Summary of
Conference of Heads of Assistance Agencies
(Bellagio IV)
New York, December 3-4, 1970

Background

This was the fourth meeting of major development assistance agencies concerned with agricultural research and development. It was held under the auspices of the Rockefeller and Ford Foundations. A list of the participants is attached.

The earlier conferences were held at Villa Serbelloni, Bellagio, Italy. The first, a meeting of heads of agencies held April 23-25, 1969, discussed ways in which the agencies individually or together could accelerate agricultural progress. The second meeting, of agricultural representatives of assistance agencies, held on February 3-6, 1970, developed recommendations to heads of agencies. These recommendations served as the agenda for the next meeting of heads of agencies on April 8-9, 1970.

At that conference (Bellagio III), the discussions focused on impediments to agricultural development and the potential critical contribution that can be made to their resolution by international centers, such as the International Rice Research Institute, or other forms of international cooperation. Bellagio III identified five areas of major importance and requested the Foundations and the Canadian International Development Research Centre to prepare papers concerning the need for possible new international research efforts in each:

1. Upland or rainfed crops
2. Food legumes
3. Animal health and livestock production in tropical Africa
4. Water management
5. Agricultural policy management.

During the summer and fall, special papers were prepared on each of these five areas, and these papers formed the main agenda for the Bellagio IV meeting.
Substance of the Meeting

To begin with, the group reviewed a brief paper by Nathan Koffsky on "The Agricultural Situation in the Developing World". The major conclusions of the paper, concurred in by the group, were that viewed globally, developing nations have not yet demonstrated the capacity to feed their rapidly rising populations. Although some progress has occurred, per capita food output remains low and malnutrition is widespread. A major thrust of developing nations, therefore, must continue to be directed toward accelerating output and improving distribution to meet food and nutritional needs.

The group then turned to a discussion of the special papers prepared for the meeting. It was agreed that no final judgments would be attempted, but an effort would be made to clarify issues preparatory to the January 14-15, 1971 meeting of the Consultative Group which is being formed by IBRD, UNDP and FAO.

The first special paper considered by the group was Dr. Hill's paper on the additional funding requirements for the four existing international institutes, "Estimated Financial Needs of IRRI, CIMMYT, IITA and CIAT, 1971-75". The main conclusion of Dr. Hill's paper was that completion of present staffing plans and inevitable rises in costs will require by 1975 annual core budget support for the four existing centers on the order of $6 millions more than funding now in sight. (The core budgets for the four existing centers totals about $10 millions for 1971.) This conclusion was generally accepted by the group, and it was agreed that it would be necessary to find assurances that these funds could be raised before undertaking to add further responsibilities to the existing centers or to establish additional centers. Moreover, the representatives of the Ford and Rockefeller Foundations stated that their financial abilities were stretched to the limit by their present commitments to the four institutes ($3 million per year from each Foundation), and if the group wanted the two Foundations to participate in establishing any new institutes, it would be necessary to relieve them of part of their present financial commitments to the existing institutes. In response to questions, the two Foundations stated their willingness, if requested, to continue their participation in the management of the existing institutes as well as to help establish one or two new institutes should that later be undertaken.

The conference proceeded to discussions of five studies related to possible new areas of international cooperation.
1. **An International Upland Crops Program**

The group was in full accord as to the urgent need for a research and training program for upland or rainfed crops. In particular, work is needed on sorghums and millets which are the basic staples for large masses of rural people in newly developing countries.

The study recommends:

(1) That a detailed proposal be prepared for an international upland crops institute, to be established in Asia. This institute would serve as (a) a center to develop and demonstrate improved cropping patterns and systems of farming which optimize the use of human and natural resources in low-rainfall, unirrigated, upland tropics; and (b) a world research center for improvement of sorghum, millets, chick-peas and pigeon peas.

(2) That the International Rice Research Institute be requested to analyze the feasibility of expanding its program to include upland rice and crops grown in rotation with rice in the high rainfall, seasonally dry, undulating to rolling, tropical uplands.

(3) That the International Maize and Wheat Improvement Center be requested to analyze the feasibility of expanding its work on wheat grown in the low-rainfall, unirrigated, low-latitude areas.

It is recommended that the proposed center be established in Asia, if feasible, with coordination and linkage to ongoing sorghum and millet work in Africa.

The main points of discussion related to the diversity of conditions under which sorghums and millets are grown and the need to tailor technology quite precisely to soils and weather so as to minimize risks for the cultivator. It was recognized that in order for a center to do effective training for these crops it would need to offer solutions to a wide array of conditions.
It was agreed that a technical review panel would be convened in the spring of 1971 to evaluate the scientific requirements for a program to improve sorghum and millet technology and to point up the kind of cooperative work at various locations that would be needed. This would involve existing as well as new establishments.

2. **Research on Food Legumes**

Food legumes, or pulses, are an important source of protein in most developing countries. Great benefits in nutrition would result from increased consumption of these crops. They are highly diverse and complex.

The study identifies 6 of these crops as of prime importance and because of their diversity proposes the allocation of efforts to various centers as follows:

- **Dry beans** CIAT
- **Cowpeas** IITA
- **Pigeon peas** Proposed Upland Crop Center in Asia (or alternatively IITA)
- **Chick-peas** Proposed Upland Crop Center in Asia (or alternatively CIMMYT)
- **Soybeans** CIAT or IITA
- **Peanuts** IITA or other African research organizations.

There was a consensus that additional work on soybeans and peanuts would be of lower priority at this time because of work already under way, multiple uses and related problems of marketing. It was agreed that the study should go forward for the first four legumes.

3. **Animal Health and Livestock Production in Africa**

Livestock enterprises can provide an important element for agricultural development in sub-Saharan Africa. There is an immediate need to control
animal diseases which effectively bar such development in large areas of the continent, and over the longer run to remove other constraints, including socio-economic factors.

The study recommends:

(1) That action be taken at once to establish an international animal disease research laboratory to be located in Nairobi, Kenya, near the Faculty of Veterinary Science and the Faculty of Agriculture of the University of Nairobi. The primary mission of the laboratory would be to develop effective methods for the control of East Coast Fever and Trypanosomiasis.

(2) That a detailed proposal be developed for an international livestock production research and training center in Africa. It would focus on removing the major constraints to expanded beef-cattle production in the sub-Sahara region. It would assist nations in the development of their livestock industries through research on broad issues of international importance, accelerate the training of competent scientific leadership, and facilitate international cooperation.

(3) That a major objective of proposed new organizations should be to complement and help strengthen present national and regional efforts. Therefore, assistance agencies should continue to give support to such programs.

With respect to the animal disease research laboratory, there was considerable discussion as to the effect a new institution might have on existing establishments, particularly on the work at EAVRO in Kenya. African regional institutes are generally quite fragile and vulnerable.

Additionally, it was noted that there has been substantial progress in developing vaccine for East Coast Fever, with a more definitive evaluation as to its potentials to become available in the next five months or so. However, it was also noted that there were many other animal diseases on which work is needed.

With respect to livestock production research, the consensus was that this, because of its many facets, would require much more investigation.
and study before arriving at a recommendation. Some felt that such research probably should not be undertaken in a separate facility but should be gradually integrated with the work on diseases. It was suggested that work on other animals, particularly sheep, be added to the proposal for cattle.

The meeting agreed that the subject should be explored more intensively. Further exploration should be given to the work under way in Africa and a more precise evaluation developed of what research is needed. The alternative of building up EAVRO into an International Center should be considered. The discussions should also include the possible integration of research on animal production with that of animal health.

4. Water Management

Large-scale investments in public irrigation projects have rarely made their optimum contribution to agricultural development. Much of the weakness lies in water management control for crop production which is affected by both off-farm and on-farm activities and the lack of training of technical personnel engaged in water management at the farm level.

The study recognizes that a number of international organizations have supported pilot projects on water management in irrigated areas in developing countries for some years. Accordingly, it recommends that:

1. Pilot models of comprehensive agricultural development in portions of existing irrigation-drainage project areas continue to be emphasized for adaptive research and practical training in agricultural water management.

2. A seminar be held, as soon as possible, at which experiences with pilot projects and programs of international organizations would be reviewed and the potential usefulness of new international or regional mechanisms for pilot project assistance would be explored.

3. Investigations be made by separate expert task forces to determine the needs for additional:

   a. basic research on soil-water-crop-input-cultural practices relationships at crop-oriented international research institutes;
(b) assistance with institutional training in the agricultural aspects of water management;

c) assistance with the acceleration of assessments of groundwater resources and with training in modern groundwater measurement and development techniques.

The consensus of the meeting was that the study correctly identified training in water management at the farm level as an important problem area. There is an apparent need for some international or regional communication and clearing house center to coordinate and service outreach efforts in this field. CIDRC was encouraged to move ahead on the proposal for an early symposium to explore key needs for agricultural water management research and training.

5. Agricultural Policy Management

National planning agencies concerned with agricultural development are seriously handicapped by the lack of specific, relevant information on which to base policy and program decisions regarding the order of priorities in the development process and the efficient allocation and use of resources.

The study recommends the strengthening of national institutions in developing countries in South and Southeast Asia to engage in policy-oriented research on common problems in the region, linking those institutions together and encouraging parallel research efforts through a small international staff. It is proposed that details for such an arrangement, including location of the central facility, be developed with the assistance of a representative group of Asian policy officials and researchers.

The consensus of the meeting was that such a proposal might well make an important contribution to building the in-country capacity to handle agricultural development. The point was stressed that the demand for such an activity must come from the nations concerned and be shaped by them even though some leadership may need to be provided from the outside.

In addition to the emphasis in the study report on generating on-farm data for policy purposes, it was suggested that case studies of pilot development projects be undertaken to provide information on key points which make for success or failure. However, it was agreed that decisions as to research topics as well as other facets of the research network be made by Asians.
It was further noted that the potential for similar networks likely exists in other regions and in fact the Ford Foundation is providing leadership toward such a network in Latin America.

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Two additional items were briefly discussed. The group in its April 1970 meeting had requested the Foundations to look into possible cooperative international efforts closely related to agricultural development—population and education. With respect to the population problem, a committee is at work and will shortly present recommendations to the Bellagio group. Specifics of a possible agenda in the area of education are less well formulated. The Foundations agreed, however, to give further consideration to the possible content of a future meeting of the Bellagio group on education and to report back to the group by mail within two or three months.
December 18, 1970

TO: Participants in the Conference of Heads of Assistance Agencies (Bellagio IV) New York, December 3-4, 1970

Gentlemen:

Several of you requested that we prepare and distribute a summary of our Bellagio IV conference. With Nathan Koffsky's help the attached was drafted. Two copies are enclosed.

On behalf of the Foundations and all concerned our thanks to you for helping make Bellagio IV a sharply-focused and productive interchange.

Sincerely yours,

Lowell S. Hardin

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