

OPENING CEREMONY

WELCOME ADDRESS

By

Prof. W.S. Alhassan,

The Director-General Of The Council For
Scientific And Industrial Research (CSIR)

Mr. Chairman, Representatives of the Honourable Ministers, His Excellency the Japanese Ambassador, Invited Guests both from Ghana and outside, Colleague Scientists, JICA Resident Representative, Representative from WARDA, Togo, Benin, Nigeria, Ladies and Gentlemen.

It is with great pleasure and delight that I formally welcome you all to this International Workshop on Integrated Watershed Management of Inland Valley – Ecotechnology Approach.

The potentials of inland valleys in our efforts to address food security problems have been recognized long ago. Inland valleys constitute an important source of water for human use, livestock production as well as other agricultural activities including the production of rice, which at the moment seem to be the targeted crop. Ecologically inland valleys have high productivity potential for several reasons including:

- i. High water availability and low risk of drought stress.
- ii. High soil fertility due to silt and clay accumulation and
- iii. Potential for intensified use in both dry and wet seasons.

In Ghana, inland valley watersheds cover an estimated 0.7million hectares.

Over the past decades, several of the National Agricultural Research System of sub-Saharan Africa has conducted research on the development of inland valleys. However these efforts were localized and based on limited understanding of biophysical and socio-economic constraints. These efforts benefited from an initiative by a Consultative Group for International Agricultural Research (CGIAR) Technical Advisory Committee. This initiative is the Ecoregional Programme for the Humid and Sub-Humid Tropics of Sub-Saharan Africa (EPHTA). This came into being in 1993 after the Special Programme of African Agricultural Research (SPAAR) Technical Consultation on Ecoregional Approach to Research in Cote d'Ivoire. The programme is being co-ordinated by the International Institute of Tropical Agriculture (IITA).

The Council for Scientific and Industrial Research (CSIR) of Ghana has participated in EPHTA activities since 1995 and under that programme it has conducted a lot of research into the cultivation of rice in the valley bottom and assisted several small and medium scale farmers with technologies it developed. There have been a lot of problems including:

- i. severe weed infestation
- ii. lack of appropriate water management technologies
- iii. water-borne human diseases
- iv. unfavourable socio-economic conditions

Funding support for EPHTA, since its inception has been provided by Denmark, the Netherlands and France. We are most grateful to these countries. Funding for EPHTA activities, have, in the recent past dwindled considerably.

Another initiative in Ghana and coordinated by the Ghana Ministry of Food and Agriculture is the Bottom-Land Rice Development Study, which was meant for paddy production, processing and rice supplies and marketing in Ghana. I believe other countries in the Sub-Sahara Africa (SSA) have similar experiences and initiatives all geared towards the development of technologies for sustainable agricultural production.

I am therefore very pleased that this workshop is taking place at this point in time and aimed at an integrated approach to Watershed Management of Inland Valleys. Apart from the cultivation of rice, I will advocate for research activities to be diversified to include other crops, forestry, aquaculture and livestock.

I hope at the end of this workshop we will be able to come out with a programme(s) the implementation of which will assist small holders and medium-scale farmers to improve their well-being and alleviate poverty through sustainable production technologies which will in turn increase food security and minimize natural resources degradation.

I wish once again to welcome you all especially those of you who have come from outside Ghana. I hope you will enjoy your stay.

Thank you very much.

STATEMENT
By
Mr. H.E. Hiromu Nitta,
Ambassador, Embassy of Japan in Ghana

Mr. Chairman, Mr. Edwin Philip Daniel Barnes, Chief Director, Ministry of Environment, Science and Technology, Dr. Samuel K. Dapaah, Chief Director, Ministry of Food and Agriculture (MOFA), Dr. M. Wopereis, WARDA Inland Valley Consortium (IVC), Prof. W.S.W Alhassan, Director General, Council for Scientific and Industrial Research (CSIR), Mr. Shiro Nabeya, JICA Resident Representative,

Distinguished Guest, Ladies and Gentlemen,

It is a great pleasure for me to be here with you today to identify the result of the study that was conducted with the assistance of some Japanese experts in Ghana, which can be shared by participants in this workshop from neighbouring countries in the sub-region. I understand that the objective of this workshop is to bring together policy makers, agriculturists, farmers and other stakeholder to examine and discuss the integrated watershed management of inland valleys.

Mr. Chairman, Hon. Ministers,

In Ghana and most West African countries, despite the abundance of natural resources to support food production, food supply continues to fall short of demand, due mainly to unfavourable climatic conditions and natural disasters, and due partly to human activities other observed constraints were water control and weed infestation.

Consequently, food, especially rice, requirements are met largely from increasing amounts of imports. Under the current situation the Government of Ghana is putting a high priority on the increase of domestic food production. Inland valleys have specific hydrologic conditions and have been cited as having high potential for the development of rice-based, smallholder farming systems at the village level.

It is said that the potential area for small-scale irrigated area in inland valley watersheds is estimated at 700,000 hectares, 3% of the total area of Ghana and inland valleys can support production of rice, other commonly grown cereals, vegetable, legumes, roots and tuber crops.

Mr. Chairman, Hon. Ministers,

As a result of the study, we can recognize that, given their relatively fertile soils and assured water supply, inland valley can contribute to greater stabilization of food production in particular, rice production, if current production systems and practices could be further improved through the adoption of systems that promote nutrient accumulation and retention and improved water management systems. In addition, I would like to point out that the rice farming system, with low cost and appropriate technology and farmers participation approach was verified as feasible through the study and this rice farming system is environmentally friendly from the view point of

agro-forestry. I consider that it is quite important for Ghanaian counterparts and farmers to maintain the current momentum and to make progress towards the next stage with adequate budget allowance by the government of Ghana.

Mr. Chairman, Hon, Ministers,

There can be no doubt that the regional co-operation within the West Africa sub-region is to be promoted to increase food production and to enhance food security. This workshop will be a good opportunity for sharing experience for this purpose. Within the framework of the Tokyo International Conference on African Development (TICAD) process, the Government of Japan (GOJ) is encouraging south-south co-operation, i.e. Asia to Africa, or Africa to Africa co-operation. At WARDA, my Government has been assisting her " Joint Africa/Asia Research on Interspecific Hybridization between Africa and Asian Rice species" by dispatching Japanese experts and volunteers and providing financial assistance, amounting to more than 2.7 million U.S. dollars in total since 1997. I am very happy to say that the first stage of the Research has been successfully implemented and some varieties of "New Rice for Africa" with high yield and high resistance are now available. Currently, more than 5,000 farmers in 17 countries including Ghana in West Africa are engaged in experimental cultivation, what is called Participatory Variety Selection (PVS). What I would like to emphasize is that farmers themselves can participate in the decision-making on the selection of species.

Mr. Chairman, Hon. Minister,

In closing, I hope sincerely that this workshop will become a remarkable step towards the improvement of food supply and nutrition for the people in this sub-region.

Thank you.

STATEMENT
BY
M. C. S. Wopereis,
IVC Scientific Coordinator and Representative of WARDA

Distinguished ladies and gentlemen, dear colleagues. It is a pleasure for me to say a few words at the opening of this important workshop. The potential of inland valley lowlands in West and Central Africa cannot be underestimated. There are 30 to 50 million ha of lowlands available, whereas only 10 to 25% are being used.

Inland valleys are typically low input systems. With improved water control there is tremendous scope for intensification (increased input use and input use efficiency) and diversification (use of other crops than rice, such as vegetables grown on residual moisture or supplementary irrigation, and agro-forestry or aquaculture).

Lowlands, therefore, have the potential for expansion, closure of the yield gap between actual and potential yields, increased cropping intensity and diversification in sustainable ways as these systems are usually very robust, with good soil fertility. Rice is an obvious crop for the inland valley lowlands. Currently 4 million tons of rice are being imported in West and Central Africa, costing the region 1 billion US\$ of scarce foreign exchange. Increased use of inland valley lowlands has the potential to close the current gap between rice demand and regional supply.

WARDA gives great importance to Research and Development for Inland Valleys. She is the convenor of an eco-regional program on inland valley research and development: The Inland Valley Consortium (IVC). This is an initiative of 10 West African countries and of International Institutions. Some representatives of National Coordination Units of the IVC from Togo and Benin are with us today.

Mr. Chairman, the topic of this workshop: Integrated watershed management is at the heart of the IVC. Valley bottoms cannot be seen in isolation from the hydromorphic areas and the uplands. Water, nutrients and sediments are intercepted and moved downwards. Next to these biophysical factors there are many socio-economic factors to be considered.

There are people working in the uplands and lowlands in Cote d'Ivoire. Immigrant farmers from Mali and Burkina Faso are exploiting the inland valley lowlands, whereas native local farmers are growing crops like cassava or cocoa or coffee in the uplands. The social implications of inland valley lowlands in such settings need careful consideration.

Mr. Chairman, I hope that these issues and others will be dealt with in the next few days. I look forward to fruitful discussions and wish you all a successful workshop.

Thank you.

SHORT SPEECH
BY
Hon. Prof. Dominic.Fobi,

Minister Of Environment, Science And Technology (MEST)

Read By
Mr. E. P. D. Barnes
The Chief Director Of MEST.

Mr. Chairman, The Representative of the Honourable Minister, Ministry of Food and Agriculture Dr. S. K. Dapaah, Distinguished Scientists from Ghana, Togo, Benin, Nigeria, Representatives of WARDA and IITA, Invited Guests, Ladies and Gentlemen.

It is a great honour to address this important International Workshop on Integrated Watershed Management of Inland Valleys in Ghana – The Eco-technology Approach soon after my assumption of duty as the Minister of Environment, Science and Technology.

The Inland Valley Watersheds in Ghana are estimated to cover about 700,000 ha i.e. 3% of total land area of the country and represent a great potential for increasing rice production in the country. Currently only 20% of the valleys are being utilised leaving a large tract of 80% completely under-utilised. The importance of developing these inland valleys for the production of rice to feed the ever-increasing population of Ghana is obvious. Rice is now an important food crop in almost all Ghanaian homes. But the potential of the inland valleys could be realised only if the problem of conserving water in these valleys is resolved using science and technology.

In 1989, under the Valley Bottom Rice Development Project, Crop Research Institute of Council for Scientific and Industrial Research (CSIR) developed sustainable technologies for integrated soil, land and water, and crop management in the production of rice and other crops in the inland valleys. Although considerable progress was made in addressing some of the researchable constraints, there is still the need to devise a simple low cost and environmentally friendly system for managing the inland valleys that can be adapted by the resource poor farmers. The long experience in Sawah development in tropical Asia that looks not only at the valley bottoms but the total watershed is therefore worth applying to the inland valleys of Ghana. It is against this background that I find this workshop very important.

Mr. Chairman, rice production increased from 48,000 in 1970 to 281,300 metric tons in 1995, but the increase was insufficient to meet domestic demand in the country. This has meant increasing amounts of imports using scarce foreign exchange earnings. For example, Ghana imported on the average annual volume of 165,000 metric tons(mt) of rice between 1990 and 1992 at US\$316 per mt amounting to US\$52.14 million. Though quantities imported vary from year to year, the figure averaged 170,000 metric tons/year are expected to rise to 672,000 metric tons by

2006. It is the intention of the present NPP government to reduce if not completely halt this uncontrolled foreign importation of rice into the country.

The agricultural research institutes of the CSIR have been at the forefront in Ghana's efforts at ensuring food security. For instance, owing to the release of new and improved crop varieties including rice SIKAMO and better cropping systems, there has been a dramatic increase in the output of various food crops. These notable achievements have been done in close collaboration with the Ministry of Food and Agriculture and farmers.

I am encouraged to note that the Food Research Institute and the Institute of Industrial Research both of the CSIR are currently addressing the low acceptability and marketability of locally produced rice including quality of paddy for milling and rice milling techniques. It is hoped these endeavours will complement the results of the Integrated Watershed Management of Inland Valleys to produce high quality local rice that is competitive, marketable and acceptable to Ghanaian consumers.

It is the policy of my Ministry to make more resources available to support scientists of the CSIR since it is only through the application of science and technology that agricultural production could be moved further beyond the present levels. While the Eco-technology Approach is being used to look at the inland valleys, this must not be done without taking into consideration the need to preserve the environment for the present and future generations.

My Ministry therefore wishes to thank the government of Japan for the assistance that they have provided in terms of capacity building and manpower development especially in the field of rice research.

I hope that the cordial relationship established will continue to grow and extend to other areas.

Thank you.

KEY NOTE ADDRESS
BY
Major Courage Quashigah(Rtd)
Minister Of Food And Agriculture (MOFA)

Read by
Mr. Samuel K. Dapaah
The Chief Director Of MOFA,

Director General of CSIR, Colleagues of the Ministry of Environment, Science and Technology, distinguished researchers from Ghana, Togo, Benin, Nigeria, Representatives of WARDA and IITA and the press. It gives me great pleasure to deliver the keynote address at this important International Workshop on behalf of the Minister of Food and Agriculture, Hon. Major Courage Quashigah (rtd).

Kindly permit me to add my voice to the warm welcome that has been extended to our distinguished guests and especially representatives of our sister countries and researchers. Our meeting here this morning is very significant in view of the importance the new administration attaches to agriculture as a source of sustainable food security, a contributor to the reduction of poverty especially rural poverty and as a means of stabilizing our currency the cedi through import substitution and increased foreign exchange earnings with your help and guidance.

Mr. Chairman, the importance of the Agricultural Sector to the well being of Ghanaians cannot be overemphasized. The Ministry's assessment of the future development of Ghana is that given the importance of Agriculture in the economy, our quest to become a middle income country can be achieved sooner rather than later if the sector can achieve annual average growth rate of about 6% on a sustainable basis and environmentally friendly basis with the growth of key agricultural commodities such as rice leading the way.

Mr. Chairman, available statistics indicate that rice has over the past 30 years or so become a major staple in the Ghanaian diet. Gone are the days in the 1970s when the production of some 40,000 metric tons of milled rice were adequate for local consumption.

Even though rice production over the past 5 years has averaged about 135,000 metric tones of milled rice, an average of about US\$100 million worth of rice is imported annually to supplement local production in spite of declining foreign exchange availability.

A number of reasons have accounted for the apparent preference of imported rice to locally produced rice. These include inadequate and uncertain supply of local rice as well as its low quality due to poor quality seeds and inadequate water management expertise for rice production.

In view of the limited success of both rain-fed upland and irrigated rice cultivation, recent attention is being focused on the development of the more than 1 million

hectares of inland valleys found scattered across the country compared to the current 130,000 hectares under rice cultivation. Research scientists of the Valley Bottom Project under the National Agricultural Research Project have carried out studies to develop appropriate technologies.

The Ghana government appreciates the important role that the Japanese government is playing through the Japan International Cooperation Agency in providing material and technical assistance in the form of experts and training for the development of sustainable and environmentally friendly technologies for our farmers.

Considering the comparative advantage and development potential that exist in the various ecologies for profitable rice production, especially in the inland valleys, the Ghana Government is determined to raise the relatively low level of rice production in the country in order to attain higher level of self-sufficiency, reduce the huge foreign exchange spent on importation and also provide jobs and raise the living standards of our rice farmers in the country.

It is in this regard that the Ministry is re-examining its policies, programmes, strategies and performances to enable agriculture compete effectively in the Domestic, ECOWAS and International markets in the shortest possible time. Among the major areas of concern to the Ministry as a result of our past experiences are:

- a. learning lessons from projects and schemes which have performed well and how these performances can be replicated for similar commodities as well as different commodities across the country where feasible.
- b. Outlining actions in the Ministry's Accelerated Agricultural Growth and Development Strategy (AAGDS) that need to be taken in the short, medium, and long terms to increase agricultural output for increased export earnings, improved nutritional status of Ghanaians and rising income levels by improving productivity in the acquisition of appropriate farm inputs, on-farm production technology, efficient agro-processing and effective marketing strategies.

In conclusion Mr. Chairman, I want to assure all stakeholders here present as well as our friends from Japan that the Ministry will carefully study your recommendations and give all the necessary support and motivation to make the project a success.

I thank you