



Storage solutions for agricultural products to improve food security in the Sahel

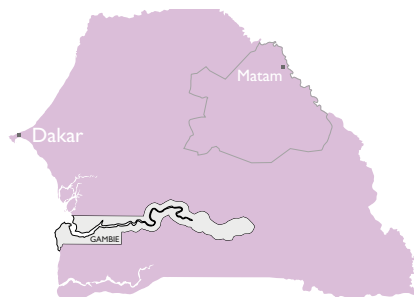
SENEGAL



- 18 million inhabitants
- 164th out of 188 in the HDI* classification
- 72% of households in rural areas of Senegal work in agriculture
- 50% of these experience food insecurity

*Human Development Index

Source : <http://hdr.undp.org/en/countries/profiles/SEN>



MILLENNIUM GOALS



BACKGROUND MISSION



Food insecurity

In the north-east of the country, which is on the front line of climate change and the advancing desert, a lack of access to quality seeds and increasingly severe droughts are reducing crop productivity. In addition, all of the small-scale farmers are harvesting the same crops at the same time and they have no granaries to store them in. This overproduction with no means of storage leads to massive losses or sales at very low prices, thereby aggravating food insecurity for small producers and their families.



Support for storage and marketing

In 2018 Entrepreneurs du Monde set up a project to offer small farmers storage solutions and effective financing, so that they can store part of their harvest and sell it at the optimum time.

METHODOLOGY SUPPORT



Granaries, loans, training and logistics

The team builds earth granaries that are simple, innovative and efficient, keeping the harvests in darkness and at a cool temperature (28/32°) day and night. Small farmers receive training in soil improvement, agro-ecology and management. The team tracks prices in the market and arranges group transport for agricultural products. The small farmers take out microcredits to finance the agricultural year and the storage of their harvests.



Experience and innovation

The project is being run by an Entrepreneurs du Monde team of Senegalese and French professionals and is supported by financial (Coopération Monégasque, Fondation EDF, etc.) and technical partners (CRAterre* and EdF). To roll out this project and make it viable the team is going to create a social enterprise for storage and marketing, helping to strengthen the agricultural sector.

*CRAterre : laboratory for agricultural research based at ENSA in Grenoble, CRAterre.org - aecc.hypotheses.org



MOUSSA DIALLO
His onion harvest was saved thanks to the granary!

Moussa is a young farmer with a disability. Married with five children, he lives in the Nawel neighbourhood of Matam. During the 2019 growing season, he dedicated an entire half-hectare plot to growing onions. But because his crop matured late, he had considerable difficulty selling it. In desperation he approached Entrepreneurs du Monde and was able to store 8.5 tonnes of onions in the brand new granary. Moussa stopped his produce from spoiling and improved his turnover, allowing him to survive the hunger gap and save money for the start of the new school year.

ZOOM

INNOVATION TO MATCH LOCAL MEANS



A successful first pilot granary

The first prototype granary was built according to plans and recommendations from the CRAterre team. It received its first 35 tonnes of onions and after 3 months of storage, 80% of them were still in a good state and were marketed at a very good price.



An even better second attempt

This first campaign was a test for the architectural solution, allowing improvements to be made both technically (ventilation) and architecturally (fewer internal walls to improve air circulation, replacement of the wooden frame with earthen vaults). A representative of CRAterre is overseeing the entire site.



On-site training to learn the skills

The second building is being built by an on-site training programme to teach the craftspeople who will be taking the project forward. Entrepreneurs du Monde aims to build 30 granaries to store 3,000 tonnes of agricultural products each year.

Involving the farmers

The producers are involved from the inception of the project and take ownership of it. They provide the land on which to build a granary in each of the areas selected by the study undertaken by project partner the University of Saint-Louis.

HIGHLIGHTS



Building the first granaries

We built the first pilot granary using local labour and materials. It was finished in March 2019 and the first onions were stored there in April. Scientific observation during this first period resulted in an improved design for the final version. Construction of a second granary using the new design began in November.



A space for seed production

To meet the need for high-quality seeds, we created a space alongside the granary for reproducing and experimenting with farmers' seeds, equipped with a solar-powered pump and a 5000-litre water tower. We will be using this to offer practical training in how to produce high-quality seeds so as to help producers achieve independence more quickly.

OUTLOOK



Building skills

Failure to follow technical instructions (from soil preparation through to harvesting) negatively affects both the quality and quantity of agricultural produce. We will therefore be offering producers an appropriate range of technical training and support.

have access to a range of services, both financial (savings and unsecured micro-loans) and non-financial (management training, follow-up and social support). Each loan is tailored (amount, instalments, term) according to the individual's ability to make repayments and the seasonal nature of their work.



Agroforestry to combat desertification

Reforestation is the only way to stop soil degradation and adapt to the changing climate. In collaboration with the Water and Forestry Service and the municipality of Matam, we plan to develop nurseries for both forest and productive trees (fruit trees, hedgerow, aerial fodder etc) so that everyone will be able to replant around their houses, fields and even in the scrub.

PARTNERS

