

Rwanda bounces back with rice as a staple food priority

Post-conflict Rwanda is focusing on rice as one of the key agricultural commodities the country must grow intensively to feed its population and make the best use of available land.

About 900 rice varieties, including upland NERICAs from WARDA, have been evaluated there since 2002 and the Africa Rice Center hopes to build further partnerships that will help in rebuilding the seed sector in this once war-torn highland country in Central Africa where annual production of rice is now among the lowest in Central Africa (Table 2).

The development of rapid-response strategies to revive agriculture in post-conflict countries is part of project 6 in WARDA's 2005–2007 MTP. No agriculture rehabilitation program is likely to be viable unless an enabling nationwide seed policy is developed, so a two-person WARDA team visited Rwanda to conduct a rapid appraisal of the seed sector. Drs Eklou A. Somado and Rita Agboh Noameshie carried out focused group interviews with NARS and Government officials, with NGOs, with farmers' groups and with the private sector, as well as making field trips to major rice producing areas where WARDA-developed varieties are being grown.



INGER-Africa supplied Rwanda with seeds.



Ample water is available on this site in Rwanda for rice production, but the country remains short of seed of improved varieties.

Rice is favored by the Government because it performs well in flood-prone valleys and can absorb some of the increasing pressure on hillside land for food production. It is also of shorter duration than, say, cassava, is easy to handle and store, and has by-products that can be used to feed animals, as a source of energy supply and as a substrate in mushroom production.

Rwanda's hilly terrain does not favor the upland NERICAs but several other WARDA varieties showed good adaptation with yield potential up to 10 t/ha, and with good grain type and resistance or tolerance to the major biotic and abiotic stresses in Rwanda. Although varieties selected for their tolerance to cold in the Sahel were initially sent to Rwanda along with upland types, they also did not yield satisfactorily. It is intended to screen more varieties for cold tolerance but WARDA may also assist Rwanda in initiating a domestic breeding program to develop materials that adapt to local bio-physical constraints.

Farmers selected lowland varieties and they have been given local names. TOX 4331-WAT 91-3-1-1-1 has been named 'Gakire', meaning 'rich', while TOX 4331-WAT 86-3-4-2-1 is 'Intsinzi' or 'Victory', and WAT 1395-B-24-2 became 'Tsindagirabigega' or 'Full storage'. Interest is very high because rice is a highly profitable crop in Rwanda thanks to relatively low production costs of 100 Rwandan francs (RWF) per kg of paddy produced and a milled rice value of about 300 RWF per kg (100 RWF=0.18US\$). Although not previously a staple crop, rice is now being eaten almost every day by Rwandans.

The WARDA team discovered that poor water control is the most limiting factor to full exploitation of the potential rice production area in Rwanda, together with a lack of high yielding, short-duration varieties adapted to local production conditions and poor knowledge of crop management. A number of recommendations have been made which could lead to the development of suitable varieties for Rwandan conditions and to the introduction of proven rice technologies, as well as capacity building.



Finding seed that suits. Rwanda's highland terrain makes it difficult to find rice seed adapted to the cold temperatures that may occur during the growing season.

Table 2: Rice area and production in Central Africa

| Country | Rice area 2004 (ha) | Production (tonnes) |
|-------------------|---------------------|---------------------|
| Central Africa | 449 500 | 427 353 |
| Congo DRC | 415 000 | 315 130 |
| Burundi | 19 500 | 64 532 |
| Rwanda | 13 000 | 46 191 |
| Congo-Brazzaville | 2 000 | 1 500 |
| West Africa | 5 969 192 | 7 886 075 |

Source: FAOSTAT, 2004.