



How MIS can improve producers' market power and build farmers' organisations voice?

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The Farm Risk Management for Africa Project (FARMAF) aims to improve food security and livelihoods of the rural poor in Africa by enhancing smallholder farmers' access to sustainable tools and instruments to manage farm risks.

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The following partners collaborate in the project:

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Introduction

Agriculture Market Information Systems (MIS) are designed to collect, process and disseminate information on agricultural markets in order i) to improve public policies through increased awareness of market realities and ii) to increase market transparency and, by this way, to lead to a fairer and more efficient allocation of resources.

Small farmers' market power is often hindered by their lack of information on price level at different points of the marketing chain; MIS aims to strengthen their bargaining position by a better access to information. In addition, market information can be used by farmers to guide their production and marketing decisions, and by farmers' organizations for advocating for more producer-friendly policies. However, although a large number of MIS has been developed, their effectiveness in reaching farmers is often far from expectations.

Market Information Systems (MIS) started to be promoted in developing countries in the 1980s, after market liberalization and the withdrawal of parastatal agencies from agricultural sector. These first generation MIS were almost all based on a similar model: covering one type of products, focused on prices only, nation-wide scale, broadcasting by radio, based in public institutions and project-based funded. By the end of 1990's, a second generation of MIS came up, as a joint result of the emergence of ICT (cell-phones and Internet), the rise of stronger farmers organizations and the challenge of regional markets integration. These new technologies have brought about many technical and organizational innovations. Today, four main categories of MIS can be distinguished (as well as mixed configurations): (i) public MIS, often derived from upgraded first generation ones, (ii) MIS held by professional organizations and NGO, (iii) MIS linked to a commodity exchange, and (iv) private MIS.

This brief first presents the different options of MIS development in Burkina Faso, Tanzania and Zambia. Then, lesson learned from these FARMAF experiences, as well as additional cases in Sub-Saharan African, are discussed.

MIS experiences in FARMAF countries

MIS in Burkina Faso

As in many African countries, several MISs live side by side in Burkina Faso: MIS held by publics or parastatal institutions (SIM Sonagess and SIM Bétail, SIMA/PAPSA, SIM/APFLN, SIM/APEX), MIS held by profession organisations (SIM CIC-B) or by ONGs or projects (SIMAgri / APROSSA, FewsNet).

Considering this profusion of initiatives, CPF took the option to collaborate with APROSSA and to contribute to reshape their MIS. APROSSA / Afrique Verte has been working since the early 90's in promoting food security, promoting and supporting local cereal production and marketing. In 2001, a first MIS was developed, covering mostly staples and livestock, in the three countries where Afrique was operating: Mali, Burkina Faso and Niger. The information was disseminated via a paper and email bulletin, together with rural radios. From 2008, APROSSA switched to a TIC devise, backed on a web and mobile-phone platform developed by the Ghanaian based network Esoko. But seeking to have more autonomy, they start developing their own platform in 2012. The new SIMAgri was officially launched in February 2015. Current price of a large range of agriculture products, selling and buying offers, stock availability in members' warehouses facilities are available by cell phone and website.

Through FARMAF, CPF is collaborating in sensitization and training its members on the use of SIMAgri. A special emphasize has been put on farmers group that are also engaged in WRS. Training session has been targeted to wholesalers' as well, but the latter appeared to be more difficult to mobilize. More education programs on market functioning and dynamics are planned.

One often lessons learnt by the experience of APROSSA is the technical challenge to develop a device easily accessible for farmers. The information can be easily accessible through Java application, but all mobile phone are suitable; and if Java application cannot be used, the syntax of SMS

requests is rather complicate for most users. One of the challenge, is to make working together very different professional spheres (/communities): TIC skills and rural development skills.

Promising results for famers involved in WRS system = bulking offer (with a third party guaranty), with quality standards requirement (builds buyers confidence; overview of global availability)

MIS in Tanzania

Several MIS have been set in Tanzania, either public ones (FAMIS and LIMIS), linked to professional organisation (TCCIA MIS, Mviwata MAMIS, TAP/ACT, TAHA Vegetable and Fruits MIS) or to projects (First Mile Project).

The specificity of MAMIS, develop by the network of farmers group Mviwata, is its tight connexion with rural markets development. Promoting farmers' access to market, Mviwata has elaborate a model of market based on improved physical infrastructures in pre-existing market places, managed by a board of representatives stemming from the different categories of local stakeholders. Ongoing transactions prices (registered to levy a fee) are posted in the market it-self. Posting the price of previous market day in the surrounding villages, as well as offering an active commercial place, has contribute to gradually encourage farms to come by them self to the market (instead of relying on intermediary) and had enlarge the geographic influence of the markets.

An SMS based platform started to be developed by Mviwata in a 2012, in order to connect its members with a broader range of markets and traders around the country. The service provides prices on SMS requests (send by market agents, on voluntary bases), and buying / selling offers can be posted. The challenge is to bring-in a large number of users to post information. Sensitization has been directed to Mviwata members, by the outreach staff, and to traders in some major markets connected with regional trade, by the MAMIS administrator. To overcome the reluctance to conclude transactions with unknown commercial partners, farmers and buyers meetings are organized to build trust.

MIS in Zambia

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In Zambia AMIC is the main public MIS, held by the Ministry of Agriculture. Fews Net is also present and ZNFU has developed several cell phone and web based information services.

ZNFU 4455, designed in 2006, is focused on wholesale prices at millers' level. Its originality is to get buying price directly from traders. Transaction opportunities with named companies are then accessible, on an SMS request based system. ZNFU Transzam, initiated in 2011, is focused on loading offers and demand. The system is fully based on a web site, where traders and transporters post they offers and demands.

From 2012, ZNFU developed a broader USSD based service, either to enlarge the range of information and to avoid the constraint of the seasonal use faced by the two latter services. Briefs, evens, market prices, buyers and sellers offers, input and equipment, directory, users' details are available along the displayed menu.

In all cases, the one of main challenge is to promote the services, to sensitise and train the users (mostly in the case of a rather sophisticated system as e-extension). The launched of 4455 was supported by an active promotion campaign, that brought in a significant number of users, but after time, the number of traders providing offers, as well as the number of users, rather decline. ZNFU is now working on promoting e-extension, relying on its field staff.

Adapt dissemination to reach small farmers

In FARMAF countries, as in other African countries, while ICTs have improved information provided by MISs, both qualitatively and quantitatively, the question is whether the chain actors, especially smallholders, with little or no education, are able to take advantage of the information provided.

Dissemination tools (cell phones, the Internet) may increase inequalities by excluding a whole range of small farmers. The cost of communication, even low, can be deterrent, mobile phone networks coverage is still incomplete in many countries and the use SMS and, even more, USSD ability limits. Yet, this risk of exclusion should gradually diminish with the spreading of mobile phones, the falling cost of

communication and the generational learning effect. But meanwhile, exclusion risk can be limited by **diversifying dissemination tools**, consistently with local specificities. In many cases, maintaining the use of radio broadcasts, which reach more farmers than mobile phones, is desirable, together with mobile phone dissemination. The amount of information transmitted through a radio program is much higher and it can be more comprehensive than through SMS. Both can be complementary, educational program on the use of the mobile phone system, as well as on briefs market analysis can be include in radios programs, whereas mobile phone provides more daily elementary information. Billposting, relayed by local extension staff or famers organizations' leaders, can easily reach the lesser educated than anonymous media. Billposting in remote villages around rural Mviwata markets is a good example of an effectiveness, to encourage framers to bring their goods to the market.

Moreover, raw data on the price of products is often difficult to use when one do not have an idea of the market mechanisms, which may often be the case for smallholders. It therefore appears necessary to support the dissemination of raw data with **educational programs** that explain how this data can be used in decision making (i.e. for production, storage, marketing) – and in the case of SMS or USSD systems, to explain how to access to the data. This implies tight collaborations between MISs and ground development programs/projects. In this way, MIS linked to farmers' organizations are in a good position, with their capacity of relying on their ground staff and local leaders as trusted and personalised transmission belts of information.

Information on timely prices alone is not enough

Prices have always been the main focus of MISs, and providing *real time* prices has become the challenge that todays' MIS try to meet thanks to ITCs. But **farmers also need market information for strategic decision-making** (which crops to grow, which variety to choose, whether selling or storing...). Although many MIS have broadened the range of information they cover, this is not the general case and some key information is often unavailable or unreliable. This includes short to medium-term trends, contacts of buyers or service

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providers, availability or scarcity of products in production and consumption markets, stocks estimates, transport costs, government interventions on markets etc.

Diversify of product covered needs also to be considered. **Information should not be limited to the few main commodities** (for which producers generally have a fairly good understanding of the market). With growing demand and increasing land pressure, secondary cash crops and livestock play a growing importance in improving income for poor households or for women ; but their markets are often much less transparent. Information on inputs is critical to provide as well, to favour intensification.

However, a balance must be found between the diversity type of information and of products covered, and the available resources. More diverse is the information provided, more demanding is the sourcing system, to be sure to get regular information and to be able to check its reliability. And more diverse is the information, more technical is the dissemination tool, with the risk to exclude a broader range of users.

Enhance market information and analysis to feed policy dialogue

It should be noted that today, almost all the MIS tend to focus primarily on information for private market players (farmers, traders, processors...). However, good quality information on markets is a key issue for policy design and implementation. More than daily prices, it is processed and analytical information that is needed for policy orientation and monitoring. But to produce such analysis, a MIS needs sound analytical skills (or collaborations with universities or research institutions, as is the case of OMA in Mali, for example).

MIS can be valuable tools to stimulate debate on policies, especially if they disseminate their analyses not only to public policymakers but also to professional organizations leaders. In this respect, the most promising configurations are MIS which are involved in forums gathering representatives of market stakeholders and government (as it is the case of the Observatoire du Riz in Madagascar; which has been settled jointly with an interprofessionnal consultation body). MIS can this way contribute to make policies more consistent with

the real situation of markets and more predictable (thus reducing the distortions that uncertainty on policy decisions may generate on markets). But, in order to be able to efficiently build and defend they position in such fora, FBO leaders often need targeted training to strengthen they advocacy capacity. MIS hosted by professional organizations are promising options in this sense. For example, ZNFU sometimes uses market information collected through its MIS for policy lobbying, but more analytical capacity on market analysis could be valuable to contribute to the *Maize Stock Monitoring Committee*, a multi institution food security monitoring body.

Networking and collaboration to build experiences from a diversity of models

Given the large range of technical and organizational innovations that have been developed over the last 15 years, a great diversity of MIS is operating today. In most countries, several MIS cohabitate and projects are often willing to initiate new-ones. No one-fit-all model can be defined. The appropriate format depends on the aims of the MIS and of the local context. But more collaboration and networking among MIS is need, to exchange experience, avoid duplication, develop complementarities rather than competition. That is for example what CPF intends to do in Burkina Faso, collaborating with APROSSA for the development of SIMAgri, and periodically organizing consultation meetings between the different MIS of Burkina Faso. At continental scale, of project of network of African MIS (AAMIS-Net) is under discussion, under the auspices of UNECA.

A MIS held by a professional organization or a private MIS is often more reactive, seeking to adapt to the needs of market participants, but in contexts where the vast majority of targeted farmers have low incomes, they will not be financially viable without public budget contribution. Public-private partnerships can be a way forward for MIS, making use of the complementarity of public and private parties. Free dissemination of basic information can be supported by public resources, while selling more elaborate or specific information (e.g. market analysis, quality specifications, individual advise), and providing complementary income generating

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services (e.g. brokerage, storage, information package backing contracts between agro business and farmers).

Monitoring and evaluating innovations

Policy makers and donors are increasingly interested in thorough micro-econometric impact analysis to orient budget allocation. A growing number of studies have been addressing MIS impact but they fail to provide a full assessment (that would cover either impact on market stability, income generation, equity, policy decision). Most empirical impact studied has been focused on farmers' income. They have detected moderate or insignificant effects, but their validity must be limited to their specific local context. Indeed, impact assessments should not be used as sole criteria for deciding whether or not to fund a MIS.

Nonetheless, mobile phone based MIS give the possibility to identify users and to quantify the intensity of use of the system. Light methods of monitoring can be developed on this base. Rather than trying to measure the impact of MIS, more qualitative assessment can usefully be oriented in users' behaviour and on their constraints to access and use the information disseminated, in order to gradually adjust the services with an

iterative approach. Such monitoring and assessment methods are tested in Burkina Faso with SIMAgri, as part of FARMAF activities.

A need of complementary services to improve market access

Lastly, information is necessary, but alone, is definitely not enough to improve farmers' negotiating power or ability to choose the most profitable market place or selling period. Interlinked contracts (like input provision tight to product sale), cash needs, remoteness or lack of transport facility, often hamper farmers' ability to catch market opportunities. Market access constraints must be tackled in a systemic way. The impact of MIS can be significantly improved if it is brought together with other aspects of marketing support, including credit access, storage infrastructure, warehouse receipt systems, collective marketing, market place facilities, commodity exchanges... Conversely, the existence of a MIS is determinant for the success new market institutions, like warehouse receipt systems or commodity exchanges. In Burkina Faso, for example, CPF is undergoing promising results with its members involved in WRS. With a bulked offer, meeting quality standards, SIMAgri becomes an adequate tool to advertise their products and look for the best selling opportunities. It is this kind of approach that has been developed by FARMAF.

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