



Ségou soil tillage network in 2017,
photo by Diakité Bourama

Stimulating mutual learning through agro-ecological experiments

*Networking experience based on joint experiments and the support funds
for local innovations in the regions of Ségou and Mopti*

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Introduction

Low crop yields resulting from the degradation of agricultural land led producers to join forces in order to better cope with food insecurity. The two informal networks described below are made up of producers at the regional level in the Ségou and Mopti regions. The specific character of these groups lies in the fact that they are organized around farmers' innovations for restoring degraded land in their own communities.

The linking between the Ségou groups and those of Mopti was facilitated by the project aimed at strengthening farmer research networks (FaReNe). Networking seeks to improve the sharing and circulation of information on innovative solutions adapted for the restoration of degraded plots of land.

The creation of the networks

The establishment of networks is an activity that took place within the framework of the Participatory Innovation Development (PID) process. The idea of networking was initiated in this process in order to foster or bolster the partnership among those innovators who have solved the same constraints differently or whose innovations are complementary. The idea came about as a result of exchange visits among innovators. The networks' activities focused on the sharing of experiences among the innovative farmers, their community and the technical team of the Association of Farmers' Professional Organizations FaReNe (the Association des Organisations Professionnelles Paysanne or AOPP), the Institut d'Économie Rurale (Institute of Rural Economy) (IER), the Direction Nationale de l'Agriculture National (Direction of Agriculture) (DNA) and ADAF / Gallè). This grouping defined the actions to be undertaken in a participatory manner in order to improve local farmers' innovations that were deemed worthy within the framework of the agro-ecological intensification experiments. In this process, the innovating farmers and their group contributed to the discussion concerning the various activities to be undertaken within the framework of the joint experiments to be carried out with a view to improving the farmers' innovations.

An informal network

An informal network is an unofficial network that is not governed by any administrative or regulatory framework. This type of network was chosen for its simplicity and the ease of its sustainability. It operates exclusively on the basis of consensus among its members. Its effectiveness and sustainability depend on each participant's interest or the benefits he or she can gain through the network. The members of the network are those of the various groups that are involved in the implementation of the project's activities.

During meetings between the networks, the list of participants is drawn up along with their telephone numbers in order to allow mutual exchanges aimed at facilitating the functioning of such networks.

Agricultural advisory and research teams, as external partners of the network, support the groups in their choice of materials and methods that are essential for improving the innovation. In this process, research ensures the success of experiments. Networks contribute to the dissemination of results through different channels (demonstration plots, community radio, awareness raising and demonstration sessions) to other producers.

From 2016 to 2018, the two networks grew from 293 members to 372 members, including 154 women. This shows the importance of informal networking based on Mali's FaReNe experiences in the field of agro-ecology.

The structure and election process of the president and members of the management committee

Informal networks are run by presidents, general secretaries and treasurers who are elected at general meetings. In some groups, the innovative farmer is the president of the network or organization formed around farming innovation. In this case, the innovating farmer is most often proposed by an influential member of the group. The treasurer and the general secretary are usually influential members of the group. In these informal networks, the replacement of the management committee members occurs only in case of departures or deaths.

The networks' role and activities

The networks' activities focus on information meetings, communication, internal and external exchange visits involving joint experiments on farmer innovations in the field of agro-ecology. Examples of experiments are restoring degraded land parcels by planting *Senegalia Senegal* or gum arabic trees, the digging in of organic matter, as well as the improvement of rainwater infiltration by different types of tillage and diversification of crops in order to mitigate the adverse effects of climate change. At the local level, two meetings were organized in accordance with needs to plan those development actions to be undertaken in connection with specific activities related to agro-ecological intensification experiments. An initial meeting was held during the discussions on the results of the experiments and the second at the beginning of the rainy season to specify the number of participants and the steps to be followed. Three inter-network visits were organized with the support of the FaReNe project during the exchange meetings on improved innovations. These meetings and exchange visits generated dynamism and fostered learning exchanges among the network participants in the field of agro-ecological intensification. The topics discussed during the meetings focused on the following: the evaluation of the performance of cowpea, peanut and sesame crops compared to *Senegalia Senegal* in Nabougou; the assessment of the performance of

peanuts and sorghum after ploughing and tillage in Nampasso; the assessment of the performance of millet, sorghum, cowpea and sesame on simple furrows and cross-ridges in Pongonon; and the evaluation of sorghum, maize, sesame and cowpea on a restored parcel of land. Meetings of informal networks were always tied to agro-ecological innovation activities combined with income generation efforts through the use of the local innovation support fund, which is an important asset for network participants.

At the level of Participatory Innovation Development, the specific role of the network is to facilitate the flow of information relating to the correct implementation of joint experiments, from the start of the activities through to harvest time, while respecting the calendar and farming operations that were decided upon by mutual agreement with the network's external partners, namely the agricultural research and consulting team. Local animators play an important role in the implementation of joint experiments in groups' common plots. At the local level, the effectiveness of the network depends on the communication system put in place by the group, the technical capabilities of the local animators and the mobilization capacities of the group leaders. The *Bamanakan* and *Dogon* languages are used during meetings and exchange visits between network members.

Role of informal networks in the management of the Local Innovation Support Fund

There is an informal network at the level of each group, that is made up of the group management committee and resource persons who facilitate the flow of information, the organization of meetings and the execution of experimentation activities in collaboration with the technical team. The specific role of the networks at the local level is to convene the annual general meeting of the group in order both to obtain agreement in principle relating to the activity to be undertaken, and to select the individuals within the said group. The management or distribution of the benefits or profits related to the activities supported by the Fund is entirely the group's responsibility. The costs associated with the various meetings within the networks are borne by the members. Such costs are generally very low even

non-existent. External network players comprising AOPP, DNA, IER and ADAF-Gallè share part of the costs for exchange visits and inter-network meetings.

Network exchange visit in Kiri in 2016 by Diakitè Bourama



Results

Networking has fostered interaction among network members and forged collaborative relationships with other producers. Network meetings organized on productivity improvement activities have functioned as a learning framework. At the organizational and institutional levels, the activity planning meetings were factors of cohesion and internal mobilization.

The adoption of new innovative production technologies resulting from the repetition or replication of agro-ecological intensification experiments by individual farmers is witness to assimilation of the results. Putting a figure on the adoption rate or level

requires a specific follow-up or other evaluation which will necessitate additional resources.

The informal network around the Benkadi Association of Nabougou through its management committee has suffered from a low level of involvement from members in carrying out gum arabic and honey production activities. This problem appears to be linked to the weak leadership from the group's management team and internal divisions related to religion. Unfortunately, this challenge still persists despite the attempts of the FaReNe project's technical team, and this limits the group's reimbursement capacities and the sustainability of the achievements.

Lessons learned

The use of the innovation support fund in the project's various experiments is one of the factors of success, and contributes to the cohesion of members and the sustainability of the informal network. Participatory Innovation Development (PID) acts as a mobilizing agent and encourages participation in the networks.

In order for networks to be successful, an up-front in-depth socio-economic diagnosis at the community level is needed to ensure their operational sustainability with good governance.

The network facilitates mutual learning among innovative farmers themselves and with other stakeholders – other farmers, agricultural advisors and researchers –

in the area of agro-ecological intensification. For example: The performance of dual-use sorghum (human and animal) compared to local varieties grown by producers in the villages of Kiri, Pongonon, Koro Circle, Mopti Region and Nampasso Village, Bla Circle, Ségou Region.

The success of networks depends on the effective involvement of all stakeholders, the various sources of motivation for their members and good governance.

Monitoring and evaluating networks is important for observing the effects generated by their activities, such as, for example, the use of composting technology by network members through appropriate data collection.

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