Parboiling improves the nutritional quality of rice, and is increasingly being adopted to add value to the end product.

A new dawn for rice in the east

Manual harvesting of rice in Tanzania.

Just a few months into 2005 and already the Eastern and Central Africa Rice Research Network (ECARRN) was making a difference to rice-related research in geographical areas relatively new to WARDA but not to rice nor to the constraints that can dog production using unimproved varieties.

Network coordinator Dr Ashura Luzi-Kihupi took up her appointment in an office at the Mikocheni Agricultural Research Institute, Dar-Es-Salaam, Tanzania in January and, although funding was delayed for several months, steps were taken to ensure that trials with improved rice varieties were not held up. NERICAs from Africa Rice Center are being evaluated on a number of sites in ECA countries, including Congo DRC (see p19), while in Tanzania seeds of 90 upland rice varieties were multiplied at the Ifakara Research Institute, formerly known as Kilombero Agricultural Research and Training Institute (KATRIN). The seeds obtained from this multiplication – probably 2-3 kg per variety – are to be distributed to further collaborators in the region.

ECARRN, which comes under the wing of ASARECA, the Association for Strengthening Agricultural Research in East and Central Africa, has as its mission to contribute to enhanced productivity, value addition and competitiveness of the rice sector in the ECA sub-region through the development and dissemination of demand-driven knowledge and technologies, says Dr Sylvester Oikeh, the WARDA scientist acting as the Center's focal point for eastern Africa. Four main results are expected:

- Demand-driven rice technologies/innovations generated and promoted
- Regional and national policy options for enhancing rice systems are facilitated
- Regional and national capacity for integrated agricultural research for development of the rice sector strengthened
- Availability of information on rice research and development enhanced

The potential for increased rice production in the ECARRN mandate area is evident from current production figures (Table 1) which show that where rice production has been longer established the average yields are not much more than one tonne a hectare. In countries such as Uganda, which was an early adopter of NERICA technology while rice was relatively little-grown, the acceleration in the growth of the rice area has been rapid and average yields are nearly 50 percent higher than in those countries with predominantly unimproved varieties. Rice is now a cash crop for Ugandan growers.

"We see Uganda as a model country in showing what can be done if you have the backing and will of the Government to help you achieve a lot of things," says Dr Oikeh.

An Executive Committee of four people (coordinator, chairperson, vice-chairperson and a member) was appointed by the Regional Steering Committee. Dr George Bigirwa from Uganda is ECARRN's first chairperson, with Dr Getachew Alemayehu from Ethiopia as the vice-chair. The member countries are divided into three groups: East (Kenya, Tanzania and Uganda), French (Burundi, Congo DRC, Madagascar and Rwanda) and the Horn (Ethiopia, Eritrea and Sudan).

Dr Oikeh explains that ECARRN will play a crucial role over the coming years in East and Central Africa in much the same way as ROCARIZ has transformed the prospects for resource-poor rice farmers in West Africa. "In most cases, although they have been receiving samples of improved germplasm on request from INGER-Africa for multiplication, the NARS scientists have been mostly working on their own. Now they will have more ready access to the accompanying rice technologies. In the past they have been getting the seed but have not benefited from a conscious effort to move the technologies from West to East."

Table 1: Major rice production systems and area cropped in eastern Africa

Country	Major ecology (%)	Rice area 2004 (ha)	Production (tonnes)
Eastern Africa		1 874 050	4 136 222
Madagascar	Rainfed lowland (85) Rainfed upland (15)	1 222 700	3 030 000
Tanzania	Rainfed lowland (70) Rainfed upland (20)	330 000	650 000
Mozambique	Rainfed lowland (90) Rainfed upland (7)	179 000	201 000
Uganda	Irrigated lowland (60) Rainfed upland (30)	93 000	140 000
Malawi	Rainfed rice (88) Irrigated lowland (12)	30 000	49 722
Kenya	Irrigated lowland (75) Rainfed upland (15)	11 000	50 000
Ethiopia	Potential staple	8 350	15 500

Source: FAOSTAT, 2004.

First steps to improve the rice-growing infrastructure include a WARDA and ECARRN workshop next year to introduce middle-level scientists to rice production training techniques.

It is hoped that the African Development Bank will support a multi-country project in the ECARRN area similar to the seven-country scheme being facilitated by ARI in West Africa.

Another early partnership benefit of WARDA's involvement in eastern Africa through ECARRN is a strengthening of the Center's relationship with IRRI, which had previously been somewhat weak in this region. IRRI and WARDA are now developing joint projects in ECA using ECARRN as a platform.

A partnership is also being forged with CIAT, which has a specialist tropical soil biology unit based in Nairobi, to develop natural resource management options for NERICAs under eastern and central African conditions.