

## The Outlines of the Workshop

The Workshop on “Improvement of Soil Fertility with Use of Indigenous Resources in Rice Systems in Ghana” was held on October 15, 2013 at the International Conference Center, University for Development Studies (UDS), Tamale, Ghana, jointly organized by JIRCAS, UDS, and Soil Research Institute (SRI), Ghana.

### 1. The Opening Ceremony

With around 50 participants in the venue, the Workshop has been commenced at 09:30 AM by the words of Mr. Boakey-Acheampong, Regional Director, MoFA-NR (Northern Region), the MC, followed by opening remarks by Dr. Israel Dzomeku of UDS, the chairman of the WS.

Dr. George Nyarko, Dean of the Faculty of Agriculture, UDS, was then called for his welcome address, where he expressed great pleasure of the faculty to collaborate with Japan International Research Center for Agricultural Sciences (JIRCAS) and the other partners toward the improvement of soil fertility and the use of indigenous resources in rice cultivating systems in Ghana. He stated that the project has already implemented field experiments in the northern areas of Ghana with indigenous resources available in the Savanna zone. It had examined the effects of direct application of organic matter and their processed materials on soil chemical properties and rice growth. He emphasized the fact that the presentation titles outlined in the program of the workshop testify to the great achievement of this project so far. He restated that this year, the project is repeating some of these important experiments for confirmation as well as undertaking socio-economic analysis on affordability of the new technologies developed so far under the project. He said the faculty welcomes these initiatives and promised that UDS shall perform diligently because they are aware that rice is a food security crop in Ghana as well as being very important staple food for all tribes in the country. He concluded by saying on behalf of the Vice-Chancellor of UDS, all welcome all participants to UDS for the very important workshop and wish all well in their presentations and deliberations.

As a representative of the sponsor of this project, Mr. Hiroaki Kinoshita, chief executive officer of MAFF, Japan, provided his speech with a lot of appreciation to all the players of this project, especially to partners in Ghana. He also conveyed his expectations to the project for the contribution to the CARD goal, to double the rice production in Sub-Saharan Africa (SSA).

### 2. Introductory speech

Dr. Satoshi Tobita, JIRCAS leader to this project, clearly showed the purposes of the workshop as well as the project outlines. They are, 1) to summarize the achievements of the “UDS/CSIR-

SRI/MoFA (Ghana-Japan) JIRCAS/MAFF” project and 2) to discuss new technologies and to brain storm on ways of disseminating the technologies. The project is centered in studies on soil fertility improvement with focus on rice cultivation using indigenous materials in West Africa. The target area is SSA especially West Africa where its soil fertility is the most threatened and in Ghana is due to reasons spanning from environment, political and academic among others.

The constitution of the WS sessions (I, II and III) was then introduced by Dr. Tobita.

- I. Indigenous resource / Technologies on soil organic matter, all presented by Ghanaian counterpart researchers from UDS and CSIR-SRI, chaired by Dr. N. Fujimoto, Project Leader to the African Rice Promotion Project, JIRCAS,
- II. Technologies on phosphate rocks (PR), Coating/soaking technologies, and Socio-economic studies, all presented by JIRCAS researchers, chaired by Mr. H. Dan, Representative of the JIRCAS Liaison Office, Accra, Ghana, and
- III. General Discussions, chaired by Mr. E. Adjei, Agroforestry Specialist, CSIR-Soil Research Institute.

### 3. Discussion points of the sessions

In the session I, the Ghanaian scientists (UDS and SRI) had presentations on indigenous organic resources and technologies for soil fertility and rice production improvement with the resources. Discussions were chiefly pointed on the locality and effectiveness of materials especially when applied with chemical fertilizers. In the session II, the potentiality of phosphate rocks from the neighboring Burkina Faso has been recognized, but it might be challenging unless technologies to enhance the effectiveness would be developed and appropriate policies would be planned and executed by the government. In the session III, the adaptability of technologies was discussed. It was learned that the ex-ante socio-economic analysis would be important to fine-tune the technologies for effective transfer to local societies. There was also general brain storming on how to disseminate the technologies and the research project has recommended and suggestion was made to write proposals for funding from MoFA of Ghana, MAFF of Japan and other development partners. The Northern Regional Director of MoFA said the research unit of the Ministry at their Real Committee Meeting, if farmers demand for the technologies MoFA would definitely disseminate to them. Others cautioned that farmers learn from successful farmers not researchers even though the idea that technology is from research.

### 4. Comments from the guests

Mr. Theo Osei Owusu, Department of Agricultural Extension Services (DAES), MoFA-Ghana had comments about the present situation of rice in Ghana, one of the major staple foods and blessed with many natural resources to enable it to be self-sufficient in rice cultivation. And he

explained that the extension unit of MoFA disseminates information to farmers and this project is timely for the purpose.

Dr. Satoshi Yoshinaga, a member of the advisory committee of the Project, gave the comments that the site specific technology as the combination of organic matter and fertilizer should be developed to increase and stabilized rice production in Ghana. He recommended, for examination, current information should be modified based on climate conditions, water status and social situation. Knowledge on the use of phosphate rocks to improve soil fertility has greater impact on basic soil science and agronomy. The use of rice straw, rice husk and the bio-char (or *Kun-tan* in Japanese) are very useful and practical for farmers to increase the fertility of their cultivable fields. He expressed hope that the information manual would be available and with ease of accessible to farmers to improve upon rice productivity in Ghana. He challenged the researchers to further evaluate their research and disseminate the information to the extension unit of MoFA.

Mr. Minoru Yoshino, an expert of the JICA Project, expressed interest to incorporate, adopt the results and ideas of research work into his project activities, and requested to publish the results of research work on the project web site. He also suggested that technical and scientific reports should be modified and simplified to aid reading and understanding by extension officers and farmers.

#### 5. Concluding remarks

The MC, Mr. Boakey-Acheampong, expressed appreciation on the use of indigenous plants to improve soil fertility. He added that the Government of Ghana since 2009 has been spending huge sums of money to subsidize fertilizer and last year Government spent over 117 million of Ghanaian Cedis to subsidize fertilizer. This year, 2013, Government subsidy on fertilizer is projected around 70 million Cedis. He thanked the Japanese Government for the support it has been giving to Ghana and promised that MoFA would readily disseminate the information the workshop would generate to the farmers.

#### 6. Excursion tour to visit on-farm experiments

The Workshop participants attended the excursion tour on the next day (16, Oct), to visit two villages (Ziong and Sanga) where on-farm experiments in the Savanna zone have been implemented. Thanks to tremendous efforts of Mr. Al-Hassan, a field technician of UDS, the tour was very much successful for visitors to clearly understand the effectiveness, as well as problems, of technologies to improve rice production through soil fertility enhancement in the paddy fields. A lot of questions and comments were raised, especially from the MAFF delegation from Japan, Mr. H. Kinoshita and Mr. T. Hattori.



Picture 1. A group photo of the Workshop



Picture 2. Students of UDS actively participated in the session



Picture 3. A field technician explaining about the on-farm trial in front of the signboard (at Ziong)



Picture 4. A group photo of excursion tour (at Sanga)

(Reported by S. Tobita)

