

# Seed sovereignty, a viable option for food and nutritional security in Africa



A series of eight case studies in 7 countries highlighting the enormous potential of farmers' seeds and the ability of African communities to manage biodiversity.

**CROPS  
4HD**

CONSOMMATION DE CULTURES ET DE PRO-  
DUITS OPHÉLINS RÉSILIENTS POUR DES  
RÉGIMES ALIMENTAIRES PLUS SAINS

En collaboration avec

**SWISSAID**  **FiBL**



# SOMMAIRE

# 1. Introduction

This publication is a significant contribution to the agroecological transition. It results from documenting good and little-known stories about traditional seeds, local seeds and farmers' seed systems. Seed practitioners provide the initial stories. A multi-disciplinary review committee then helped finalize the stories to provide readers and policy-makers with the arguments they need to better support farmers' seed systems and boost farmers' communities' confidence in their knowledge, know-how and practices when managing genetic diversity. Eight interventions implemented by eight organizations working in partnership with the Alliance for Food Sovereignty in Africa (AFSA) in seven countries (Togo, Tunisia, Zimbabwe, Senegal, Cameroon, Burkina Faso and Gabon) conclusively demonstrate the extent to which it is possible and viable for family farms in Africa to take control of agricultural seed systems and, consequently, of their food sovereignty. The eight case studies provide insight into how seed sovereignty can be achieved using local African knowledge systems, supported by other scientific knowledge where necessary. The tendency to subjugate African knowledge systems, at best, or despise them, at worst, is thus invalidated. The eight case studies teach us that, using simple technologies that are easily accessible locally, it is possible and viable to multiply and produce various types and varieties of seed indigenous to Africa and to domesticate those of exogenous origin. By way of example, among the seeds multiplied and used for food production by the communities in which the AFSA partners' interventions are operational are: soya, durum wheat, maize, sorghum, cowpea, nyimo, turmeric, fennel, dill, coriander, noni, turnip, asparagus, turmeric, basil, feverfew, German chamomile, dandelion, pigeon pea, mung bean, verbena, mustard, mint, chicory, lettuce, plantain, rocket, spinach, borage, artemisia, tomatoes, eggplants, African aubergines, onions, potatoes and peanuts. The case studies also tell us how resilient African systems of knowledge about post-harvest treatment are, and which technologies are most appropriate for household seed saving – such as using sand and ash for preservation, and traditional granaries made from locally available materials for storage.

## 2. Seeds of dignity - the case of Lella Kmar El Baya, who is reviving the old Mahmoudi durum wheat in Tunisia

### Success story



*Mrs Laila, founder of the cooperative and Mr Youssef, pioneer grower of Mahmoudi wheat*

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*«I didn't irrigate, and I didn't use any chemicals. That saved me a lot of money. I'll also be able to resow my own seeds next year»,*

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celebrated Mr Youssef Hamouda, a pioneering farmer among those involved in the renaissance of Mahmoudi durum wheat in Tunisia. And he's not the only one to be so positively moved by the return of Mahmoudi durum wheat to the fields of Tunisia.

The elderly farmers we met during our field visits often had tears in their eyes as they were delighted to see our old staple, Mahmoudi durum wheat, growing again in their fields. The pride of Mahmoudi durum wheat growers cannot be ignored. They exude confidence and seem to have peace of mind thanks to the reduced risks associated with growing our ancient wheat variety. Hope has returned even among young people, who have found a way to project themselves into the future around initiatives to revive Mahmoudi durum wheat. We know of young people, for example, who had planned to go abroad in search of supposedly greener pastures, but in the end, decided to stay in Tunisia. They left the city and returned to cultivate their family plots, growing Mahmoudi durum wheat. Mahmoudi durum wheat is an ancient local Tunisian variety that is very rich in protein. It is grown organically, as it is resistant to drought, disease and local insects. It requires no pesticides. What's more, it requires less or no non-organic inputs and less or no irrigation. And this considerably reduces our wheat production costs. Under normal conditions, the grain yield of Mahmoudi durum wheat is lower than that of conventional wheat; however, in drought conditions, while conventional wheat yields almost nothing, Mahmoudi durum wheat maintains a decent yield.

In general, Mahmoudi durum wheat has a much higher straw height than conventional wheat and bears characteristic black beards. Farmers appreciate the height of its straw because it gives them more fodder to feed their livestock, which reduces farmers' feed costs. Other economic benefits of growing our ancient wheat variety include the selling price of Mahmoudi durum wheat is higher than that of conventional wheat. What's more, at the Lella Kmar El Baya Cooperative, we're involved in a value-adding activity - processing couscous and bourghoul made from Mahmoudi durum wheat and selling these products on export markets, particularly in France, and on our local market in Tunisia.

Our initiative is a major achievement, especially if you put it in the context of the cause of the Arab Spring uprisings, when farmers were dispossessed of their land, their rights and their dignity as government policy favoured large-scale mechanized 'modern wheat farming', making farmers dependent on multinationals and imports for their wheat supplies. We are tackling head-on the food dependency that triggered the Arab Spring uprisings because of people's inability to access daily bread. Our success is all the more important today in the context of the war between Russia and Ukraine since imports from Ukraine covered 50% of Tunisia's wheat needs in the past. We began our revival initiative with a bag of Mahmoudi durum wheat seed, which we have successfully multiplied. Today, 250 hectares of these seeds have been planted by small farmers who are certified organic producers. We have helped to restore the dignity of our people, who are engaged in family farming based on heritage, for their own subsistence and the market. We have also helped to revive indigenous knowledge systems for food production, while nurturing and protecting our soils for future generations. In the context of Tunisia, for example, irrigation in the heart of the desert, as required by conventional wheat, is a double suicide mission. With this type of agriculture, there is no choice but to overexploit the water tables.



*Champs de M. Youssef, région de Zaghouan*

The renaissance of Mahmoudi durum wheat reduces the need for groundwater irrigation. The multiplication of our ancient indigenous staple, Mahmoudi durum wheat, and its cultivation and processing have improved environmental conditions in our rural communities and the socio-economic status of those involved. It's a great success story that puts Tunisians back in control of our basic food system, from seed to plate. And it shows just how possible and profitable it is to promote :

- Seed autonomy for men, women and young people.
- Improving agricultural production, which contributes to healthy eating and poverty reduction.
- The conservation of biodiversity, which enables cultural expression.
- Functional structure and marketing systems for farmer-managed seed systems.
  - Quality assurance systems for farmer-managed seed systems
  - Adaptation of farmer-managed seed systems to pests, climatic hazards, salinity and other aspects.



The success of our initiative also shows that we can counter the damage done by the conventional seed industry to biodiversity, communities' seed autonomy, soil quality, local living conditions, the quality of our food, and the way it is produced.

## The intervention

We have seen that increasingly, conventional agriculture can no longer feed families and enable them to generate the income they need to prepare for the future. Women are the first to suffer from the precariousness of conventional farming. Young people are losing hope and looking to leave the countryside and sometimes the country to find better economic opportunities elsewhere. Our cooperative's main contribution has therefore been to improve the economic situation of women and young people in rural areas where conventional farming can no longer support families.

With little infrastructure or industry in rural areas, there are few alternatives to farming. With this intervention, Lella Kmar El Baya therefore sought to improve social conditions in rural areas by developing a farming system with higher added value, fewer costly inputs and a focus on the complete value chain. The traditional Mahmoudi durum wheat seeds, which had almost disappeared from the Tunisian countryside, were the starting point for creating value with seeds better adapted to our country, offering a product with higher added value.



Our intervention was part of the social and solidarity-based economy, with a concern for the well-being of the people involved. The main activities we carried out were as follows:

- Search for the most appropriate seeds through cooperation with the gene bank.
- Multiplication seeds.
- Field-grown propagated seeds.
- Organic field certification.
- Setting up the site and equipment for processing Mahmoudi durum wheat.
- Setting up export contracts.
- Growing, harvesting, processing, packaging and selling products made from Mahmoudi durum wheat.
- Set up a social economy framework and train members in its principles.
- Implementation of a quality policy throughout the value chain, both in terms of organic farming (certification process and farm audits) and food standards, including hygiene.
- Setting up year-by-year seed management with the cooperation of the Gene Bank.
- Implementation of a continuous training policy to provide members with appropriate skills and opportunities for personal development.

## Best practices

### Learning by doing

- Conventional industrial seeds are often developed with the sole aim of obtaining maximum yields, and are not always well adapted to African climates and terrain. They can be very vulnerable to «unforeseen events» such as drought, pest attacks, etc. It is therefore very important to preserve local old seeds. The aim is to adapt to changing and more unstable conditions and diversify cultivated plants' genetic heritage.

If we must adapt to unpredictable conditions to ensure food security for our populations, the diversity of cultures offers security against natural disasters.

- It is possible to propagate and revive plants that have almost disappeared from the fields.
- It is important to preserve the seeds of local farmers through, for example, institutes such as the Gene Bank.

This preservation concerns not only the genetic heritage of plants, but also generations of know-how and knowledge from the field.

- Our success is due to the fact that we have created great value by forging social links and training the people involved.
- The land is put to good use thanks to organic farming certification. Farmers derive personal satisfaction from growing Tunisian produce while respecting nature and the surrounding ecosystem.



## Solidarity and sharing knowledge

- We work based on the values of mutual aid and solidarity. Our cooperative regularly comes to the aid of the most disadvantaged through solidarity actions, such as distributing food parcels, preparing masks and anti-COVID hydro-alcoholic gel, and others.
- The cooperative organised training courses and group workshops to share and disseminate good practice. External and internal consultants were involved.
- Mutual support and training for cooperative members also play a crucial role in developing skills and strong social ties.

## Opportunities

There is a demand for Mahmoudi durum wheat seed from farmers, and there are indeed many more opportunities to grow larger areas. This should be supported and encouraged because it's good for our environment, and our ancient local variety of wheat thrives better in our environment. It is more resistant to spring droughts. More importantly, farmers can select, save and sow seeds from the previous harvest. This is good for farmers because they take control of their own seed management.

By Leila Mastouri, founding member of the Lella Kmar El Baya cooperative and can be contacted by email: [leila.mastouri@yahoo.com](mailto:leila.mastouri@yahoo.com).



## About the cooperative

Lella Kmar El Baya is a women's cooperative employing 20 women to preserve indigenous and farmers' seeds. It has signed an agreement with the gene bank for seed multiplication.



### 3. Farmers' dignity and food sovereignty through peasant seed systems - the case of the TSURO Trust in Chimanimani, Zimbabwe

#### Model of success



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***«I have food. Since I joined the project, I haven't sent a grandchild to beg for food. When there is food, you are a happy family»***

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testified Dorothy Kudejira

A beneficiary of the Farmers' Seed System initiative implemented by the Towards Sustainable Use of Resources (TSURO) Trust in the Chimanimani district of Zimbabwe. This initiative benefits 19 districts and 19 seed study groups, i.e., 475 direct and 2,375 indirect beneficiaries. Dorothy's testimony provides an insight into the success of the TSURO Trust in promoting food self-sufficiency in Chimanimani. This success is due to the fact that TSURO Trust has managed to increase the production of neglected and underused plant species and relatively new varieties.

One of the main reasons for the Trust's success is that it first identified and trained up to 200 seed growers who produce open-pollinated seed of at least ten different plant species and at least twenty varieties. TSURO Trust ensured that each participating farmer produced the seeds. Working with the National Gene Bank and other stakeholders, the Trust has facilitated the establishment of a community-managed seed bank at the Mhakwe Centre, which serves as a focal point for the repatriation of lost species. In 2013, for example, a year after the initiative began, farmers banked the following seeds as part of the Trust's open-pollinated variety sharing programme:

- 1,300 kilograms of maize
- 270 kilograms of sorghum
- 370 kilograms of cowpeas
- 100 kilograms of nyimo (round nuts)
- 80 kilograms of granulated sugar
- 420 kilograms of sunflowers
- 230 kilograms of groundnuts

A crop yield assessment commissioned by the Trust during the 2019-2020 growing season established that farmer-managed seed systems contribute to the largest percentage of seed used by Chimanimani farmers.



At least 85% of farmers confirmed that they exclusively used saved seed, while others testified that they planted seed from a combination of farmer-managed seed systems, government input support and donations from non-governmental organisations. The following facts, for example, effectively validate the findings of the evaluation:

- 95 farmers will rely exclusively on farm-saved seed varieties in 2021, compared with 56 in 2020, according to a study in the Bumba and Nyanyadzi regions.
  - Dhlumo, from Rusitu, has saved 48.3 kilograms of 21 seed varieties on his farm.
- In the three seasons since the community seed bank opened, 530 samples weighing over 1,000 kilograms have been banked.
  - Sales of Chimanimani's farmer-managed seed systems have risen from \$185 to \$600 in 2021.
  - Traditional ceremonies, such as rain ceremonies, have been better carried out thanks to the availability of small cereals.

Farmers are resurrecting lost varieties and saving seeds, which they share, exchange and sell. This has enabled them to have the seeds of their choice in sufficient quantities and at the right time. Because farmers have access to drought-tolerant seeds in good time and are able to plant on time, their food and nutritional security has improved. TSURO Trust is also preventing the loss and extinction of seed varieties. It maintains biodiversity. For example, between 2015 and 2018, there was a 27% increase in the production of Nua 45; a 27% increase in the production of Bob white; a 22% increase in the production of mutsvuuragudo; and a 20% increase in rapoko white. Judging by the crop samples that were brought to the seed fairs in 2015, compared to 2018, it is clear that there is a shift from Chimanimani production to traditional crops. The trend shows that farmers are growing small grains and pulses that are drought tolerant. For example, maize and common beans require high rainfall, and their production has declined over the years. The emphasis is on cowpeas instead of beans, for example.

Each year, the trust facilitates communities to organise 21 neighbourhood seed fairs, five cluster seed fairs and one district seed fair or seed market day; and encourages communities to contribute to a national seed fair in Harare. From 2018 to date, a total of 3,085 participants have attended district seed fairs and 2,353 have participated at cluster level. 1,509 exhibitors participated in the neighbourhood seed fairs, while 698 exhibited at the cluster seed fairs. An average of 40 crops and 200 varieties were exhibited at the seed fairs. The number of participants in seed fairs is increasing except for 2019, which was heavily affected by Cyclone Idai, and 2020, which was affected by the covid 19 regulation. In 2022, the number of participants increased dramatically, with 1,251 participants at neighbourhood seed fairs and 562 at group seed fairs.

There is no doubt that the success of the TSURO Trust's intervention in Zimbabwe shows just how feasible and profitable promotion can be:

- Seed autonomy for men, women and young people.
- Improving agricultural production, which contributes to healthy eating and poverty reduction.
- The conservation of biodiversity, which enables cultural expression.
- Structure and functional marketing systems for farmers' seed systems.
- Quality assurance systems for farmers' seed systems.
- Adapting farmers' seed systems to pests, climatic hazards, salinity and other aspects.

## The intervention

The Chimanimani Farmers' Seed System initiative was developed in response to the problems of insecurity and lack of sovereignty over seeds. The TSURO Trust aimed to strengthen farmers' seed systems and improve seed production, selection, storage and conservation skills, as well as the sharing, exchange and trade of farmers' seeds. The focus is on seed diversity and the revival of neglected and under-utilised species, which are very important for climate resilience and food and nutrition security. TSURO Trust encourages mixed cropping, cover cropping, the wider adoption of small grains and other cultivation methods that allow the development of biodiverse companion plants and the reduction of agricultural risks.

Initially, from 2012, TSURO Trust promoted open-pollinated varieties through seed starter packs. It did this through an agreement with farmers to return 200% of their seed starter pack after harvest. The following types of seed were distributed to farmers:

- Maize - ZM 521 (Prime Seeds), Hickory King (local Rusitu supplier).
- Small cereals - sorghum (Macia), finger millet >rapoko, pearl millet > mhunga (MCC 2) ;
- Pulses - cowpea, juko bean, groundnut, sugar bean, groundnut (Natal Common).
- Others - sunflower (Peredovik), solar hemp, sesame, sweet potatoes (traditional).

TSURO Trust trains farmers in various aspects of seed production of open-pollinated varieties, such as land selection, site planning, seed selection, seed treatment, seed testing or seed trials, moisture management, as well as post-harvest treatment and storage technologies - including the establishment of demonstration nurseries in cooperation with Agritex for high and low rainfall conditions, grading, packaging and quality control. Another objective of the TSURO Trust is to strengthen or establish seed saving by households or community groups. To achieve this, the trust facilitates gathering information on current and traditional seed-saving methods and organises training courses on seed storage and conservation. The trust also supports seed study groups by providing them with essential equipment to establish better seed storage in households, such as buckets, airtight bags and glass jars - the ultimate aim being to support the development of learning examples for seed saving, and to provide a sustainable seed pool in the district.



## Best practices

### Peer learning for farmers :

TSURO Trust is very proud to have established a strong network of community support groups across Chimanimani, including:

- Farmer action learning groups
- Seed study groups
- Action groups against climate change.

Through these groups, farmers are encouraged to exchange information and experience, learn together, and develop innovative seed storage and conservation approaches.



### Learning by doing and working together:

In redesigning seed fairs, we found that they are a good tool for transformation towards sustainable community seed systems. Working with relevant stakeholders such as Agritex, TSURO Trust has strengthened the role of real seed producers in these events and facilitated a better learning character of seed fairs to promote awareness and commitment to seed sovereignty. Working with PELUM, farmers involved in TSURO Trust initiatives participated in the Chimanimani District Seed and Food Festival. The cluster seed fairs promoted by TSURO Trust have become more self-organised over the years and have become an important part of community seed systems in Chimanimani. They offer seed-producing farmers the opportunity to display their seeds, be recognised for their achievements, win prizes and sell seeds to the community. They also promote learning around seed issues. TSURO Trust continues to explore approaches towards a national seed exchange network. This can be done through district exchange events and platforms that facilitate the exchange of farmer-grown seeds. Links have been established with other partners in the district to encourage them to come together to organise a seed

market day. Farmers have been linked to national capacity building and advocacy programmes through PELUM, the Seeds and Knowledge Initiative, and recently the AFSA networks. TSURO Trust also facilitates exchange visits to enhance learning and links with other farmers and partners. Exchange visits, for example, have been made to practical action plant variety plots, Shashe seed fairs and Bikita seed fairs.

## Participatory action research :

Through participatory action research, TSURO Trust is strengthening links between farmer-led research and national and regional institutions to provide evidence supporting community seed systems and specific activities – establishing annual seed inventories and documenting seed species and varieties relevant to Chimanimani. And to share this information through collaborative and cooperative programmes with the National Gene Bank and tertiary institutions.

## Opportunities

Farmers' seed systems have the unique advantage of promoting biodiversity. Traditional seeds such as rapoko, round nuts, cowpeas and sesame are rarely accessible through the formal system. The availability of these traditional seeds not only enhances biodiversity; in recent years they have been praised for their resilience to the impacts of climate change, their ability to enhance food and nutrition security and improve the socio-economic status of farming communities and seed sovereignty.

In Chimanimani, the seeds were stored either at farmers' homes or in central locations under the supervision of TSURO Trust community or neighbourhood committees. The seeds are then distributed before the planting season. This system has worked well. However, there are concerns about the quality of the seed saved, as it has hardly ever been tested. In addition, there are no reliable «seed banks» in the district that could store large quantities of seeds of open-pollinated varieties. The plan is to build a community seed bank and decentralise seed production to farmer level across the district.

Farmers' seed systems proved very important during Covid-19, when travel restrictions compromised access to and availability of inputs, including commercial seed. During the pandemic, farmers who had saved their own seeds did not have to struggle. Similarly, farmer-managed seed systems are resilient in times of war and instability. The war between Russia and Ukraine led to high transport and input costs, which affected formal seed systems, but farmer seed systems are less affected because production, sharing, exchange and trade are localised.



By Backson Muchini, Director of TSURO Trust and can be contacted by email: [bmuchini@iwayafrica.co.zw](mailto:bmuchini@iwayafrica.co.zw)



## About TSURO Trust

TSURO Trust is a not-for-profit community-based organisation founded in 1999 in the Chimanimani district, Manicaland, Zimbabwe. The target population is smallholder farming communities. Project activities cover communal and resettlement areas in each district, with the exception of forest areas in districts 12 and 14. TSURO Trust has a vision of self-reliant, peaceful and united communities in Chimanimani and neighbouring districts, with well-maintained natural resources, healthy and food-secure people, and productive food processing and marketing enterprises.

Farmers choose to join TSURO village groups. There are currently 171 such groups, each with an average membership of 15 farmers. TSURO Trust works mainly with small farmers who join at village level to form TSURO Village Groups, which in turn join at neighbourhood level to form TSURO Neighbourhood Groups and finally at district level to form the TSURO De Chimanimani Association. Members of the TSURO groups use a village-based planning process to choose their own priorities for support from the TSURO Trust.

## 4. Demystifying seed multiplication - the case of the GIE Ballal initiative to improve seed production in Senegal

### Model of success



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**«Ever since I bought Ballal plants and seeds, I've been asking for more. I've just bought turmeric seeds»**

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said Rokhaya Diop Fall (rest her soul) at the Dynamique pour la transition agroécologique au Sénégal (DyTAES) 2022 caravan

Indeed, A powerful endorsement for the plants and seeds that the 10 GIE members have produced since 2007 when our initiative began. The reason we're celebrating our successes includes :

- Controlling the production of asparagus seed, which requires the identification of male and female plants for cross-breeding.
- Seeds and plants that used to be called European are now produced locally, even if they are Mediterranean and adapted to the climate of the Niayes.
- After just two attempts, we succeeded in adapting the Echinacea purpurea plant, known to have the greatest antioxidant power, and in producing its seeds.
- Pioneer in the introduction and production of turmeric seeds in Senegal. Turmeric is known as the plant of the century and of life. It has 600 molecules and can cure 750 diseases.

Ballal has produced : Fennel, Dill, Coriander, Noni, Turnip, Asparagus, Turmeric, Basil (twelve varieties), Beech, German Chamomile, Dandelion, Pigeon Pea, Mungo Pea, Verbena (official and fragrant), Mustard, Mint (four varieties), Chicory, Lettuce (two varieties), Plantain (three varieties: major, lanceolate and stag's horn), Rocket, Roquette, Baselle, Borage, Artemisia annua, and Nematicide tagete. This has given us considerable autonomy compared to the companies with their hybrids (F1). It saves growers a lot of time—no more trips to the shops to check that the seeds have arrived. Ballal seeds are sold locally, by mail order and at organic fairs.

Ballal's local organic seed multiplication initiative saves growers money because our seeds are cheaper than imported ones and are more easily accessible to buyers in Senegal and other countries. This year, with a meeting



of the 3AO, our seeds were bought by people from Burkina Faso, Mali, Guinea, Gambia, Senegal, Niger and Chad. And most importantly, our seeds have eliminated the risk of poisoning associated with pesticide-treated seeds. We are buoyed by our success. Ballal has shown that it is possible to produce vegetables that, in Senegal, have long been known as European; what's more, we produce 'European seeds' without sophisticated techniques. Ballal deserves to be praised, as English teacher Pape Aliou Cissé said: «Ballal has introduced us to the interest and wonders of plants by making plants accessible that we had only heard of by name.» In a highly effective and visible way, Ballal has shown how possible and profitable it is to promote :

- Seed autonomy for men, women and young people.
- Improving agricultural production, which contributes to healthy eating and poverty reduction.
- The conservation of biodiversity, which enables cultural expression.
- Functional structure and marketing systems for farmer-managed seed systems
- Quality assurance systems for farmer-managed seed systems.
- Adaptation of farmer-managed seed systems to pests, climatic hazards,

salinity and other aspects.

Ballal's success story also illustrates how we can counter the damage done by the conventional seed industry to biodiversity, community seed autonomy, soil quality, local living conditions, the quality of our food, and how it is produced.

## The intervention

Ballal produces, selects and packages seeds in a totally natural system, without fertilisation or chemical protection. We obtain our seeds by purchase, donation or barter. We test them according to genetic standards and agroecological principles, three campaigns in a row, before releasing them ourselves. Only then do we exchange, sell or give them away. The technical work of purification and selection is mainly carried out by the technical adviser with the help of the members of the GIE.

## Best practices

In 2006, when the turnips were harvested, some plants were already in flower. We experimented with one plant and let it set seed. The seeds germinated the following year and produced a good harvest. This gave us the idea of producing our own seeds. One thing led to another and other species were produced. An interesting and innovative way of using chance discovery to launch a successful intervention. A chance discovery that propelled the idea of not depending on cereal growers towards producing Ballal's own seeds. And now demand for our products is so strong that our production has been expanded and marketed.

## Opportunities

In 2017, we wrote to the President of the Republic to mainstream Ballal's action in a collaboration with the Ministries of Agriculture, Environment, Health, Higher Education and any other body deemed necessary. The matter has been referred to the Minister of Agriculture. A letter along the same lines was sent in 2018 to certain mayors of communes in the departments of Thiès and Tivaouane. Our letters went unanswered. Nonetheless, Ballal believes it is time to demystify seed production and make it accessible to everyone for independent production to avoid genetically modified organisms (GMOs) and other inorganic hybrids.



Ballal's main problem is the lack of space. Our farm is located on a terrace containing over 200 species and varieties of plants. We need the support of the local authorities and the state or donors to allocate land and funding to set up a seed production farm. And above all, to train producers in seed techniques.

By Abou Abdoulaye Yéro Diop, technical advisor to Gie Ballal and can be contacted by email: [gieballal@gmail.com](mailto:gieballal@gmail.com)



### À propos du Gie Ballal

Gie Ballal This is a sustainable agriculture and fisheries project in Mako in the Republic of Senegal.

## 5. Developers and guardians of organic seeds - the case of the SPG ATODAD initiative for the multiplication and conditioning of local organic seeds

### Model of success



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***«Our group produces organic soya seeds that are cheaper and give more harvests to our brothers and sisters who sow them in their organic soya fields»***

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Makouya Kossiwa, farmer and bio-local seed multiplier at Bangéli in Bassar, Togo, proudly shared

Makouya is one of the beneficiaries and players in the seed value chain who can testify to the success of our participatory guarantee system for the organic-local seed multiplication and conditioning initiative of the Association Togolaise pour le Développement de l'Agriculture Durable (SPG ATODAD).

We have set up an efficient organic-local seed value chain that provides Bassar, in particular, and Togo, in general, with seeds with improved production performance. Since 2012, the development of the organic value chain in Togo has given us a market share of hundreds of thousands of kilograms of high-performance local organic seeds. Thanks to our initiative, farmers' cooperatives are multiplying and making thousands of organic seeds available on our local market that are biolocal and resilient to climatic hazards. Over three years, the seeds multiplied and distributed under our initiative include 424,000 kilograms of soya, 31,300 kilograms of groundnuts and 5,180 kilograms of sesame.

We have succeeded in rallying 180 farmer-multipliers, more than 2,700 producers, nine processors and more than 9,300 customers and consumers around our initiative, all of whom are highly motivated to participate. They have all adopted the specifications of the SPG ATODAD community on the development of biolocal seeds based on organic and ecological principles:

- Contribution of peasant seed systems to the consolidation of a sustainable food system for our communities of over 15,000 players.



- Greater seed autonomy for more than 12,000 players.
- Over 40% improvement in the competitiveness of organic agricultural production
- Better adaptation of farmers' seed systems to pests and climatic hazards
- Functional structuring of a marketing system for farmers' seed systems
- Contribution of farmers' seed systems to biodiversity conservation.

Rural producers who access and sow our bio-local seeds are guaranteed absolute biological and organic integrity. Our seeds are conditioned to optimise agricultural productivity. And because they are adapted to the climatic and economic realities of the area where we operate, they contribute to competitive agricultural production in Togo. There is no doubt

that our initiative is in line with the aspirations of the Alliance for Food Sovereignty in Africa (AFSA), which wants to resist «the corporate takeover of African seed systems and build farmer-managed systems for food sovereignty in Africa». This is an excellent model for developing farmers' seed systems that combine productive performance with biological integrity. This is an excellent model for developing farmers' seed systems that combine productive performance and biological integrity, and can easily be replicated to reverse the massive confiscation of biological diversity by the «official seed system» in Africa.

The success of our initiative demonstrates just how feasible and cost-effective it is to promote :

- Seed autonomy for men, women and young people.
- Improving agricultural production, which contributes to healthy eating and poverty reduction.
- The conservation of biodiversity, which enables cultural expression.
- Structure and functional marketing systems for farmers' seed systems.
- Quality assurance systems for farmers' seed systems
- Adapting farmers' seed systems to pests, climatic hazards, salinity and other aspects.

Ultimately, we at SPG ATODAD are effectively contributing to the seed self-sufficiency of our communities; we are ensuring the availability of safe food; and we are having a positive impact on the food and nutritional security of our communities, as well as their food sovereignty.

## The intervention

All parties involved in our organic-local seed value chains – seed producers, growers, processors and consumers – are members of SPG ATODAD, which is organised into autonomous cooperative units. We use a participatory, community-based process, which begins with identifying stakeholders concerned or involved in developing the organic soya, groundnut and sesame value chains. They are visited to validate the plot to be cultivated, based on its isolation in time (previous crops) and space (neighbouring plots). Following the visit and approval of the



application, the parties sign a contract in which they undertake to comply with the specifications of the ATODAD SPG community. We have an inclusive local organic certification committee, made up of eleven members, which organises and coordinates visits (announced or unannounced) for conformity assessments and exchanges of good practice at the level of each multiplication unit (the producer and his plots) in collaboration with the SPG ATODAD executive team. The visits are carried out by a delegation of at least three stakeholders. They visit the plot and collect information using compliance assessment forms, which record observations and practical discussions with the grower visited. After the visit, the forms are returned to the Certification Committee for the



final decision.

The information gathered is analysed transparently by the certification committee, which decides whether or not to award the local SPG ATODAD organic label to the producer visited. Non-compliant producers are penalised. Penalties range from a warning to exclusion for a maximum of three years. On the whole, non-compliance concerns the risk of chemical contamination, in particular :

- No safety strip
- Run-off water
- Poor production practices

Our operational manual sets out the compliance criteria and the equivalent penalties for non-compliance. A distinction is made between minor non-conformities that do not affect the organic quality of the products and major or serious non-conformities that systematically affect the organic integrity of the products. The Certification Committee plans to visit each producer at least three times a year. Implementing these visits depends on controlling operational difficulties, such as the mobilisation of resources and the mobility of the visiting delegations. While the SPG ATODAD receives technical and financial support from the «Organic Market for Development» project of the International Federation of Organic Agriculture and its partners, the operation



of our board of directors, general management and certification committee is financed by our own funds - membership fees of 3,000 CFA francs per member and monthly contributions of 500 CFA francs for each member or stakeholder involved.



## Best practices

### Learning from people

A crucial learning point for us came in 2012, when SPG ATODAD, working with small-scale producers in northern Togo, was developing a certified organic soya sector. Following our many support and internal control missions to organic soya plots and producers, we noticed an increase in producers' economic and climatic vulnerability in the organic soya, groundnut and sesame sectors. We observed that their vulnerability was due to insufficient availability of high-performance agricultural seeds adapted to our specific climatic realities and insufficient knowledge of good organic production practices.

In 2016, during an SPG ATODAD mission to support the extension and organic certification of soya in Bassar, north-west Togo, Mr Labodja Ousmane joined forces with nine other producers to launch a three-hectare seed multiplication unit. The unit was also intended to serve as a training ground for others involved in production, with a view to exchanging practical knowledge. The aim was to cultivate the idea of keeping seeds in people's hands. To achieve this, the unit would make effective and adapted bio-local soya seeds available. At the same time, it would encourage people to adopt good production practices through an inclusive approach.

We faced several financial, climatic and land-related challenges that destabilised the pace of the project. We decided to move to a decentralised approach, but with a mechanism that would enable the various players to unite around our initiative.

During implementation, we've learned that local organic seed production needs to be done through well thought-out and appropriate grassroots initiatives. That's why, in 2017, we felt it necessary to refocus our initiative to be truly driven by our host communities themselves - to be more participatory, to facilitate the best uptake, and to minimise the risks and challenges.

## Participatory implementation

SPG ATODAD works with and nurtures :

- Farmers' cooperatives that provide local organic seed.
- Rural producer organisations that use local organic seed.
- Processors who transform agricultural produce into edible food products.
- Consumer communities that use agricultural and food products.

Our bio-local seed multiplication initiative produces and guarantees high-quality seeds thanks to our transparent and participatory verification practices. We are open to unannounced visits by various stakeholders, during which the conformity of seed plots is assessed, and knowledge is exchanged between the various stakeholders.

And in order to guarantee the documentary management of traceability, the organic integrity of production practices and packaged seed lots, all stakeholder communities have representatives on our local Organic Certification Committee.

## Opportunities

SPG ATODAD's bio-local seed multiplication and conditioning initiative is making a significant contribution in Togo, where :

- The availability of organic inputs, particularly certified organic seed, is inadequate.
- Organic, ecological and agricultural production is exposed to risks such as extreme weather conditions and economic vulnerability.
- We are experiencing an erosion in the productive performance of seed varieties that are not adapted to our climatic realities.
- Poor mastery of the applicable good production practices leads to reduced agricultural productivity on certified organic farms.



There is still a lot of work to be done in terms of information and training for rural and urban communities to facilitate the scaling up of our bio-local seed multiplication and conditioning initiative. However, the main challenges are insufficient:

- Financial partners to boost production capacity.
- Ability to collect batches of bio-local seeds from seed farms.
- Production equipment for extending plots.
- Storage infrastructure to facilitate and secure batches of bio-local seeds collected from farmer-multipliers.

By Labodja Ousmane, programme manager at ATODAD and can be contacted by email: [atodadtogo@gmail.com](mailto:atodadtogo@gmail.com)



## About SPG ATODAD

SPG ATODAD is a not-for-profit organisation that brings together a wide range of stakeholders from the organic and ecological sectors who are voluntarily and actively engaged on the basis of a shared vision to contribute to self-sufficiency, food security and food safety for our stakeholder communities. Our mission is to achieve this by building sustainable, organic, ecological and local value chains, from seed production to agricultural products or food by-products for customers and consumers. Efforts are underway to have SPG ATODAD officially recognised as an official non-governmental organisation.

## 6. Food sovereignty through seed control – the case of the FAPD organic vegetable seed revival

### Model of success



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***«We know the dangers of using chemicals and GMO seeds. We prefer organic farming and organic seeds. With that, we manage to make a profit and cover our needs. We don't want chemicals»,***

---

said Doudou Diop, Secretary General of the Diender Federation of Agro-Pastoralists (FAPD)

***«We know the dangers of using chemicals and GMO seeds. We prefer organic farming and organic seeds. With that, we manage to make a profit and cover our needs. We don't want chemicals»,*** said Doudou Diop, Secretary General of the Diender Federation of Agro-Pastoralists (FAPD). Seeds are the main agricultural input. It's important that they are localized. This will make our crops resilient, healthy and sustainable. The fact that a farmer has control over the seeds has an impact on the authority and power he has over his production. And it guarantees a commitment to healthy, sustainable farming. Seed sovereignty is the major reason, since 2014, why we, FAPD, have been working in 19 villages and with 30 farmers' seed producers in the Niayes region of Senegal, giving them the means to master organic vegetable seed production and multiplication techniques.

We are making innovative use of the 7,000 m<sup>2</sup> enclosed plot of land at FAPD headquarters to build farmers' capacity in seed production techniques and to produce vegetable seeds – tomatoes (varieties MBoro ovoid and MBoro small fruit), aubergine and African aubergine and onions of the violet de galmi (VDG) variety. Nogaye Cisse is the president of the FAPD's group of organic farmers' seed multipliers, which specialises in tomato seed production.

Our offices include two wells and motorised ponds for watering our propagation and demonstration gardens. We promote organic farming, i.e. farming without chemical fertilisers. We do this by encouraging farmer-managed organic seed systems, which produce seeds that are more resistant to climatic hazards and more rooted in the





territorial realities of the Niayes region. It is clear that our intervention is both feasible and viable. Thanks to our initiative, we have so far produced the following quantities of seed:

- 5.33 kg MBoro ovoid seeds
- 4.5 kg MBoro small-fruit tomato seeds
- 10 kg aubergine seeds
- 7kg of African aubergine seeds
- 48kg of VDG onion seed
- 24kg of potato seed.

## Seed selection and sorting

We exchanged many of the seeds produced with other organisations and research institutions and donated some to producers. We sold 20g of MBoro tomatoes for 2000 CFA francs and 100g of VDG onions for 3000 CFA francs.

Organic vegetable seed multiplication enables farmers to:

- Become self-sufficient in seeds
- Not spend money on seeds
- Exchange seeds
- Make a profit on the sale of surplus seeds
- Achieve yields equal to or greater than those of conventional agriculture.

Multiplying organic vegetable seeds managed by farmers, as the FAPD does, helps preserve human and animal health, biodiversity, and the environment. What's more, through this intervention by the FAPD, we are helping to achieve food and nutritional security by promoting the production of vegetables that are often richer in nutrients. The use of organic seed produced by farmers themselves guarantees high and stable production, enables farmers to be self-sufficient in vegetable seed and improves farmers' incomes by reducing the expense of regularly purchasing seed from commercial seed companies.



Protecting natural resources, particularly biodiversity, is one of the FAPD's fundamental concerns. We do this by tackling farmers' technical weaknesses regarding vegetable seed production; and reducing input costs, thereby improving productivity and farm incomes. Once these objectives have been achieved, growers can obtain quality seeds in sufficient quantities from their fellow farmers, which means that income from the sale of seeds can be retained within the farmers' fraternity. Thanks to the training they receive from the FAPD, growers can save the seeds from their harvests and replant them on their farms.

This success story, in which the FAPD enables communities to be independent of 'industrial seeds', also illustrates how we can counter the harm done by the conventional seed industry to biodiversity, to communities' autonomy when it comes to seeds, soil quality, local living conditions, the quality of our food and the way it is produced.

## The intervention

The FAPD's organic vegetable seed multiplication project has two main focuses:

- Capacity-building for FAPD members on vegetable seed production techniques through theoretical and practical training sessions on vegetable seed production, providing growers with the knowledge and skills they need to produce agroecological seeds for several vegetable species.

So far, 30 seed producers, or six per FAPD union, have been trained. They are expected to continue the scaling-up process with other producers in their respective areas. This action promotes autonomous local development through the mastery of seed production techniques.

Production of plant seeds by FAPD members. This action contributes to the reconstitution of Senegal's seed capital. It involves producing sufficient quality seed and protecting the available seed stock. It is also part of the promotion of farmers' seeds to reduce dependence on foreign sources, and improve the protection of genetic heritage and biodiversity. Finally, it considerably reduces the cost of vegetable seeds, enabling producers to increase their agricultural productivity and improve their income.

- As for potato seeds, the FAPD produces some on its experimental site, but because of the problem of conser-

vation, they have not been multiplied. Being in the coastal zone, the potato germinates easily with the humidity in the air.

## Best practices

### Learning between farmers

Exchanges on the experimental plot occur through farmer field schools, enabling interaction and discussions between seed-producing farmers. Seed multiplication is a «peasant know-how» that can be passed on and is therefore an activity that can be reproduced on a large scale. It is an activity that reinforces the sustainability of agroecological practices. The beneficiaries of this intervention, the seed producers, will continue their seed production on their own farms by applying the good practices learned on the experimental site after training or exchanges between producers.





## Synergising efforts through collaboration

Capacity-building sessions on market gardening are run in conjunction with horticultural technicians from the Horticultural Development Centre (CDH/ISRA).

As well as providing financial support for implementing this project, HEKS carries out frequent field missions and assists the FAPD in drawing up technical documents to capitalise on what has been achieved in terms of seed and fruit plant production.

CDH/ISRA is helping the FAPD to conserve seed, particularly potato seed, as the FAPD region is very close to the sea, and the sea breeze makes it easier for stored seed to germinate quickly, due to the presence of moisture in the air.

## Experiential learning

The implementation of this project has given the FAPD a better understanding of the urgency of what needs to be done to improve the enabling environment for farmers' indigenous seed systems:

- Advocate at the highest level for policies that respect food sovereignty and serve the best interests of local communities.
- Raising awareness among consumers and producers of the need to take action through coherent messages, mass campaigns and social mobilisation against seed grabbing by industrial lobbies.
- Legal recognition of farmers' rights and farmers' seed systems.
- Mapping of seed organisations or those working on farmer-managed seed systems.
- Create seed banks to conserve local seeds.
- Improving or strengthening synergies and collaboration between players in the seed sector.
- Strengthen the capacity to mobilise resources for the sustainability of existing initiatives to produce and conserve local farmers' seeds.
- Strengthen the institutional capacities of farmers' organisations in terms of advocacy and lobbying, in order to bring about significant improvements at all levels and adapt to the dynamic context.

## Opportunities

Promoting peasant seed systems in the African context means bringing actors together and ensuring that seed production organisations and support players keep to a common objective. Umbrella organisations in Senegal, such as ASPSP, need to set up committees, focal points or working groups to keep a watchful eye on seeds by monitoring, analysing and assessing reforms, laws, patents and rights that expropriate and exclude the endogenous knowledge of local producers.

And this means effectively sharing information about the strategies adopted by seed companies and the ways in which seeds are monopolised. Otherwise, the exhaustion of farmer-managed seed systems will become a reality. This will manifest itself in the increased disappearance of certain varieties as a result of industrial and private research, the introduction of industrial varieties, the lack of experience of young producers, and a booming seed trade with patenting.

By Mor Ndoeye Diop, project manager at the FAPD. Email: cndiop19@ gmail.com or fapd1@yahoo.fr

## About the FAPD

FAPD is a producers' organisation committed to healthy, sustainable agriculture in the Niayes region of Senegal, the country's main horticultural basin.

## 7. Tried and tested traditions are the key – the case of the bottle-shaped granary in Cameroon for storing groundnuts

### Model of success



The Concertation Nationale des Organisations Paysannes au Cameroun (CNOP-CAM) is successfully promoting the conservation and propagation of the Village Groundnut, one of Cameroon's indigenous groundnut varieties. We use a simple, appropriate and accessible traditional endogenous technology, based on locally available materials. It consists of a traditional bottle-shaped granary made of bamboo raffia, with an average base of 1.5 metres and a height of 2 metres. It is placed on a pallet in a hut, often the kitchen hut. Well-dried groundnut pods are stored in the attic, which can keep the pods in good condition for a long time.

This traditional technique for conserving crops, and groundnut seeds in particular, is practised in the forest zone – the Central, Southern and Eastern regions – and in the highlands – the Western and North-Western regions of Cameroon, where an estimated 70-80% of the population live in rural areas and derive their livelihood mainly from agro-pastoral activities. These communities are self-sufficient in the supply of indigenous varieties of groundnuts, which are naturally adapted to the forest and mountainous areas of Cameroon. Varieties with comparatively high yields and appreciated organoleptic characteristics.

One of the main reasons why communities are self-sufficient in groundnut seed is the simple granary that allows them to efficiently store their seed at home and access it whenever they need it for production. We have effective and sustainable traditional seed systems managed by farmers. Let's change the discourse that so-called «modern seed systems» are the best.

By CNOP-CAM, B.P: 7445 Yaoundé – Cameroun, Tel: (+237) 656 79 12 63 or 691 22 02 15;  
e-mail: [secretariat\\_cnopcam@yahoo.com](mailto:secretariat_cnopcam@yahoo.com)



## About CNOP-CAM

CNOP-CAM is a national umbrella organisation for producers working in the agro-sylvo-pastoral and fishing sectors. It focuses on enterprising and dynamic family farming that ensures :

- Food and nutritional security
- Food sovereignty
- Sustainable management of natural resources
- Preserving the environment and biodiversity
- Improving living conditions in rural communities

## 8. Back to basics - the case of FENOP, which promotes the sand and ash method of seed conservation in Burkina Faso

### Model of success



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**«Whoever gives you a seed is giving you a family, and you have a duty to take care of the seed as well as your wife and children»,**

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observed Mr Mahamadi, a seed producer who uses our ancient seed-saving methods that have been handed down from generation to generation in Burkina Faso.

It is this kind of ancient wisdom that has inspired the Fédération Nationale des Organisations Paysannes (FENOP) to take an interest in our traditional farmer-managed seed systems. That's why FENOP is working to ensure that these ancient methods are valued, practised and do not disappear. Among the ancient methods of farmer seed conservation that FENOP promotes is using sand and ash for the organic conservation of our seed varieties. This conservation method has won unanimous support among farming communities in the Cascades and Hauts Bassins regions of Burkina Faso, where FENOP works.

Producers such as Mme Tou in the village of Ienaye, Mme Fatou in the village of Douna, Mme Diarra in the village of Targila and M. Mahamadi in the village of Bama, testify that they find the sand and ash method easier to use because the raw material is found everywhere in their region. The method is simple and versatile. Seeds are stored in sand, ash or leaves in polythene bags, granaries, clay pots, baskets and pits, among other things. There are many ways of saving seeds from farmers' seed systems.. Storage locations differ from region to region, but the conservation system, which involves using raw materials such as herbs that help fight insects, chilli, sand, ashes and smoke, is practised in a similar way.

The use of our ancient methods of seed conservation and preservation, which a farmer can easily use at home to save his seeds, allows growers to save their seeds at home and use them as they wish. The old methods of organic seed saving continue to give satisfactory results: seeds that are well preserved and available in time for production. And what's more, seeds that do not harm the health of the people who produce and consume the food they produce, or the environment, thanks to organic production.

Capitalization on the method of seed conservation using sand and ash is increasingly apparent, and it has been confirmed that farmer seeds produce well. Farm-saved seed has also been found to be more resistant to climatic hazards. Organic farmers' seed is well adapted to the local climate, as it has been produced under very local climatic conditions. It's like a mother who breastfeeds exclusively, her child will be more resistant to disease than a child who is fed a mixed diet. This is what seeds from farmer-managed seed systems are like. FENOP is aware that farmer-saved seeds, produced using traditional methods, play a vital role in preserving our health and protecting the ecosystem. Indeed, the promotion and use of the sand and ash method in Burkina Faso has effectively demonstrated how possible and profitable it is to promote it:

- Seed autonomy for men, women and young people.
- Improving agricultural production, which contributes to healthy eating and poverty reduction.
- The conservation of biodiversity, which enables cultural expression.
- Structure and functional marketing systems for farmers' seed systems.
- Quality assurance systems for farmers' seed systems.
- Adapting farmers' seed systems to pests, climatic hazards, salinity and other aspects.



FENOP's success also illustrates how we can counter the damaging effects of the conventional seed industry on biodiversity, the seed autonomy of communities, soil quality, local living conditions, and the quality of our food and the way it is produced. This is why FENOP's support helps to promote, develop and capitalise on farmers' seed conservation methods, and aims to create a directory of conservation methods and seed banks.

## The intervention

FENOP aims to improve and preserve our ancient seed-saving methods because our indigenous seeds must be valued and preserved since they are part of our identity. We need to set up seed banks so that younger generations can learn about our ancient seeds. FENOP's main activities are training in farmers' seed conservation methods and setting up field schools run by groups involved in agroecology. Our field schools enable FENOP to better convey its awareness-raising messages on the importance and benefits of using farmers' seeds.



## Best practices

### Evidence-based programmes

A study commissioned by FENOP to identify ancient seed-saving methods showed the benefits of using seeds from farmers' seed systems compared with «modern seeds».

Figure 7;8: Storage method in a basket

The western regions of Burkina Faso are agricultural areas with high rainfall. These regions, where several crops are grown – rice, maize, cowpeas, sesame and others – are an important agricultural hub for Burkina Faso. However, in recent years, a number of traditional seeds have been gradually replaced by «modern seeds». This has led FENOP to initiate field schools for the multiplication of traditional seeds and to support farmers in conserving certain varieties using traditional methods.



## Participatory action research

It was important for FENOP to document this case study. The sand and ash method is threatened with extinction, like all other peasant seed techniques, with the arrival and proliferation of «modern seeds». Four resource persons from the four villages of Kiribina lenaye, Douna, Tarfila and Bama in Cascades and Hauts Bassins, who were identified and trained by FENOP in the production and conservation of farmers' seeds in Cascades and Hauts Bassins, played an important role in documenting this case study.

## Opportunities

The policy changes that FENOP would like to see are those that will facilitate and support:

- The creation of seed banks in every locality. This will increase the number of forums for discussion with decision-makers on the importance of farmers' seeds for our environment and health. Organising seed fairs and distributing explanatory leaflets with attractive messages will make it easier.
- Integrating farmers' seeds into national seed systems.



- FENOP and seed companies to multiply the number of training fields for the production of farmers' seeds.
- Promoting agroecology and the cultivation of farmers' seeds.

By Soulama Mountjimoussi Catherine, in charge of monitoring FENOP's field schools in the Cascades region. She can be contacted by e-mail: [catherinesoulama@yahoo.fr](mailto:catherinesoulama@yahoo.fr)

## About FENOP

FENOP is an organisation in Burkina Faso that promotes traditional seed-saving methods. It supports producers by implementing agroecology capacity-building initiatives and setting up farmers' seed schools. It is interested in promoting old-fashioned methods of conserving farmers' seed systems. It wants these methods to be highly regarded and appreciated for the value they bring to our farming systems and the conservation of our environment. And above all, they should also be valued in monetary terms.

## 9. Seeds, our heritage - the case of the NGO LACLE for groundnut conservation in the Lebamba production basin in south-east Gabon

### Modèle de réussite



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***«As long as people are alive, they will always need to feed themselves, and farmers will always have money from the sale of their produce»***

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a mother from the Lebamba region rightly observed

To feed themselves, people need to grow food. And to do that, they need seeds. So why not grow food in a biologically sound way and in which farmers control the production and use of their own seeds? In other words, control the food value chain from seed to plate. This is the central rationale behind the initiative by the leading non-governmental organisation in assistance to local communities for the environment (NGO LACLE) to conserve and promote the seed supply of two varieties of organic groundnut in Lebamba, in south-east Gabon. Thanks to this initiative, which began in August 2022, the NGO LACLE is revitalising two groundnut varieties - Chitoachi and Grise de Lebamba - which are on the verge of extinction. As is the case with the seeds that are part of our heritage, these two groundnut varieties have existed in Lebamba for such a long time because of their adaptation to soil and climate conditions; their tolerance of the polyculture system in practice, and their conservation and multiplication methods have long been known to farmers. Most of them are women farmers who remain attached to our old production methods: shifting cultivation in the bush.

The NGO LACLE has already successfully implemented the first phase, the immersion phase, of this project. Production sites and stakeholders have been identified. Fruitful discussions have taken place, and strategies have been established on the project's cultivation techniques, the difficulties encountered by farmers' seed producers, and other important aspects of production relationships. The project is now up and running and should help revitalise production of the two groundnut varieties and link farmers to markets.

Fifteen farmers, women from three localities in Lebamba, whom we interviewed said that the people of Lebamba welcome this initiative. We are confident that it will help to solve the problem of Gabon's dependence on groundnut imports. We are also convinced that it will help to reduce poverty in rural areas thanks to the integrated income-generating component - production and use of one's own seeds, sale of seeds and sale of groundnuts.

Ultimately, through this initiative, the NGO LACLE will demonstrate how Gabon can counter the damaging effects of the conventional seed industry on biodiversity, on the seed autonomy of communities, on soil quality, on local living conditions and on the quality of our food and its production.

## The intervention

The NGO LACLE works to :

- Encouraging and raising awareness among groundnut producers.
- Encourage producers to set up and work within producer cooperatives.
- Establish pilot seed multiplication plantations through which the initial large quantities of seed will be made available.
- Provide extension services by setting up production plantations using innovative techniques.
- Linking producers to markets.

## Best practices

### Promoting our heritage:

The success of this experiment lies in the fact that traditional techniques and local seed varieties are passed down from generation to generation. All this supports the idea that some form of local seed conservation is a shared idea in the locality. We are convinced of this, which is why the immersion mission was made possible by internal pre-financing from the NGO LACLE.

The advantage of working in synergy: Thanks to the collaboration with agents from the Ministry of Agriculture in the Louetsi-wano department, which made it possible to mobilise producers, as well as facilitate meetings with local traditional chiefs.

Good planning is essential: the town of Lebamba is located in the south-east of Gabon, more than 500 kilometres from Libreville, and is only accessible by car. All field trips by our teams, based at the NGO LACLE in Libreville, are based on good planning, which ensures maximum benefit during the limited time on the ground.



## Opportunities

It was in 1950, during the colonial period, that the French Bureau de Développement et de la Production Agricole (B.D.P.A) introduced and promoted groundnut varieties in Lebamba. The main varieties were :

- Chitoachi, native to China, produces two to three small seeds per pod and is yellow in colour.
- Ngoubou, native to the Congo, produces three to four large seeds per pod and is yellow in colour.
- Loudima Red, which originates in the Congo, produces three to four seeds per pod and is red in colour.
- Grise de Lebamba, which is indigenous, produces two to three medium-sized seeds per pod and is greyish in colour.

These varieties have enabled Lebamba to position itself as the country's largest groundnut production centre. At the time of their introduction and dissemination, production in Lebamba was around 713 tonnes of groundnuts. Between 1958 and 1959, production rose to 794 tonnes of groundnuts. And between 1959 and 1960, it rose again to 1,000 tonnes of groundnuts. This was due to the role of groundnuts in extracting oil for consumption, before the adoption of other oilseeds, such as palm, as the main source of oil production.

This state of affairs, and the absence of a policy to redirect production, dashed the hopes of many groundnut growers. And from the 1980s onwards, groundnut growing slowed down. The few players in the sector today produce mainly to meet the demand for groundnut paste or edible groundnuts, such as roasted groundnuts. This situation, which has led to a lack of interest in the sector, is causing problems in the country's major towns. To such an extent that most of the groundnuts consumed are imported from neighbouring countries - Cameroon, Congo and West Africa.

The initiative by our NGO LACLE to increase and promote the production of two varieties of groundnut is a real opportunity for the farmers of Lebamba to restore the visibility of indigenous groundnut production, which has long been overlooked in all the national agricultural strategies of recent years.

By Nsimaga Arsène, Secretary General of the NGO LACLE, e-mail: nsimagaarsene@yahoo.com

### About the NGO LACLE

The NGO LACLE is based at Cité MEBIAME in Libreville and can be contacted by telephone on (+241) 077.56.17.83 or 066.21.42.62 or 066.91.36.15. and by email: lacle.gab2018@gmail.com

## 10. Conclusion

In a consortium with SWISSAID and FiBL, AFSA continues to disseminate evidence on the capacity of agroecology to lead Africa towards genuine food sovereignty.

This publication focuses on farmers' seed systems through eight case studies carried out in seven countries. Communities using these knowledge systems report improved quality of life, greater autonomy and self-sufficiency in terms of access to seeds at the right time and at lower cost. The seeds have proved to be more resistant and better adapted to local climatic conditions, increasing production volumes while guaranteeing seeds for the next planting. The benefits are twofold: lower seed purchase costs and higher production volumes for their own consumption and to generate income. And because they work as a group, they gain total control over their food system and strengthen their social capital and dignity.



## 11. ACKNOWLEDGEMENTS

AFSA would like to thank the authors of the various case studies for their generosity in sharing their know-how and success stories with humanity. AFSA would also like to thank the review committee that assisted in the production of the case studies, in particular Ms Anne Maina (BIBA Kenya), Ms Boungoindzi Nyangui Mireille (Gabon environnement), Mr Mamadou Danfakha (Fahamu Africa, Senegal) and Mr Fredj Kaouach (Association Tunisienne de Permaculture).



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This document is a result of the CROPS4HD project: a consortium of SWISSAID, FiBL, and AFSA supported by the SDC and LED. CROPS4HD has three major components: production, market and policy advocacy.

AFSA, which is responsible for advocacy, is a broad alliance of civil society actors involved in the fight for food sovereignty and agroecology in Africa. Its members represent small-scale farmers, pastoralists, hunters/gatherers, indigenous peoples, faith-based organisations and environmentalists from across Africa. It is a network of networks, currently with 41 members operating in 50 African countries.

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Courriel: [afsafrika@afsafrika.org](mailto:afsafrika@afsafrika.org)  
Web: [www.afsafrika.org](http://www.afsafrika.org)