## **Africa's Green Revolution**

he people of Madagascar eat more rice than anyone else in the world, an enormous 140 kilograms per person per year, or twice the consumption of the average Japanese. Overall, the island, located off the east coast of Africa, consumes 2.5 million tons annually, most of it homegrown.

But Madagascar, like much of mainland Africa, is struggling to meet an evergrowing demand for this and other staples and effectively needs a so-called 'Green Revolution' to feed its people.

At an African economic conference, TICAD IV, held in Yokohoma in May 2008, JICA joined with other international donors, African countries and organizations to launch a Coalition for African Rice Development, or CARD, to help achieve that goal.

Effectively, the participants agreed to double rice production in sub-Sahara Africa from 14 million to 28 million tons by 2018 by continuing to develop superior strains of rice including one called NERICA (New Rice for Africa), by introducing better farming techniques and education, upgrading irrigation projects, expanding cultivable areas and upgrading such areas as quality control and marketing.

For JICA it represents
perhaps the agency's biggest agricultural initiative to date in Africa, where the agency has been steadily

Central Highlands has for years suffered severe land degradation as soil and sand washed down from nearby mountains, silting



involvement.

In Madagascar, one of 12

countries initially targeted by the CARD project, Japanese experts have already been at work in several areas. The country's major rice-producing area in the Lake Alaotra region in the Central Highlands has for years suffered severe land degradation as soil and sand washed down from nearby mountains, silting

apa- An Indonesian expert
eady
eral riverbeds and irrigation sys-

tems and causing flooding.

JICA drew up an integrated plan for water and soil conservation and improved productivity and will provide technical expertise to help implement it.

Fifteen Indonesian experts were also sent to the region to help in rice cultivation, soil improvement, stockbreeding and the use of small-scale farm machinery. They will provide technical information to key farmers who in turn will instruct other village neighbors in the new techniques.

Other advisors will work with the Ministry of Agriculture, Livestock and Fisheries providing both technological help and coordinating applications for grant aid and loan assistance to help the rice industry.

The bulk of the world's so-called 'bottom billion'—

the poorest of the poor—live in sub-Sahara Africa. Ironically, in a region with vast potential agricultural wealth, many of these people have a daily struggle to find sufficient food.

One expert is convinced Africa, with a little help from its friends, can rise to the challenge. Professor 'Monty' Jones, who

is universally referred to as the 'father' of NERICA said recently: "We have the land. We have the water. And we have the people to make all of this possible. Africa will have a 'Green Revolution' in a very big way."

The bulk of the world's so-called 'bottom billion' — the poorest of the poor—live in sub-Sahara Africa.

bureaucratic bottlenecks and other problems, anywhere between 30% to 50% of crops in some developing countries are lost after harvest. A variety of projects is trying to eliminate that waste.

At one rice training center in Egypt built with Japanese grant aid, technicians teach local and overseas farmers the latest milling, drying and storing techniques. Across the world in Myanmar JICA recently built a \$4,000 low-cost drying facility fired by rice husks in the village of Legaing in one of the country's poorest regions. The facility produces better quality and higher priced rice, and farmers said they were already enjoying at least 7% extra profits annually. With better technologies, village mill owners said they were able to reduce their running costs by 50%.

Fruit is bountiful locally in Legaing, but because of the hot summers and lack of refrigeration facilities, much of it simply rots. In a move to diversify farming activities and exploit a president of the African Development Bank, said recently transportation costs in parts of Africa were two-and-a-half times those in Asia. Because of complicated frontier controls and administrative problems it could also take twice as long for produce to reach the market than in other parts of the world

JICA is involved in projects both to improve basic infrastructure in Africa and Asia and also to streamline frontier procedures and help train not only farmers and agricultural experts but also border officials, administrators and other experts.

In the Middle East the agency is involved in a particularly ambitious project, using food not only to help local communities but also to encourage the peace process in one of the most volatile regions of the world.

Under the Concept for Creating the Corridor for Peace and Prosperity, the agency since 2007 has been working on



local resource, villagers are now being trained in fruit preservation and have begun selling their produce for profit—the first time many of them had access to a cash economy.

Diversification is also key in Morocco where the country faces the prospect of diminishing catches from its important fishing industry. To try to compensate, JICA experts have been teaching enhanced processing techniques and improved hygiene and quality controls to fishermen.

Ironically, there is probably enough food grown to feed the entire global population.

In the Moroccan town of Oualidia, famous for its oysters and one of the finest natural lagoons in North Africa, a Japanese volunteer has been helping locals turn previously discarded and worthless oyster shells into souvenirs which are sold to the tens of thousands of visitors who arrive annually.

From Nepal to Bangladesh to Africa, a major bottleneck to an efficient food system is the lack of roads and inefficient and often corrupt bureaucracies. Donald Kaberuka, the three regional agricultural and water schemes including two feasibility studies to establish an agro-industrial park in the Jordan Valley. If successful it could enhance not only agricultural production and exports but also forge closer economic and political ties between Israel, Jordan and Palestine.

Encouraging though that move is, and though food prices in late 2008 had stabilized somewhat, feeding the world's population adequately will remain a major problem for years to come.

In the Middle East rapidly diminishing water resources for both domestic use and food production could spark another political flashpoint sometime in the future. The humanitarian catastrophe in Sudan's Darfur region was sparked partially by a clash over scarce natural resources and shows no sign of ending.

Ironically, though there is probably enough food grown to feed the entire global population, glaring resource and distribution discrepancies between rich and poor nations mean nearly 1 billion people go to bed each night hungry.

Because of those and other problems, the world's leading food agency, the Food and Agriculture Organization (FAO), warned in November against a "false sense of security" adding "Riots and instability could again capture the head-lines" in the near future.

JICA'S WORLD