable, the farmer is reluctant to pay for it. However, it appears that direct payments for advisory services become possible when it is connected to an economic activity such as the sale of inputs (e.g., breeding assistants paid on the sale of products for live-stock in Madagascar). It certainly remains important to conduct research in this field to innovate and come up with a form of payment acceptable to the farmers.

Contributions from POs become more feasible when they undertake commercial activities such as marketing of agricultural products or sale of inputs to members which allow compulsory indirect contributions from the farmers through levees (case of UGCPA in Burkina Faso, of FUPRO in Benin, of FPPD in Guinea). But these contributions by producers and POs currently cover, and will cover in the foreseeable future, only a small part of the costs of advisory services. Nevertheless, such contributions are perceived as necessary if the POs want to really orient advisory services themselves and not to have choices imposed on them by those who control funding. The poor financial contribution of farmers and POs partially explained the weak POs' power to really influence the advice by fully participating in governance mechanism and counter-balancing the influence of technical support provider (NGO, research, project unit) or of donors.

Funding alternatives explored

Experiments in alternative funding arrangements are being conducted with the entry of new actors in rural development in the South. Advisory services appear as a means to secure bank investments funded by traditional credit, to support microcredit activities or to promote crop insurance systems. In these situations such actors may agree to partially finance advisory activities. But only a few rare experiments were mentioned at the workshop (one case in Benin) at not many cases are mentioned in the scientific literature (Faure et al., 2012).

The most promising and sustainable funding possibilities to be discussed at the workshop were (i) the funding by already organized value chains with compulsory contributions at the marketing stage (case of cotton in Burkina Faso) which is not in itself a new idea, and (ii) the establishment of regional or national development funds. These funds can either be financed by value chains (as in Ivory Coast with FIRCA) or by the State and international funding agencies (e.g., FNDA and FRDA in Madagascar). Services can then be implemented by public or private providers. Under the pursuit of a public good, the State may contribute to the funding of advisory services when they include a dimension of training and capacity building, as is the case with MAFF. Nevertheless the dominant presence of donors in some development funds such as Madagascar raises again the question of sustainability.

Capacities building mechanisms of advisory actors

The participatory analysis shows the diversity of the competences of advisers depending on the MAFF experience. Relevant training for advisers is a key issue to address the question of scaling out and scaling up.

The workshop addressed three key areas of building capacity of advisory services actors: (i) the issue of the training of advisers, (ii) the role of farmer extension workers and (iii) the skills of advisory services managers.

Specific training programmes for advisers

Initiatives in adviser training by public and private organizations at the national level were discussed (case of the University of Parakou in Benin with a master degree for advisers currently working, FERT training centre in Madagascar for in-depth vocational training). However, they

are still far from common. Such initiatives address the needs for initial and vocational training courses in these countries within a more sustainable framework than a project framework and ensure a smooth turnover of advisers given that a significant proportion of advisers leave for other jobs once well trained. However, the participants of the workshop mentioned that employers (the State, private firms, POs) are little involved in creating the contents of training courses, which may lead to a mismatch between the training provided and the employers' requirements. Even with generalized adviser-training programmes conducted under the ambit of permanent institutions, training within projects and particular within MAFF experiences remains relevant for advisers to acquire targeted skills. In such a situation, sharing of training resources between projects will be desirable, through capitalization of experiences, training methods and tools in order to improve the quality and reduce the costs. The importance of training all those involved in the management of MAFF experiences, not just the advisers, was stressed: salaried technicians to be able to implement the planned activities and monitor advisers but also elected farmers involved in MAFF so that they are able to monitor MAFF mechanisms (orientation and evaluation) and develop skills to draft effective funding requests.

The role for farmer extension worker

The participatory analysis and the workshop were an opportunity to take stock of the activities and the role of farmer extension workers which are becoming increasingly widespread in all MAFF experiences. Farmer extension workers are more common when POs are monitoring MAFF experiences (UPPC/SNV, PROCOTON) because POs are supposed to be more able to identify and manage such people. But there are many MAFF experiences without POs and with farmer extension workers (BV Lac, for example). With the promotion of farmer extension workers, actors managing MAFF mechanisms seek, on the one hand, a change of scale due to the increase in the number of farmers involved in advisory services and, on the other, to facilitate greater sustainability of advisory services through cost savings. In addition, workshop participants also showed that farmers are appreciative of the help the farmer extension workers provide during the transition between two advisers or between two projects funding advisory systems.

A large variation in profiles and activities of those farmer extension workers was noted with respect to MAFF experiences: literate or illiterate, volunteer or paid on lump-sum basis, collecting data or acting as trainer, etc. In some MAFF experiences (PROCOTON in Benin, UPPC/SNV in Burkina Faso), farmer extension workers can even train other farmer extension workers and take on a 'supervisory' role over MAFF activities in the field. Strong concerns were then expressed on the real capacity of these farmer extension workers to 'provide advice' on a voluntary basis given the large workload normally assigned to them, thus distracting them from their own farming activities. According to many participants there is a need to pay for their work which leads to an increase of the service cost. While the question of what the farmer extension worker 'should' and 'can' do is usually easily discussed, what he 'wants' to do is rarely addressed. Farmer extension workers present at the workshop spoke about their interest and motivation in undertaking such a function: easy access to training, particularly through privileged exchanges with the adviser, desire to help friends and neighbours, desire to be useful, opportunity for additional income, and, for some, improved job prospects.

The evolution of the farmer extension worker's role as he gradually acquires new skills and gains independence was highlighted. Some POs even expressed emphatically their wish to see the most capable farmer extension workers become formal advisers, considering that they had acquired the necessary skills and abilities. Some participants raised the issue of the need to keep the farmer extension workers in the POs in which they were trained. This position appeared neither relevant to the POs concerned, nor desirable from the point of view of farmer extension workers because they expressed the right to grow in their activities. This raises again the question of the continuing training of the farmer extension workers through formal training programmes or through the

creation of exchange networks between farmer extension workers. The importance of the ‘adviser-farmer extension worker’ pairing was also highlighted. As shown by research conducted in Benin, an adviser’s profile has a strong influence on how the farmer extension worker develops and implements advisory activities. This pairing needs to be recognized and the functions of each should be better explained and better differentiated.

Methods used to provide advice

The issue of MAFF methods was discussed during the workshop in terms of their evolution and adaptation in the context of implementation of advisory services and in order to ensure scaling-out. All the current MAFF experiences are based on a mix of collective advice through groups (training, exchanges of knowledge and experiences) and individual advice to better tailor the advice on the farmer’s demands and farm’s characteristics. Every MAFF experiences focus on training and implementation of management tools to plan, monitor and assess agricultural activities (cropping systems management, harvest management, cash flow management, work labour management, etc.) based on technical, economic and financial criteria. The advice on agricultural practices based on training and farm experiments is becoming more important than in the past in many MAFF experiences. Participatory diagnoses at group level to adapt the advice are common in many MAFF experiences. There are no real innovations by combining conventional advisory tools with ICTs or methods inspired by coaching systems or professional didactics. Taking into account these previous observations, the main changes observed can be divided into four major themes: (i) an increasing diversification of forms of advisory services, ranging from technical advice for illiterate farmers to techno-economic advice based on the traditional MAFF tools, (ii) simplification of documents relating to techno-economic advice, given the difficulty expressed by many farmers participating in MAFF, (iii) diversification of tools to better adapt to the diversity of producer profiles and needs, and (iv) diversification of tools to better adapt to the diversity of skills of advisers and farmer extension workers.

In this context of MAFF evolution in terms of methods to be developed, discussions have been led to the possible segmentation of the target audience. What advice with what method for what type of farmer? The majority of workshop participants suggested a segmentation by educational proficiency (literate and accustomed to writing, literate but not favouring text-based advice, illiterate but wanting to turn literate to progress, illiterate). It is obvious that advisory tools¹⁶ will be different for each of these categories.

According to feedback provided at the workshop, experiments of offering advisory services on the basis of farm segmentation (size, type of production, etc.) to provide differentiated advice were not found satisfactory. Through the presentation of the study on learning within the MAFF framework conducted in Benin (de Romemont 2014), discussion also took place on the importance of the farmers’ psychological profiles (proactive, responsive, imaginative, passive) to explain the diversity of learning processes in order to find another way of grouping farmers. But the same question pops up: Should one work with homogeneous groups to provide more targeted advice or instead should one take advantage of the diversity within groups to draw lessons for all? In this perspective, it seems necessary that the adviser and the farmer extension worker each have two different toolboxes on hand in order to be able to deal with different groups and profiles as well as differing advisory needs.

¹⁶ The term ‘advisory tools’ include a variety of tools: tools for farmers (data recording, results analysis at the plot or farm level, reasoning to better define one’s project, etc.), tools for advisers (modalities of organizing an advisory session or field visit, understanding the diversity of farms in an area, etc.).

Discussion

All the changes mentioned above are justified to widen the scale of MAFF coverage (scaling out), to better institutionalize MAFF experiences (scaling-up), and to address sustainability issue. Each change is interlinked with other changes in the other areas we used to characterize MAFF experiences: (i) the methods to provide advice, (ii) the skills of advisors and others actors, (iii) the available funding and (iv) the governance mechanisms. The diversity of interactions entails that each MAFF systems is specific to national and local conditions. This means that actions to address scaling-out and scaling-up issues must be tailored by the actors in each country. As Birner et al. (2009) said there is no standard solution but a need to adopt a “best fit” approach. However, the changes must be managed by taking into account the impact on the intensity of advisory services (number and quality of interactions between advisers and farmers) that MAFF should aim for generating a real learning process at farmer level. Indeed, managers of MAFF experiences remain still undecided between quality advisory services but with a small number of producers (*‘true MAFF’*), and more standardized advisory services which reach a larger number of producers (*‘light MAFF’*). The broad diversity of advisory services (diversity of methods and tools) currently offered to producers for implementing a MAFF approach led to a debate on what is at the heart of MAFF. While the concepts of learning and of farmer empowerment in decision-making processes are at the heart of the approach, these concepts are not the sole privilege of MAFF as shown by discussions on Farmer Field Schools (Davis 2006). Promoting a holistic approach to farm management based on management cycle (analyze, plan, act, monitor and adapt, evaluate the results) is already a more characteristic aspect. Such an approach can be used with both literate and illiterate persons, albeit with a lesser degree of accuracy for the latter category by using specific tools (visual aids, rural theatre, role playing, field trips, etc.). Finally, the inclusion of concepts that allow technical and economic dimensions to be translated to impacts on agricultural production and the farm is a distinguishing aspect of MAFF mechanisms (Faure et al., 2004). Such a techno-economic analysis requires data acquisition and processing which can be more or less extensive depending on the requirements and available time and skills.

The results confirm that the scaling-out and scaling-up issues are far more than a question of human and financial resources available for advisory services. There is a need to redesign all the advisory system including questions related to the methods, the competencies, the governance and the funding. Based on the workshop results, POs play a crucial role to intent to better adapt advisory activities with the farmers’ needs. Some of them have the potential to partially fund advisory activities, to more easily involved farmer extension workers and thus participate in the sustainability of MAFF. However, scaling-out and scaling-up issues are not only a question to better involve POs in MAFF conception and implementation. There is also a need to take into account other advisory service providers in order to better articulate the supply of service, to generate synergies, to share costs, and finally to better address the large variety of farmers’ needs. Such advisory service providers may include both organizations with full time advisors such as NGO or some down-stream companies, and credit organizations or input suppliers with out-reach workers partially involved in advice provision because there is always a mix between providing goods and advice.

Many functions needed for MAFF development have to be better inserted in local and national organizations to tackle the issue of sustainability beyond the projects’ phase. Training activities for advisors is one good example because many universities or agricultural schools are able and willing to design new curricula for agents working in the rural development area. But we also can add back-stopping organizations aiming at supporting advisory service providers with accurate information or new methods. Such a new vision of advisory service provision including various actors providing various type of advice or service entails that thinking in terms of MAFF experience is no more valid to address scaling-out, scaling-up and sustainability issues. There is a need to think in terms of advisory system at local and national level (Cristovao et al., 2012, Cristopolos

2010) and then identify the place and role MAFF can take within this advisory system. In this case MAFF could be defined as an institutional innovation and perceived as a niche innovation (Geels et al., 2007) developed by new actors and protected with the support of projects from other main actors not in line with this innovation. Currently this niche innovation is entering a new phase in many countries intending to modify the socio-technical regime or at least to be absorbed by the socio-technical regime (Geels et al., 2007). Such an evolution is not straightforward as many events can occur to modify the trajectory of change, to slow down or accelerate the process of change.

If we agree with this systemic perspective new thinking is needed to address scaling-out and scaling-up issues. We can provide two recommendations taking into account there is no silver bullet to implement actions. First, there is a need to strengthen the capacity of actors involved in MAFF to be able to translate general principles of actions to change into operational mechanisms that may vary between contexts. It is crucial to gradually strengthen the capacity of a large range of actors such as (i) farmers through their organizations to clearly express their demands and provide guidance to orient the service, (ii) service providers including POs to develop relevant activities and efficient methods without relying exclusively on proposals from support structures, (iii) other actors such as local support structures or public decision-maker. Second, there is a need to connect actors involved in MAFF with other actors of the whole advisory system in order to strengthen interactions and facilitate the creation of partnership without avoiding the fact that potential conflict can occur or competition between service providers can happen.

Conclusion

The workshop helped in analyzing several MAFF mechanisms using a framework based on four attributes: (i) modalities of governance mechanisms, (ii) funding modalities, (iii) capacities and skills of the actors involved in managing advisory mechanisms, and (iv) methods for advising farmers. Each mechanism is context-dependent hence unique regarding characteristics and relationships between each attribute. However some common features concerning sustainability and scalability issues emerged from lessons learnt and debates. POs played a crucial, but not durable yet, role in implementing, orienting and assessing advisory services. Farmer extension workers appeared as key factor for maintaining POs as advisory services providers and extending advisory services to a larger audience. New promising opportunities to train advisors are observed with initiatives carried out both by public and private organizations. Funding of advisory services remains a challenge even if some relevant experiences do exist: implementation of national or regional funds aimed at financing rural development projects including advisory services or levies on commercial products at marketing level. More research should be done on business models adapted to immaterial services such as advisory services. Some solutions could also be found in reshaping delivery models with less costly and time-consuming methods but still efficient. Many attempts are carried out especially in order to include more farmers and especially illiterate ones. But all cases face difficulties to address questions related to the scaling-up and scaling-out.

Lessons learnt from past and on-going experiences helped us to narrow a research agenda regarding burning issues for improving the sustainability and scalability of MAFF mechanisms: innovate in delivery models so as to reduce costs and increase efficiency; produce impact studies that include economical as well as socio-cognitive criteria; capitalize on institutional arrangements that enable better coordination between complementary activities; better consider POs capacities to deliver well-fit advisory services without external support; help the redesign of supporting project in a perspective of durable capacity reinforcement of local stakeholders engaged in advisory services. There is also a need to invest more substantially in the analysis of the impact of advisory services in order to improve advisory policies. If little effort has been expended in this area, it is mainly because the methodological difficulties are huge. Having up-to-date knowledge of

farms will also help guide the advisory services based on the needs of farmers, the diversity of their farms, and the diversity of learning processes.

References

Anderson J.R., Feder G. (2004) Agricultural extension: Good intentions and hard realities. *World Bank Research Observer*, 19 (1), 41-60.

Birner R, Davis K., Pender J, Nkonya E, Anandajayasekeram P, Ekboir J, Mbabu A, Spielman D, Horna D, Benin S, Cohen M. (2009) From best practice to best fit. A framework for analyzing pluralistic agricultural advisory services worldwide. *Journal of Agricultural Extension and Education*, 15 (4), 341-355.

Cerf M., Hemidy L. (1999) Designing support to enhance co-operation between farmers and advisors in solving farm-management problems. *Journal of Agricultural Education and Extension*, 6 (3), 157-170.

Christopolos I. (2010) Mobilizing the potential of rural and agricultural extension. Rome : FAO

Cristovao, A., Koutsouris, A. et Kügler, M. (2012). Extension systems and change facilitation for agricultural and rural development. In Darnhofer, I., Gibbon, D., Dedieu, B. (Eds), *Farming systems research into the 21st century: the new dynamic*, Dordrecht, Springer, 201-228.

Davis K.E. (2006) Farmer field schools: a boon or bust for extension in Africa? *Journal of International Agricultural and Extension Education*, 13 (1), 91-97.

Djamen Nana P, Djonnéwa A, Havard M., Legile A. (2003) Former et conseiller les agriculteurs du Nord-Cameroun pour renforcer leurs capacités de prise de décision. *Cahiers Agricultures*, 12 (4), 241-245

Faure G., Kleene P. (2004) Lessons from new experiences in extension in West Africa: management advice for family farms and farmers' governance. *Journal of Agricultural Education and Extension*, 10 (1), 37-49.

Faure G., Compagnone C. (2011 a) Les transformations du conseil face à une nouvelle agriculture, *Cahiers Agricultures*, 20(5), 321-326

Faure G., Rebuffel, P., Violas D. (2011 b) Systemic evaluation of advisory services to family farms in West Africa, *The Journal of Agricultural Extension and Education*, 17(4), 325-359

Faure G., Desjeux Y., Gasselin P. (2012) New challenges in agricultural advisory services from a research perspective: a literature review, synthesis and research agenda. *The journal of Agricultural Education and Extension*, 18(5), 461-492

Geels F., Schot J (2007) Typology of sociotechnical transition pathways, *Policy Research*, 36, 399-417

Kidd A.D., Lamers J.P.A., Ficarelli P.P., Hoffmann V. (2000) Privatising agricultural extension: caveat emptor. *Journal of Rural Studies*, 16 (1), 95-102.

Moumouni I, Vodouhe S, Streiffeler F. (2009) What Makes Small-Scale Farmers Participate in Financing Agricultural Research and Extension? Analysis of Three Case Studies from Benin. *Journal of Agricultural Extension and Education*, 15 (3), 301-316.

Remy J., Brives H., Lemery B. (2006) Conseiller en agriculture. Dijon, France: Educagri editions.

De Romemont (2014) Apprentissage et reflexion strategique des producteurs agricoles : Construction de la proactivite dans le conseil a l'exploitation familiale au Benin, Thèse Supagro, Montpellier, France, 545 p.

Rivera W.M., Alex G. (2004) Extension system reform and the challenges ahead. *Journal of Agricultural Education and Extension*, 10 (1), 23-36.

Toillier (2012) Summary of the preparatory self-analysis documents for the Bohicon II workshop, <http://www.g-fras.org/fr/434-management-advice-for-family-farms-in-west-africa.html> Swanson B.E. (2006) The changing role of agricultural extension in a global economy. *Journal of International Agricultural and Extension Education*, 13 (3), 5-17.