

## Editor's Note

Rice-fish farming—which has been quite successfully practiced for centuries by Asian farmers—is an integrated system that promotes species diversification and nutrient recycling.

The feature *Exploring rice-fish farming for West Africa* explains the potential benefits of rice-fish farming for the sub-region. The Inland Valley Consortium (IVC) hosted by WARDA, is planning to introduce it in West Africa as part of its new initiatives.

Few outside the African development circle are aware of the pledging of about \$30 million loan and grant by the African Development Bank (AfDB) in 2003 to support the dissemination of the New Rice for Africa (NERICA) in seven West African countries over 5 years.

The article *ARI and AfDB join forces for NERICA* dissemination explains the importance of this historic event for African rice farmers.

The article also provides an update from the African Rice Initiative (ARI), which is hosted by WARDA. It was launched in 2002 to serve as a single focused channel for NERICA dissemination in Africa.

Snapshots from the Center's life are presented in the section *News and Notes*.

## The Africa Rice Center: from vision to reality

The Africa Rice Center—the name we adopted in January 2003—is taking concrete shape before our eyes. Over the last few months, the Center has witnessed a continuous stream of requests for partnership from countries and sub-regional organizations (SROs) in Central and East Africa—beyond the traditional rice belt of West Africa.

A MoU between the Center and the National Agricultural Research Organisation (NARO) in Uganda was signed during my trip to the country in October. The NERICA boom in the country is indeed amazing considering that NERICA was introduced there just 3 years ago. Uganda serves as an ideal entry point for the Center's activities in East Africa.



*Farmer's field with NERICA in Kibaale district in Uganda*

My trip to Uganda served to lay the groundwork for the subsequent visit by representatives from the World Bank, the Government of Japan, and WARDA to the NERICA project in Masindi, Uganda. The delegation was led by Mr Kazuo Kodama, Deputy Director General, Economic Cooperation Bureau, Japanese Ministry of Foreign Affairs, who was accompanied by Mr Yukio Yoshimura, World Bank Senior Vice-President and Special Representative to Japan.

Another highlight of this period was the 2003 Annual General Meeting (AGM) of the Consultative Group on International Agricultural Research (CGIAR) in October, during which WARDA convened a panel discussion on the African Rice Initiative. The panel members representing a wide array of stakeholders endorsed a coordinated NERICA dissemination effort across Africa.

The resilience of WARDA staff in the face of the continuing Ivoirian crisis was widely applauded at the AGM. This spirit of resilience was clearly visible during the preparation of our new Strategic Plan 2003-2012, which has just been published. We are very grateful to the present and past WARDA Board members and staff as well as to our partners who helped shape the Plan.

**Kanayo F. Nwanze**  
Director General

Editor's note

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## Exploring rice-fish farming for West Africa

*Riz au poisson* (rice with fish) is one of the most popular dishes in West African cuisine. So what can be better for a farmer from this region than growing them together? Rice-fish farming—which has been quite successfully practiced for centuries by Asian farmers—is an integrated system that promotes species diversification and nutrient recycling. In this system, rice and fish are grown together either on the same plot or on adjacent plots and the by-products of one are used as inputs by the other.

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Rice-fish farming is one example of integrated-irrigation aquaculture (IIA), which is a strategy to increase agricultural productivity from every drop of water while improving the financial sustainability of investments in irrigation.

Water and cultivable land are key limiting resources around the world, particularly in drought-prone West Africa. One way to increase the productivity of land and water resources effectively is to integrate irrigation and aquaculture.

In rice-fish farming for instance, the fish provide a high-protein "bonus" crop to the rice farmer as well as additional fertilizer to the field. Fish also help control harmful insects in the rice field, feeding on the intermediate hosts of waterborne diseases such as malaria. Overall rice yields increase, fish enrich family diets, farmers' incomes rise and soils become more fertile.

IIA thus helps to increase the productivity and sustainability of water, land and associated resources while improving farmers' income and well-being.



Conscious of IIA's potential for improving food security in drought-prone West African countries, the Food and Agriculture Organization of the United Nations (FAO) and the Inland Valley Consortium (IVC), jointly organized a workshop focused on IIA for West Africa, 4-7 November 2003 in Bamako, Mali, under the aegis of the Ministry of Agriculture, Livestock and Fishery, Government of Mali.

Thirty representatives from 10 West African countries participated in the workshop, which had Resource Persons from FAO, WorldFish Center, Department for International Development (DFID), Wageningen University, United Nations Educational, Scientific, and Cultural Organization – The Institute for Water Education (UNESCO-IHE), Association pisciculture et développement rural en Afrique tropicale humide (APDRA), University of Newcastle and Comité national de la recherche agricole (CNRA).

Exploring the potential of IIA for West Africa through the help of a wide range of partners is a typical example of the mode of operation of IVC, which was launched in 1993 as a System-wide Initiative of the Consultative Group on International Agricultural Research (CGIAR). The Consortium is hosted by WARDA with financial support from France, The Netherlands, the Common Fund for Commodities (CFC), the European Union and WARDA.

IVC serves as a platform for regional cooperation to develop technologies and operational support systems for intensified but sustainable use of inland valleys in Sub-Saharan Africa (SSA). Inland valleys constitute an important agricultural and hydrological asset and can

make a major contribution to food security and poverty alleviation in SSA.

From an initial group of seven, membership of IVC now includes 10 West African countries (Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Ghana, Guinea, Mali, Nigeria, Sierra Leone and Togo) and active national IVC coordination units have been established in these countries. The Gambia will shortly become a member of the Consortium.

Its membership also includes eight international research and development institutions. IVC membership is open to countries and organizations working on the development of inland valleys in SSA.

As part of its Phase I (1994-1999) and Phase II (2000-2004) activities, IVC has funded over 100 research activities in its member countries covering all aspects of its research agenda. It has also undertaken several specific studies, such as a rapid diagnostic appraisal system for water management; the role of female farmers in inland-valley cultivation;

costs of water management systems; indigenous knowledge on soil conservation; and functions of natural vegetation in inland valleys.

One of IVC's major achievements has been the development of a common multi-scale characterization methodology. The methodology was used to characterize 18 key sites in the 10 member countries. The results of this work are helping researchers to have a better understanding of the characteristics and dynamics of inland-valley agro-ecosystems.

A regional database called the West Africa Inland Valley Information System (WAIVIS) has been released on CD-ROM and on the IVC web site. It includes the principal data collected by IVC members.

As part of its future activities, IVC is planning to continue to update WAIVIS and to include elements and indicators of the dynamics of inland-valley agro-ecosystems. WAIVIS will help monitor the evolution of inland valleys in the member countries and serve as a decision-making tool for researchers and policy-makers. As Phase II is coming to an end, discussions have started on the future of IVC and the possibility of embarking on Phase III.

Phase III will focus on the scaling up of results, extensive technology dissemination, expanding IVC's program beyond West to Central, Eastern and Southern Africa, modeling, especially the development of a decision-support system for policy-makers, and new initiatives, such as rice-fish farming.

## ARI and AfDB join forces for NERICA dissemination

In September 2003, one of the most important events for African development took place quietly – amid little attention from the international media. The African Development Bank (AfDB) signed a \$30 million grant and loan to support the New Rice for Africa (NERICA) dissemination in seven West African countries for 5 years.

The support is testimony to AfDB's strong commitment to food security and poverty reduction in the most impoverished region in the world. About 80% of the targeted beneficiaries of the project are the rural poor, mostly women.

The project estimates that about 33,000 farm families will be involved in participatory variety selection (PVS) strategy to accelerate the NERICA dissemination. About 400 000 ha of additional land is expected to be under the NERICA cultivation by the 5th year of the project. The import bill of the seven countries is expected to reduce by about US\$100 million.

The AfDB support, formalized through an agreement with seven West African countries was the culmination of months of behind-the-scene preparatory work by the African Rice Initiative (ARI) and WARDA, which hosts the Initiative. The *raison d'être* of ARI is to serve primarily as a single focused channel for all efforts to disseminate NERICA, other improved rice varieties and related technologies throughout Africa.

“For ARI, the AfDB agreement comes as a major boost, since it sets the stage for large-scale coordinated dissemination of the NERICA in West Africa,” said Dr Inoussa Akintayo, ARI Coordinator. “The project will be implemented through the ARI National Coordination Units and Stakeholder Platforms that have been established in almost all the selected countries.”

For an initiative that is just 2-years old, an achievement such as this is indeed noteworthy. ARI was conceived to replicate throughout SSA the success of the World Bank-funded NERICA dissemination project in Guinea, where thanks to the NERICA, within 5 years farmers were able to gross US\$65 per hectare with minimal inputs and US\$145 with moderate level of inputs.

ARI was launched by WARDA in March 2002, under the sponsorship of the Government of Japan, United Nations Development Programme (UNDP)/ Technical Cooperation among Developing Countries (TCDC), Rockefeller Foundation, AfDB, and World Bank. Right from the



beginning, its Coordination Unit has been supported by the Rockefeller Foundation.

Donors, like AfDB and Rockefeller Foundation, are embracing ARI's cause because they are convinced of the immense potential of the NERICA for food security and poverty alleviation in SSA and the value of the ARI as the most effective platform for the coordinated NERICA dissemination across the region.

“To maximize the impact of the NERICA in SSA, it is vital to coordinate its dissemination, because of the high demand for pure seeds and the risk of dissemination in inappropriate environments,” explained Dr Kanayo F. Nwanze, WARDA Director General. A coordinated effort is also necessary to overcome institutional constraints, such as the limited capacity and resources of national extension institutions and the seed sector.

This important theme was the focus of a series of high-level meetings in Tokyo, in July and September 2003. The meetings were jointly organized by the World Bank, Japan and the Consultative Group on International Agricultural Research (CGIAR). Representatives of NERICA champions, including the United Nations Development Programme (UNDP), New Partnership for Africa's Development (NEPAD) and AfDB were invited to participate.

“The blueprint for an orchestrated dissemination has been clearly laid out in the ARI Project Document, ratified by the NERICA Consortium, the implementing body of ARI,” affirmed Dr Akintayo.

The Government of Japan, one of the foremost NERICA champions, is planning to send two experts – an agronomist and a seed specialist – to support ARI's activities.

Since seed shortage is the biggest bottleneck in the NERICA dissemination process, ARI is planning to mount a major effort on seed production. It will focus on the production of seeds of the NERICA varieties that have already been adopted by farmers to meet the increasing demand as well as those of new NERICA lines for participatory varietal selection (PVS) to accelerate their adoption.

ARI will also address the problem of the lack of rice processing technology in the region.



## News and Notes

### Milestones



WARDA and the National Agricultural Research Organisation (NARO), Uganda sign a MoU to strengthen collaboration, 21 October



US Ambassador to Mali, Vicki Huddleston, visits WARDA, Bamako, Mali, 6 November



Research Days 2003, Bamako, Mali 8-12 December



Annual General Meeting 2003 Nairobi, Kenya, 28-31 October

### New and old faces at WARDA

Executive Officer  
*Dr Samuel Bruce-Oliver*



Soil Fertility Agronomist  
*Dr Sylvester Oikeh*

IVC Coordinator  
*Dr Philippe Morant*



Assistant Director of Research  
*Dr Ousmane Youm*

### Workshops

*Participants of the Integrated Irrigation-Aquaculture Workshop for West Africa, Bamako, Mali, 4-7 November*



Conscious of the potential of Integrated Irrigation-Aquaculture (IIA) for improving food security in drought-prone West African countries, FAO and IVC, jointly organized a workshop focused on IIA for West Africa, 4-7 November 2003 in Bamako, Mali, under the aegis of the Ministry of Agriculture, Livestock and Fishery, Government of Mali.

Thirty representatives from 10 West African countries participated in the workshop, which had Resource Persons from FAO, WorldFish Center, DFID, Wageningen University, UNESCO-IHE, APDRA, University of Newcastle and CNRA.

*A training workshop on Project Proposal Writing was organized in English and in French in Bamako, Mali, 27 October – 7 November*



Please send your questions, comments or suggestions to:

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