



Creating value together in Africa's rice sector

by Savitri Mohapatra

"If you want to go fast, go alone. If you want to go far, go together," says an African proverb.

The rice component of the CGIAR-led *Support to agricultural research for development of strategic crops in Africa* (SARD-SC) project seems to have taken to heart this time-tested wisdom to achieve greater collective impact.

Funded by the African Development Bank (AfDB), the SARD-SC project was implemented from 2012 to 2017 to raise the productivity and profitability of cassava, maize, rice, and wheat, which are among the six strategic crops selected by African heads of states. AfricaRice executed the rice component with its national partners in 11 African countries.

As the conventional technology transfer approach does not address the complex issues of agricultural development, the rice component adopted the multi-stakeholder innovation platform approach, in which value chain actors are part of the information-sharing and decision-making process and benefit financially.

"Technologies can be scaled out comparatively easily if we create the right environment by bringing together technological, biophysical, and institutional factors; soft skills; technical expertise; products; and services," stated Sidi Sanyang, program leader for rice sector development at AfricaRice and

coordinator of the SARD-SC rice component.

Catalyst for change

Seventeen innovation platforms, which served as the main tool for system-wide change and impact, were established in the rice sector development hubs—key rice-growing environments—in the beneficiary countries. "Thanks to the innovation platforms, the value chain actors shared experiences, learned from each other, built trust, and mobilized themselves into associations to solve common problems," explained Dr. Sanyang.

Based on demand, the platforms focused on specific technologies and innovations generated by AfricaRice and its partners such as improved seed, the *RiceAdvice* app, good agricultural practices, mechanical weeders, the ASI thresher, the Grain quality enhancer, Energy-efficient and durable Material (GEM) parboiling technology, and the packaging/branding of local rice to make it more competitive with imported brands.

The innovation platforms emphasized active interaction with small and medium enterprises involved in farm mechanization, rice processing, and seed supply, which helped promote rice agribusiness. For instance, the project collaborated with Hanigha Nigeria Ltd. to manufacture

more than 500 ASI (known as ATA in Nigeria) threshers that were sold in the beneficiary countries.

Maïmouna Coulibaly, CEO of Mali-based Faso Kaba, one of the enterprises that the SARD-SC rice component collaborated with, won the 2017 Africa Food Prize for producing and marketing quality seed for farmers. "We thank AfricaRice and its partners for collaborating with us, which contributed to our getting this prestigious recognition," Mrs. Coulibaly said.

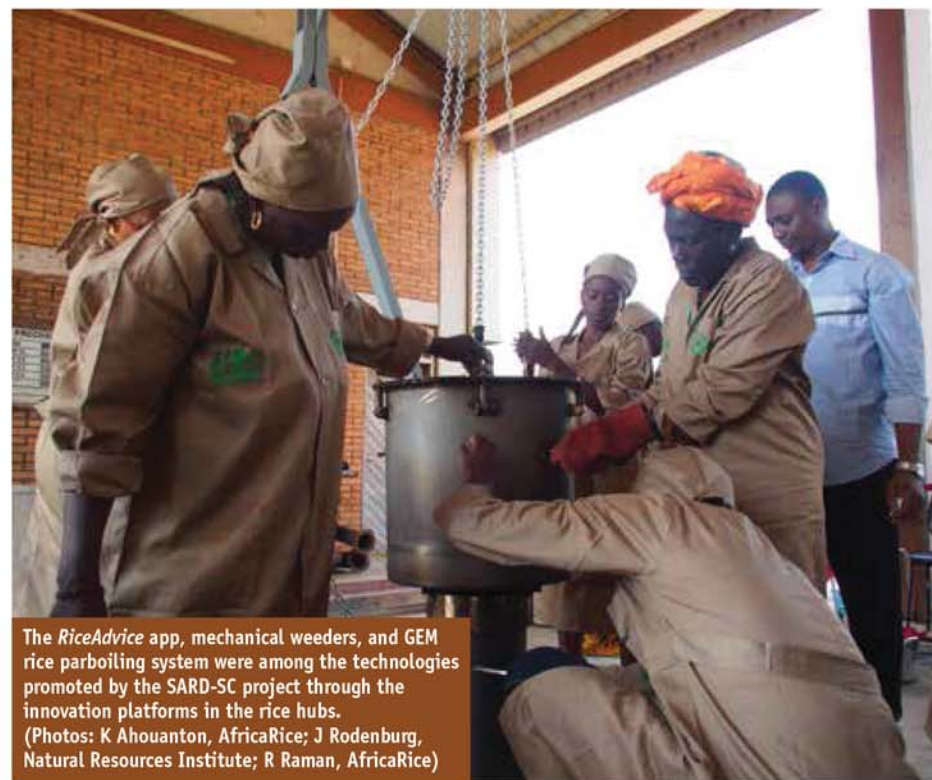
Transformative effect

Project results show that the SARD-SC rice component has benefited more than 20,300 households (4.5% above the project's target).

"Today, we are seeing how substantially the lives of the value chain actors have changed," said Dr. Sanyang.

In 2016, Charles Loki, a young Benin farmer who set up a rice processing enterprise thanks to the project, milled about 300 tons of paddy. He made a net profit of about USD 2,880 by selling the milled rice, which competes well with imported rice.

"What helped us was the training that we received through the innovation platform in seed production, good agricultural practices, and contractual



The *RiceAdvice* app, mechanical weeders, and GEM rice parboiling system were among the technologies promoted by the SARD-SC project through the innovation platforms in the rice hubs. (Photos: K Ahouanton, AfricaRice; J Rodenburg, Natural Resources Institute; R Raman, AfricaRice)

arrangements,” Mr. Loki said. “This has improved our household’s living conditions and our children’s education.”

He plans to expand his rice mill’s capacity to 500 tons this year.

The knowledge and skills enhanced by the innovation platforms are shaping business opportunities, especially for women and youth, which are contributing to the sustainable productivity of the rice sector and bringing about a policy shift to support local rice value chain development.

Women’s participation in the innovation platform ranged from 24% to 80% across various interventions, including training of value chain actors. About 460 young people were actively involved in the innovation platform process. The capacity of 2,025 national partners was strengthened and university studies of 38 postgrads (nine PhD and 29 MSc) were supported.

Value drivers

Rice sector policies in sub-Saharan Africa have focused mainly on improving production and have paid less attention to demand factors and markets. However, because evidence

in the region indicates that quality is an important factor in the demand for rice, the SARD-SC project has emphasized the quality of parboiled and milled rice in the innovation platforms.

The improved GEM parboiling system, which helps produce parboiled rice similar to premium imported rice, is a major success of the project. (See *A “GEM” for women rice processors* on pages 20-21 of *Rice Today*, Vol. 14, No. 4.) More than 2,560 rice parboilers (14% men and 86% women) were trained in the use of GEM in Benin and Nigeria, which raised their profit margins and led to the establishment of parboiling as a business to supply urban and rural markets.

“With GEM, we can process large quantities of rice in a relatively short time,” said Badou Rachidatou, innovation platform facilitator in Malanville, Benin. “It is safer and easier to operate, particularly for women processors, and requires less fuelwood and water.”

In innovation platforms in Malanville and Glazoué in Benin, the price of parboiled rice rose from USD 0.66 per kilogram before GEM was introduced to USD 0.94 per kilogram.

Similarly, the price of parboiled rice increased from an average of USD 0.63 per kilogram to USD 0.90 per kilogram because of the GEM parboiling center in the Lafia Innovation Platform in Nasarawa, Nigeria. The innovation platform actors sold about 440 tons of parboiled rice between July 2016 and March 2018, earning net profits of USD 101,200. About 1,800 parboilers are engaged in GEM parboiling service.

The benefits of GEM in the Lafia Innovation Platform have gone beyond parboiling: the actors were able to obtain loans, farmers now have better access to quality seed of the popular varieties FARO 44 and FARO 52, local artisans were trained in fabricating GEM components, and quality control was introduced throughout the value chain.

“This GEM technology is a great relief to Africa as we are now able to provide quality rice to Nigerian markets,” declared Joshua Jonathan, Lafia Innovation Platform chairman.

“The project showed that market-driven technologies and innovations are the catalysts to sustainable technology adoption by smallholders and entrepreneurs, including youth, in the rice value chain,” said Dr. Sanyang.

The next level

Building on the success of the SARD-SC project, the AfDB recently launched *Technologies for African Agricultural Transformation*, a new initiative on a knowledge- and innovation-based response to the recognized need for scaling out proven technologies across Africa.

“We have seen the potential of all the rice technologies and innovations,” said Jonas Chianu, AfDB economist. “The future for us is to now take some of these technologies we have seen under the SARD-SC project to the next level for wider dissemination.” ■

Ms. Mohapatra is the head of Marketing & Communications at AfricaRice.