

Adoption of innovation

in food security and sustainable agriculture by rural populations

The EU's experience in Madagascar

Acronyms and abbreviations

ACP Animateur conseiller piscicole (Fish farming Counsellor Animator)

ACSA Agent communautaire de santé animale (Community Animal Health Agent)

AIM Action Inter-cooperation Madagascar

APDRA Association pisciculture et développement rural en Afrique tropicale (Association of Fish farming

and Rural Development in Tropical Africa)

AVSF Agronomes et vétérinaires sans frontières (Agronomists and Veterinarians Without Borders)

CEFTAR Centre de formation de techniciens-animateurs ruraux (Training Centre for Rural Technicians and

Animators)

COSAL Comité local de sécurité alimentaire (Local Committee for Food Security)

FERT Formation pour l'épanouissement et le renouveau de la Terre (Programme for the Blossoming and

Renewal of the Earth)

FIFATAM Fikambanana Fampivoarana ny Tantsaha Amoron'i mania (Federation of Producers' Organisations

of Amoron'i mania)

FNSSA Food and Nutrition Security and Sustainable Agriculture

FO Farmers Organisation

FSTP Food Security Thematic Programme

MFR Maison familiale rurale (Rural Family Home)

NGO Non-Governmental Organisation

1. Introduction

The adoption of innovation is at the heart of a sustainable development approach.

The purpose of this note is to guide the teams of the European Commission and the Delegations of the European Union on the key issue of diffusion and adoption of innovation in food and nutrition security and sustainable agriculture (FNSSA) among rural populations. Innovation is a recurring requirement of the European Union in the context of development projects. It is essential to anticipate the question of its adoption by targeted populations from the design of the FNSSA programme's action sheet.

This note draws on the results of seven projects of non-governmental organisations (NGOs) funded under the European Union's Food Security Thematic Programme (FSTP) in Madagascar between 2012 and 2017. In a context of recurrent crises and structural food and nutritional insecurity, one

of the major issues was the adoption of various innovations by the populations concerned in order to ensure the sustainability of interventions beyond the time of funding.¹

These projects have introduced locally innovative approaches to help improve the food and nutrition security of rural people. They focused on:

- agricultural practices (for example, with the development of agro-ecological practices and the Adapted System of Rice Intensification):
- · the introduction of new economic activities (extensive pond-dam fish farming);
- support for structuring approaches (local authorities, farmers' organisations, industries, etc.).

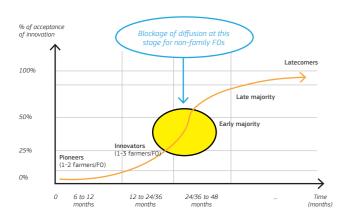
Decentralised services have a leading role to play in the adoption process.

The process of acceptance and adoption of such innovations varies from one individual to another, and the different rates of adoption should be taken into account according to the group (see Graphic 1). Thus, various approaches have been implemented within these projects to ensure the dissemination and adoption of the innovations presented below.

In all these projects, the decentralised services of the Ministries of Agriculture, Livestock and Fisheries as well as the Regional Offices of Nutrition, as an agent of change, prescriber of innovations and/or facilitator for the adoption of innovations, have been closely associated with the implementation. Their role is the driving force in this process of sustainable development.

¹ This note was prepared by Caroline Broudic as part of a capitalization mission led by ASiST, advisory service to the Unit in charge of Rural Development, Food Security and Nutrition (C1) within the Directorate-General for International Cooperation and Development (DEVCO) of the European Commission.

Box 1 - Pace of adoption of an innovation



Note: FO = Farmer organisation.

This graph refers to the categorisation of individuals proposed by Everett Rogers² according to their attitude towards innovation:

- Innovators: Their role in the dissemination process is fundamental since they are at the origin of the dispersion of innovations in space. These farmers have the ability to quickly exploit even complex innovation.
- Early adopters: These are able to quickly adopt the innovation once it appears locally and have the status of opinion leaders. This category of agents therefore plays an important role in dissemination because it enables innovation to spread widely among the population.
- Early majority adopters and late majority adopters: These relate to the largest proportion of

individuals who adopt innovation. These two categories are decisive because they determine the success or failure of the dissemination. Once the critical mass is reached, the probability that the dissemination will fail decreases sharply. Only decision time distinguishes these two categories.

• The latecomers: These relate to individuals who are not easily influenced or not integrated into communication networks, or to individuals for whom innovation generates too much financial risk.

Source: Pouzoullic and Ramaratsialonina (2012, p. 18).

This note shares experiences of the adoption of innovation, and presents:

- · Three complementary approaches to adoption through the transmission of knowledge (Section 2), namely:
 - Peer-to-peer dissemination, illustrated by the case of community animal health workers (Case 1);
 - Dissemination by the proximity council, illustrated by the case of proximity agricultural advisers (Case 2) and the fish farming counsellor animator (Case 3);
 - Mass dissemination, which can rely on peer-to-peer dissemination (through relay farmers/extension workers);
- Adoption approaches through **co-construction** (Section 3), illustrated by the Rural Family Homes approach (Case 4) and by the communal consultation through Local Committees for Food Security (Case 5).

For more information:

European Commission (2018) "Knowledge transmission: a weapon against food insecurity". Film on the experience of the Food Security Thematic Programme in Madagascar. https://europa.eu/capacity4dev/hunger-foodsecurity-nutrition/discussions/innovative-approaches-food-security-madagascar

2. Adoption through the transmission of knowledge

The dissemination of an innovation does not fit into a universally applicable model. The adviser responsible for introducing an innovation to producers must acquire a perfect knowledge of the environment in which they operate to adapt both the content of the technical support and the knowledge transfer process. If one of the conditions necessary for the adoption of a new technique is that it meets a need recognised by the farmers themselves, other sociological, economic or psychological considerations may be equally important.

The introduction of an innovation involves having detailed knowledge of the society in which it is to be used.

The relationship of trust between the adviser and the farmer is decisive for the acceptance of any change, which involves a close relationship established over time. The introduction of new practices is associated with risk-taking, in which not all producers are equal. The risk assumed on a plot by a large landowner whose activities are diversified is indeed less than for a farmer whose survival may depend on the quality of a single crop. The possibility of employing manpower to carry out the work required by technical innovation (see the example of basket compost presented in Box 3 or fishponds presented in Case 3) is also a discriminating factor in adopting new practices. So as to not increase inequalities further, it is therefore necessary to look at this over a long period of time and take into account the constraints of each producer.

The immersion of the adviser in the intervention setting also helps to understand the social hierarchy and the power relations between the

villagers. Barriers can be created by certain stakeholders whose interests would be affected by the introduction of new practices or the structuring of producers. Improving the production or terms of trade for producers can strengthen farmers' bargaining power and thereby change the balance of power within society. The consequences are sometimes the rejection of the farmer innovator (rumours, jealousy) or even collective violence against groups of farmers (farmers' organisations).

The choice of the method of transmission of knowledge depends on:

- the complexity of innovation for example, one could opt for a «mass dissemination» in the case of a technique that can be easily reproduced (Section 2.3);
- the relationship of trust already established between the implementing partner and the populations concerned this, over time, is fostered by approaches such as peer-to-peer dissemination (Section 2.1) or by the proximity council (Section 2.2);
- Specific objectives sought the main objective is adoption, for example through learning or simple information.

Three complementary approaches to adoption through the transmission of knowledge are developed below: peer-to-peer dissemination (Section 2.1); dissemination by the proximity council (Section 2.2); and mass dissemination (Section 2.3).

² Rogers, Everett M. (1962). Diffusion of innovations. New York, The Free Press of Glencoe. https://teddykw2.files.wordpress.com/2012/07/everett-m-rogersdiffusion-of-innovations.pdf



Relay farmers experimenting with different potato seeds © Broudic

2.1. Peer-to-peer dissemination

1. What is peer-to-peer dissemination?

Peer-to-peer dissemination involves promoting the transmission of knowledge by individuals from the same group. Farmer relays are key stakeholders of this sharing of knowledge and innovations. Their role is to promote the dissemination and adoption of new farming techniques and practices through proximity technical support.

2. What is the approach being followed?

The peer-to-peer dissemination approach is based on the **principle of horizontality** and on **the transmission by demonstration in situ**.

The relay farmer shares information, experiments on their own plot (different potato seeds, for example), transmits innovations and supports their peers in the adoption of new practices.

According to NGO feedback, the number of agricultural operators supported by a relay farmer should not exceed 25

3. What are the benefits of peer-to-peer dissemination?

Possibility to identify with the relay farmer: The relay farmers come from the same background and are therefore confronted with similar realities. Farmers are therefore more inclined to reproduce techniques on their own plots as they are adapted to their environment and are within their means.

Respect for differences in pace in adopting an innovation: If some farmers are ready for change, others will only adopt new practices after observing the results. The permanent presence of relay farmers allows everyone to follow at their own pace. The opportunity to visit their plot and have a discussion with them at any time is reassuring for farmers hesitating to take a risk on their farm.

Long-term strengthening of local skills: As the rural farmers come from the intervention commune, their skills will remain accessible to everyone once the project has finished. They can thus support producers on a long-term basis to change their practices or provide answers to specific problems.

Expanding the transmission of knowledge: The role of relay farmer should be seen as complementing that of technicians rather than being their substitutes. The technicians provide a facilitator and trainer function for the relay farmers and are able to provide technical explanations for the adoption of a new practice. Relay farmers pass on

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information through practical demonstrations in their own fields or on demonstration plots (farmer field schools). This combination allows a larger population to be reached (see Case 1 on community animal health workers).

4. What are the key factors of success?

Identification and selection of relay farmers: First and foremost, this delicate step requires the formulation of selection criteria defined according to the expected role of the relay farmer, in collaboration with farmer organisations. However, some prerequisites are necessary regardless of the nature of the project. Thus, the relay farmer must come from the intervention commune and be recognised, by his/her peers and by the technicians, for the good technical and economic mastery of his/her farm. They should not benefit from any above-average status or material conditions that would bias the principle of reproducibility of innovation. They must also be available and mobile.

Outlining the scope of relay farmers' expertise: The relay farmer's field of intervention must be clearly defined to avoid them being asked too many questions outside their area of expertise. To preserve the essential relationship between peers, the relay farmers must indeed keep their family farm. Thus, the time devoted to this pedagogical work must not hinder their own agricultural activities. Their contribution to the dissemination of innovation should therefore not exceed 10% of the time they devote to their agricultural activities. In view of the introduction of new activities and responsibilities, it is necessary to support the relay farmer at the start of the project, in terms of organising and planning their work schedule.

Farmer-relay training: The training of relay farmers must be as much about technical aspects in their field of intervention (fish farming, agro-ecology, rice cultivation, etc.) as on teaching methods. Indeed, it is essential to reinforce their group facilitation techniques and their ability to provide personalised advice to producers.

Support for relay farmers: Relay farmers must be supported in the field beyond the formal training period and benefit from personalised support.

Networking for relay farmers: Links with other relay farmers need to be created to promote exchange of experiences and exchange visits.

5. What are the possibilities of this being sustained beyond the time limit of the project?

Relay farmers earning a living through the project is not a viable long-term option. It creates an artificial situation that cannot last beyond the period that it is funded. On the other hand, the absence of compensation in return for the time commitment risks jeopardising the relay farmer's investment throughout the project. The risk is the demotivation of relay farmers and their demobilisation. The social prestige attached to this role of transmission of knowledge is not enough to compensate the time that is not spent on the farm. Solutions must be provided, right from the design stage of the project, so that the relay farmers can be compensated and thus offer their services on a long-term basis.

The payment of certain services: Relay farmers can be trained and supported in the development of additional market services for their agricultural and advisory activities. This may include, for example, animal vaccination (see Box 2), or the sale of seeds or seedlings.

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Box 2 - Vaccination of gasy chickens (FERT Project)

The structuring of the gasy chicken sector allows members of the group made up of farmers from the same sector (interproducers) to have access to vaccination at much more favorable prices than those of the market. A contract is passed directly between the veterinary agents and the Regional Federation of Producers (FIFATAM) for the purchase of doses of vaccine. These are then sold by FIFATAM to the Interproducer or the relay farmer who is then responsible for the vaccination against payment.

The relay farmer thus receives a wage in return for the vaccination service which will compensate the time he devotes to facilitating farmer members in terms of animal health.

The payment of services to certain operators: Relay farmers can offer their skills and services to state organisations for an income, or to development projects for specific needs. The Agricultural Service Centres therefore sometimes call on relay farmers because of the shortage of technical staff in the decentralised services of the State. These earnings give them the opportunity to offer their services without having to provide a service to their peers.

Benefits in kind: Regular training, the organisation of exchange visits, and the sharing of information are all motivating factors for relay farmers to allow them to be compensated for their investment in the transmission of knowledge.

For more information:

FERT and FIFATAM (2012) "Note d'analyse sur l'expérience des paysans relais. Note rédigée à partir des réflexions durant l'atelier « Échanges sur les paysans-relais au sein des organisations paysannes, des projets et des sociétés privées » tenu à Antsirabe les 28 et 29 juin 2012" (Analysis note on the experience of relay farmers. Note written on the basis of the thoughts during the workshop "Exchanges on farmer relays within farmer organizations, projects and private companies" held in Antsirabe on 28 and 29 June 2012). https://www.fert.fr/en/note-analyse-experience-paysans-relais/

CASE 1

Example of Peer-to-Peer Dissemination: The Community Animal Health Agent

1. What is a Community Animal Health Agent?

The Community Animal Health Agent (*Agent communautaire de santé animale*, ACSA) provides a paid service to livestock farmers in their village or commune in the field of animal health. They carry out their role in addition to, and under, the authority of the public health veterinarian.

2. What is the approach being followed?

The ACSA is elected by the inhabitants of their village (*fokontany*) or commune. They then take recruitment exams and, if selected, must complete a training course of two months and two weeks, organised by Agronomists and Veterinarians Without Borders (*Agronomes et Vétérinaires Sans Frontières*, AVSF) and validated by the Regional Veterinary Service and the public health veterinarian. At the end of the examinations, the ACSA receives an ACSA professional card issued by the public health veterinarian, valid for one year and renewable after an inspection. The ACSA's responsibilities are limited to the following:

- Preventive health measures
 Organise annual prophylaxis campaigns (vaccination and deworming). They are obliged to stock up on vaccines and medicines only from the public health veterinarian.
- Veterinary care
 Provide veterinary care within the limits of training received. For the treatment of pathologies outside the ACSA's field of competence, he/she must refer to a veterinary authority.
- Awareness, advice, information
 Regularly raise awareness, advise and inform livestock farmers and local authorities on their activities and on veterinary care: prophylaxis campaigns, zootechnical improvements in breeding, disease prevention and control measures
- Health monitoring

 Monitor the occurrence of diseases, implement emergency measures and alert authorities (local and veterinary).

3. What are the main results observed?

Improvement of the coverage rate: The public health veterinarian is responsible for animal health at the commune level. The lack of means available to them to travel over a large area (usually by bicycle) does not allow them to carry out their responsibilities. The presence of an ACSA at the village level allows some of their activities to be delegated and thus improve coverage and health monitoring.

Sharp decrease in mortality rates: According to the results of the AVSF evaluation, this scheme made it possible to considerably reduce mortality rates. For gasy chickens, this rate decreased from 36% in 2013 to 4.3% in 2016 and from 42% in 2013 to 1.3% in 2016 for small ruminants.

4. What are the key factors of success?

Permanent presence: The ACSA comes from the village where they carry out these activities. They are therefore permanently present there, which allows them to be readily available to provide the services needed locally and to ensure health monitoring takes place. The training of community agents helps to sustainably strengthen skills on a local level.

Proximity: The ACSA is a livestock farmer and is therefore familiar with the concerns of local people regarding livestock and related areas. Being directly in touch with the realities experienced by the target communities, they can establish a relationship of trust and reciprocity.



Structuring professional groups © APDRA

Working with sector professionals: The deployment of ACSAs is only possible in support of accredited veterinarians. If the commune does not have a public health veterinarian or a cold chain (to distribute vaccines and other medicines), the role of the ACSAs is compromised. Indeed, their skill level does not allow them to replace veterinarians, and difficulties in the supply of drugs or vaccines would compromise their activity.

5. What are the possibilities of this being sustained beyond the time limit of the project?

Margins earned on the sale of medicines and vaccines: The ACSA procures drugs and vaccines from the public health veterinarian and retains a 10% margin on sale prices to livestock farmers in return for their services. This compensation is theoretically only earned alongside their regular income. To maintain the link with peers, the ACSA is indeed supposed to continue their livestock farming job and should not devote more than 14 days per month to their responsibilities in the field of animal health. In reality, it appears that ACSAs devote all their time to this role, leaving their own farming to other family members or abandoning it. Increasing the number of ACSAs would limit this, but this would require the involvement of different organisation so that the public health veterinarian is not the only point of contact for all community agents.

Structuring of Community Animal Health Agents: The establishment of an association of ACSAs is envisaged to reinforce collaboration, pool experiences and bargaining power (with public health authorities, veterinarians, potential service users), and share certain costs (pooling of resources) among ACSAs. This is particularly justified in communes that do not have a sanitary veterinarian where the ACSAs are in direct contact with the veterinarian adviser on a district level.

For more information:

AVSF (2014) "Manuel de Formation des Agents Communautaires de Santé Animale. Réglementation et organisation du travail – Surveillance des maladies contagieuses" (Training Manual - Community Animal Health Agents. Regulation and organisation of work - Surveillance of contagious diseases). https://europa.eu/capacity4dev/hunger-foodsecurity-nutrition/documents/training-manualanimal-health-madagascaravsf

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2.2. Dissemination by the proximity council

1. What is the proximity council?

The proximity council consists of personalised support for producers, in real time and through demonstrations. It involves anchorage on a piece of land to acquire perfect local knowledge, to establish a relationship of trust, and to ensure a permanent presence.

2. What is the approach being followed?

According to FERT, the proximity council is based on the following basic principles:

Proximity: The permanent presence of an adviser to farmers facilitates communication and allows them to respond in real time to their concerns. The opportunity to discuss specific and concrete problems helps to establish a climate of trust, which is essential for the risk taking inherent in change. It promotes the adoption of new practices and regular monitoring. The concept of proximity includes a physical, cultural and social dimension.

Progressivity: The adviser adapts to the pace of each farmer and not the other way around. They take into account their constraints, their reluctance, their knowledge, and their desires, and offer tailored support.

Diagnosis of the territory: The adviser has in-depth knowledge of the land, farmers and the pace needed for changes in practices. An initial diagnosis and a permanent dialogue with the farmers must make it possible to adapt the solutions to the needs and realities of each one. The farmer is at the centre of any decision concerning their farm.

In situ discussions: Technical support is carried out directly on the production sites, whether it be farmers' plots or fishponds, agricultural test areas or exchange visits. It is based on the principle that a demonstration with real conditions is more convincing than theoretical training.

Networking: The communal level allows cohesion and producer networking. The adviser can develop real expertise in a few sectors in his/her commune and easily put producers in contact to develop common solutions to their problems.

3. Examples of a proximity council

Two examples are presented below to illustrate the proximity council - these approaches were adopted in the framework of the FSTP programmes by FERT and APDRA:

- · Case 2: The Agricultural Proximity Adviser
- Case 3: The Fish-farmer Counsellor Animator

Even if the areas of intervention differ, the approach has a number of similarities.

CASE 2

Example of the Proximity Council: The Agricultural Proximity Counsellor

1. What is an Agricultural Proximity Counsellor?

The Agricultural Proximity Counsellor provides support to farmers and farmer organisations (FO) in their area, the commune.

2. What is the approach being followed?

The Agricultural Proximity Counsellor intervenes in 4 areas in a complementary and concomitant way:

- 1. **Technical and economic advice to farmers:** They closely accompany farmers to improve agricultural practices (through training, demonstrations, discussions, etc.) and for the management of their farms.
- 2. The interface between farmers and local development stakeholders: They bring external information (on prices, sharing of experiences, innovations, market opportunities, etc.). They connect farmers with other rural development stakeholders: FOs, private stakeholders, local elected officials or civil servants.
- **3. Monitoring and evaluation**: They measure actions and their effects on the improvement of farmers' production and income.
- **4. Socio-organisational facilitation:** They identify "leader" farmers who are interested in conducting the technical demonstrations and disseminating them to others.

They train, advise and support these adopted leader farmers and put them in permanent contact with the other members.

They intervene through activities with the members so that they participate in the various technical and associative actions of the basic FO (meetings, trainings, discussions).

They allow farmers and grassroots FOs to create a network on common themes and problems and support the development of transversal services.

They support the dynamics of community life of grassroots FOs and communal-level structures: unions, cooperatives, etc.

The three successive stages of support from the Agricultural Proximity Counsellor are as follows:

Participatory diagnosis

of agricultural activities and practices (practiced productions, barriers, level of dissemination of innovations, mastery of the sector) and development of an Annual Work Programme.

Technical dissemination

in situ from the "leader" farmers following the logic: Show, Do and Let do.

Support structuring initiatives

around practical services of the same sector and to the farms economic council.

3. What are the main results observed?

Based on the results of the evaluation of the FERT³ programme, the agricultural proximity council made it possible to significantly improve production, particularly of rice and off-season crops (especially potatoes). Livestock breeding was also stimulated by this proximity support, given the spectacular increase in the number of heads per family observed in the intervention zone. The evaluation notes the following:

- A high rate of adoption of technical innovations: In 2015, 72% of the 2,900 rice farmers monitored adopted improved crop techniques. This rate reaches 98% for potatoes.
- **High impact on yield:** The effects on the level of production of the technical improvements implemented appear very high. In 2015, the average yield of rice in the intervention zone was estimated at 1.3 t/ha in traditional crops against 3.2 t/ha in improved crops; for potatoes, the yields are respectively 6 t/ha against 11 t/ha.

One of the main constraints of this approach is its coverage rate. As monitoring is personalised, the number of farmers who can be supported by a counsellor is de facto limited. To cover a wider population without contravening the principle of proximity, it is possible to delegate the responsibility for purely technical support to the relay farmers.

4. What are the key factors of success?

Duration of the intervention: It is advisable to look at the counsellors' intervention over a significant period (3-4 years minimum) to allow real lasting improvements on the farms and the organisation of producers around common services.

Personalised approach: The farmer is at the heart of any decision on his/her farm. The counsellor consolidates the know-how and self-confidence of the producer and stimulates his/her ability to make changes. The counsellor must adapt to each producer's pace, needs, constraints and perspectives without forcing change.

Territorial anchorage: The counsellor's job is different from that of an extension worker whose approach is vertical. They must adapt to the local context and include the support approach in a dynamic progression, taking into account the role of the stakeholders (farmer organisations, etc.).

Training and support for the counsellor: The counsellor must be supported by a supervisor who is responsible for monitoring several counsellors in the same area in terms of training, work tools and activities to increase their progress in each phase of their work.

Structuring approach: The role of the Agricultural Proximity Counsellor is to support producers in horizontal (farmer organisations) and vertical (sectors) structures. This support involves a commitment in the medium term to achieve the autonomy of these professional organisations.

5. What are the possibilities of this being sustained beyond the time limit of the project?

One of the challenges of this agricultural proximity council is its funding once the project has finished.

The measure of the profitability of the Agricultural Proximity Council: The cost of the Agricultural Proximity Council must be put into perspective with the benefits obtained by this support. This estimate could motivate the handling of costs by the State services, local authorities, and farmer organisations.

Recognition of the Agricultural Proximity Council by the Ministry of Agriculture: The technical services of the State and most development stakeholders favour technical extension to the council of proximity, that is to say the vertical dissemination of knowledge. The technical and economic support on a family farm level, through personalised support according to the needs and realities of the farmer, is not taken into account.

³ FERT (2016) "Évaluation finale du projet PRONUT à Madagascar : Accompagner les changements de pratiques chez les petits producteurs pour améliorer durablement la production agricole et la nutrition des populations vulnérables" (Final evaluation of the PRONUT project in Madagascar: Support changes in practices among small producers to sustainably improve agricultural production and nutrition of vulnerable populations).



Women transplanting rice according to the Adapted System of Rice Intensification method © Broudic

Specialised structuring as an association in the agricultural proximity council: The creation of the Cap Malagasy association in 2012 by agricultural counsellors trained and supported by FERT is an option for extending the action beyond the project time. A member of FIFATAM⁴, this association can indeed benefit from the support of the group. The fact remains that the association is itself dependent on external funding for its operation and the implementation of its actions.

For more information:

Pouzoullic, Joseph and Christian Ramaratsialonina (2012) "Conseiller Agricole de Proximité: un technicien au service des agriculteurs" (Local Agricultural Counsellor: a technician at the service of farmers). FERT and FIFATAM. https://www.fert.fr/en/capitalisation-conseiller-agricole-de-proximite-cap-madagascar-en/

CASE 3

Example of the Proximity Council: The Fish-farmer Counsellor Animator

1. What is a Fish-farmer Counsellor Animator?

The Fish-farmer Counsellor Animator (Animateur Conseiller Piscicole, ACP) is a field agent who supports, at each stage, the candidates for fish farming. Their task is to contribute to the empowerment of producers and the development of fish farming and a value chain.

2. What is the approach being followed?

The ACP intervenes according to the following model:



STEP 1: VILLAGER AWARENESS ABOUT FISH FARMING

Organisation and facilitation of public meetings in the villages

Extensive ponds-dam fish farming is a technical innovation on the east coast of Madagascar. The ACP presents this model and the benefits of fish farming through films and discussions with the population.

Feasibility diagnosis of pond dam construction

The land must meet certain criteria to be validated: area greater than 1,000 square meters for an acceptable return on investment; conditions related to water (non-floodable areas, sufficient sources); and elevation sufficient to be drainable.

The ACP visits and diagnoses the areas put forward by the declared candidates. A first selection is done on easily measurable criteria and a second selection follows topographical surveys.

Awareness on the principles of action

The basic principle is based on **empowering fish farming activity at the local level**. The possibility of replicating the model without external intervention is at the heart of the approach defended by the ACP.

Candidates selected for the establishment of their fish farming ponds do not receive any material or financial compensation considering that they will be the first beneficiaries of the project. The ACP provides them with support only.



STEP 2: SUPPORTING PRODUCERS IN THE DEVELOPMENT OF FISH FARMING SYSTEMS

Construction technical support

The ACP advises novice fish-farmers in the various stages of fish farming pond construction: dikes, monks for draining, bypass channels, overflow system, etc.

Only local materials are used (apart from the cement needed to build the monk) to guarantee the transmission of reproducible knowledge.

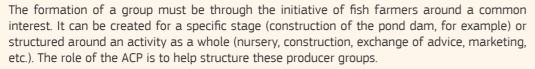
"Even though my academic level is not very high, they are able to explain to me easily what to do. I had never made a dam. Local materials are used, and I can repair it myself now if necessary."

⁴ FIFATAM is a Malagasy umbrella professional organisation created in 1989. It brings together specialised FOs (unions of cooperatives, microfinance institutions, etc.) or more generalists (regional FO federations) in 10 regions of Madagascar.

Support on breeding techniques

The ACP advises fish farmers on the practices of fish farming: nursery, sexing tilapia, fertilisation of the pond, fish growth, management of ponds production and service, fishing techniques, etc.

Structuring of professional groups



STEP 3: MONITORING AND EVALUATION

Participation in the monitoring and evaluation system

The ACP contributes to the ongoing monitoring and evaluation process through the regular collection of information from producers and the monitoring of the fish market.

3. What are the main results observed?

Adoption of an innovative fish farming model: The development of drainable pond dams, autonomy in fish larva, the introduction of a predator to limit the reproduction of tilapia, highly prolific species, rice farming in the fish pond or the breeding of less-known species such as heterotis, carp or gourami, are all innovations introduced by APDRA through the ACP. This activity has made it possible to improve people's food security not only by providing a source of high-quality animal protein and additional income, but also by promoting the water resource for purposes other than fish farming: market gardening, food crops such as cassava or maize, cash crops (vanilla, cloves, pepper, lychees, etc.).

Diversity of the profiles of fish-farmers taking this up: The analysis of the profile of the candidates for the extensive fish farming model developed by APDRA reveals that it is suitable for various categories of households. While large landowners were more quickly convinced because of their investment and land mobilisation capacities, other profiles gradually became involved in fish farming. The malleability of the model, whose main irrevocable constraint is associated with the characteristics of the land, made it possible to integrate small farmers whose family economy is based on the diversification of activities.

4. What are the key factors of success?

Adaptation to the rhythm of fish farmers: The model is progressive and adapts to the financial, time and labour constraints of new adopters. For those who do not have specific plots for fish farming and "constraints" to developing it alongside rice growing, the economic risk is important and justifies a period of observation. The ACPs take a differentiated approach depending on the situation of each fish farmer. Fish production is possible even before the work on the fish farming ponds is completed; income can be generated and thus allow the construction to continue gradually. Fish farming, meanwhile, is not very time-consuming during production cycles outside fishing periods.

Adaptation of fish farming cycles: The ACP's role is to guide and support fish farmers towards different strategies adapted to their constraints and expectations. Several models of fishing cycles have been developed by APDRA taking into account the preferential fishing date depending on the cash flow of buyers in rural areas and cash needs of fish-farmers, the possibility of making rice in the pond during the main rice season, and constraints of springs drying up in the dry season or heavy rainfall in the hurricane season.

Support for forming groups: Grouping of fish farmers is not a prerequisite for APDRA's support. The formation of a group must be on the initiative of the producers if they consider it useful. They will decide for themselves the scope of the exchange: mutual aid for the construction of pond-dams and for fishing, exchange of experiences and advice, donations of fish larva, etc. Without constraining them, APDRA nevertheless encourages, through the ACP, the meeting of fish farmers, because it contributes to better efficiency and sustainability of the intervention.

5. What are the possibilities of this being sustained beyond the time limit of the project?

Structuring an association constituted by the ACP: As the technical knowledge required to disseminate the pond-dam model was not available locally, APDRA provided continuous training over the duration of the project for 12 Fish-farming Counsellor Animators. Present permanently alongside fish-farmers, the ACP have in turn passed on their skills in the development of extensive pond-dam fish farming. These achievements will continue beyond the duration of the project. The ACP also aims to organise itself as an association, which would allow them to offer their services to other individuals or state or non-state organisations.

For more information:

APDRA (2017) "Développement de la pisciculture sur la Côte Est de Madagascar (2012-2017)" (Development of fish farming on the East Coast of Madagascar (2012-2017). https://www.youtube.com/watch?v=WWFUg_xGzQc&list=PLzNAp1TyUKJNWSsKZxthvXyHz0WQ0i-JB&index=2

APDRA (2017) "Fiche de capitalisation n°1 : Contexte d'intervention du PPMCE-SA" (Capitalisation sheet n°1: Context of the intervention of the PPMCE-SA).

APDRA (2017) "Fiche de capitalisation n°5 : Rôles et impacts de la pisciculture sur les exploitations agricoles" (Capitalisation sheet n°5: Roles and impacts of fish farming on farms).

APDRA (2017) "Fiche de capitalisation n°4 : Intégration de la polyculture dans le calendrier agricole de la Côte-Est" (Capitalisation sheet n°4: Integration of polyculture into the East Coast agricultural calendar). http://www.apdra.org/IMG/file/APDRA Capitalisation PPMCE-SA.pdf

2.3. Mass dissemination

1. What is mass dissemination?

Mass dissemination is a technique of transmitting knowledge. Its basic principle is to massively mobilise populations around an already validated innovative technique that is simple enough to be widely distributed.

2. What is the approach being followed?

STEP 1: THE CHOICE OF THE TECHNIQUE TO BE DISSEMINATED

The choice of the technique to be disseminated must be the result of a participatory approach and take into account the peculiarities of the land. Crop growing, being the subject of mass distribution, must already play an important role in the agricultural system of the populations concerned.

The principle is that the technique can be reproducible locally:

- 1. by the greatest number,
- 2. without external dependence.

Box 3 - Illustration of a "mass dissemination" in South-East Madagascar: The cultivation of tubers in *basket compost*.

The principle of basket compost cultivation consists of **concentrating loose organic matter in a hole in** order to increase the plant's development potential.

Why is this technique likely to mobilise the population?

- 1. Cultivation is possible in all types of soil: The supply of organic matter and the deep work of the soil make it possible to set up tuber crops on less fertile land.
- **2. Cultivation is possible in small areas:** This technique is suitable for farmers with space constraints and for whom the challenge is to maximise production in a small space.
- 3. Improvement of yields: According to the FAO, basket compost increases the yield per cassava foot by 5 to 7 times (10 to 30 kg/foot if conventional references are 2 to 5 kg/foot). Reduced per hectare (with wider spacing in basket compost), the yield is increased 3 times on average (10 to 15 t/ha against 3 to 5 t/ha in conventional or poor soil).

The technique of basket compost, however, has two major constraints:

- 1. It requires much more **working time**, and is much more physical than the traditional method of growing tubers for digging pits (especially for yam).
- 2. It requires a significant contribution of **organic matter** (dry herbs, green matter and, if possible, animal manure). Families with zebu and fallow plots to provide this biomass will be able to meet these conditions more easily.

STEP 2: AWARENESS OF KEY ACTORS

To ensure broad mobilisation and sustainable adoption, it is necessary to involve partners from the start of the activity.

- 1. Role of the communal team: The motivation and involvement of the communal team must be conditions for the selection of the territory. The team's contribution to the territorial diagnosis will make it possible to validate the choice of the technique to be disseminated. The team must also participate in the mobilisation of the population.
- 2. Role of decentralised technical services of the State: Involving the decentralised technical services of the State allows awareness to be raised, and, if necessary, to train staff about an innovative technique, thereby promoting its dissemination beyond the geographical area and time of the project.
- 3. Role of the relay farmers: The relay farmer provides the interface, on a voluntary basis, between the farmers and the technical teams of the project. They are designated or elected by their peers. They are involved in (i) mobilising and raising awareness amongst farmers; (ii) supporting farmers in the implementation of the technique; and (iii) monitoring and evaluation of crops. They monitor up to 25 farmers taking this up.

STEP 3: TRAINING SESSIONS

Mass dissemination includes two training sessions, spaced at least one month apart. The number of participants must not exceed 50 people.

1st training

Introduction of the "mass" dissemination approach.

Theoretical presentation of the technique of basket compost (cassava and yams).

Testimonials from farmers who have already used this technique.

Organisation of activities, defining the role of each person and election of relay farmers.

Practice: demonstration of hole preparation and manufacturing props.

The relay farmers support the candidate farmers to prepare their plots.

2nd training

Theoretical reminder of the technique of basket compost.

Distribution of tubers at the germination stage to farmers who have made at least 10 holes and stakes.

The relay farmers monitor (1) the farmers' understanding of the technique and (2) the harvests.

3. What are the main results observed?

Rate of adoption of the technique by farmers: The experience of Inter Aide reveals that 29% of the participants in the training have prepared a greater number of holes than the one originally planned, which reflects an interest in the technique introduced. There is not enough hindsight yet to assess the sustainability of the effects of the transmission of an innovation through mass dissemination. Monitoring is necessary to estimate the level of adoption after several cropping seasons and to observe the adaptations by the farmers.

Indirect transmission of the technique: If the technique meets needs and is easily reproducible, then it is highly probable that the effects of mass dissemination will be multiplied through farmer-to-farmer transmission. Inter Aide's experience reveals that, within the sample surveyed, 30% of the session participants themselves then passed on the technique of basket compost to other farmers.

4. What are the key factors of success?

Integrate the constraints to create strength: The logic is to optimise the period when labour is the most available and to match the end of the maturity cycle with the lean period. Cassava, which has a developmental period of one year, has the following advantages if it is planted in basket compost: it matures during the lean season in April of the following year; the month of April is a lean period in usual agricultural activities - the producers are then available for planting, which requires labour; the abundant biomass at this time facilitates the realisation of basket compost; the price of cassava is higher in April and this crop can be better valued by being harvested at this time.

Focus on simple technical innovations: Mass dissemination is conceivable only for relatively simple techniques which are easy to reproduce without external support. It must indeed be able to be subsequently transmitted from farmer to farmer. It is not advisable to use it for the disclosure of complex techniques to avoid misinterpretation and the indirect transmission of erroneous advice.

Focus on techniques with easily observable results: Many farmers do not adopt an innovation until after observing the results. The easier it is to establish a relationship between the new technique and positive effects on production, the more likely it is that it will be adopted. For ease of comparison, it is advisable to cultivate, in the same environment, a control plot with traditional methods.

5. What are the possibilities of this being sustained beyond the time limit of the project?

Role of relay farmers: The training of relay farmers on the chosen techniques must make it possible to perpetuate the transmission of the innovation once the project has come to an end, to the extent that it is really adapted to the needs and the context. The extension farmers will thus be able to accompany indirect adopters, i.e. those who have not participated in the training but who have been trained or informed by a peer.

Role of deconcentrated technical services: The involvement of decentralised technical services as soon as the technique to be disseminated is identified will facilitate its adoption and its disclosure beyond the project time.

For more information:

Inter Aide (2017) "Expérience de « diffusion de masse » d'une innovation agricole à l'échelle communale" (Experiment of mass dissemination of an agricultural innovation at the communal level). http://www.interaide. org/agri/mada/wp-content/uploads/2017/03/diffusionCommunes.pdf

TERO (2017) "Evaluation finale du projet FSTP d'Inter Aide 'Renforcement durable des capacités productives et organisationnelles des familles paysannes du Sud-est en capitalisant l'expérience Fagnimbogna" (Final evaluation of Inter Aide's FSTP project 'Sustainable strengthening of the productive and organisational capacities of farming families in the Southeast by capitalising on the Fagnimbogna experience'). https://europa. eu/capacity4dev/hunger-foodsecurity-nutrition/documents/final-evaluation-eu-fstp-project-2012 ».

3. Adoption through co-construction

Some projects, funded under the FSTP, are fully or partially part of a co-construction approach. This section presents elements that are related to co-construction, but it is not a methodological guide. It addresses the concept of coconstruction only through the prism of FSTP projects in Madagascar, and is therefore not exhaustive.

Box 4 - A definition of co-construction

"Co-construction is used to highlight the involvement of a number of actors in the development and implementation of a project or activity. [...] Those who are usually among the recipients of activities initiated by competent authorities are reinvested with the ability to intervene in the definition of these activities in the same way as these authorities." (Akrich, 2013)

3.1. Key principles of co-construction

The co-construction approach targets the responsibility and empowerment of populations by developing a knowhow that can be reproduced locally.

The approach consists of support:

- 1. in collective thinking; and
- 2. in the implementation of collaborative responses.

It participates in the emergence or adoption of new practices through a transfer of technical and organisational skills. It helps to stimulate experimentation and promotes collective learning through sharing experiences.

The approach is based on the principle of voluntary participation without financial or material counterpart. A reward in return for the involvement of the actors induces a balance of power contrary to the principle of horizontality. It is also likely to redirect motivations.

3.2. Key steps

1. To raise awareness amongst the populations about the approach

Adopting an approach based on unsubsidised participation first involves informing local populations and stakeholders (local communities, community leaders, etc.). People in rural areas are sometimes used to receiving financial or material compensation in exchange for their participation in a project. Such an approach is likely to produce negative effects such as the infiltration of intervention by an influential minority, a mobilisation that is more interested in the subsidy than the project itself, or the use of a labour force financed by the project for the benefit of third parties. Changing habits can demotivate participants or fuel tension.

2. Support the emergence of solutions adapted to the needs of populations

The approach must accompany collective thinking on local issues and the interest of changing practices (for example, towards agroecological practices) or adopting new activities (e.g. fish farming). An initial participatory diagnosis allows a common understanding of the territory to be shared (its functioning, its resources, its constraints, its needs, its priorities). The approach must contribute to the analysis of possible obstacles to the adoption of an innovation (political, cultural, economic, sociological, psychological) and to their consideration in intervention implementation.

3. Design replicable technical answers locally

Technical solutions are based on locally available materials. This approach helps to strengthen producers' autonomy for possible repairs and allows the model to be replicated by other individuals or groups beyond the project time. The support consists essentially of reinforcing skills and valorising local resources.

4. Provide on-going and on-site personalised support

Training and coaching must be adapted to the skills, needs and pace of each individual or group. Producer constraints (financial and material resources, availability of time and labour) must be taken into account when planning support.

Stock in local materials (AIM project) © Broudic



3.3. Results

The initial investment sometimes requires the mobilisation of significant resources (in time or in kind), which could be an exclusion factor for a part of the population if the approach was not designed to adapt to the pace and the resources of each person.

"Thanks to mutual aid, I can now do some great work that I could not do alone. The group was created for the construction of fish farming ponds, but it is also used for work in sugar cane fields or rice fields."

Fish farmer in the commune of Ambodivoananto.

Exchange: Households that do not have sufficient resources to employ labour to carry out sometimes important work (such as fish farming pond construction) have formed a self-help group. Each member thus benefits, in turn, from the group's work force. In some cases, this form of solidarity has gone beyond the original purpose and has been used in agricultural work that is also labour intensive.

Mutual support within the group also involves exchanges of technical advice in situ.

Progressiveness: Individuals have the opportunity to stagger the construction of the works according to their resources. The start of the fish farming activity, for example, is not influenced by the end of the construction work. It is possible to start the breeding in even a temporary basin and thus generate some resources that will continue the development of the ponds. This progressivity allows the farmer to test both their newly acquired knowledge and motivation for the activity. It thus promotes better adoption.

Solutions must also adapt to the needs of producers and their level of structuring. The co-construction of the stocks by FERT is based on an initial diagnosis that makes it possible to evaluate the farmers' expectations, their practices and their abilities to manage the storage collectively. The proposed technical solutions are progressive and based on the involvement of producers: (1) Sensitisation and support of producers in improving storage; (2) Creation of small storage facilities; (3) Construction of storage buildings made of local materials; and (4) Construction of solid buildings.

This makes it possible to select the most motivated individuals (to become first adopters) without discouraging those who consider themselves to be neither legitimate nor competent.

3.4. Examples of co-construction

To illustrate this theme of co-construction, two examples were selected:

- the approach of the Rural Family Homes (Case 4);
- communal consultation (Case 5) developed by AIM (Association Intercoopération Madagascar) through its support to local food security committees.

CASE 4

Example of Co-Construction: Rural Family Homes

1. What is a Rural Family House?

In rural areas, the supply of vocational training is scarce or non-existent and the general education provided is far removed from the realities of the rural world. Agricultural practices are transmitted from one generation to the next without any training on the technical issues or aspects of economic management of the family farm. Rural Family Homes (*Maison familiale rurales*, MFR) are vocational training centres set up in rural areas for young people aged between 13 and 25, often out of school and based on the principle of work-study.

The philosophy of the MFR is in tune with a definition of co-construction in the field of education which consists of "getting out of a vertical transmission of knowledge by actively and collaboratively uniting pupils or students with the production of learning content" (Akrich, 2013). The creation of the choices and pedagogical contents of the MFRs brings together a range of stakeholders and, in particular, the parents of pupils.

2. What is the approach being followed?

The Rural Family Homes offer alternating 2-year training courses (with an additional refresher year if necessary) and have a two-fold objective:

- 1. offer young people the opportunity to train for a job related to the rural world;
- 2. promote their professional integration locally.

For some twenty years, the MFRs have been working in Madagascar on rural development issues through the training of young people. They aim, in particular, to recognise and value the farmer's profession through the following principles:

- 1. A pedagogy of integrated work-study: Students attend two weeks of classes, followed by two weeks of practical work on the family farm or at a training centre (professional farmers, farmer organisations, etc.).
 - It is a question of stimulating young people's thinking through a real work situation.
 - Youth projects and their aspirations are at the heart of the principles of the training centres.
- 2. Empowerment of families and local stakeholders: The MFRs are local associations that defend the idea of the collective responsibility of the population to train young people. They bring together the families of young people in training and all the stakeholders in an area with an interest in training and the future of young people.
 - Families are involved in the choice of recruited staff and participate in the development of training content.
- **3.** A territorial anchor: The courses are centred on agriculture and livestock, but are adapted to the social, economic and cultural characteristics of the areas. The content of the courses is thus developed, with the input of parents and students, from an initial diagnosis to identify the needs of the location.
 - Emphasis is placed on pluriactivity to enhance food security: agriculture (rice growing and food crops in general) in combination with short cycle breeding (chicken and local pigs).
 - Family budget management (business planning, reinvested sales margins, etc.) also plays an important role in training.
 - Carpentry or small equipment repair courses are also offered to reduce costs on the family farm.

3. What are the main results observed?

The almost simultaneous implementation of the teachings: As the lessons learned during the training are adapted to the land use, the students have the opportunity to put them into practice almost instantly on the family farm. They learn by practicing while enjoying, if necessary, the support of an instructor/farmer trainer.

Regular discussions between student and parents: Discussions between students and their parents are stimulated and are at the heart of the teaching method. On each of the topics studied, the young people are encouraged to observe the practices of their parents, to discuss them with them and then to share the results of their thoughts with the teaching staff and the other students. The constant comings and goings strengthen intergenerational ties by highlighting mutual knowledge. It also allows parents to benefit indirectly from the training.

Taking into account the risks of dropping out of school: One of the main reasons for rural young people leaving school early is their participation in agricultural work on the family farm. By promoting a work-study programme, the MFR allow families to keep their work force as young people can participate in work during their internships or holidays. The programme therefore has less of a negative impact on family mutual aid mechanisms. The fact that the education received is concrete and useful to the family farm also contributes to the schooling of the pupil. Despite the adaptation of the curriculum to the economic and social realities of rural areas, dropout rates and absenteeism during lean periods remain a challenge.

"My parents grow rice. At the MFR I learned about market gardening and the clove nursery. My parents accept these new crops, especially since they are not applied at the same time."

Simon, student of the MFR of Mahasoa

Strengthening territorial anchoring and professional integration: Since the training is based on the continuous accompaniment of young people in their professional project, the end of the cycle is not experienced as a break. Former students continue to receive advice from instructors beyond the training period. This monitoring helps to strengthen their technical knowledge and management skills. By giving priority to local employment, training also improves land skills and curbs the rural exodus.

Improvement of the family farm: The lessons learned both on agricultural techniques and on the management of the family farm contribute to the diversification of activities and the securing of the family economy, and is less dependent on the lean periods.

4. What are the key factors of success?

The involvement of competent and stable teaching staff: The quality of teaching and the stability of the teaching team are decisive criteria for ensuring the attractiveness of the MFRs. The Training Centre for Rural Animator Technicians (*Centre de formation de techniciens-animateurs ruraux*, CEFTAR), established in 2009 in Tamatave, trains rural development actors (MFR facilitators, professional agricultural organisations, NGOs, etc.) to develop their technical and pedagogical skills. As a member of the MFR network, CEFTAR is a guarantee of the quality of training delivered to rural youth and the transmission of the principles of sustainable agriculture (training in agroecological practices).

Respect for the key principles of the pedagogical method: (1) *The training plan* is developed collectively by the parents of students, the supervisors and the teaching team. It is structured around the themes selected according to the experiences of students and the needs of the territory. It contains a general education and a technical education. (2) *The study* is a learning process for observation and questioning. It allows students to open a dialogue (usually with their parents) on the practices implemented in their work placement locations. (3) *Training workshops* allow young people to experiment within or near MFRs. Some students may, for example, experience reluctance, due to their parents' ideas, to introduce new techniques because of the risks of changing practices. The experimental plots allow them to test these techniques before developing them in the open field. The provision of material for carpentry or sewing also offers them the opportunity to learn by practicing.

Access to land for young people and women: One of the challenges of employing young people and women in rural areas is linked to the issue of access to land. The subdivision of plots from one generation to another leads to the transmission of land, the small area of which often makes it impossible to ensure the food security of successors. Families do not have the opportunity to send a plot to young people after completing their training. Leasing is sometimes an option, but it does not encourage the valuation of land because of uncertainties about the duration of leases.

5. What are the possibilities of this being sustained beyond the time limit of the project?

Ensure the financial viability of each structure: The financial viability of the MFR remains, more than fifteen years after the opening of the first centre in Madagascar, a delicate topic. The contribution of the families can only be symbolic so as not to exclude the most disadvantaged. The self-financing of the centres by the sale, for example, of the agricultural production of the experimental lands would compromise their educational vocation and would involve ethical considerations (youth work for economic purposes). The dependence of the MFR on the financing of international donors raises the question of their economic model and the strengthening of possible partnerships with public and private actors.

Strengthen the involvement of public and private stakeholders: Each MFR is an autonomous association that brings together employees, families and professionals (entrepreneurs, farmers, etc.). They form a network represented by the National Union of MFRs of Madagascar, which interfaces with the public authorities, in particular the Ministry of Agriculture, Livestock and Fisheries (MALF), and international and national organisations. Although the MFRs are recognised by the State, the involvement of the latter remains insufficient to guarantee the sustainability of the training centres.

Strengthen the National Union of MFRs: The role of the National Union is "to support the emergence of new MFRs; to support the MFRs in their strategic project, the community life; to support work-study programmes; diversification of the training offer; support for the integration of young people; the search for local funding, etc.". It also provides representation to public authorities and coordination.

For more information:

Le Bissonnais, Anne, and Erceau, Julie (2014) "Les Maisons familiales rurales dans le monde: une contribution originale à la formation et à l'insertion des jeunes" (Rural family homes around the world: an original contribution to the training and integration of young people). L'Harmattan. http://www.editions-harmattan.fr/index.asp?navig=catalogue&obj=livre&no=42983

Erceau, Julie (2012) "L'insertion socioprofessionnelle des jeunes formés en Maisons familiales rurales à Madagascar" (The socio-professional integration of young people trained in rural family homes in Madagascar).

Le Bissonnais, Anne and Erceau, Julie (2013) "Les Maisons familiales rurales, actrices de l'insertion socioprofessionnelle des jeunes: L'expérience des MFR dans 17 pays à travers le monde exemples du Brésil, du Burkina Faso, du Cameroun et de Madagascar" (Rural family homes, actors in the socio-professional integration of young people: The experience of MFRs in 17 countries around the world is an example from Brazil, Burkina Faso, Cameroon and Madagascar). https://www.mfr.asso.fr/media/mfr_monde/Maisons_familiales rurales insertion socioprofessionnelle jeunes monde.pdf

CASE 5

Example of Co-construction: The Communal Consultation

1. What is communal consultation?

In the context of local development, communal consultation is a process that actively involves the largest number of citizens in the community in the **definition of a collective project**. Its purpose is the definition of a public interest project and the implementation of the actions to carry out this territory project.

The project entitled "Approach to integrating the challenge of sustainable food security into the process of strengthening communal project management and inclusive local development" implemented by AIM within the framework of the FSTP, falls within this definition in some respects.

2. What is the approach being followed?

The approach adopted by the AIM project has been to strengthen the capacities of the Communes to fulfil their responsibilities for local development, especially on issues related to food security. According to the laws on decentralisation, the Communes contribute to the economic, social, cultural and environmental development of their jurisdiction. Improving food security is therefore part of communal skills across the economic, social and environmental spheres. The support given to the communal project management is aimed at integrating sustainable food security into local development policies and strategies, by strengthening the capacities of communes on the following four components:

- reinforcing the capacities of the communes to carry out information and communication activities with the stakeholders concerned on the issues of food security;
- supporting communes in their ability to support stakeholders in the selection of beneficiaries and the process of developing their application;
- supporting communes in their capacity to develop appropriate policies and strategies for sustainable food security: and
- reinforcing communes in their roles of steering, coordinating and facilitating local development initiatives.

As part of the project, the Communes commit to the establishment of a Local Committee for Food Security (*Comité local de sécurité alimentaire*, COSAL), designed as a multi-stakeholder consultation forum. The COSAL is made up of the members of the Communal Executive Office and the Municipal Council, the village *chiefs/fokontany*, representatives from the private sector, decentralised technical services of the State, civil society, and ordinary citizens. The COSAL has multiple roles: to target the beneficiaries, to raise the concerns of the base in terms of food security, to make proposals and decisions, to ensure the balance of project intervention benefits, to participate in organising and monitoring activities in the framework of project management, and managing any conflicts.

3. What are the main results observed?

Accountability of municipalities and local committees: The dynamism of local stakeholders (local authorities, civil society, private sector) is a decisive asset for the adoption of interventions and their sustainability. The initial diagnosis must make it possible to identify the existing actors, the balance of power, the existing information and consultation mechanisms, as well as any marginalised populations.

Accountability of local stakeholders

Consensual decision-making mechanism, transparency in management, respect for accountability, respect for commitments, and accountability are all values found at the level of local committees. Respect for these values has made it possible to strengthen the trust of the beneficiaries in their place and are the factors for the success of their initiatives. (AIM/SAHA, 2017)

Strengthening of commune coordination capacities: The territorial diagnosis and the structuring of local consultation committees contribute to a better coordination and synergy of interventions in the commune. Local stakeholders thus gain greater autonomy in decision-making and are able to put forward proposals for local development more closely aligned with the specifications of the land. This better coordination within the commune also strengthens the provision and sustainability of the interventions, as well as the institutional memory.

Coordination within the commune

Raising awareness among communes to benefit from collaboration with other stakeholders within the commune makes it possible to ensure better complementarity of initiatives. The institutionalisation of coordination meetings is relevant for the synergy of actions and to respond to the common challenges of land use such as food security, improving the availability of quality seeds, the problem of land tenure, limited resources, and the lack of management tools at the community level. (AIM/SAHA, 2017)

"The existence of a local committee is a factor favouring the adoption of the action by the beneficiaries, the decisions are taken in a concerted manner, it is a motor of social mobilisation and finally a factor promoting social accountability and transparency".

AIM/SAHA (2017)

4. What are the key factors of success?

Inclusive consultation at each stage of the process of developing the municipal strategy: Consultation with local stakeholders is carried out as part of the diagnosis of the territory, the formulation of needs and priorities (planning), the implementation of the strategy, and monitoring and evaluation of actions. COSAL must not simply be a vector to facilitate the implementation of a project but must be at the heart of making and implementing a collective decision.

Adaptive proximity approach: The support of the communal project management involves a commitment over time to acquire a detailed knowledge of the issues and actors in place and to establish a climate of mutual trust. A close relationship makes it possible to better adapt the support to the needs of the commune and to be more reactive to solve possible problems.

Valuation of existing structures and documents: Since improving sustainable food security is an integral part of local development, the communal strategy for food security should be included in existing territorial planning documents (Communal Development Plan). It is also recommended to rely on existing structures such as Local Development Committees (LDC) or Communal Development Committees (CDC) rather than creating new ones.

Key role of the commune

The Commune, which has the main responsibility for local development and a sustainable structure, is an essential player that can guarantee the sustainability of the activities and the impact of such on improving household food security. (AIM/SAHA, 2017)

5. What are the possibilities of this being sustained beyond the time limit of the project?

The sustainable achievements of the communal consultation: Mobilisation around the territorial diagnosis and the development of a common strategy of food security or local development strengthens their adoption by the local stakeholders. These documents can serve as a reference beyond the length of the project to define priorities and mobilise stakeholders. Continuous local support for local committees in the communal consultation process also durably enhances local capacities for dialogue, conduct of a consensual and inclusive approach and analysis of land issues.

Communal strategy document

This document [of communal strategy] reflects the vision of sustainable food security within the Commune and the ways and means to make it a reality. The consensual and inclusive approach in its development promotes stakeholder engagement at the local level. It is also a tool for advocacy and mobilisation of partners in the hands of the Commune and allows for quick decisions on food security since the actions are already identified. (AIM/SAHA, 2017)

Integration of food security issues: A better understanding by local stakeholders of the food security situation and its determinants favours the consideration of these issues in communal strategies.

Integration of food security

Communes and local committees have gained experience on food practices that are conducive to food security and have tools for steering and mobilising partnerships to improve the framework conditions for food security that can remain beyond the life of the project. (AIM/SAHA, 2017)

For more information:

AIM/SAHA (2017) "La démarche d'intégration de l'enjeu d'une sécurité alimentaire durable au processus de renforcement de la maîtrise d'ouvrage communale et du développement local inclusif" (The process of integrating the challenge of sustainable food security into the process of strengthening communal project management and inclusive local development). https://europa.eu/capacity4dev/hunger-foodsecurity-nutrition/documents/capitalisation-mamafi-project

GRDR (2009) "La concertation communale : Se concerter pour décider et agir durablement sur le territoire. Guide méthodologique" (Communal consultation: Working together to decide and act sustainably on the territory. Methodological guide). http://migration4development.org/sites/default/files/municipal_concertation.pdf





Introduction to basket practice © FERT

4. Conclusion

The different projects have introduced locally innovative approaches to help improve the food and nutrition security of rural populations. These focused on agricultural practices (development of agro-ecological practices, adapted rice intensification, etc.), the introduction of new economic activities (extensive fish farming with pond dams), and support for structuring approaches (local authorities, farmer organisations, sectors).

The major challenge of an innovation, especially in rural areas, is its adoption condition sine qua non of its network transmission and its durability. For this purpose, the decision-making process and methods of knowledge transmission are at least as important as innovation itself. This implies a detailed knowledge of the land use, far beyond agronomic issues alone. Understanding relationships between stakeholders and power relationships in society, knowledge of the structure of family farms to evaluate not only the relevance and the feasibility of innovation but also to measure the capacity of producers to take risks, the security context or even more the feeling of insecurity⁵ are prerequisites for introducing an innovation.

The adoption of an innovation also involves a relationship of mutual trust that requires close support over time. This approach makes it possible to better adapt the approach and solutions to each area and to each individual and to offer support based on progressivity, that is to say, adapting to the pace, needs and possibilities of each producer.

Peer-to-peer dissemination is the approach that best meets these requirements. However, to be effective, it needs to be structured through support for relay farmers (training and continuous exchanges) by the proximity council. Experience also highlights that demonstration and experimentation in situ are the most effective methods to initiate a change of practices. The partner introducing an innovation must be able to measure its impact and be

fully aware of its responsibility. The introduction of a new variety of seeds or chemical fertilisers can, for example, significantly improve yields and encourage farmers to join, unaware of the environmental impacts (water pollution, soil degradation), socio-economic (dependence on private actors for the purchase of inputs) and longer-term yield losses. Innovation can also lead to tensions within villages (for example by changing power relations) or within families (young people confronted with the traditional practices of their parents, for example). These conflicts can be positive if they have been anticipated and if solutions are proposed (for example, involvement of parents in the curriculum of rural family houses, or consultation between stakeholders).

Adoption of innovation in food security and sustainable agriculture by rural populations

The EU's experience in Madagascar

Box 5 - Impacts of innovation

Changes in agricultural practices, the diversification of economic and food resources, and the structuring of stakeholders have made it possible to strengthen the food and nutritional security of the targeted populations. Agro-ecological practices have thus contributed to the valorisation of low fertile lands (sometimes fallow), to increased yields through, in particular, the use of compost, to the diversification of production by rotation methods and the association of crops (although these are still underdeveloped), to the improvement of the living conditions of poor households (and particularly women whose access to land is problematic), and to the diversification of food (awareness of the nutritional value of products). Capacity building in the management of the family farm (diversification of agro-economic activities, improvement of crop storage practices and breeding techniques, analysis of the economic profitability of the productions) and in the structuring of the stakeholders, allowed participants to improve their decision-making and bargaining power (allowing, in particular, a stronger influence of producers, individually or collectively, on the sale prices of production and on the purchase price of inputs) and to minimize idiosyncratic or political, economic and climatic hazards.

To be transferable, innovation must be easily reproducible technically and at a lower cost (that is, from locally available materials). Agroecology, for example, makes it possible to value local resources without input purchases. It is accessible to the most underprivileged households and is particularly suitable for small plots with little agronomic value. The construction of fish farming ponds, which is labour intensive, has stimulated mutual aid through exchanges of working days. A material contribution to motivate participation is likely to bias motivation and alter the sustainability of the intervention, whereas a co-construction approach, while longer to implement, appears more sustainable.

⁵ Political instability and theft, especially zebus, have been a hindrance to development in Madagascar for some years now

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