

SYNGENTA FOUNDATION FOR SUSTAINABLE AGRICULTURE

2020 Activities in Mali

Summary

In Mali, the Syngenta Foundation for Sustainable Agriculture worked in 2020 on the Agriservices and Seeds2B sub-portfolios. Program highlights are summarized here.

Our project for the promotion of youth entrepreneurship and job creation in the rice sector in West Africa (PEJERIZ) ended in March. This had been co-financed by SFSA and the Technical Cooperation Center for Agriculture and Rural Areas ACP-UE (CTA). For further details, see www.syngentafoundation.org/news/recent-news/young-entrepreneurs-seize-great-opportunities-rice. The 'CEMA' machinery centers consolidated their position despite the challenges posed by Covid-19. The seven centers are located in the Office du Niger, Office Riz Ségou and Office for Rural Development of Sélingué. In the greenhouse sector, we added 150m² of facilities to the three existing school greenhouses covering 1250 m². The new greenhouses produce seedlings in major vegetable production areas. Also in Seeds, the first phase of PASTTA (Partnership for the Transfer of Seed Technology in Africa), co-funded by USAID and SFSA, ended in September. A second phase has now begun, with a focus on field crops. The Seeds2B program has expanded its network for testing, adaptation and dissemination of new varieties. We partner here with agricultural research and training institutions, seed companies, NGOs and small producers.

Mali experienced its first cases of COVID-19 in March 2020. To protect its staff and partners, SFSA raised awareness and distributed handwashing kits, gels and masks. Farmer information meetings were initially suspended; they later resumed with a maximum of 50 people per session.

Agriservices

In 2020, our Agriservices team focused on three main activities. We consolidated the CEMA and helped to cover managers' salaries, increased the use of digital tools and introduced the Farmers' Hubs model for seedling production. The program received external funding of \$528,027. This came from the Accelerating Impacts of CGIAR Climate Research in Africa (AICCRA) project run by AfricaRice.

Performance of the CEMA model

The seven CEMAs created more than 250 permanent and temporary jobs in 2020. More than 12,000 people benefited from CEMA activities. CEMA machines were used on more than 1000 ha; turnover amounted to about €263,400 (> CFA 172,800,000). The centers achieved total net profits of more than €75,600 Euro (> CFA 49,600,000; approx. average €0.84 = \$1) Euro Our graph shows how business has progressed at the first pilot CEMA since 2015. Table 1 provides detailed figures across centers. These CEMAs have fully reimbursed the bank annuity for the machines.

56 Managers and Service Delivery Agents ('APS'), 20% of them women, were trained to use the *Hello Tractor* tool. Supervised by 15 APS, 170 rice farmers used the RiceAdvice tool on more than 167 hectares across 14 villages.

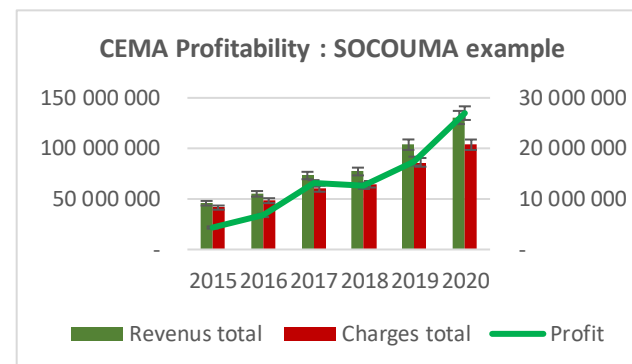


Table 1 Performance of CEMAs in 2020

Key Performances 2020	CEMAs-Mali								TOTAL (F CFA)
	SOCOUMA	CRPID	KUMASE	TOGOU	GNELENI	DJIGUIF A	YIRIWASSO	SIGUIDA	
Starting year of the CEMA	15-2016	2 018	2 018	2 018	2 018	2 018	2 018	2 018	
Agricultural Equipment/machinery									
Number of producers (direct)	617	200	144	36	209		314	102	1 622
Number of producers (indirect)	4 088	1 600	1 152	288	1 672		2 512	816	12 128
Permanent employment	10	4	8	4	10	1	10	6	53
Temporary employment	51	5	26	14	40		45	32	213
Number of ha worked	25	200	125	51	273		183	305	1 162
Number of husked bags / threshing	24 468	495	12 216	8 117	4 814		4 544	1 759	56 413
Total income	130 590 700	2 737 000	6 504 360	8 411 250	7 801 609		9 212 999	7 594 200	172 852 118
Total charge	103 613 209	922 369	4 112 300	3 364 700	2 463 825		4 106 688	4 607 655	123 190 746
Net profit	26 977 491	1 814 631	2 392 060	5 046 550	5 337 784		5 106 312	2 986 545	49 661 373

Siguida = Siguida Yiriwaton

Farmers' Hubs (FH)

- **First-generation greenhouses (1250 m²)**

- ✓ 3 FH were temporarily functional
- ✓ 4103kg of cucumber were produced, of which 3797kg sold for €1871 (CFA 1,227,250)
- ✓ 442 producers including 201 women visited the FH sites

These “school” greenhouses have suffered pest attacks and destruction by high winds.

- **Second-generation greenhouses (150 m²)**

- ✓ New greenhouses were built at the end of 2020 from local materials; the smaller area makes them more manageable
- ✓ More than 10,700 seedlings were produced towards the end of December; 4,814 sold for CFA 20 each
- ✓ 14 producers were trained on nursery techniques and our ‘e-Hub’ management tool.

Agripreneurs in their school greenhouse



Seeds2B

Improvement of seed choice

- Implementation with the Institute of Rural Economy (IER) of five trials on 12 sites to assess the adaptability of 71 new varieties: 35 cowpea, 30 soybean and six sorghum.
- IER, the Seed Laboratory (LABOSEM) and SFSA set up trials for registration in the National Catalog of Seeds and Varieties. This involved two varieties of hybrid maize in five agro-climatic settings.
- In February 2021, based on tests since 2018, Mali's approval commission validated listing of five varieties of sorghum and one of hybrid maize in the National Catalog.

Adaptation trial of hybrid sorghum



Dissemination and development of new varieties

During 2020, SFSA signed agreements with several partners in the Malian seed system. They included national research centers, seed companies, NGOs and producers. The partnerships aim to disseminate new varieties. 11 trials at 154 sites tested the performance of 24 varieties.

18 Field Days attracted 875 seed sector participants. Slightly over half were women and young people; 71% were small producers.

Farmers visit a company seed production plot for *Tinsamba* sorghum at Camara Semence in Kasséla

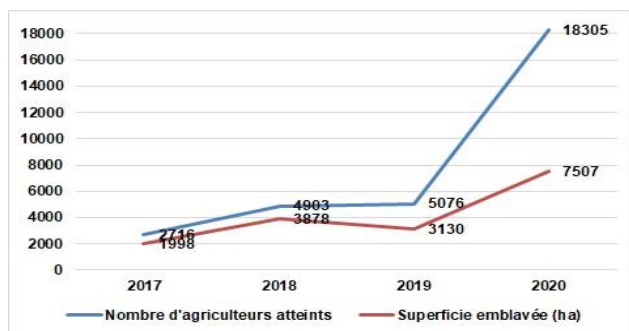


Development of the seed system

Since 2017, the PASTTA program has attracted well over €170,000 investment in the Malian seed system. Cumulative generated sales amount to more than €586,000. In 2020, seed system organizations invested more than €100,000 in the production of new varieties distributed by Seeds2B. This investment made it possible to import 40t of seeds of *Kabamanoj* hybrid maize and produce 43t of seeds of five varieties each of cowpea (Acar1, Jiguifa, Simbo, CZ 06-4-16 and CZ06-1-5) and sorghum (Tinsamba, Wilibali, Falemba, Tinsan Yèrèkèlé and Wassalen).

In sales terms, imports account for 74% of the seed market. That is far more than is achieved by locally produced seeds and public procurement. Table 2 provides details.

Figure 2 Evolution of the area sown with Seeds2B varieties and the number of small producers involved



Seed sales in 2020 generated €319,842. Over the past three years, the number of small producers involved has risen by more than 600%. During the 2020 rainy season, local and imported seeds enabled 18,305 small producers to sow 7507 ha (Figure 2).

Table 2 Evolution of production / imports and sales of seeds

Year	Seed production (t)			Sales value (USD, \$1 = av. €0.84)		
	Private	Public	Total	Private	Public	Total
2018	16	5	21	87 966	56 247	144 213
2019	12	32	44	129 528	43 736	173 264
2020	40	43	83	281 373	99 710	381 083

Concluding comments

Despite the spread of COVID-19, our Malian team was able to carry out its planned activities by observing the protective measures recommended by the health authorities. SFSA distributed handwashing kits, gels and masks to partners, accompanied by information campaigns.

In 2021-23, SFSA intends to establish about 15 small threshing and processing units (CEMA) as part of the AfricaRice AICCRA project. We plan to install four further greenhouses in vegetable production areas. We shall also be submitting further varieties of sorghum for registration in the National Catalog.

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