

**Collaborative Research
and
Training Activities**

**Government of the Republic of Indonesia
and
The International Rice Research Institute**

INTRODUCTION

- o The collaborative projects with Indonesia were reviewed in meetings of Dr. M.S. Swaminathan held in Bogor with Mr. Sadikin S.W., Director General of the Agency for Agricultural Research and Development of Indonesia (AARD), Dr. Ibrahim Marwan, Dr. B.H. Siwi, and Dr. I.N. Oka. A summary of the discussion held on August 31 is shown in Attachment 1.
- o A new Memorandum of Agreement was signed on August 30 and a copy is appended (Attachment 2).
- o Dr. Swaminathan met with Dr. William P. Fuller, Director of USAID Indonesia and other USAID officials on August 30, 1984 regarding the major thrusts of IRRI-Indonesia collaborative research and training projects. A summary of their discussion is appended (Attachment 3).

Attachment 1

*Discussion with the Director General, Agency for
Agricultural Research and Development*

Attachment 1

Bogor, August 31, 1984

Discussions with Mr. Sadikin S.W., Director General
Agency for Agricultural Research and Development

Present:

Mr. Sadikin S.W.
Dr. Ibrahim Marwan
Dr. B.H. Siwi
Dr. I.N. Oka
Dr. J.L. McIntosh
Dr. M.S. Swaminathan

I. Introduction

Mr. Sadikin stressed the need for the speedy implementation of the research programs included in the Memorandum of Agreement signed on August 30. In this context, he referred to his forthcoming visits to Australia and the Netherlands and suggested that the details of the following three projects may be finalized soon by AARD and IRRI.

1. Upland Rice Research
2. Irrigation Water Management
3. Farm Machinery

II. AARD-IRRI joint research programs

1. Upland Rice Research

The main center for the joint research program will be the Sukarani Research Center, where the Project Coordinator will be located. The Maros Research Center will be a link center catering to the eastern region. In addition, there will be several trial and testing centers to cover distinct agroecological and soil conditions. A suitable project proposal may be prepared by IRRI on

the basis of the earlier discussions and sent to AARD soon, so that Mr. Sadikin could discuss this with ACIAR for possible Australian financial support as well as scientific involvement.

In addition, USAID can consider support under a project now under negotiation. Thus, a major upland rice research initiative should be launched soon by AARD and IRRI with financial support from USAID and ACIAR.

The Indonesian Upland Rice Research project could help other countries with similar problems through IRRI's global networks. Suitable training programs can also be organized jointly by AARD and IRRI at the Sukarami Research Center.

2. Upland Agriculture and Conservation Project

Land use under this project should be based on principles of ecology and economics. Commercially valuable tree crops like tea, coffee, cocoa, etc, and silvi-pastoral systems of land management may be given priority over annual crops. The land and water use patterns in the watershed areas should ensure that the short and long term goals of development are in harmony with each other.

The idea of forming a consortium of international agricultural research centers (IARCs) including the International Council for Research in Agro-Forestry (ICRAF) is a good one. Socio-economic studies will have to precede the technology development work. The precise nature and composition of the AARD-IARCs consortium for upland agriculture will have to be decided after the program priorities and land use patterns are determined. Meanwhile, the AARI-IRRI upland rice research program should be started

separately. USAID's support to the participation of the IARCs and ICRAF in this project will be valuable. IRRI could be the coordinator of the IARC-ICRAF consortium.

3. Irrigation Water Management

IRRI should prepare a suitable project which after approval by AARD will be discussed with the Netherlands Government during Mr. Sadikin's visit to the Hague in December. The project could be initiated in the Jatiluhur project area, which covers nearly 250,000 ha of irrigated land. The emphasis will be on the software and on-farm management aspects of water use. The International Irrigation Water Management Institute (IIMI) in Sri Lanka could be associated with the AARD-IRRI project at an appropriate stage, wherever IIMI's expertise will be relevant.

4. Farm Machinery Development

The aims of this project should be to promote productivity, reduce drudgery, improve timeliness of operation and increase income. At the same time, the impact of new machinery on employment should be kept in view. If labor displacement takes place, simultaneously alternative sources of on-farm and off-farm employment should be generated. Labor displacement from some traditional chores and labor employment in more gainful employment should be concurrent events. The impact on women's employment should receive specific attention.

It was decided that a joint AARD-IRRI team will develop a project indicating priorities in farm machinery development both at the production and post-harvest phases of rice farming systems. IRRI will indicate soon its nominees on this joint project design team.

The USAID review of the Industrial Extension Project in November-December, 1984 will also provide useful inputs into the design of the cooperative project. The headquarters of the project will be at Sukamandi with Maros serving as a link center. USAID and JICA could be approached for funding.

III. Other items

1. International Upland Rice Research Conference

AARD will set up soon a national organizing committee with a Member-Secretary. A meeting of the international organizing committee will be held at Los Banos in October, 1984, when Dr. Oka visits IRRI for the Trustees' meeting. Following this, Dr. L.R. Oldeman will visit Indonesia to finalize all the details and arrangements relating to the conference with the national organizing committee. Mr. Sadikin indicated that the National Organizing Committee should include Mr. Kobir Sastradipura, Director of Foreign Relations, Bureau of the Ministry of Agriculture and a suitable officer of the Foreign Ministry. The question of obtaining financial support from the Netherlands Government will be followed up.

Mr. Sadikin will soon finalize the program for the inaugural session. Several IRRI trustees will attend the conference. The monitoring tours could be completed before the conference, in case this will help the participants to have a better idea of the upland rice crops.

2. Women in Rice Farming Systems.

The Center of Agricultural Economics of AARD headed by Dr. Faisal Kasryno could be the main cooperating institution in

this study. The study will cover the entire range of socio-economic and socio-cultural situations, covering the traditional, transitional (transmigration areas) and transformed situations. Dr. Salmon Padmanagara, Director General of Extension and Training who is also the chairman of the ASEAN Committee on Forestry and Agriculture (COFA) should also be involved in this study.

3. IFARD Constitution

IRRI will assist in finalizing the revised constitution.

4. IRRI's 25th Anniversary

- a. AARD will bring out a special publication on Rice Research and Development in Indonesia for release in May 1985.
- b. AARD will suggest names of suitable rice farmers who could be invited to IRRI on the occasion.
- c. Dr. Ibrahim Manwaan could serve as the Founder President of the IRRI Alumni Association of Indonesia. He and Dr. Siwi will take the lead in organizing such an association which will have as its members the over 350 alumni of IRRI from Indonesia.

IV. Diversified Sources of BPH Resistance

Following the meeting with Mr. Sadikin, Dr. Oka took Dr. Swaminathan to show the breakdown of resistance of IR56 to a biotype of brown planthopper isolated in West Sumatra. Dr. Swaminathan indicated that he will send immediately additional breeding material for screening for resistance to the biotype found attacking IR56. In this field, eternal vigilance is essential.

1

Attachment 2

*Memorandum of Understanding Between the Department
of Agriculture of the Government of the Republic
of Indonesia and the International Rice
Research Institute*

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF AGRICULTURE OF
THE GOVERNMENT OF THE REPUBLIC OF INDONESIA
AND THE INTERNATIONAL RICE RESEARCH INSTITUTE
FOR SCIENTIFIC AND TECHNICAL COLLABORATION IN
RESEARCH ON RICE AND RICE-BASED FARMING SYSTEMS

This Memorandum of Understanding is between the Agency for Agricultural Research and Development (AARD) of the Department of Agriculture of the Government of the Republic of Indonesia (hereinafter called the "Department") and the International Rice Research Institute, Los Banos, Philippines (hereinafter called "IRRI") which has accorded the status, prerogatives, privileges and immunities of an international organization by the Government of the Republic of the Philippines pursuant to Presidential Decree No. 1620 enacted on April 19, 1979. (See Articles of Incorporation and By-Laws, Appendix II, page 29).

WHEREAS, the Department is interested in rapidly increasing and stabilizing the production of rice and other food crops in rice-based farming systems in Indonesia;

WHEREAS, IRRI, a non-profit international organization supported by the Consultative Group on International Agricultural Research (CGIAR) has likewise as its primary goal the increasing of the quantity and quality of rice produced through research and professional improvement on all phases of rice research including rice-based farming systems and through scientific and technical collaboration with national programs;

WHEREAS, the IRRI in the interest of providing better liaison with national programs has established the policy of assigning from their 'core' staff Liaison Scientists on a regional basis. The Liaison Scientist for Indonesia, Malaysia and Brunei is based with an office in Indonesia.

WHEREAS, the AARD and the IRRI have had a Memorandum of Understanding on Collaborative Research since 1980 which is revised and updated annually at a meeting (of scientists from both institutions representing appropriate disciplines) convened in Indonesia or at the IRRI headquarters and a mutually agreed upon set of work plans resume is duly prepared and signed by the respective Directors General of the AARD and the IRRI.

And WHEREAS, the Department and IRRI have already collaborated and cooperated in research on rice and rice-based farming systems as outlined in the document on "Arrangement on Cooperation in the Improvement of Rice Research in Indonesia between the Government of the Republic of Indonesia and the International Rice Research Institute", signed on December 20, 1972 and April 15, 1978 respectively between the Government of Indonesia and the International Rice Research Institute, and have found such collaboration and cooperation to be mutually beneficial;

Now WHEREAS, the Department and IRRI, inspired by their common objectives to further promote and accelerate research, technological transfer through training as means of professional improvement on rice and rice-based farming systems and to strengthen national and regional rice research programs, wish to reaffirm their intention to continue collaboration. The two parties have reached a mutual understanding as set forth in the following paragraphs:

ARTICLE I

1. The annual planning of Collaborative Research, as initiated in 1980, will continue as an integral part of the continuing collaboration between the IRRI and the AARD.

2. It is mutually agreed that AARD's and IRRI's Collaboration will generally aim at enhancing the national capability in research on rice and rice-based farming systems in Indonesia and the professional improvement of its scientists.

High priority will be given to:

- o genetic evaluation and utilization of rice designed to develop varieties that possess high yield potential, good grain quality, and resistance to prevalent diseases and insects and that are suitable for production re-various significant components under lowland conditions with varying degrees of water control; place greater relative emphasis on upland conditions where different levels of required inputs are expected to be used; under high elevation conditions where cold temperatures occur, and under tidal swamp conditions which are characterized by uncontrolled flooding and adverse soils;
- o development of improved rice-based farming systems that will increase efficient and economic land use intensity; expand the area on which rice can be economically grown commercially, and increase the utilization of other farm resources;
- o collaboration in water management;
- o collaborate in farm machinery development;
- o increase the technology base through short courses, formal post graduate studies, post doctorate, non-degree attachment training, etc. for Indonesian scientists and their support staff as well as mutual exchange of scientists where appropriate and through conferences, symposia and workshops;

- o mutual exchange of publications and technical information on rice research and related subjects;
 - o the mutual exchange of genetic resources such as exotic and traditional germ plasm etc.
3. The scale of collaborative research between AARD and IRRI will be determined by a joint evaluation, from time to time, of Indonesia's needs and IRRI's capacity for undertaking collaborative activities, and by the level of financial resources available for this purpose.

ARTICLE II

Subject to personnel and budgetary limitations, and as mutually agreed upon, IRRI will:

1. Assign resident expatriate senior scientists as mutually agreed and also provide short-term consultancies from IRRI staff, or other research institutes, to collaborate with the research program of AARD;
2. Assist Indonesian scientists to receive degree and non-degree training;
3. Invite Indonesian scientists, after consultation with AARD to attend international research conferences, symposia and workshops, and to join in monitoring international network activities of interest to them;
4. Make available seed materials, publications, and research information to support collaborative activities.

ARTICLE III

In order to facilitate the implementation of collaborative activities, AARD in accordance with the existing laws and regulations in force in Indonesia, will:

1. Provide counterpart staff;
2. Provide office space;
3. Undertake necessary clearance for Indonesian scientists to participate in conferences, workshops, training programs, and collaborative research;
4. Authorize the free movement of 'germ plasm' in and out of Indonesia as may be required by collaborative work subject to normal quarantine procedures;
5. Assist in obtaining necessary visas and completion of formalities connected with visits and long term residency of IRRI scientists in Indonesia;
6. Accord to all foreign expatriate IRRI (in keeping with its international status) personnel assigned to work in Indonesia privileges regarding payment of taxes and import duties. These privileges will include exemption from local tax and other taxes, and duty and tax free importation of personal and household effects, goods and supplies for personal and family use of IRRI employees;
7. Ensure that items of equipment and supplies, including vehicles purchased by IRRI for use in collaborative work, be exempted from payment of customs duties or any other taxes admissible under the regulations of the Indonesian Government.

ARTICLE IV

Both parties agree that:

1. Results of collaborative research will be published in the public interest as mutually agreed upon;
2. Although in most cases the results of collaborative research will be published jointly by scientists working for the two organizations, each party may publish the results separately if so determined by mutual consultation in specific cases. Either party publishing any research findings will give credit to other party's contributions but would at the same time be entirely responsible for the conclusions and interpretations reported;
3. Breeding materials, germ plasm, etc. will be freely exchanged between AARD and IRRI with due recognition for the sources of the seed material. Either party may use such materials but will give full credit to its source origin;
4. All project commodities, other than those to be used by IRRI personnel, supplied for the collaborative work through IRRI will be transferred to AARD once such items have been cleared through Customs or purchased locally.

ARTICLE V

1. The parties to this Memorandum of Understanding may, by mutual consent, add, modify, amend or delete any words, phrases, sentences, or articles in this Memorandum of Understanding;
2. The Memorandum of Understanding shall be effective on the date of signature by both parties and shall be valid for a period of 5 years, and can be extended as agreed upon by both parties;

3. Either party may at any time give notice to the other party of its intention to terminate the validity of the Memorandum of Understanding, in which case the Memorandum of Understanding will terminate six months after such notice has been issued.

For the Department of Agriculture
Government of the Republic of
Indonesia

For the International Rice
Research Institute
Los Banos, Laguna

Date _____

Date _____

Attachment 3

Summary of Discussions with USAID officials, Jakarta

Attachment 3

Jakarta, August 30, 1984

Meeting with Dr. Fuller and USAID officials

Present:

USAID: Dr. William P. Fuller
Mr. Richard Cobb, Chief, Office of Agriculture
and Rural Development
Dr. Frank L. Gillespie
Mr. Alan R. Hurdus
Mr. David W. Seckler
Mr. Kevin A. Rushing
Mr. Enrique M. Barrau

IRRI: Dr. J.L. McIntosh
Dr. Jennie Dey
Dr. M.S. Swaminathan

I. Memorandum of Agreement signed with the Government of the Republic of Indonesia.

Dr. Swaminathan explained that under the Memorandum of Agreement signed by Dr. Sjarifudin Baharsjah and himself on the morning of August 30, 1984, MA/AAPD-IRRI collaboration during the next 5 years will accord priority to the following:

- a. Development of varieties combining high yield potential, good grain quality and resistance to pests and diseases which are suitable for cultivation under different environmental and input supply conditions; the environmental conditions to be catered to will range from rainfed upland and highlands to tidal swamps.
- b. Development of improved rice farming systems which will help to improve nutrition, employment and income.
- c. Improved water management.
- d. Farm machinery development.

- e. Training and technology transfer.
- f. Exchange of germplasm.

Dr. Fuller mentioned that these are all areas of great interest to USAID.

II. Fields of research supported by USAID where IRRI's input may be relevant.

Dr. Fuller referred to the following two areas where USAID will be happy to see IRRI's participation in collaborative research with AARD.

a. Upland Rice Research

USAID support to Government of Indonesia for upland rice research is now under discussion. The project will be finalized by the spring of 1985 and will get on the ground by June-July, 1985. Therefore, IRRI's inputs should be finalized soon. IRRI could plan its association with this project for a period of 5 years.

Dr. Swaminathan mentioned that a joint AARD-IRRI team has already prepared a project proposal and that he will be discussing this with Mr. Sadikin and his colleagues on August 31. IRRI hopes that a team of three senior scientists in the areas of Genetics and Breeding, Soil Science and Farming Systems research could be stationed at the main Upland Rice Research Center, which IRRI hopes could also serve other countries with similar upland rice growing conditions with regard to soil and duration of rainfall.

b. Upland Agriculture and Conservation Project.

Dr. Fuller mentioned that an agreement for USAID support for this project has been signed and that details of the implementation mechanism are being worked out. This is an integrated farming systems project and will include research in cropping systems, soil and water conservation and management, tree crops and silvipasture, livestock and socio-economic studies.

In view of the multi-faceted nature of the problems to be studied, Dr. Fuller felt that it will be appropriate to involve in this project a consortium of international agricultural research centers having relevant expertise and material. Inputs from such an inter-center consortium including CIMMYT, CIAT, IITA, ICRISAT, ILCA, CIP and IRRI could be coordinated by a whole time IRRI scientists for about 2 months each in a year. The design of IARC's involvement will be based on collaborative work with scientists of AARD and not on a technical assistance model.

Dr. Swaminathan said that he fully supports this approach and referred to the growing inter-center activities. If a paper indicating the precise inputs that may be needed from each of the centers participating in the Indonesia Upland Agriculture and Conservation Project consortium could be prepared by mid-October, 1984, he can discuss it at the time of the Center Directors' meeting early in November in Washington and get the broad framework developed.

Dr. Swaminathan mentioned that he will discuss this with Mr. Sadikin on August 31. If his response is positive, Dr. J.L. McIntosh who has been associated with the preparation of this project and Mr. Walter Tappan could work with Dr. Cobb and his associates and get an approach paper for the organization of an IARC consortium for collaborative research with AARD in Upland Agriculture prepared by mid-October, 1984.

III. Other areas of possible USAID support to IRRI.

a. International Upland Rice Conference.

Dr. Swaminathan gave details of the conference to be held in Jakarta in March, 1985. Dr. Fuller indicated that his office will be happy to provide support to the conference. The scope for organizing a special discussion at that time on the scientific strategies that may be relevant to the effective implementation of the Upland Agriculture and Conservation project could be studied jointly by AARD, IRRI and USAID. Dr. McIntosh will examine this matter and keep in touch with USAID.

b. Farm Machinery.

This project will be evaluated in November-December, 1984. USAID's position with reference to the continuation of its support to this project will be communicated to IRRI in January, 1985.

c. Women in Rice Farming Systems.

Dr. Jennie Dey explained the current thinking on the integration of women-specific issues in rice farming systems research. Dr. Fuller supported this approach and suggested detailed discussions between his staff and Dr. Dey.