



Members of a women's group in an incubation center.
Photo credit: Moussa Moustapha

Summary: Local cereal fortification with indigenous legumes (cowpea, groundnut, Bambara groundnut), which are generally richer in protein, minerals and vitamins (e.g., iron, zinc, vitamins A and D), can be a means to remediate micronutrient deficiencies in common diets. This project builds on previous work conducted by the team in cooperation with rural and urban processing units owned by women. This project strengthens local cereal and legume processing and diversifies uses of local grains.

For more information see:
<https://www.ccrp.org/grants/grain-processing-iv/>

West Africa Community of Practice



Project Partners

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COLLABORATIVE CROP RESEARCH PROGRAM

McKNIGHT FOUNDATION

Research to Impacts Map: Agriculture for Nutrition

Processing Project 2009-2019

Research and promotion of post-harvest technologies and value-added products for better nutrition

2019: **The innovated millet/legume flour formulas** developed by the project were compared with food aid maize-soy blends in Niger. The innovated formulas had a more viscous texture and 10 times greater storage values than the control samples. Sixteen mothers from 4 different locations who had purchased and fed the innovated millet/ legume formulas reported that they were more efficient, preferable, and accessible than the food aid maize-soy blend.

About 500g per week of innovated formula was enough to **relieve malnourished** children. The required duration of the treatment varies from 4-12 weeks depending on location and the severity of the malnutrition.

Training of rural families

2011: 15 associations (15-30 members each) of **woman processors received training** in food safety, hygiene, micronutrient powder fortification, packaging, and marketing of processed sorghum and millet foods.

2016-2017 in Niger: 29 more villages were trained by **lead women** already experienced in food innovation.

More diversified and nutritious food production throughout the year

2013-2014: **4 processing sub-centers** were established/equipped in Burkina Faso (1) and Niger (3). The centers in Niger received milling **machines**, electrical and wood roasters, dryers, and operational resources. Equipment installed in Burkina Faso included steamers and roasters.

Rural Vibrancy

2014-2017: More than **100 rural households/day/site are benefiting** from grain milling, threshing, and processing equipment at the sub-rural processors' **incubation centers**. Many of the users are part of **women processor groups**.

Create markets for nutritious foods

2016: **Local market** for grain-based foods was developed.

2017: Women groups have started to generate **incomes** from marketing of cereal and legume-based foods and are now **demanding** more consistent grain supply from smallholder farmers.

ETC, a **grain-based processing enterprise** (lead by a woman) was awarded financial support from UKAID for a 3-year project to scale-up. The project will use about 300 tons of cereal and legume grain for Year 1, benefiting ~300 farmers at project sites and, at end of Year 3, **1,025 farmers** (2/3 men, 1/3 women) with a total benefit of USD ~375,000.

Inclusive networks

Rural women innovators invite, and sometimes pay for, other women from peripheral villages (10-30 km from center) to travel and receive similar training in processing, nutrition, safety, and leadership. This **dissemination of knowledge** can extend to 5-35 neighboring villages depending on the location.

Influence policies and practices around ag-nutrition interventions

2016: **4 government rural community** health centers in Niger are affiliated with food innovation centers to develop and promote nutritious/fortified food products.