



CASE STUDY 2019

Seeds of the past adapted to the present and future

Little black millet and white onion, two farmers' seeds returning to Niger

Summary

In Niger, climate change and economic factors are affecting the living conditions of agricultural producers. Distorted by the promise of better yields, many Nigerien producers have abandoned their farming practices and peasant varieties to adopt new and sometimes inappropriate practices. This case deals with black millet and white onion, two farmers' varieties that farmers' organizations are trying to preserve with support from other stakeholders. This is in a context where policies are more favourable to a certified seed system. It reflects the commitment of small producers to restore peasant varieties to solve socio-anthropological and agricultural productivity problems.

The Problem

Soucoucoutane and Loga are two municipalities located in the Dosso region of Niger. They are very similar both in terms of constraints and in social terms. Due to their geographical positions, the rugged terrain and the dilapidated state of the roads, these communities are vulnerable to climate change. Poverty is almost permanent. In these areas, climate risks strongly discourage the actions of development organizations. Often, the solutions proposed by the actors in agricultural production (improved seeds, use of chemical fertilizers, etc.) are not adapted to meet the constraints faced by producers. Thus, to solve the problem of access to seeds, the producer organizations active in Soucoucoutane and Loga requested the support of the SWISSAID programme. The programme supports farmers' initiatives to reconstitute highly valued peasant seeds that are

The inability of the so-called 'improved' varieties to adapt to climate variations in these areas, as well as the delay in access to certified seed, contributed to the success of the project.

threatened by genetic erosion and/or extinction. These farmer seeds have their origins in socio-economic and cultural exchanges that are more than 100 years old.

The Solution

The objective was to support farmers' initiatives to preserve biodiversity in the cultures of the SWISSAID Niger programme area.

Specifically:

- To collect, multiply and replace peasant varieties in their areas of origin;
- To set up a local access system for farmers' seeds (black millet and white onion).

The main activities carried out:

- **An inventory /state** of play on the availability of these two farmers' varieties. The analysis showed that both the white onion of Soucoucoutane and the black millet of Loga are at high risk of extinction. For example, in Soucoucoutane, less than 20 producers have kept the varietal strain of white onion - in 2014, only 2 kg of seeds were available throughout the municipality. In the same year, the Loga producers' union inventoried black millet seeds in the area and was only able to collect 200 kg produced by a few farmers;

- **The collection and multiplication of peasant seeds:** this involves multiplying the seeds collected by the two organizations on the basis of agroecological practices and peasant methods of selection, varietal purification, harvesting and seed saving. 70 producers (including 18 women) in 12 villages have committed to preserving local millet on an area estimated at 169 Ha in 2018. In total, 25 tonnes of

Thanks to our union, I was able to find the seed of the local Chouma millet that had totally disappeared in our village.



Producer Hassane hima from Gabikane Loga

seed were produced. A 30-tonne seed bank has been built by the producers' union to facilitate members' access to millet seeds.

As for white onions, the establishment of a 0.50 ha plot by a member union of the federation made it possible in 2015 to produce more than 13 kg of seeds of this peasant variety. This facilitated its reintroduction into nine other villages in the area that had lost this varietal strain. Thus, in 2019, the variety was reintroduced in all nine villages and the quantities of self-produced seeds by the members of the federation amounted to more than 50 kg, which allows them to meet their needs without having to buy seeds from outside;

- **Raising the awareness of communities and producers** on the value of peasants' seed and the organization of producers;
- **Training of producers on multiplication techniques** (selection of plots, process of multiplication, varietal purification, monitoring of promoters involved in the multiplication of peasant seed);
- **Building local capacity** to lead advocacy at the local and national levels for the preservation of peasant varieties in Niger;
- **Setting up production infrastructure** to support farmers' initiatives (wells, fences, seed store);

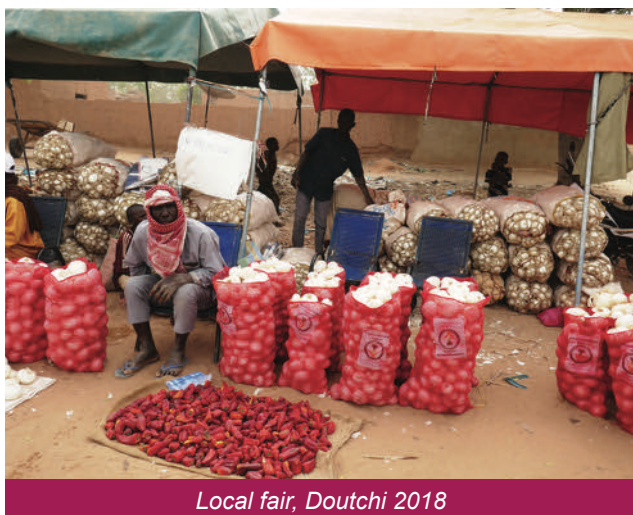
“ Thank God, I produced 2000 kg of seeds that I sold and exchanged with 50 other farmers in my village. The quantity produced covered all my food needs for 2018. ”

- **Access to credit for producers** for seed storage, agricultural tools and equipment;
- **Organizing producers** for collective marketing of stock;
- **Organizing seed fairs** to increase the recognition of peasant seeds;
- **A research study** for the characterization of the white onion ecotype of Soucoucoutane.

The outcomes of the onion chain in Soucoucoutane (Faral Albassa) benefits 14,419 people in 10 villages in the municipality. A total of 618 producers (including 368 women) are active in this sector and are organized within a federation. As for black millet, or “Tchouma biyo”, the initiative benefited 20,610 people in 28 villages in the municipality. A local network of 70 multipliers of this peasant seed, including 23 women, has been established by the union in 12 villages since 2016.

Results

Producer organizations have succeeded in preserving two peasant varieties that were threatened with extinction because of the promotion of so-called ‘improved’ varieties by various actors. The number of producers committed to preserving these varieties has increased - for white onions, from less than 20 producers to more than 600, and for black millet, from



Local fair, Doutchi 2018



Onion harvest 2017

less than 10 producers to a network of 70 producers. It should also be noted that these initiatives have increased the independence of producers in terms of access to seeds (on-time and high quality) and the appreciation of local knowledge and know-how (cultural, socio-anthropic aspects and knowledge of peasant varieties). The history of these peasant varieties has been traced and passed on to the younger generations, as well as their medicinal properties.

Finally, these two peasant varieties are of interest to local researchers and political authorities in Niger, who have recognized their distinctive features at various agricultural fairs and exhibitions. At the Dosso regional fair, organized in 2019 by the multi-stakeholder network for the promotion of agroecology in Niger (RAYA-KARKARA), the white onion of Soucoucoutane won the award for the best onion ecotype.

Conclusions and recommendations

Through these activities, producer organizations have demonstrated that it is important not to oppose seed systems and that all systems are essential (farmers’ seed systems and certified systems) to contribute to food security and the preservation of socio-cultural values. The obvious value of communities in preserving biological heritage for reasons still unknown to the scientific community is provided in these two communes of Niger. The State and partners must involve grassroots communities more closely in agricultural policies. As for local researchers, they must be much more attentive to the needs of grassroots communities. It is also necessary to decentralize agricultural research so that it can better respond to local contexts. To conclude, the maintenance of a directory or catalogue of seeds and

farming practices in Niger is necessary to save the disappearing knowledge and skills of farmers.

What else could be done?

Awareness-raising and support for farmers are essential actions for the preservation of biodiversity, as well as the knowledge and know-how of farmers affiliated with this biodiversity. Also, the inventory at the local level of peasant seed varieties will make it possible to identify concrete actions to safeguard them. The establishment of farmers' seed networks and the establishment of conservation infrastructure (farmers' seed bank, shops, etc.) are key activities for farmers' empowerment and self-promotion.

Success factors and challenges

The success factors stem from the fact that these initiatives come from producer organizations (endogenous initiatives). Also, support to producers

As for me, I prefer the Chouma for its adaptation to the type of soil in my fields and for its resistance to drought and birds.



Onion picking and drying of stalks 2017

“ We have just regained our past thanks to this initiative and we have learned a lot from our mistakes. As a local saying goes, “you should never sell or abandon your assets, but you can mortgage them, lend them to recover them if necessary”.

to buy agricultural equipment adapted to their constraints (cart, plough, etc.) has facilitated the adoption of agroecological practices for soil fertilization (raw manure, compost) and an increase in production and income. The networks of exchanges through fairs and competitions have enabled producer organizations to be convinced of the benefits of agroecology. Finally, the inability of the so-called 'improved' varieties to adapt to climate variations in these areas, as well as the delay in access to certified seed, contributed to the success of the project.

In terms of major challenges, we note the country's seed policy, which is not favourable to the promotion of peasant varieties, the supervision and support of producers involved in the production of peasant varieties, the protection of peasant knowledge and know-how or the protection of peasant varieties.



Producer Hassane hima from Gabikane Loga Niger

Acknowledgements

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Who is AFSA?

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