

# The Africa Rice Center—Recognizing WARDA’s Role in Sub-Saharan Africa

**R**ECOGNIZING ITS increasing role and relevance throughout Sub-Saharan Africa, the West Africa Rice Development Association was renamed ‘WARDA – The Africa Rice Center’ in January 2003.

“Over the past six years or so, WARDA’s influence has been spreading out from its traditional mandate region of West and Central Africa,” explains WARDA Director General Kanayo F. Nwanze. Until the activities of the International Network for Genetic Evaluation of Rice in Africa (INGER-Africa) were transferred wholesale to WARDA Headquarters in 1997, WARDA’s work had been highly focused on its Member States—17 countries in West and Central Africa who joined the Association at various times since its constitution in 1970. With the arrival of INGER-Africa, the flood-gates were open for WARDA’s services to spread to other parts of the continent, and for partners and potential partners to discover the relevance of indigenous African technology for rice farming.

“INGER is still leading the way in advancing WARDA’s geographical borders,” enthuses INGER-Africa Coordinator Gouantoueu Guei, who was recently appointed Head of WARDA’s new Genetic Resources Unit. “Anyone interested in testing rice varieties in the region [Sub-Saharan Africa] is entitled to contact us at INGER-Africa, and we will do our best to accommodate them,” he continues. “To date, INGER-

Africa is collaborating with some 35 countries in Sub-Saharan Africa.” Several of these countries are also members of ROCARIZ and others should be hosting activities under the African Rice Initiative (*see* Figure 1). “Given that there are only eight Sub-Saharan countries with which WARDA has no direct linkages, it seems fair to declare WARDA’s geographical mandate truly Africa-wide,” announces Nwanze.

## **All-inclusive West and Central Africa**

As we approached the end of the second millennium, the horizons were also expanding for other WARDA activities.

After a recommendation from a major donor, WARDA and the West and Central African Council for Agricultural Research and Development (WECARD/CORAF) began discussions in 1998 that eventually led to the merger of the WARDA–NARS Task Forces and the CORAF Rice Network into a single rice research and development network for West and Central Africa, ROCARIZ. “As hosting and coordinating institution, WARDA inherited a relationship with the WECARD/CORAF-member countries at the creation of ROCARIZ in 1999,”

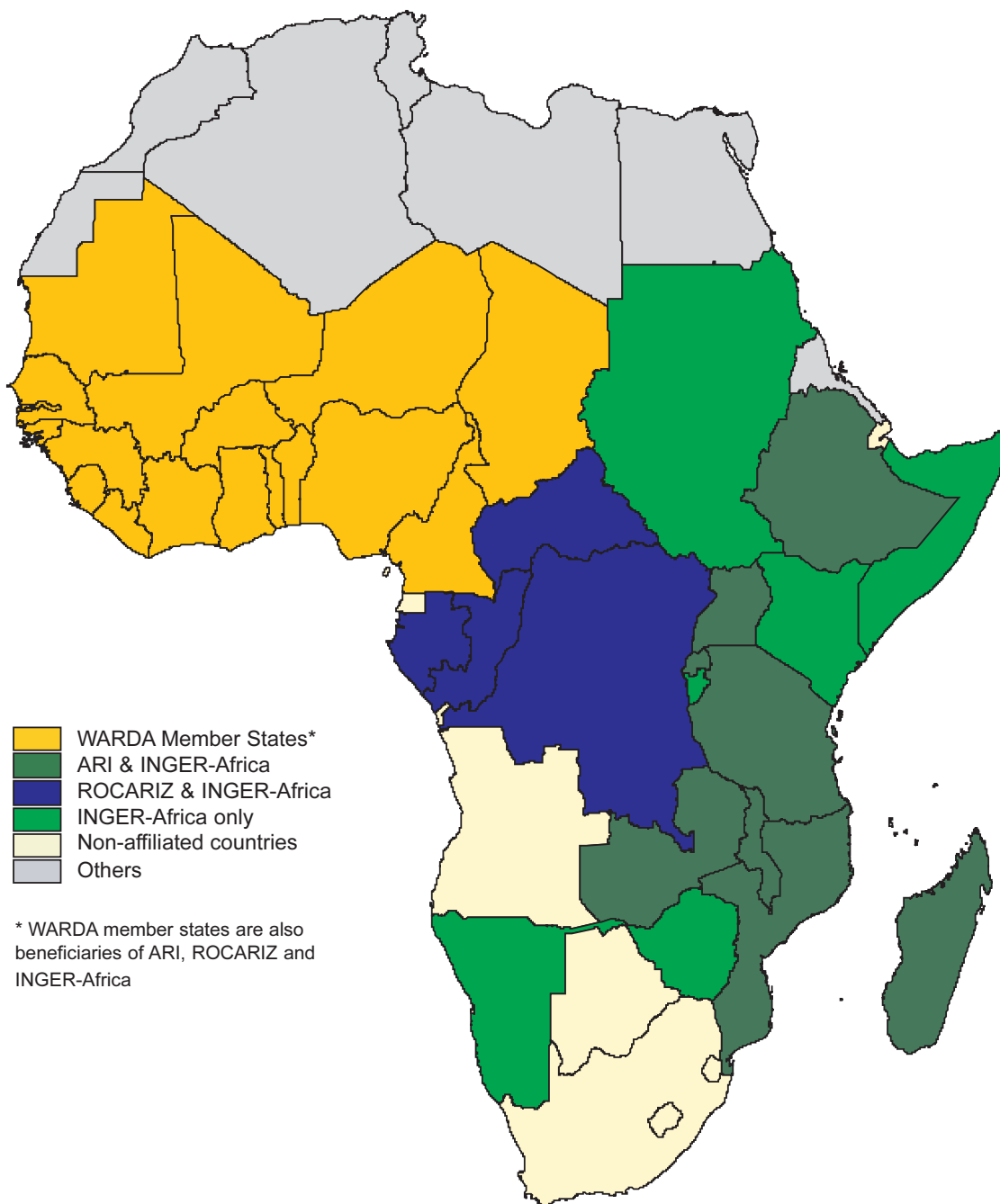


Figure 1. WARDA activities throughout Sub-Saharan Africa

explains ROCARIZ Coordinator Sidi Sanyang. WECARD/CORAF is what is known as a Sub-Regional Organization, of which there are three covering Sub-Saharan Africa. WECARD/CORAF has the mandate for West and Central Africa. “Consequently,” Sanyang continues, “Central African Republic, Congo (Brazzaville), the Democratic Republic of Congo and Gabon are now members of ROCARIZ and therefore WARDA partners. To be really precise, we should also say that Cap Verde is also a member, but there is no known rice cultivation there and so no involvement in the network. Technically, only Gabon is ‘active’ in ROCARIZ as a researcher from its national program (*Institut de recherches agronomiques et forestières*, IRAF) received small-grant funding for the first time in 2002.”

### Expanding south and east

Rice farming has not been popular in Uganda: it is not a traditional crop, and introduction of paddy rice farming met with minimal success as a result of poor yields and very long maturity cycle (up to six months). However, interest in WARDA-promoted rice varieties began in Uganda in 1998, when Tilda Uganda Limited contacted INGER-Africa for material resistant to rice yellow mottle virus (RYMV), which had devastated rice trials in 1997. Subsequently, Tilda Uganda’s General Manager, Lakis Papastavrou visited WARDA and collected 25 kg of seed of each of five promising varieties (WITAs 7, 8, 9, 10 and 11). These, along with six upland varieties, were tested at Tilda Uganda’s Kibimba farm in 1998. WITA 9 was particularly promising, and was grown over 765 ha in 2002; however, that year it suffered bacterial leaf streak attack, and was subsequently restricted to 26 ha in 2003.

In 1999, former WARDA/IITA Research Assistant Robert Anyang joined Tilda Uganda and obtained 30 upland-rice entries from WARDA. Subsequently,

interest spread to Japan-headquartered Sasakawa Global 2000 and USAID-funded project Uganda’s Investment in Developing Export Agriculture (IDEA). IDEA focuses on non-traditional agricultural exports, and was particularly interested in upland rice as a potentially more profitable crop than the traditional maize, and as a replacement for the unsuccessful paddy rice. With additional seed from WARDA, these three organizations embarked on an ambitious program of extensive multi-location and on-farm trials. IDEA and Tilda Uganda worked together on training field workers and farmers, and establishing on-farm demonstration plots in three districts. The 260 demonstration plots (of 0.25 acres each [*ca.* 0.1 ha]) generated a lot of interest in the eastern districts of Uganda, and IDEA encouraged the demonstration-farmers to sell some of their paddy to other interested farmers to use as seed, while retaining some to plant their own extended areas. For the second rainy season, IDEA expanded the demonstrations to a further seven districts. In November 2002, Uganda officially released two upland-rice varieties from these activities—WAB165 and WAB450-I-B-P-91-HB [NERICA 4], making the latter only the third NERICA to be officially released anywhere.

“There was a spontaneous development after the successful demonstrations,” explains IDEA Commodity Specialist Fred Muhhuku, who is taking the lead in the upland-rice activities, “in that a businessman-cum-farmer in Hoima, mid-north Uganda, had set up a rice mill and mobilized local farmers to grow these varieties over a wide area. And this before the onset of the first season of 2003.” Meanwhile, seeds have been passed on to NGOs and found their way into the hands of private seed companies. Nearly 100 tonnes of seed of the two varieties was available for sale in early 2003.

“WARDA may only have acted as seed provider, but those who ‘ran with the baton’ certainly give credit

to us for helping in this rice-production boom outside of our traditional mandate region,” says Information Officer Guy Manners.

In 2000, the Participatory Rice Improvement and Gender/user Analysis (PRIGA) Network received its first observer from the south and east, a rice researcher from Mozambique. “In mid-2001, we had a request for training from the national program in Rwanda,” says former Deputy Director for Research Monty P. Jones. “Consequently, they sent three participants to our Headquarters course on rice participatory research in the October of that year.”

Former Technology Transfer Officer Myra Wopereis-Pura takes up the story: “The Rwandans were so keen that they invited three of us to Kigali in November 2001. There we trained 31 personnel in participatory rice research and seed production.” During the same trip, the WARDA team was able to help the Rwandans develop a five-year work plan for participatory rice research.

Through their contact with WARDA, the UK Natural Resources Institute (NRI) and the Zimbabwean national program have been testing WARDA varieties in the Masvingo Province of Zimbabwe since 2000. Rice is an important staple in the province, but little research has been conducted on the crop in Zimbabwe, and farmers rely on saving their own seed of local landraces. The landraces are prone to shattering, especially during maize harvest (rice is intercropped with maize), but the farmers were unaware of improved varieties. Two seasons of trials with farmers have included some 38 ‘varieties’ from WARDA, mostly NERICA lines. “Farmers would prefer to grow cultivars that tiller vigorously, are high yielding, drought tolerant, tall in stature and which are resistant to shattering and bird damage,” explains NRI researcher Charlie Riches. “A number of the introduced lines tested during this study have potential for replacing *muचेcheni* [the landrace grown by the farmers involved in the trial] as



Farmer research group at Chatsworth, Masvingo Province, Zimbabwe assessing crop vigor in NRI–Zimbabwe Participatory Variety Selection trial of WARDA rice lines under hydromorphic conditions (2001)

they are high yielding and possess the traits preferred by farmers.” In fact, of the 13 lines selected for further study, 11 are NERICAs and all but one came from WARDA. Unfortunately, the work has been disrupted by depletion of seed stocks, the severe southern African drought and political instability in Zimbabwe. “I do think that there is a demand for the new lines,” concludes Riches, “but we may need to wait for a change of circumstances in Zimbabwe before we can really do anything significant.”

In almost every respect, the African Rice Initiative, launched in 2002 (*see* ‘The African Rice Initiative: Taking the NERICAs to Sub-Saharan Africa,’ *WARDA Annual Report 2001–2002*, pages 9–14), builds on the earlier successes of WARDA varieties outside of WARDA’s traditional mandate region. In the first phase, eight eastern and southern African countries (Ethiopia, Uganda, Tanzania, Rwanda, Zambia, Malawi, Mozambique and Madagascar) will host NERICA activities as non-pilot countries (*see* Figure 1).

## Managing expansion

Historically, WARDA has its roots firmly in West Africa. As this became ‘West Africa broadly defined,’ it became increasingly apparent that its real mandate region was West and Central Africa. Equally historically, the International Rice Research Institute (IRRI) has the mandate for rice research world-wide. In fact, until the late 1990s, IRRI had a major project based in Madagascar. However, as funding for international agricultural research has been drastically reduced, IRRI was unable to implement a regional network for Eastern and Southern Africa (ESA) as it had hoped.

“It would, of course, be totally unethical for WARDA to claim a wider mandate without consultation with IRRI,” says Nwanze. “However, due to the very reduced presence of IRRI in Africa, we have in fact been encouraged to provide the much needed support beyond West Africa.”

The process perhaps all started with the Review that recommended the complete transfer of INGER-Africa activities to WARDA. “That, combined with the complexity of the African situation responding better to indigenous products than to imported ones, put WARDA in a position to better serve the continent,” says Nwanze.

Given that WARDA’s *modus operandi* is partnership, it does not see IRRI as an onlooker or even as a back-seat passenger, but rather sitting up-front, working together to help the poor rice farmers of the region. “What has been agreed,” Nwanze continues, “is that, in general, WARDA will take a lead on the continent.” It is likely, however—given its historical presence—, that IRRI will be approached first in some instances. “IRRI will keep us informed of any requests for assistance that they receive, with an option for us to become involved if we have the resources.”

In many respects, WARDA’s emerging role will provide a more cost-effective outlet for IRRI’s inputs.

IRRI clearly has the lead in rice genetics and genomics research, but not the resources to devote to Africa.

But, what about WARDA itself, isn’t it the *West Africa* Rice Development Association—an association of member states, all of which are in West and Central Africa? “That’s quite right!” responds Nwanze, “but our founder members were not so narrow-minded. WARDA’s Constitution, in fact, states that membership is open to *any* African nation! Any country on the continent is entitled to apply for membership of WARDA.”

But, won’t existing member states suffer if there is a flood of members from the rest of the region and new demands on the Center’s resources? “This is potentially true,” says Nwanze, “which is why we have stipulated that any expansion outside of our traditional mandate region should be done gradually, at minimal cost to WARDA itself and, preferably, with new funds.”

“Meanwhile,” says Guei, “there is minimal cost involved in sending seed to our partners, which is INGER-Africa’s mandate anyway.”

This is where WARDA’s partnership mode comes in. Sanyang: “at this year’s [2003] Steering Committee meeting, the possibility of expanding ROCARIZ into Eastern and Southern Africa was mooted. It received general acceptance. However, the ideal situation would be first to activate the Rice Network of the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA—the sub-regional organizations of Eastern and Southern Africa), and support it through a joint ASARECA–WARDA Collaborative Agreement. We could eventually envisage close links between ROCARIZ and the ASARECA Network.”

## Satisfaction and support

“Renaming an institution is a bold step,” says Nwanze, “and suggesting by such a name-change that an institution is increasing its sphere of influence even

bolder! But we believe that the trend that was started by INGER-Africa, and then capitalized upon by the NERICAs and other WARDA varieties is a positive and irreversible step. I am satisfied that this is the right move.”

The idea of calling WARDA ‘The Africa Rice Center’ was first raised at the 2002 meeting of the National Experts Committee (the technical wing of WARDA’s Council of Ministers). There it was warmly recommended. Next, the name was floated with the Board of Trustees, who also endorsed it. “The Forum

for Agricultural Research in Africa (FARA), ASARECA and WECARD/CORAF have all welcomed this development,” enthuses Nwanze.

“This development calls for the full support of national, regional and international agricultural communities to WARDA, so that it can move forward in providing the needed expertise and support to rice research and development in Sub-Saharan Africa,” declares Nwanze. “It is only then that we can deliver the promise of the NERICAs and other new technologies to the poor across Sub-Saharan Africa.”