FEATURE: Agriculture

SUSTAINABLE DEVELOPMENT OF RAIN-FED LOWLAND RICE

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PROJECT STORY
JICA’s Commitment To The Agriculture Sector

Background
In the early 1970s, Ghana nearly attained self-sufficiency in rice production. However, in the early 1980s domestic rice production witnessed a downward trend and since then Ghana has consistently been faced with huge import bills on rice to make up for the short fall in local production. Currently, the self-sufficiency rate of rice in Ghana is estimated about 30%. It means that Ghana imports about 70% of the rice consumed annually and close to $50 million is spent every year to import rice. With this rising demand for the grain, against the short fall in the production, the development of National Rice Development Strategy (NRDS) decided its objective to increase rice yield to 3.5 metric tons by 2018.
In response to the request by the Government of Ghana, JICA started the Project for Sustainable Development of Rain-Fed Lowland Rice Production in the Ashanti and Northern regions in 2009. The Project aims to contribute to increase of rice production and promotion of rice industry in the regions with the execution of 3 components: (i) Development of technical package of improved rice production practices, (ii) Verification of methodology to improve farming support system for sustainable rice production, and (iii) Development of extension procedure for sustainable rice development.

Ashanti Farmers Take Ownership of The Project
...as they record tremendous increase in production and yield

During the last regional Farmers’ Day celebration in December 2011, samples of rice, produced and packaged in the Ashanti Region were displayed at the durbar grounds and it was amazing the way participants rushed to buy the samples.

“Many people could not believe that the rice was grown, cultivated and produced in the Ashanti Region because it looked just like any imported long grain perfumed rice from abroad. This is one of the success stories we have in the Rain-

fed Lowland Rice Production Project”, Mr. William Boakye-Acheampong, the Ashanti Regional Director of Agriculture, Ministry of Food and Agriculture (MOFA), and the Project Manager in the Ashanti Region explained in an exclusive interview in his office in Kumasi.

Mr. Boakye-Acheampong travelled to Japan in October 2011 on an intensive training on Policy Planning for Rice Production. According to him, “We learned about the Japanese rice development and distribution policy and how we could adapt it to suit the Ghanaian rice production terrain. In Ghana, we are conducting research to increase a yield and have rice varieties that can withstand drought and establish a complete value-chain for rice cultivation, processing, packaging and marketing. Japan has passed those stages.”

Mr. Boakye-Acheampong confidently assured that, “Ownership of the project is quite easy for farmers because activities under the project are daily routines already practiced by them. The only difference is the technical guidance and supervision which help them to modernize their farming method so as to record increased production and yield. Since the project commenced, farmers have cultivated the new methods. For most of them, their production and yield have tripled using the same land they used before the project commenced.”

From The Northern Region
…”Farmer group has named its group as “Dintigi”, which means “food self-sufficient”

The Rain-Fed Lowland Rice Project is also being operated in three districts in the Northern Region (East Gonja, Tamale Metropolis and West Mamprusi).

Beneficiary farmers are overwhelmed with this achievement and other farmers requested them to introduce the project into their communities. Farmer participation in all activities is high in the implementation of the project: exchange visits, radio discussion by farmers, on-farm training and good practices, were some of the methods used to enhance farmers’ knowledge in rice cultivation. Farmers are so excited that one of the groups has named its group as ‘Dintigi’ which means “food self-sufficient”.

According to Mr. Ahmed Tijani, Project Schedule officer in the Northern Region, “During the first phase we worked in 6 communities and targeted 180 farmers. These farmers were put into groups of 30 farmers per community working on one trial plot of one acre in the first year and further split into groups of 10 members each working on one trial plot of the same size in the second year. Beneficiary communities as model sites include; Ghimisi and Winigu in the West Mamprusi district, Nachinllya and Sangi in the Tamale Metropolis and Kapehle and Gbang in the East Gonja district.

Currently, the project is bringing on board 36 priority sites in the project districts. 6 model sites will serve as learning sites for the farmers. In all 42 communities and farmers will be targeted. Yields increase significantly of up to 5 metric tons and an average yield of 3.12 metric tons were attained at the model sites.

Mr. Ahmed Tijani, Project Schedule Officer

Mr. William Boakye-Acheampong, Ashanti Regional Director of Agriculture
Farmers Record Bumper Harvest Under The Rice Project

Rice farmers in the Ashanti and Northern Regions under the pilot project are elated that within the first two years, they have experienced what they refer to as ‘bumper harvest’.

Project Challenges: an AEA’s point of view

According to Mr. Atut Adebore, an Agricultural Extension Agent (AEA) for the MOFA in the Tepa Operational Area of the Ahafo-Ano North District, ‘I act as the link between the Project Coordination Unit (PCU) and the farmers. The PCU consists of the Japanese experts and their regional Ghanaian counterparts. I help farmers identify challenges associated with their rice farms and assist them in getting solutions from the PCU. AEAs are the main point of contact with farmers. Overall, majority of the farmers are now very cooperative and have imbibed the new rice farming systems.’

JICA Expert shares progress report and expectations

According to Mr. Shota Katafuchi, the Japanese Expert for Extension, ‘There are five long-term Japanese experts currently on the project. They deploy expertise ranging from land development, extension, rice cultivation, administration and farming supports which include packaging and marketing. These experts have regional Ghanaian counterparts who understand them to ensure knowledge-transfer and sustainability of the new rice farming systems introduced to farmers. As an integral part of the project, we, Japanese experts, train our Ghanaian counterparts and the AEAs both on-site and in-house. We also observe and advise how they transfer the knowledge to farmers.’

He explained further that, ‘The project is unique in terms that we focus on making maximum use of existing technology and materials the farmers are already used to and also collaboration with local counterparts. As one of the activities to strengthen the value chain network, we are organizing a forum to bring all relevant stakeholders together and forge a way forward.’

In addition, Mr. Katafuchi intimated that, ‘Many farmers are now interested in joining to plant rice. We are also expanding the project by adding almost 600 farmers and 21 AEAs in 70 communities to the existing estimated 400 farmers and 14 AEAs. The MOFA has been very cooperative on the project because increase in local rice production is a focal national project.’

Rain-fed Project’s best rice farmer shares SUCCESS STORY

‘I cultivated three hectares of rice rice season and as we speak, I am cultivating ten hectares of rice at Katafo in the Ahafo-Ano District of the Ashanti Region. The JICA technical cooperation rice project has really helped us in this region. Under the Project, we have received adequate education on how to grow rice for farming, choose the most appropriate seed for planting. Planting or spacing correctly, how to nurture our rice farms to ensure bumper harvests.’ Abdul raman Idhibsii, the best rice farmer under the Rain-fed Lowland Rice Project in the Ashanti Region happily explained. The best farmer is selected by MOFA according to the evaluation sheet including Good practice (on planting, timely need, etc.), impact to other farmers.

Mr. Yaa Fokuua, the Regional Extension Coordinator attached to Mr. Katafuchi assured; ‘We have learnt a lot from the Japanese experts and we are sure that we can sustain these new rice farming methods long after the project.’

Helping Mechanization of Agriculture

In 2009, JICA extended a Grant to the Government of Ghana to provide agricultural machineries for underprivileged farmers (ZKR Project) especially in rice production. It has helped revolutionize the mechanization of agriculture in 5 regions of Ghana namely; Northern, Upper West, Upper East, Ashanti, Volta and Greater Accra regions.

According to Mr. George K.A. Brantuo, Deputy Director for the Agricultural Engineering Services Directorate (AESD), MOFA and the Project Coordinator for JICA’s Grant project; ‘In 2009, JICA re-enacted its assistance and gave us a Grant worth USD 5.1 million of agricultural machineries. This has tremendously transformed the way rice cultivation is practiced in most parts of Ghana and it has accelerated the reduction of poverty and increment in rice production across the country’.

Average Rice Yields (Paddy) in trial plots in main rice cropping season

<table>
<thead>
<tr>
<th>Year</th>
<th>Ashanti region</th>
<th>Northern region</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>2010</td>
<td>2.5</td>
<td>1.5</td>
</tr>
<tr>
<td>2011</td>
<td>3.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

1) Reference: Data is from project survey.  
2) The data on 2010 and 2011 is the average including the plots affected by flood and were not any harvest.

Agricultural machineries supplied to the directorate under the grant include; tractors, rice mills, irrigation pumps, reapers, combine harvesters. An estimated 5,000 farmers have benefited directly and indirectly from the Grant.

These agricultural machineries are sold to farmers by the MOFA at subsidized prices and farmers made to pay over a period of time suitable for them. When a farmer buys any of the machineries, he uses it on his farmland and also leases it out to other farmers at minimal cost.

This helps farmers who own these machineries, gather revenue to repay and also helps other farmers have access to the services of these state-of-the-art agricultural machineries at affordable rental cost.

Group picture of trained farmers at the Ahafo-Ano North District

Picture of AEA and Group
Mr. Brimna stated further; “Since the inception of the 2KR project in 2005, rice cultivation, harvesting, processing and the entire value chain has been considerably improved. Farmers who once migrated to city centers in search of livelihood have returned to the hinterlands to engage in active and very productive rice cultivation. Now, they can take care of their families and are able to build houses and afford basic necessities of life as they contribute to the increment in local production of rice, which is one of the Government of Ghana’s key agricultural projects – sustainable local rice production to reduce importation of rice and monies spent on it.”

AEDC provides maintenance and engineering services to farmers who own these agricultural machineries to ensure longevity and durable lifespan.

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**Volunteers News**

**Ghana’s First National Robot Competition**

Japan International Cooperation Agency (JICA) in collaboration with the Institute of Technical Supervision (ITS), a division under the Office of the Head of Civil Service of Ghana has successfully organised Ghana’s first National Robot Competition at the International Conference Centre in Accra. It was the first event of its kind in Ghana and it brought together, a blend of academic institutions, private sector, government agencies, the media and other stakeholders. The event was opened to the general public.

Training and capacity-building workshops were organised ahead of the National Robot Competition. The Workshops, aimed at preparing participants for the Robot Competition by providing a broad understanding of Applied Electronics to all participants (both technical teachers and students from 7 participating technical institutions and polytechnics) were organised in two separate sessions.

The first training session was held in November, 2011 while the concluding Workshop, to finally intimate all participating students and technical teachers to the dynamics of robotics and to help them construct their own robots for the Competition, took place at the Institute of Technical Supervision (ITS), Weija, Accra from January 30th to February 3rd, 2012. All the Workshops preceding the Robot Competition were successfully organised. Participants ranging from students to teachers, rated the workshops as very educative and eye-opening.

Mr. Yukiyoshi Matsumoto, an expert in electronics and the Senior Japanese Volunteer at ITS who coordinated the trainings and workshops for the Competition explained that: “In Ghana, the interest in this subject (Applied Electronics) is low, so, in order to increase awareness and sustain interest in the subject, we are beginning with the fundamental knowledge of Electronics and Microprocessor connections. Ghana is experiencing rapid growth of utilization of Electronics and Information Technology, therefore, there is the need to build the capacity of technical students and their teachers to effectively grasp the dynamics of this budding subject.”

The Robot Competition with the theme; “Applied Micro-controller Embedded Technology Robot in Ghana” had seven (7) technical Institutions compete for the technological advancement prize and title as Winners of the 1st Ghana National Robot Competition. The participating institutions were: Accra Polytechnic (Greater Accra Region), Takoradi Polytechnic (Western Region), Ho Polytechnic (Volta Region), Kintampo Polytechnic (Ashanti Region), Koforidua Polytechnic (Eastern Region), Tamale Polytechnic (Northern Region) and Ekiti Electronics (Greater Accra Region).

According to the Head of Civil Service, Mr. W.K. Kernevor: “The Competition was an opportunity for practical-minded educationist and learners in Embedded Technology and Robotics to learn more and appreciate computer programming design for robots. The training workshops organized ahead of the Competition enhanced the capacity of participants and helped them understand basic theory of Electronics and Microprocessor for both Hardware and Software. It also helped them develop and design classes of electronic techniques, understand the mechanism of robots, create robots that could perform simple tasks, build teamwork in technical education and develop the required human capacity needed to promote Applied Electronics in Ghana.”

Earlier, at the opening of the 2nd workshop training, Mr. Afolabi Fasaiyi, the Acting Chief Director of the Office of the Head of Civil Service, admonished participants to appreciate the unique opportunity presented them and learn how robotics engineering could be applied to solving certain challenges associated with industrial or large-scale manufacturing. He also emphasized that the OFCS is committed to institutionalizing the Robot Competition as an annual event.
At the Competition, vehicle-like robots were constructed in various miniature shapes and sizes and were programmed to move along black-dotted lines as they performed tasks such as meandering, lifting, climbing, descending, etc. They represented how larger robots could be constructed and programmed to complete complex industrial, commercial or technical tasks.

Ho Polytechnic emerged as Winners of Ghana’s First National Robot Competition. Kumasi Polytechnic and Koforidua Polytechnic came up as first and second runners-up respectively. Various Prizes i.e. textbooks on robotics, etc were presented to all participating institutions. Emit Electronics won the JICA special prize for innovation and creativity.

According to Mike Acheampong, a worker from a Deloyd manufacturing company; ‘I am very happy that an event like this is held in Accra. We, in the industrial sector are happy that there is a conscious effort to teach robotics engineering in Polytechnics. On the long run, we may not need to spend a lot of money employing expatriates for the design, installation and maintenance of our equipment and other industrial processes that involve artificial intelligence or robotics engineering. In few years, we should be producing local expertise to meet the industrial demand of technicians in robotics.’

ANNOUNCEMENT

JICA Shop

Nyariga Craft Society

Purpose of organization
To provide sustainable employment and livelihood for people in Nyariga and surroundings

Recommended products
Hand Woven Baskets
024-540-6902/020-838-1680

Contact number
024-4430963 (Evelyn)

JICA Craft Shop will close in the end of August. Thank you for your patronage over the years. We will withdraw all the remaining goods on 31st August. Please do not miss by last minutes.

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