



Building a Continent

(Photo by Akio Iizuka)

PUTTING RICE ON THE AFRICAN DINNER TABLE

A rice farmer in Ghana



Fifty years ago 85% of Africa's population lived in rural communities. Within the next few years more than 50% of the continent's more than 1 billion people will be urban dwellers in the biggest mass movement of people in the region's history.

As they move into cities Africans are changing the entire pattern of their daily lives, including their eating habits.

Rice is not a staple food on the continent, but because it is easier and quicker to prepare than many traditional meals, more and more people are adding it to their diet.

In 2008 the Japan International Cooperation Agency (JICA) and the Alliance for a Green Revolution in Africa (AGRA) began an initiative to

double rice production to 28 million tons by 2018, and today 23 countries are participating in the project known as the Coalition for African Rice Development (CARD).

The overall project embraces various approaches to boosting output, including the introduction of new hybrids, programs for both lowland and upland production, improving irrigation systems and extension services, pilot projects and training for both farmers and local officials.

In Ghana, a five-year project was launched in 2009 to improve rain-fed lowland rice production to help meet the government's own target of doubling rice production.

“Harvesting” Rainfall

Kenji Tsujishita is the team leader of five Japanese experts who have targeted more than 1,000 small-scale farmers in the central and northern areas of the West African state.

“This is a rain-fed and not an irrigation project, so we are teaching farmers how better to ‘harvest’

the natural rainfall, which often just flows away and is lost,” Tsujishita said. “We want to keep everything as simple and as inexpensive as possible.”

Farmers have been taught procedures common in Asia, such as enclosing the paddies with low mud walls, or bunds, planting in straight lines and at specific intervals and undertaking regular weeding with simple wooden push weeders.

The approach is already paying dividends.

Yields in the Ashanti region, which averaged 1.3 tons per acre just a few years ago, have in places already achieved the project target of 4 tons. In the Northern Region, where the target was also 4 tons, one pilot plot has already topped 7.5 tons.

Danful Seth, who joined the project in 2012, has 10 acres under rice cultivation and wants to increase the area to 20–25 acres. He estimates that he has already increased yield by 20%.

“I have four children aged from 3 to 12, and hopefully this rice is going to pay for a better education for them,” he said—as well as introducing some new dishes on the dinner table.

FINDING SOLUTIONS FOR AIDS AND SLEEPING SICKNESS

There are more than 3,000 wild herbs in Ghana with potential medicinal benefits.

Until now, active components have been identified in only one-third of these plants, but Ghanaian and Japanese researchers and experts are involved in a five-year collaborative project to further unlock their secrets and perhaps provide new remedies for scourges such as HIV/AIDS and sleeping sickness.

The program is centered at the Noguchi Memorial Institute for Medical Research in Accra, the capital of Ghana, which in itself is symbolic of several decades of cooperation between the two countries.

Hideyo Noguchi was a prominent Japanese bacteriologist who was struck down with the yellow fever virus in Accra in 1928 while studying the disease. In 1979 the government of Japan funded the construction and opening of the Noguchi Memorial Institute for Medical Research in his memory to further research and strengthen bilateral ties.

The institute is now one of the most important of its kind in Africa and is seen increasingly as a symbol of close relations with Japan.

The Potential of Medicinal Plants

The JICA project, launched in 2010, involves about 50 medical researchers from the NMIMR and Center for Scientific Research into Plant Medicine (CSRPM), and experts from the Tokyo Medical and Dental University and Nagasaki International University to try to develop more effective drugs to combat HIV/AIDS and trypanosomiasis, or sleeping sickness.

In Sub-Saharan Africa alone 23.5 million people are stricken by AIDS, and as many as 50 million people are infected with the little-known and generally ignored sleeping sickness pathogen.

Traditional medicine involving local plants has been widely used in Ghana for centuries, but only recently has modern research explored their possibilities.

The first task of the current project is to extract bioactive components from wild plants and then to conduct analysis to investigate the effects of those compounds. A “eureka moment” would be the discovery of compounds which could ward off the HIV/AIDS virus and the sleeping sickness protozoa.

“We are keen to discover the hidden gems that can become a base for developing actual drugs,” according to principal investigator Professor Shoji Yamakoka of the Tokyo Medical and Dental University.

The researchers have centered their studies on 100 to 150 plants, many of them with some known history through their use as traditional medicines, and after a relatively slow start, one JICA expert, Dr. Mitsuko Suzuki, said her coworkers were “excited” about progress being made, though all such research could take many years to reach practical fruition.



A workshop in Ghana on the prevention of HIV/AIDS between mother and new-born children

Twenty-three countries are participating in the Coalition for African Rice Development