



CATALYTIC INNOVATIONS IN AFRICAN AGRICULTURE CENTENNIAL SERIES

# SEED STRENGTH

WEST AFRICA SEED PROJECT (WASP) ■ BURKINA FASO

The Catalytic Innovations in African Agriculture Centennial Series was developed as part of the Rockefeller Foundation's Centennial publications. The Rockefeller Foundation, as an institution with a long history in agricultural innovation, commissioned this series to highlight promising developments in African agriculture, agricultural markets, and value chains on the continent. The projects and programs featured were selected from a review of nearly 150 such initiatives based on criteria that included a focus on smallholder farmers.

**THE ISSUE** As the first input into agriculture, seeds are critical to increasing productivity. In fact, seeds contribute to approximately 25 to 35 percent of crops' yield potential. Climate change, however, puts this in peril; seeds that may have produced several years ago are no longer able to weather environmental challenges, such as severe droughts. With inadequate seeds, small-scale farmers produce less and less.

**THE INNOVATIVE RESPONSE** The West Africa Seed Program (WASP) was founded as a solution to improve the quality of seeds in a context of greater climate uncertainty. WASP's aim is to develop and produce seeds that are adapted to the changing climate conditions in West Africa, with the ultimate goal of increasing agricultural production in the region, decreasing malnutrition, and increasing food security.



**Rockefeller  
Foundation**

Innovation for the  
Next 100 Years

**ABOVE:** Farm workers harvest an improved variety of cow pea at a demonstration field in southwestern Burkina Faso. Cow pea is an important source of protein in West Africa.



# SEED STRENGTH

WEST AFRICA SEED PROJECT • BURKINA FASO

## PROJECT BACKGROUND

### THE STAKEHOLDERS

It is the aim of WASP to engage all actors in West Africa's seed sector inclusively. As such, the list of stakeholders is large and growing. These stakeholders jointly crafted the idea for WASP and will continue to play a key role in shaping the project. They include the Economic Community of West African States (ECOWAS), the West Africa Agricultural Productivity Program (WAAP), the centers that are part of the Consultative Group for International Agricultural Research (e.g., ICRISAT, IITA, AfricaRice), national agricultural research systems and universities, local and national private seed organizations and enterprises, national seed services, NGOs, farmer-based organizations, inter-governmental organizations (e.g., CILSS), and the Food and Agriculture Organization of the United Nations. The project is funded by USAID.

**WASP AIMS TO INCREASE AGRICULTURAL PRODUCTION IN WEST AFRICA BY DEVELOPING IMPROVED VARIETIES OF SEEDS ... THAT ARE ADAPTED TO CHANGING CLIMATE CONDITIONS IN THE REGION.**

### OVERVIEW

An ECOWAS initiative, WASP was launched in September 2012. It is integrated within the pre-existing West Africa Agricultural Productivity Program (WAAP) and will be implemented in seven target countries: Benin, Burkina Faso, Ghana, Mali, Niger, Nigeria, and Senegal.

The specifics of WASP's activities are still being planned, but key activities will include:

- Implementing regional and national seed laws and regulations in West Africa
- Increasing participation of the private sector in the seed industry

- Enhancing the capacity of the African Seed Trade Association and national seed trade associations
- Establishing an operational and inclusive Alliance for Seed Industry in West Africa (ASIWA)
- Enhancing the capacity of key actors—including private sector organizations, producers, and small-scale farmers (e.g., through providing trainings, facilitating access to finance, and supporting seed production at the research level and at the seed cooperative level)

### GOALS

WASP aims to increase agricultural production in West Africa by developing improved varieties of seeds and new technologies that are adapted to changing climate conditions in the region.

Specifically, WASP's goal is to expand the production and supply of good quality certified seeds of both open pollinated varieties and hybrids in West Africa from approximately 6 percent (the current amount) to 25 percent over the next five years, and bring improved seeds and technologies closer to small-scale farmers.

In doing so, WASP intends to mitigate the principal challenges facing the development of West Africa's seed industry. These include limited access to quality seeds, limited technical and financial capacity of plant breeders, weak and underdeveloped local seed enterprises, lack of seed demand forecasting and market information systems, weak and undeveloped agro-dealer network, and lack of mechanisms to enforce seed regulations.

## WHAT IS INNOVATIVE ABOUT THIS PROJECT?

WASP is an innovative capacity-building platform that brings together all key actors in West Africa's seed industry to improve the quality of seeds used in agricultural production and to increase access for small-scale farmers.



## CREATING THE RIGHT REGIONAL FRAMEWORK

Through the creation of ASIWA, WASP hopes to foster collaborations among organizations across West Africa to promote the supply of quality seeds and create a regional seed market. WASP— together with ASIWA and other stakeholders—will bring changes in laws that govern how seeds are produced and marketed. Aligning laws within West Africa is a critical step for ensuring producers and farmers have access to a greater variety of seeds. WASP will also create a National Seed Release Committee to develop a seed catalog for all seven countries of implementation. Once seeds are listed in this catalog, any country can produce and sell them.

## ENGAGING PRIVATE SEED PRODUCERS

Increasing public-private partnerships is central to WASP, and is a new direction for the West African seed industry. WASP will help private companies become a key force by developing their capacity to produce more and better seeds, and training them to improve their technical capabilities. WASP will also work with seed inspectors to develop a monitoring system that ensures seed quality.

WASP and its private sector partners will also establish seed production plots, create demonstration plots to showcase new varieties, and organize field days for farmers to learn new techniques. These partnerships will also ensure that small-scale

farmers are trained to both produce new seeds and become part of a resource network.

For example, private companies, such as NAN-KOSEM and Burkina Primeur, have already developed rainy season onion varieties that are bringing farmers, particularly women, increased income. Another partner, NAFASO, is already a key actor in Burkina Faso's seed industry. Its goal is to make improved seed varieties more accessible to small-scale farmers, making at least 50 percent of them aware of the seeds by 2020. In addition to producing certified seeds, NAFASO partners with growers to test new varieties and to distribute seeds through village stores.

## TRANSFORMING SMALL-SCALE FARMERS INTO EDUCATORS

Engaging farmers is critical to addressing barriers to improved agricultural production and food security. WASP collaborates with its partners to identify and train producers, who are small-scale farmers themselves. These producers test new seed varieties and are trained to produce certified seeds. They participate in continued trainings to learn new techniques, experiment with producing hybrid seeds, and contribute their ideas to a wider network of producers and WASP collaborators through field days and other opportunities. Perhaps more important, their training allows them to become community resources—individuals whom other farmers seek out for advice about new seed varieties, access to those seeds, and cultivation.

**ABOVE:** Women threshing rice near Bobo-Dioulasso, southwestern Burkina Faso.



# SEED STRENGTH

WEST AFRICA SEED PROJECT ■ BURKINA FASO

## THE FUTURE: OPPORTUNITIES AND CHALLENGES

### OPPORTUNITIES

**POTENTIAL FOR CHANGE** WASP's vision is ambitious and its work engages all of the key actors in West Africa's seed industry. The breadth and inclusiveness of this vision could yield genuinely transformative change, both at the government and individual levels.

**EXPANSION** WASP is currently a five-year initiative. If WASP succeeds in creating ASIWA, aligning seed laws in West Africa, and creating a network of exchange, the stage will be set for WASP's work to continue well beyond the initial project timeframe.

### CHALLENGES

**COORDINATION** Operating at such a large scale means that coordination is critical. For example, one key element of WASP involves aligning both national and regional legal frameworks. Changing these frameworks across a region necessarily depends on changing those same frameworks within each country.

**FINANCE AND SUSTAINABILITY** The demonstration plots and farmer days that WASP supports will help to promote awareness

of new seed varieties. Access to finance, however, remains an issue. Even when farmers are aware of a new seed variety and understand the benefits that it would bring, they often lack the money to purchase that seed. By some estimates, 80 percent of the seed currently produced in Burkina Faso is purchased by the government and NGOs. Small-scale producers and farmers buy very little.

Financing is also critical to WASP's sustainability. Improved seed varieties likely require higher quality and more costly inputs, such as fertilizer. Farmers may also need to purchase new seeds every year, requiring additional investment. Although governments and other organizations provide some subsidies, further investigation should be done into how financing mechanisms could be integrated into WASP's activities.

**EMPOWERING WOMEN FARMERS** It is critical for WASP to create a structure and network that empowers women farmers to become seed producers and educators. Currently, a majority of seed producers in Burkina Faso are men, although some women are trained to produce cowpea and onion seeds—crops typically cultivated by females.



CLOCKWISE FROM TOP LEFT: A seed processing and storage facility run by the commercial seed company NAFASO. • WASP collaborates with commercial seed companies in Burkina Faso to produce new varieties of fruit and vegetable seeds. • Rice Seed at NAFASO's processing and storage facility in Bobo-Dioulasso. • Bamago Saidou's rice field in Bama, where he is growing seed for a new variety of rice for farmers in the southwest of Burkina Faso.

“ ”

I test new seeds and others come to see and ask me questions about these new varieties. And if there is anything I don't know I go ... and find out the answer.

MARCEL OUEDRAOGO  
BURKINA FASO



# PROFILE: SMALL-SCALE SEED PRODUCERS

After receiving training to become seed producers, small-scale farmers Bamago Saidou and Marcel Ouedraogo have become educators and catalysts in their communities.

In the late afternoon sun the frogs are croaking in Bamogo Saidou's rice field near Bama, in southwestern Burkina Faso. The light makes his mature rice plants bright green as they lean under the weight of the grains. He makes his way along the quarter-hectare paddy, where he is growing seed he will sell to a company called NAFASO. Producing seed for NAFASO has been a good business, he says. "I help my neighbors to learn how to produce more too," he mentions while he talks about his rice seed production. "People around here want to be good farmers. And if I earn more then I also want them to use the same new technology and earn more as well."

The innovative collaboration between WASP, commercial seed companies, and the government scientists who certify new seed varieties has leveraged WASP's network of farmers. Small- and medium-scale growers are trained by WASP and seed companies like NAFASO in the southwestern region around Bobo Dioulassou to test and produce new varieties of seeds they can then sell to the seed companies, who then get the new varieties of seed into the hands of growers who want to increase their production and profits.

The local seed producers, meanwhile, are also leading efforts to train other seed producers and farmers in local grower cooperatives and associations who are just growing to sell, or consume, a crop like rice. Their testing fields become a focus of intense interest as WASP and seed companies organize field days, inviting farmers from all over a region to come see the new varieties, ask questions of the farmers testing them,

and learn where to get the seeds and technical information they need to grow a profitable crop.

## Farmer, innovator, leader

Marcel Ouedraogo lives just off the main road about an hour north of Bobo-Dioulassou. He learned how to produce seed in the same training program with NAFASO, and he has proven to be an active and effective leader for the seed producers in the area. "I test new seeds and others come to see and ask me questions about these new varieties and I tell them the name and where to get the seeds," he says while walking around his test plots near his home. "Lots of people come here and consult with me about new varieties. And if there is anything I don't know I go ask WASP and NAFASO and find out the answer."

He says that during the growing season there is a steady stream of visitors to his farm, as many as 100 over the course of the season. "One farmer from Ouagadougou came here, then tried growing a new tomato. He called me a lot during the season; he would describe the color of the leaves and ask questions, and I would say 'try this treatment' and recommend a product, and he grew the tomatoes well."

Adama Neya, who leads the WASP initiative, says that NAFASO is loaning Ouedraogo equipment like a tractor, and helping him build an office and storage space. "We're so happy with Marcel, be-

cause he is such an innovator," Neya says standing near Ouedraogo's home. "He has proven to be a great group leader for the seed producers in this area."

“ ”

I help my neighbors to learn how to produce more too. People around here want to be good farmers.



**RIGHT:** Bamago Saidou is a commercial seed producer who also trains other farmers near his home in Bama, near Bobo-Dioulassou.