Introduction

The following is a staff summary of the proceedings and major conclusions of a meeting on international agricultural research which took place at the World Bank's headquarters in Washington, D.C. on January 14-15, 1971. The meeting was sponsored jointly by the International Bank for Reconstruction and Development (IBRD), the Food and Agricultural Organization of the United Nations (FAO) and the United Nations Development Programme (UNDP); Mr. J. Burke Knapp, Vice President of the IBRD, was in the chair. In addition to the co-sponsors, representatives of 17 governments, three regional development banks, three private foundations, the Canadian International Development Research Centre (CIDRC) and the Development Assistance Committee of the UNCD attended the meeting. A list of delegates is attached as Annex I. The documents distributed to participants are listed in Annex II. Messages sent to the meeting by Mr. Robert S. McNamara, President of the World Bank Group, and Mr. Paul G. Hoffman, Administrator, UNDP, are attached as Annex III and Annex IV. The agenda, as adopted by the meeting, is attached as Annex V.

Opening Statements

The representative of FAO gave a resume of FAO's "Overview" paper (AGR-RES/71-3), describing the general agricultural situation in the developing countries and the need for further research in specific fields.

The representative of the Rockefeller Foundation described the philosophy underlying the establishment of the international agricultural research institutes supported by the Rockefeller and Ford Foundations and the work carried out by these institutes. The representative of the Ford Foundation described the agreements reached in earlier, informal meetings of senior officials of bilateral and multilateral development assistance agencies and of the Ford and Rockefeller Foundations (the "Bellagio Group") with respect to the fields of research for which establishment of new international agricultural research institutes, or expansion of the activities of existing institutes, would be of high priority. The Foundations will continue to support the work of such institutes and similar international agricultural research programs, but have reached the upper limit for their financial contributions, details of which were set forth in document AGR-RES/71-7,
distributed at the meeting. A rough estimate made by the Ford and Rockefeller Foundations indicated that, as a result of new or expanded programs and increased costs, total financial requirements for the programs likely to be sponsored by them might increase from $11 million in 1971 to something of the order of $32 million in 1975. Based on funds in prospect as of October 1, 1970, the financial gap was estimated to increase from $2.3 million in 1971 to $21.0 million in 1975.

Discussions

(i) Proposed Arrangements

Most of the discussion was addressed to the Bank/FAO staff paper (AGR-R36/71-h) which proposed the establishment of a Consultative Group on International Agricultural Research and put forward suggestions as to the objectives, composition and organizational structure of such a Group. It was generally agreed that international (including regional) agricultural research programs related to the problems of the developing countries need to be strengthened and intensified and that concrete proposals to that effect should be formulated and considered at an early stage. Some delegates expressed caution, however, that implementation of proposals for new international research programs should not take place until thorough and detailed inventory had been made of research work being undertaken at existing national, regional and international facilities. The question was also raised whether the FAO should not be given responsibility to carry out the functions proposed to be entrusted to the Consultative Group. However, there was a clear majority in favor of establishing a consultative group as a forum for discussion and coordination of long-term financial and technical support for agricultural research activities of an international and regional character. At the same time, it was agreed that there is need for a comprehensive review of existing national, regional and international research institutes and maintenance of up-to-date information on current and future agricultural research activities. FAO was requested to undertake this as a supporting service to the proposed Technical Advisory Committee (see (iii) below). It was also emphasized that international research programs supported by members of the proposed Consultative Group should be so designed as to make their results readily adaptable for practical application in the developing countries.

(ii) Representation from Developing Countries

The question of the possible participation of representatives from the developing countries in the work of the Consultative Group was discussed. It was recognized that participation in the Group by all interested countries would make the Group unmanageable. It was also pointed out that some of the experts on the Technical Advisory Committee would be likely to be nationals
of developing countries. The regional development banks did not consider that they were fully competent to represent their developing country members. The Secretariat was asked to analyse the problems of representation of the developing countries and to present a report to the first meeting of the Consultative Group.

(iii) Technical Advisory Committee

It was agreed that a Technical Advisory Committee (TAC) should be created, composed of a small number of distinguished international experts. TAC would be authorized to seek the advice of specialists with expertise in specific fields, who might be invited to serve individually or on panels to consider particular problems. Proposals concerning the financing of the expenses of the members of TAC and of its advisers would have to be worked out. The meeting endorsed the need for a data bank on agricultural research related to the needs of developing countries, which would make research results readily available to all interested parties. FAO will consult with TAC on the feasibility of a comprehensive data bank and will thereafter prepare a report on this subject for the consideration of the Consultative Group.

(iv) Membership

The delegations from the Canadian International Development Research Centre, Ford Foundation, Kellogg Foundation, Rockefeller Foundation, the United Kingdom and the United States declared that they were ready to join the co-sponsors in a first meeting of a consultative group to be held in three to four months. A number of other delegations declared that they were favorably inclined to join a consultative group but they required formal instructions. Many of them expected such instructions to be available prior to, or at, the next meeting.

The delegations from Australia, France and Germany required further time to consider membership but agreed that high priority should be given to the intensification and expansion of international agricultural research.

The Chairman requested those delegations which had not yet announced their intentions to join the Consultative Group to inform the Secretariat of any firm decision taken in this respect prior to the next meeting. Such information is to be sent to Mr. A. Kruithof, Room D-1139, World Bank, 1818 H Street, N.W., Washington, D.C. 20433, U.S.A.

(v) Finance

The following delegations also indicated the order of magnitude of the financing they were prepared to consider, subject to various qualifications, for international agricultural research activities accepted by the Consultative Group for support:
Canada: $6-7 million over a five-year period to be allocated to specific institutes and, wherever possible, for specific programs at those institutes.

CIDRC: $1-1.5 million over a five-year period to support specific programs.

Ford Foundation: $3 million per year.

Netherlands: $1.25 million over a five-year period and $100,000 to the International Rice Research Institute for a rice program in Indonesia.

Rockefeller Foundation: $3 million per year.

United Kingdom: From $1 million to $5 million per year over a five-year period.

United States: 25% of the total cost, up to a maximum of $7 million, provided the institutes to be financed have capable management, and provided the remaining 75% is forthcoming from other sources.

The Chairman explained that the World Bank Group was willing to consider making grants to support international agricultural research. The method to be used needs to be further investigated and approval of the Executive Directors would have to be obtained. However, in earlier discussions, the Executive Directors had indicated that in principle they would support such action.

The World Bank representative explained that, after consultation with a number of governments, it had been decided that no central fund would be established to finance activities accepted by the Consultative Group for support; once a particular international agricultural research project has been approved by the Consultative Group, decisions with respect to its financing will be made individually by the participants interested in supporting it. Membership in the Group would not involve any commitment of funds.

(vi) Future Action

It was agreed that the co-sponsors should convene a first formal meeting of a "Consultative Group on International Agricultural Research" in about three to four months. The Secretariat was asked to prepare for that meeting a re-draft of the paper "Possible Objectives, Composition and Organizational Structure of an International Agricultural Research Consultative Group" (AGR-RCS/71-4), incorporating the changes agreed upon during the present meeting.
The co-sponsors were requested to prepare, for the approval of the Consultative Group at its first meeting, a list of nominees for membership on the Technical Advisory Committee.

(vii) Press Release

Because of the preliminary character of the meeting it was decided that no press release should be issued.

Summary of Conclusions

a) A first formal meeting of a "Consultative Group on International Agricultural Research" will be held sometime between the middle of April and the middle of May.

b) An amended paper on the objectives, composition and organizational structure of the Group will be submitted to the first meeting by the Secretariat.

c) All participants in the International Agricultural Research Meeting will be invited to attend the first meeting of the Consultative Group.

d) The Secretariat will study the possible participation in the Consultative Group of representatives from developing countries and will submit a report on this matter to the first meeting of the Group.

e) The co-sponsors will submit to the first meeting nominations for membership on the Technical Advisory Committee.

f) Arrangements concerning financing the expenses of members of TAC and its advisers remain to be worked out.

g) Countries and/or organizations deciding on full membership in the Consultative Group prior to the first meeting will inform the Secretariat.

Washington, D.C.
February 5, 1971
INTERNATIONAL AGRICULTURAL RESEARCH MEETING

LIST OF DELEGATES

1. African Development Bank
   E.A.R. El Saeed, Agronomist

2. Asian Development Bank
   S.C. Hsieh, Director, Project Department

3. Australia
   R.L. Knight, Executive Director, IBRD
   John Ryan, Minister, Embassy of Australia, Washington, D.C.
   Frederick G. Pooley, Financial Counselor, Embassy of Australia, Washington, D.C.
   A.F. Gurnett-Smith, Secretary, Agricultural Sciences, C.S.I.R.O., Australia

4. Austria
   Viktor Wolf, Alternate Executive Director, IBRD

5. Belgium
   Andre van Campenhout, Executive Director, IBRD

6. Canada
   Paul Gerin-Lejoie, President, Canadian International Development Agency, (CIDA)
   F.J. Chambers, General Director, Planning Division, CIDA

7. Canadian International Research Development Centre (CIDRC)
   W. David Hopper, President
   J. H. Hulse, Director, Agriculture, Food and Nutrition Sciences

8. Denmark
   Erik Hauge, Economic Counselor, Embassy of Denmark, Washington, D.C.

9. Finland
   Joakko Iloniemi, Chief, Bureau for Technical Assistance, Ministry for Foreign Affairs, Helsinki

10. Food and Agriculture Organization (FAO)
    P. N. Terver, Assistant Director-General, Development Department
    P. A. Oran, Assistant Director, Policy Advisory Bureau
11. **Ford Foundation**

David E. Bell, Vice President
F. F. Hill, Agricultural Consultant, International Division
Lowell S. Hardin, Program Officer, Agriculture

12. **France**

J. P. Carriere, Alternate Executive Director, IBRD
Jacques Alliot, Administrator of Groupement d'Etudes et de Recherches pour le Developpement de l'Agriculture Tropicale (GERDAT)
Henri Vernede, Commissaire du Gouvernement auprès des Instituts de Recherche Appliquée

13. **Germany**

Helmut Koinzer, Ministerialrat, Ministry of Economics
Hans Janssen, Regierungsdirktor, Ministry for Economic Cooperation
Werner Lache, Regierungsdirktor, Ministry of Agriculture

14. **Inter-American Development Bank (IDB)**

Alfred C. Wolf, Program Adviser to the President
Jose J. Cabral, Director, Division of Analysis of Agricultural Development Projects
Jacques J. Kozub, Economist, Agricultural Economic Section

15. **Italy**

Giorgio Rota, Executive Director, IBRD

16. **Japan**

Noboru Yamada, Director, Tropical Agricultural Research Center, Ministry of Agriculture and Forestry
Masanari Sumi, Alternate Executive Director, IBRD
Michio Kondo, Counselor, Embassy of Japan, Washington, D.C.
Tomoyuki Abe, Ministry of Foreign Affairs

17. **Kellogg Foundation**

N. C. Fahs, Program Director

18. **Netherlands**

J. Grooters, Financial Counselor, Embassy of the Netherlands, Washington, D.C.
G.W.J. Pieters, Agricultural Counselor, Embassy of the Netherlands, Washington, D.C.
20. Norway

Prof. G. Låg, Faculty of Agriculture, University of Oslo

21. Organization for Economic Cooperation and Development (OECD)

Francis Wells, Chief of the Economic Development Division of the Development Directorate

22. Rockefeller Foundation

George Harrar, President
Sterling Wortman, Vice President
John Pino, Director, Agricultural Sciences

23. Sweden

H. Granquist, Chief of Section, Ministry of Foreign Affairs, Stockholm

24. Switzerland

R. Lempen, Financial Counselor, Embassy of Switzerland, Washington, D.C.
Charles Steinhauslin, Chief of Section, Swiss Technical Cooperation, Berne

25. United Kingdom

W. A. C. Mathieson, C.B., CMG, MBE, Deputy Secretary, ODA
R. Melville, Agricultural Adviser, ODA

26. United Nations Development Programme (UNDP)

David Morse, Senior Consultant to the Administrator
Morris Huberman, Chief, Agricultural Production Programme

27. United States

Joel D. Bernstein Assistant Administrator for Technical Assistance, AID
Ernest F. Chase, Economist, Multilateral Institutions Program Office, Treasury Department
Alex B. Daspit, Director for Special Services, Bureau for Technical Assistance, AID
James Starkey, Director, International Programs Division, Department of Agriculture

28. World Bank Group

J. Burke Knapp, Vice President
Richard H. Demuth, Director, Development Services Department
L. J. C. Evans, Director, Agriculture Projects Department
A. Kruithof, Development Services Department

Washington, D.C.
January 14-15, 1971
INTERNATIONAL AGRICULTURAL RESEARCH MEETING
Washington, D.C.
January 14-15, 1971

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DOCUMENTATION DISTRIBUTED PRIOR TO AND DURING THE MEETING

1. Provisional List of Delegates  AGR-RES/71-1
2. Provisional Agenda  AGR-RES/71-2
3. Tentative Time Schedule  AGR-RES/71-3
4. Bank/FAO Staff Paper of November 17, 1970 on "Possible Objectives, Composition and Organizational Structure of an International Agricultural Research Consultative Group"  AGR-RES/71-4
5. FAO "Overview"  AGR-RES/71-5
6. Memoranda describing bilateral support for agricultural research:
   a) France  AGR-RES/71-6/1
   b) United Kingdom  AGR-RES/71-6/2
   c) United States  AGR-RES/71-6/3
7. Memorandum prepared by Ford and Rockefeller Foundations on "International Agricultural Research and Training Programs"  AGR-RES/71-7
8. Background Paper "Accelerating Agricultural Modernization in Developing Nations"  AGR-RES/71-8
International Agricultural Research Meeting
Washington, D.C.
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Message from Mr. McNamara
President
World Bank Group
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Delivered by Mr. J. Burke Knapp

The three agencies sponsoring this meeting -- the Food and Agriculture Organization of the United Nations, the United Nations Development Programme, and the World Bank -- are grateful to you for being here today. For us, the fact that this gathering is taking place, focusing on one of the paramount problems of development, is a source of satisfaction and hope. I share these feelings keenly, and only regret that, because of overseas commitments which could not be rescheduled, I cannot join you over these next two days.

The mission you undertake is to consider the present state of world agricultural production and of international agricultural research, and to decide whether it is now time to organize continuing support for such research on a significantly expanded scale. In the perpetual struggle of man against hunger, your conclusions could be of decisive importance.

It is a tragic irony, frequently remarked, that while most of mankind toils on the land, most of mankind goes hungry. My own belief, which I am sure most of you share, is that it is within our power to change this state of affairs, and to change it dramatically.

Important transformations already are taking place in our approaches to the problems of agriculture. The patient work of the past twenty-five years in agricultural research, especially in cereals research by the international institutes situated in Mexico and the Philippines, has now produced brilliant results such as the famous "green revolution", giving the farm sector in some countries a new vigor and the economies of those countries a dynamic forward thrust. Most importantly, we have learned that the traditional farmer is not at all an immovable block to progress; with the right kind of incentives and support, he shows himself to be as adaptive and venturesome as any man.

The tasks still before us, nevertheless, are enormous, as we all know. In the next generation, yields of food and primary materials from agriculture must be doubled and redoubled. A rapidly rising flow of finance, both international and domestic, will be required to achieve this result. Over the next five years, the World Bank Group alone is considering investing some $14 billion in agricultural projects calling for a total investment in the order of $10 billion. The overall volume of investment in agriculture in the developing countries will of course amount to many times that amount.
To make this massive investment effective -- indeed, to avoid outright misuse of resources -- we must have a much larger research base than we now have. We must expand our knowledge about a multitude of questions -- about how to increase urgently needed supplies of protein, how to make better use of water resources, what new technology to employ on uplands which cannot be irrigated, how to combat widespread diseases of livestock, what steps to take in order to speed rural development, to name only a few.

Not all these questions are necessarily best examined through research conducted with an international or regional orientation. But some already are being probed by existing international institutions, and there are others for which a similar approach may well be the most effective. The experience and successes of some of the existing international research institutes, especially those sponsored by the private foundations represented here today, encourage me to think that support for such research will ultimately prove to be the highest yielding investment we can make, in terms of increased production and greater momentum for development generally.

It is for you to determine whether and in what form to establish a continuing international mechanism for identifying the possibilities and priorities for international agricultural research and for seeing that they receive the necessary financial support. If your decision is affirmative then I would hope that the World Bank Group would be prepared to join with others in helping to provide the financial resources needed.

In any event, in the whole realm of development, I can think of few subjects with more far-reaching implications than the one you are going to be discussing in the next two days. Whatever the outcome, your deliberations are bound to be a source of guidance and enlightenment, and for your willingness to be here, I once more offer my thanks.
ANNEX IV

International Agricultural Research Meeting
Washington, D.C.
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Message from Mr. Paul Hoffman
Administrator
United Nations Development Programme

Read by Mr. David Morse

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Mr. Hoffman asked me to explain that his absence is due to the fact that this morning the Governing Council meets; it is essential that he be there. He is very sorry, and hopes that you will excuse him. He has asked Mr. Huberman and me to come here to represent him, and he has also asked me to read a message at this opening on his behalf.

His approach is a very positive one, as you gentlemen know. He has asked me to say that anyone who has tried to help improve industrial operations, or training methods, or surveying resources, knows how difficult it is to bring about changes. Those of us who are engaged in trying to help modernize farming, run into the fact that unless the improvement we propose makes production much larger, or a great deal better in quality, we are unable to persuade the farmer to change from his own known way of doing things. This is especially true when the proposed changes involve spending more than the farmer is accustomed to spend and more money than he has readily available to him. A small change is all very well, but if it doesn't double, or multiply by many times, the present yields, we shall get nowhere.

Mr. Hoffman believes that any changes we seek in food production must be based on the sound application of the many new technological discoveries which research institutions have made or can make. I don't need to repeat to this group, you who are here from such a large and gratifying number of research bodies - governmental aid agencies, scientific foundations, financial institutions, the major contributions to which Mr. Knapp has just referred - so far achieved, such as the newly structured varieties of wheat which Dr. Borlaugh and his team at CIMMYT have developed; nor the highly responsive rice varieties which Dr. Chandler and his team at IRRI have helped evolve; nor the corn hybrids which have been produced and adapted to field conditions in so many countries. These are examples of what organized research teams under inspired, devoted, new-thinking leadership can accomplish.

This new thinking is what our researchers have applied to old farming problems which we face under dramatic new conditions: the ever-new crop of children who are entering the population cycle, whose very numbers are predicted, put a newly realized element in the farming problem in all its aspects: production, harvesting, processing, marketing, credit, land ownership and management, and urban unemployment, as has been stated so
clearly by our colleagues from FAO. These are not separate problems - these are one and the same problem - and must be tackled together to meet the expressed needs of developing countries. How can technological and scientific discoveries be stimulated and brought to bear, soon enough and in time, on food production specifically and on farming in general? To answer this question, we believe that we must engage in new thinking. We must provide for more organized research, nationally to help governments to learn how to meet local farm problems, and internationally to discuss the major, more generally applicable improvements in varieties and methods, which national organizations can demonstrate, and test locally. Thus governments must be helped to see the need for these coordinated efforts to provide the information and data with which we can persuade the farmer.

Those of us who are engaged in research, extension, teaching and financing activities aimed at improving agricultural production and consumption in the developing world, have the opportunity to concert our efforts, through consultation, in order to achieve the new thinking called for by the new dimensions of the age-old problem "how better to feed the family of man."

In this exercise, Mr. Hoffman has asked me to say once again that the United Nations Development Programme will be very pleased to participate to the extent that it possibly can.

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ANNEX V

International Agricultural Research Meeting
Washington, D.C.
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AGENDA

1. Adoption of the agenda.

2. Opening statement by the Chairman.

3. "Overview" by FAO representative of major weaknesses in present agricultural production and related research efforts in developing countries.

4. Report on bilaterally-supported research effort in or on behalf of developing countries. (To be compiled by IBRD on the basis of information supplied by bilateral agencies.)

5. Report by representatives of the Ford and Rockefeller Foundations on the four international agricultural research institutes being supported by them. 1/

6. Progress report on possibility studies now under way as a basis for possible new international agricultural research institutes. 2/

7. Possible establishment of an International Agricultural Research Consultative Group or comparable mechanism, including its terms of reference, composition, organizational structure, finance and future procedures. (The Bank/FAO staff paper, dated November 17, 1970, entitled "Possible Objectives, Composition, and Organizational Structure of an International Agricultural Research Consultative Group" will provide a basis for the discussion of this agenda item.)

8. Future action, including date and location of first regular meeting of Consultative Group or other comparable grouping, if decision is reached to create one, date and agenda of the first meeting of Technical Advisory Committee, if agreed upon, and action required from the Secretariat in preparation for these meetings.

9. Other business.

1/ These institutes are CIMMYT (International Maize and Wheat Improvement Centre) in Mexico; IRRI (International Rice Research Institute) in the Philippines; CIAT (International Centre of Tropical Agriculture) in Colombia; and IITA (International Institute of Tropical Agriculture) in Nigeria.

2/ There are five such studies, i.e.,
   a) water management for crop production at the farm level;
   b) upland (i.e., rainfed) crops in S.E. Asia;
   c) food legumes;
   d) livestock diseases and wider problems of animal husbandry in Africa south of Sahara; and
   e) economic policies for rural development.

In addition, the Commonwealth Scientific Industrial Research Organization of Australia is considering work on livestock development in S.E. Asia.