



Food and Agriculture Organization
of the United Nations

Trial, error and success: Learning from twenty years of voucher interventions for agriculture in Mozambique

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SUMMARY REPORT



Speakers:

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Introduction

The webinar looked at the past and present experiences from **Mozambique**, where the **Food and Agriculture Organization of the United Nations (FAO)** has been implementing **voucher interventions** over the past 20 years. The event presented issues as diverse as **food security, market development, dissemination of new seed varieties and FAO technological innovation**, and will give space to reflect on the way forward. This report presents some key learning points and addresses the questions and comments posed during the event.

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Key learning points

There are many lessons learned from FAO Mozambique's e-voucher experiences. Some key learning points include the following:

- The importance of an **integrated approach**. In many contexts, voucher interventions alone are not going to address problems that have several root causes, some of which are beyond FAO's capacity to solve. In Mozambique, FAO development programmes include vouchers but also farmer field schools (FFS), demonstration plots, post-harvest management, support to Government's capacity to implement seed quality control, and training on nutritional practices.
- Other additional, often overlooked key factors, include farmers' access to markets (determined by distance, quality of roads, etc.) and farmers' capacity to aggregate production and manage collective sales. That said, if a voucher intervention takes place in a context where basic social services (primary health care, clean water, sanitation, primary education) are utterly inadequate, everything becomes very difficult.
- **Building market development** is essential. That means developing the capacity of agro-dealers and retailers without whom the market is weak and a voucher intervention would not be feasible.
- **Identifying bottlenecks in the inputs supply chain** is important.
- **Seed quality control** and **local institutions capacity** to monitor the quality of inputs available in local markets monitoring are key.
- **Partnerships** with other actors engaged in market development are valuable.

Questions and answers

Collective and collated answers provided by the speakers

1. On co-payment

- **What does the co-payment mean? Is it co-farmers or farmer and project?**

Co-payment means that in order to be eligible for FAO voucher assistance, farmers must pay a percentage of the value of the voucher they receive. There are only a couple of FAO offices that have introduced the feature of copayment in their voucher programmes and Mozambique is one of them. FAO Mozambique requires co-payment only in its long term development programmes, not in the emergency interventions that respond to humanitarian crisis.

- **Roughly what's the co-payment amount made by the farmers? What other criteria was considered in the selection of these farmers?**

The co-payment as percentage of the value of the voucher varies from one category of beneficiary to the other from one programme to another. In the MDG1c programme (2013-2019), co-payments were as follows:

- One group of farmers received a voucher worth approximately USD 35. The co-payment was of USD 8.6, i.e. 25 percent of the value of voucher.
- A second group received a voucher worth approximately USD 130. For them co-payment was of USD 58, roughly 45 percent of the value of the voucher.

During the agricultural campaign of the most recent development voucher programme, PROMOVE Agribiz (2020-2024), the co-payments are as follows:

Target Group	Co-payment (USD)	Co-payment (%)	Voucher Value (USD)
Vulnerable farmers	4	13.3	20
Subsistence farmers	12.5	25	50
Small farmers	55	45.8	120

Apart from the co-payment, criteria were set for the different target groups of farmers considered, including:

- agricultural activity as main source of income for the family (households whose members do not hold a formal job in the private sector or in government);
- be resident in the area for at least two years;
- own an area ranging from 0.5 ha (vulnerable farmer) to more than 2 ha (small producer);

- no other member of the family benefits from the e-voucher; and
 - preference to farmers who are members of farmer field school (FFS), women-led households, and to farmers from families with children below five years.
- **What was the card value, and what was the fraction of the co-payment?**
In the MDG1c (2013-2019) programme, the e-vouchers were worth USD 35 and USD 130 for two categories of targeted farmers. In the PROMOVE Agribiz (2020-2024) programme, e-vouchers are worth USD 20, USD 50 and USD 120 respectively for three categories of targeted farmers.
 - **What's the percentage of share of the co-payment compared to the value of the goods that the beneficiaries will receive?**
The level of co-payment and the amount of the subsidy (value of the voucher) is determined by the programme strategy and it may be adjusted as implementation proceeds. Co-payment varies, for example, between 2013 and 2019, it varied from 25 percent (for a voucher worth USD 35) to 45 percent (for a voucher worth USD 130).
 - **Did co-payment requirements result in a problem of inclusivity during the beneficiaries selection process? If yes, how did address these issues?**
By design, a co-payment excludes the poorest farmers who cannot afford the co-payment. As mentioned in the presentation a co-payment involves trade-off. It's important to note that in 2013 the co-payment was advocated also by the Government of Mozambique with the goal of discouraging what they considered recurrent free handouts.
 - **Does the scale of the disaster influence the percentage contribution of co-pay? For example, farmers impacted by cyclone versus farmers impacted by drought.**
No, because in FAO multiple responses to a humanitarian crises, no co-payment is required from beneficiaries.
 - **In case of emergency response, sometimes co-pay may not be possible, then what happens? Is Co-pay mandatory?**
FAO Mozambique has a co-payment requirement only for its long term development voucher programs—never in its humanitarian responses.
 - **In development projects, is the co-pay contribution constant over the years, or does this co-pay from the beneficiaries increase?**
Currently, the value of the co-payments is constant but FAO is considering the possibility of changing/increasing the percentage of farmers' co-payment over the course of the four-year programme.

2. On beneficiaries and beneficiary selection

- **Were farming households targeted individually, or was there inclusion of farmer cooperatives/associations?**

Beneficiaries are targeted individually. Some of the beneficiaries of the voucher intervention are members of farmer field schools (FFS). FFSs are involved in the broader programme of which the e-voucher is a part. Being a member of a FFS is a secondary eligibility criteria used in the targeting process of FAO development voucher programs.

- **How are selected farmers informed about this opportunity and how do they get access to the vouchers?**

FAO informs communities well before the selection and registration process through various partners (e.g. extension agents, non-governmental organizations [NGOs], local government, etc.) as well as with FAO staff.

- **Are farmers free to choose what they think is important to start their agrarian season or is there a limited number of inputs to choose from?**

Farmers are free to choose within a list of inputs defined for each target group. The list of inputs is defined taking into consideration the agro-ecological conditions, agriculture season and value of the package. The composition of the list of inputs is determined together with government at different levels (local and central).

The agricultural inputs covered by the current FAO voucher intervention include maize (open pollinated variety [OPV] and hybrid), rice, sorghum, cowpea, pigeon pea, bean, soybean, groundnut, sesame, vegetables (tomato, onion, cabbage, pumpkin, okra and eggplant), fertilizer (NPK), urea, hand-tools (hoe, machete and sickle), post-harvest insecticide and inoculant for soybean.

3. On agro-dealers and markets

- **What criteria was used for selecting the agro-dealers in the voucher program? Of concern, as a seed company, is good number of agro-dealers fail to pay after been paid by FAO or may have accrued a debt before the program. Seed companies would prefer selection of agro-dealers who paid up with major suppliers to sustain the seed value chain.**

The criteria used to select the agro-dealers are as follows:

- Must have a commercial license issued by local government authorities.
- Must share with FAO a list of the assets that they use to run their business, including warehouse, number of shops that they manage directly, number of retailers with whom they work, trucks that allow them to transport goods and to carry out moving sales when there is a need to reach remote communities far from shops.
- Must be willing to have their seeds tested for quality by the provincial seed lab at any given moment during the voucher intervention and during the selection process.

- Commercial reputation and credit-worthiness: FAO contacts the wholesalers from whom each agro-dealer buys inputs checks the commercial standing of the agro-dealer. In particular, FAO checks whether agro-dealers repay on a timely fashion inputs purchased on credit from the wholesalers.
 - Agree to sell inputs at the prevailing market prices determined by FAO during the market assessment prior to the voucher intervention.
- **Could you please describe the range of outlets (the range of markets) to which the e-vouchers are tied?**

FAO works with market outlets at three levels. Most importantly, FAO works directly, entering into a contract, with agro dealers who operate in the area of the voucher intervention. Agro-dealers, in turn, work with a network of retailers through which they are able to reach a larger area than it would be possible with their own shops. The third level is constituted by wholesalers, which sell inputs to agro-dealers, sometime on credit. FAO interacts with the latter to check whether agro-dealers are in good standing from a commercial point of view. For instance, FAO checks their credit profile (e.g. do they pay the inputs they buy on credit on time or not?). In the future, FAO plans to involve in its voucher interventions local seed producers who produce Quality Declared Seeds (QDS) seeds but are currently unable to participate due to various obstacles (e.g. institutional lack of resources to test quality of seeds).
 - **As was mentioned, seeds in the market are generally of low quality. Have you tried collaborating with the quality seed producers and linking vouchers to their outlets to overcome this issue?**

See answer above. The quality of seeds has improved over the years in the provinces of Manica and Sofala in part thanks to FAO voucher interventions for several years in a row. In order to work directly with local seed producers, FAO needs to work closely with the Government and the provincial seed labs (which in Mozambique are generally under-staffed and under-resourced) to test the quality of the seeds produced by local seed producers. Lack of capacity of these seed labs is one of the reasons why FAO has not worked closely with local producers of QDS seeds. This is an area that should be further explored.
 - **Please elaborate a little more on the specific support provided to strengthen the agro-dealers network.**

When an agro-dealer participates in a FAO voucher intervention, he or she acquires (depending on how well served the area is he/she can cover with his/her network of shops, retailers and trucks for mobile sales) between 300 and 3 000 beneficiaries. Therefore, participating in FAO programs gives agro-dealers a significant and coveted opportunity to expand their business.

After the agro-dealers have expressed their interest in participating in the voucher intervention, FAO admits the agro-dealers who meet all the requirements. Furthermore, FAO

informs those who do not of what is needed to meet the requirements thus opening a communication channel which provides an opportunity to exchange information on the challenges faced by traders who wish to upgrade their business in terms of quality, management, etc. FAO is currently envisaging to set up a training program, possibly in collaboration with the non-profit organization African Fertilizer and Agribusiness Partnership (AFAP), to support retailers and agro-dealers who would like to be involved in FAO voucher programs.

In sum, by setting requirements that must be met in order to participate to the voucher intervention, FAO provides an incentive for market actors to upgrade their business.

- **Did the voucher system change in any way what the agro-dealers put on offer? Did vouchers change the supply side? For instance, because of vouchers, were dealers encouraged to put a greater range of goods (and crops/varieties) on offer.**

Yes. At the start of the MDG1c voucher programme (2013) most agro-dealers were selling a few varieties of OPV (e.g. Matuba) and hybrid (e.g. PAN 53 and PAN 67) maize. Since then, FAO put in place a suite of activities (demonstration plots, seed multiplication activities by farmer associations and FFS members, field days organized by FFS that aimed at disseminating awareness and knowledge among farmers about other varieties. These activities stimulated the demand for new varieties and eventually by 2018 most agro-dealers were selling a broader range of varieties including Matuba, ZM521, ZM 523, ZM 309, Sussuma, Tsangano and Gema as well as hybrid ones PAN 53, Pan 4M, Pris 601, SP1 and Alto Molocue. Similarly, in 2013, NUA 45 beans were available only in limited quantities in local markets, Nowadays, after several years of FAO promotional activities, NUA 45 beans are widely available in the shops of participating agro-dealers.

4. On Identification, Delivery, Empowerment Applications (IDEA) and its features

- **Does the system work with smartphones?**
- **Did you have any challenges with regard to use of an e-based system by farmers considering the need for literacy? how was this handled?**

Yes, IDEA is based on Android and can work on any smartphone or tablet based on that operating system

Farmers don't need any specific level of literacy to take part in our projects. The end-user applications, for registration and redemption, are managed by our implementing partners and agro-dealers. Farmers need only to carry their cards with them

- Who hosts the platform does the country office have control over the system?**

The country office owns the cloud server and the domain. The system is developed and maintained by OER in close collaboration with the country office. Access to data and permissions are regulated and protected according to roles and responsibilities.
- Does facial identification system demand internet? If so, how is this ensured in areas where internet outreach and the connectivity area poor?**

Facial identification doesn't require an internet connection. The identification is performed against the information stored in the beneficiary cards and so doesn't require an internet connection. The data about the transaction will be later synchronized by the agro-dealer once an area with internet coverage is reached.
- Does the government (Ministry of Agriculture) have access to the info in the AGRIBIZ dashboard? If yes, to which type of information?**

The Ministry of Agriculture does not have access to the AGRIBIZ dashboard, but it will when FAO Mozambique hands over the system in a few years' time.
- To what extent is FAO developing the capacities of the Ministry of agriculture's staff? Will there be a hand over of e-vouchers system to the government at some point?**

FAO developed in Mozambique its own platform (IDEA) less than seven months ago. The current plan is to handover the system to the Government of Mozambique at the end of the ongoing four year programme.

5. On impacts

- How many crops were part of the FAO voucher intervention? Was the impact assessment done for crops other than Maize?**

As mentioned before, the voucher intervention in development programs cover many varieties of maize (OPV and hybrid), rice, sorghum, cowpea, pigeon pea, vulgar bean, groundnut, sesame, fertilizers (NPK, urea), hand-tools (hoe, machete and sickle), post-harvest insecticide and inoculant for soya crops. The impact assessment focused on maize and beans. The slide in the presentation showed only the results for maize.
- Did you come across any unintended results like deforestation while getting increase of areas of maize cultivated?**

There is no evidence of this type of unintended consequence. Farmers expanded farming in areas that were already allocated for agriculture. It must be considered that in the provinces

where FAO has been implementing voucher intervention for the longest time, deforestation had already occurred before the start of FAO programme.

- **What has been the impact of the e-vouchers on the formal seed system? You have mentioned the graduation of agrodealers and challenges of seed quality, but what about the overall quantities of seed produced by formal seed sector companies - are they able to provide for the increased demand? And is the demand for seed by the e-vouchers displacing private seed sales to farmers?**

The wholesalers who provided the bulk of the seeds available in the agro-dealers' shops between 2013 and 2019 all recorded a significant increase in sales (> 300 percent) in sales. In addition, over that interval, FAO never witnessed a shortage of seeds. In sum, the increase in demand was matched by an increase in supply. Of course, the increase should not be attributed only to FAO programmes since there are several other aid programmes in the area. But we know that FAO beneficiaries kept buying high quality inputs well after FAO voucher interventions had come to an end. FAO is not aware of displacement effect. This is an aspect worth investigating more in depth.

- **Have you conducted any impact assessment for co-payment beneficiaries and free package beneficiaries? Are there significant differences in the impact indicators for these 2 groups if assessments have been done?**

The impact evaluation focused only on the long-term development MDG1c voucher intervention.

- **In 20 years of support, is there a province where communities have shifted from FAO's voucher support and now have access to sufficient quantities of seed from own production?**

FAO Mozambique has indeed implemented voucher interventions in the country for 20 years but it did so continuously only in two provinces (Manica and Sofala), and only from 2013 onward. Having said that, the evaluation noted that farmers kept on buying inputs after the voucher intervention had come to an end including hybrid seeds which cannot come from own production. At any rate, this is an aspect that is worth of further analysis.

6. On sustainability and uptake

- **How is FAO ensuring sustainability of the intervention in Mozambique? Who will be the entity that will take over from FAO?**

FAO will continue working on the improvement of the FAO system with the objective to make it available to the Government of Mozambique in about four-year time.

- **Knowing that voucher systems are based on market functionality (availability and quality) and from the key challenges presented, how did you tackle aspects such as weak supply chain, or weak access or poor quality? Any complementary programming targeting the offer side of the market?**

In the areas where FAO has implemented vouchers for the longest time, the market has become stronger in terms of number of agro-dealers, their professional standards, the volume of their stocks, and the quality of seeds available in part thanks to the incentive FAO voucher programme provided to agro-dealers to upgrade their business. Furthermore, several years ago, FAO supported (with equipment, training) the provincial seed lab in the province of Manica to help its staff to conduct tests of seed quality, including that of agro-dealers' seed stocks in the provinces of Manica and Sofala. Without a reliable seed lab's capacity it would be difficult to carry out a large scale voucher program focusing on agricultural inputs. FAO is planning to replicate this type of support in other provinces.

- **What is FAO's graduation model employed in Mozambique to help farmers graduate from subsistence farming?**

FAO's strategy was to design and implement a multi-component programme of which the voucher intervention was one element. The primary objective of the programme was to increase the quantity of staple crops produced by smallholder farmers. This was expected in turn to improve farmer's food security and increase their incomes. As the evaluation showed this objective was at least to some extent attained.

- **The e-Voucher is one component of a programme as in the case of the MDG1c project. What were the other components of the MDG1c or which other components would you recommend to go together or to "complete" the e-Voucher?**

The success of the voucher interventions depends on various factors, namely:

- How reliable the agro-dealers are in terms of quality, delivery, integrity, etc.
- How effective is the system (network of seed labs) that controls the quality of the seed that can be purchased with vouchers.
- How accurate was the targeting.
- Importantly, a voucher program should be integrated with other activities that FAO sets certain criteria including willingness to have their seeds tested at any given

moment. FAO checks with the wholesalers the credit history of the agro-dealers to ensure that they will not default. Third, FAO monitors the prices of the inputs that farmers redeem and the prices must be within prevailing market prices previously assessed during market assessments.

- A good, reliable management information system able to store and manage beneficiaries' data and their entitlements effectively. FAO Mozambique system allows to track almost in real time all the transactions and with some effort enables FAO staff to discover irregularities (mistakes, fraud attempts).
- Undertaking an impact evaluation to understand whether observed changes (food production, income, food security) are due to the intervention that is evaluated or to other factors.

7. On seeds, seed systems and partnerships

- **I am curious to know whether FAO Mozambique's approach is currently being pursued to assure seed quality, particularly for a short term period?**

Seeds provided through the dealers have undergone quality-assurance, and be of new varieties. Many farmers have been able to assess field-level performance of these new varieties through FFS and demonstration plots.

As in many countries, there is scope for continued improvement of seed quality by strengthening the capabilities of the quality assurance procedures (field inspections, analytical laboratories, labelling, etc), but also in practices along the seed value chain (seed transport, handling, treatment, storage).

- **What is FAO's general position in relation to genetically modified organisms (GMOs) and hybrid seeds distributions?**

FAO does not interfere in the policies or decisions, including those related to GMOs, of its Member Governments and so it has no position regarding the development, testing or commercial release of GMOs in any specific country.

Regarding hybrid crop varieties, FAO does not have a blanket position. Where these varieties perform well and value chains operate effectively to support input supply - for example greenhouse production of vegetables for the market – they may be part of the technology package. In post-disaster situations, for staple crops such as maize, the provision of hybrid varieties is generally discouraged. It depends on the farmers' context

- **What is the status of Agri-Research System and its collaboration with FAO to improve the seed quality for high production and acclimatizing to the climatic conditions for ensuring climate smart agriculture? What is the role of Agri-Extension for the transfer of technology developed by the research scientists? How is FAO coordinating with government institutions and how is it connecting to farming communities?**

[Farmer field schools \(FFS\)](#) are an important means to link farmers to agricultural research, identify promising new crop varieties, and promote them in farming communities.

During [2019](#), more than 17 500 smallholder households engaged in 703 FFs. FAO continued the expansion of the FFSs with 104 additional groups, and 171 extensionists trained in the FFS methodology.

The varieties themselves came from agricultural research institutes, both national and the CGIAR. FAO continued strengthening the capacity of Ministry of Agriculture and Food Security (MASA) to provide quality agriculture extension services. In order to increase seed availability of improved crop varieties, FAO continued supporting farmers and the Agricultural Research Institute of Mozambique (IIAM) and the private sector through seed breeding and multiplication programmes. In this regard, eight new crop varieties were released to the market and can now be multiplied and became available to farmers. Additionally, 689 crop variety demonstration plots were established in the provinces of Gaza, Manica, Sofala, Tete, Zambézia and Sofala.

Comments

The below is a collection of comments from the chat box and some responses to them

- The African Fertilizer and Agribusiness Partnership (AFAP) have been partnering with FAO on demand creation for enhancing productivity inputs and development of last mile input supply chain. AFAP have been also supporting agro-dealers in Mozambique to access to inputs on revolving consignment credit.
- The key challenges to implement e-vouchers in Haiti are very similar to the six challenges mentioned by David (in particular related to free distribution of agricultural inputs).
- Important to note the need to have vouchers embedded in the existent market systems / input fairs with vouchers should be led by private sector agro-dealers.
 - **Response:** All FAO voucher interventions are market-based, in other words they rely on existing private sector traders (retailers, agro-dealers, wholesalers) operating on local markets
- Vouchers should be well linked to emergency assistance and should not be extended to times / places with no need for emergency assistance. Sustainable assistance should be well linked to development interventions, rooted in long term robust linkages between farmers and markets.
 - **Response:** FAO Mozambique recent emergency voucher interventions (Idai, Heloise, Cabo Delgado) are supported by the MIS that was developed for FAO development programmes. In addition, they benefit from the stronger markets that were one of the intended outcomes of the development programmes.
- It is important for the sampling of the seeds to be tested must be randomly selected at the points of distribution or sale to make sure that the quality elements are taken on board. This is to make sure that those sending only quality seeds for testing and not use the same quality when distributing.
 - **Response:** That is correct. That is why we work closely with the seed authorities to ensure quality control.
- Co-Payment seems very effective modality to bring positive development to ensure food security and restore livelihoods of the farming communities.

Further information

- [FAO in Mozambique](#)
- [Mozambique: Integrated Food Security Phase Classification \(IPC\)](#)
- [FAO steps up support to Cabo Delgado displaced](#)
- [Internally displaced Mozambican families find generosity and a new chance at farming](#)



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