

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

INTERNATIONAL CENTERS WEEK

Washington, D. C.

July 30 - August 3, 1973

INFORMAL SUMMARY OF PROCEEDINGS

1. An International Centers Week was held in Washington, D. C., from July 30 to August 3, 1973, to discuss ongoing and proposed international agricultural research activities and the financing of those activities.

2. The meetings during the week were attended by representatives of 25 members of the Consultative Group on International Agricultural Research, by members of the Technical Advisory Committee (TAC), and by representatives of international agricultural research centers and institutes. A list of participants is attached as Annex I.

3. During the week, plenary sessions, meetings of the Consultative Group, meetings of TAC, and a meeting among Center personnel were held. Two other meetings were held on matters of interest to the Consultative Group. On July 27 and 28, a seminar was held in Washington on socio-economic aspects of international agricultural research, under the chairmanship of Dr. Bernstein of the United States Agency for International Development. The Group's Subcommittee on African Livestock met in Washington on August 1, 2 and 3. A Schedule of Events is attached as Annex II.

4. This was the second International Centers Week held under the auspices of the Consultative Group.

PLENARY SESSIONS

5. The plenary sessions were devoted to the presentation of programs and budgets for 1974 by the representatives of the following Centers: the Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT); the International Rice Research Institute (IRRI); the International Institute for Tropical Agriculture (IITA); the Centro Internacional de Agricultura Tropical (CIAT); the Centro Internacional de Papa (CIP); and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). Texts of these presentations are attached as Annex III.

TAC

6. Before Centers Week, TAC met in Washington from July 25 to July 28 and, during Centers Week, met on August 1. The conclusions reached at these sessions were summarized orally and informally for the Consultative Group by TAC's Chairman, Sir John Crawford, as mentioned elsewhere in these proceedings. The report of the TAC meeting will be distributed by the TAC Secretariat.

MEETING OF CENTER PERSONNEL

7. Center personnel met just before and during Centers Week to discuss matters of common interest. They decided to meet again in Cali, Colombia, in March 1974.

CONSULTATIVE GROUP

8. Meetings of the Consultative Group were held from August 1 to 3. The Chairman of the Consultative Group, Mr. Richard H. Demuth, presided.

9. The Agenda adopted for the meetings is attached as Annex IV.

African Livestock Subcommittee

10. Mr. Evans, the Chairman of the Consultative Group's African Livestock Subcommittee, reported briefly on the status of the projects for establishing the International Laboratory for Research on Animal Diseases (ILRAD), in Kenya, and the International Livestock Center for Africa (ILCA), in Ethiopia. Missions had visited the prospective host countries and had been well received. Proposed sites had been inspected; progress had been made in drafting Memoranda of Agreement with the host governments for the establishment of the two institutions; and initial funds were being organized to finance the starting up of the two centers. The Subcommittee had chosen a Director for ILRAD and, concurrently with International Centers Week, was proceeding with the selection of trustees for both ILRAD and ILCA.

11. After a further meeting of the Livestock Subcommittee, held during Centers Week, Mr. Evans reported that the Subcommittee was continuing its consideration of drafts of the Memoranda of Agreement under which ILRAD and ILCA would be established. The principal matter being discussed by the Subcommittee was the way in which provision would be made for the possible integration of ILRAD and ILCA. It was intended that both Memoranda would include a statement to the effect that arrangements are being made in such a way as to enable later integration if and when the Consultative Group wishes to bring it about. In the meantime the initial Boards of Trustees and Directors of the two institutes were no longer described in the Memoranda as being provisional.

AVRDC

12. The Chairman of the Consultative Group recalled that at its meeting in November 1971, the Group had agreed that the Asian Vegetable Research and Development Center (AVRDC) should be accorded associate status within the network of international agricultural research centers. Although AVRDC was not funded within the Consultative Group framework, it nevertheless had significant relationships with other centers; and its Director, Dr. Chandler, was a welcome participant in International Centers Week.

13. At the request of the Chairman, Dr. Chandler gave a brief report on the status of AVRDC. The financing of physical installations had been completed; construction of buildings was nearly finished; and research had begun.

UNCTAD Resolution

14. The Group discussed a note from TAC stating the position of TAC on UNCTAD Resolution 50 (III). The Resolution had asked that the Group give urgent consideration to the need for assistance to production, processing and end-use research designed to improve the competitiveness of natural raw materials whose markets were being eroded by synthetics and substitutes. The position of TAC was that, while there was undoubtedly need for research on agricultural raw materials, highest priority should continue to be given to research on food crops. TAC would not, however, feel precluded from considering well prepared proposals for research on commodities other than food, especially those offering considerable employment opportunities or contributing markedly to foreign exchange earnings.

15. Members of the Group supported TAC's view that food crops should have the highest priority; they cited the limits on Group finance available for agricultural research and noted the substantial demand for finance already involved in support of existing and proposed international centers engaged in research on food crops. It was accepted, however, that TAC should not be precluded from considering proposals for research on non-food crops. The Chairman was authorized to inform the Secretary-General of UNCTAD of this position and of the comments made by the Consultative Group. The Chairman's letter to the Secretary-General on the subject is attached as Annex V.

Budgeting and Accounting Procedures and Practices

16. Speakers expressed appreciation of the progress represented by the paper on Center budgeting and accounting procedures which had been drawn up by the Secretariat in cooperation with Center personnel. The greater uniformity of the budgets submitted by the various Centers, and the presentation of expenditures identified according to functions and programs, were important steps forward and would be of considerable help to donors.

17. The attention of the Group was drawn to two proposals in the budget paper: (1) that the Centers should be allowed to provide in their budgets for working capital funds equal to forty days' cash requirements; and (2) that grants for special projects should bear the costs of any burden put by those projects on a Center's general services and therefore on its core budget. These two proposals were accepted.

18. One member of the Group suggested that it would be helpful if the budget presentations could give additional information about personnel costs, including a tabular statement showing the salary ranges for different staff levels and the total salary costs for each level.

19. Another speaker proposed that each Center be asked to include in its budget presentation its estimate of the expenditures and the time required to complete each major component of its program and to reach specified program objectives. Since there would be a large margin of error, no Center should be held to these estimates. Projections of this kind, however, would suggest the broad future implications of program proposals and would help to maintain the concentration of programs on major objectives. They would thereby assist donors in their decision making and the Centers in assessing their work programs. Subsequent discussion on this subject is summarized in paragraph 81 below.

20. It was confirmed that the budget paper was being kept under review, and would be subject to revision in the light of experience and the comments of the Consultative Group.

Review Procedures

21. The Chairman called attention to the reviews of Center programs and budgets that had been carried out in 1973 and to a paper prepared by the Secretariat commenting on some of the problems that had been encountered in the course of these reviews.

22. The discussion of review procedures was begun by Mr. Hanson, Director-General of CIMMYT, who presented views developed in a discussion among Center Directors. He said that the Centers had found the reviews of programs and administration, including the review by the Consultative Group Secretariat, to be useful. The Centers were quite satisfied with the reports that had issued from the reviews by the Group Secretariat. Further study of procedures, however, should enable the reviews to be better coordinated, putting less demand on the time of the Centers without any loss of benefits to the Centers or the Consultative Group.

23. The Centers had several further observations to make:

- (a) The terms of reference issued by the Secretariat to the reviewers were not sufficiently concrete, especially on the administrative side. The Centers were prepared to work with the Secretariat in introducing their ideas for terms of reference, which should be done in January.

- (b) Further consideration should be given to the number of reviewers on each Consultative Group team: it would be advantageous to have two men, rather than one, reviewing programs of research. Reducing the number of Centers reviewed by each team, in addition, would help expedite reporting.
- (c) Visits to the Centers should, if possible, be combined with internal reviews conducted by the Centers.
- (d) If reviewers visit a Center at the time of a Trustees' meeting, it would be desirable for them to be invited to discuss their findings with the Trustees; but they should not participate in a Trustees' meeting at a time when the annual budget is being reviewed and approved.
- (e) The Centers would welcome questions submitted by the reviewers to the Centers in advance of visits.
- (f) Criticisms of programs and administration should be made known to the Centers in advance of formal reporting. This would prevent errors based on misunderstanding, and would enable Centers to start promptly on correcting any deficiencies exposed by the review. Draft reports ought to be completed at least two or three weeks prior to the issue of final texts to give Centers time to correct errors of fact.

24. In the discussions which had taken place between the Center Directors and TAC, a number of other ideas had come forward. One of these was that reviewers should treat the program document prepared by Center staffs as the basic program description. This would enable the reviewers to limit their reports to analysis of deviations from the program, the efficiency with which the program was being carried out, results achieved and difficulties encountered.

25. The Chairman observed that in many respects the suggestions about the review process made by the Center Directors and the suggestions made in the Secretariat paper were similar. He invited responses to the paper's suggestion that Consultative Group members might second staff to the Consultative Group Secretariat for the purpose of making progress reviews. This suggestion was favorably received by most speakers commenting on it, although members indicated that it might be easier for them to recommend consultants than to second members of their own staffs.

26. A speaker endorsed the view of the Secretariat paper that the cost-efficiency element of the Consultative Group reviews needed to be strengthened. He further suggested that the Consultative Group be given recommendations, based on consultations with the managements of the Centers, concerning the desirable financial limits for the core and capital budgets of individual Centers. This would assist planning by the Group and the Centers, would help keep the Center programs focused on major objectives, and would promote an appropriate division of labor among the Centers.

27. A donor representative declared that the annual reports and other documents prepared by the Centers themselves -- perhaps supplemented by external audits at intervals longer than a year -- were adequate for the purposes of his government. He felt that Centers were perhaps being subjected to over-review, and he was skeptical of the value of cost-effectiveness analyses as proposed in the Secretariat paper.

28. The representative of another donor replied that the continuing mobilization of funds, from the standpoint of his government, depended strongly on some kind of independent audit of efficiency such as the Consultative Group was trying to develop. A process of this kind should be a help to the individual Centers in their own management; it would protect them from arbitrary and unfounded criticism from outside; and it should help reduce duplicative reviews made by individual donors.

29. Another member of the Group observed that, in fact, there were two issues originating in Center budgets that had to be kept distinct. One was the question of the annual budget or administrative review, by which the Group received some assurance that the operations of the Centers were being conducted with reasonable efficiency. The second question concerned the need for data looking ahead for two, three or more years.

30. A further speaker suggested that the need for forward-looking data could be met by the annual preparation of a three-year rolling budget indicating both the needs of the Centers and the capabilities of Consultative Group members for providing finance. It would not be enough to prepare such figures globally; it would be necessary to give such indications as could be made of allocations to individual Centers.

31. The Chairman observed that the question of longer-term planning was related to the TAC paper on priorities in international agricultural research, which the Consultative Group had not yet discussed. At this meeting he wished to confine consideration of the review question to the narrower subject of annual program and performance reviews. To consider the matter further and to formulate recommendations to the Consultative Group, the Chairman appointed Mr. Bell of the Ford Foundation to be chairman of a subcommittee otherwise consisting of a representative to be designated by the Center Directors, a representative of TAC, and a representative of any member of the Consultative Group which wished to participate. Mr. Hanson was chosen to represent the Centers, and Dr. Pereira was designated to represent TAC.

Discussion of Center Programs for 1974

32. The Chairman of TAC informally reported the results of TAC's consideration of the activities and program proposals of the existing international agricultural research Centers.

33. Sir John said that TAC strongly endorsed the program proposals of the Centers for 1974, including the proposed new elements in those programs. At the same time, he said, TAC did not consider itself responsible for making, nor was it qualified by its composition or staff to make, a detailed examination of the budget requirements of these proposals.

34. Sir John then took up several questions which affect the Centers as a group. TAC felt that Consultative Group reviews should impose the least possible burden on the work of the Centers. It also felt strongly on the need for striking a balance between the basic research activities of the Centers and the effort and resources devoted to outreach and training; TAC would examine this question further.

35. Sir John reported TAC's observations concerning individual Centers. Two points had been raised on CIMMYT. One was whether CIMMYT's barley program should be expanded, or whether the chief responsibility for barley research should be assigned to a Middle East institute; another alternative was for barley research to be divided in some way with the proposed Middle East Institute. Before deciding this question, TAC would give further consideration to the excellent report of the task force headed by Dr. Skilbeck which had considered the research needs of the Near East and North Africa. The other point was where work should be centered on the development of wheat with multi-gene resistance to disease. TAC felt that CIMMYT was handling this work well, and should be accorded additional resources for it if they were needed.

36. TAC was prepared to support IRRI proposals for a new program of research on upland rice and for expansion of the Institute's work on multiple-cropping systems centered on rice. TAC had not completed its review of the findings of its mission on meeting the protein needs of tropical America; it was clear, however, that CIAT should play a central role in developing a program of work on this problem, cooperating with a network of national institutions. TAC endorsed the importance of CIAT's beef research, but raised a question: would the benefits accrue primarily to small holders or to large ranchers?

37. In discussion, it was observed that IRRI's expanded work on cropping systems would involve that Institute in cooperative arrangements of a somewhat novel kind with national research organizations outside its own host country; and CIAT, which was pondering the desirability of a sub-station outside its host country, was faced with a comparable question. A donor representative said he thought it would be legitimate for a Center to use core funds to strengthen a national station so that it could collaborate effectively with the Center, and that this might be more economical than the establishment of a separate out-station by the Center. It was felt that some general consideration should be given to this issue; and Sir John said that TAC would go further into the problem at its meeting in February, 1974.

38. ICRISAT and ILCA, it was observed, would also be establishing important linkages with national institutions. The Chairman of TAC pointed out that, without such linkages, there would be slower adoption of new technology. On the other hand, he observed, these linkages raised two questions: How far can the Centers go in this kind of activity without overloading their core staff? How far is the Consultative Group willing to go in financing the costs of such linkages?

39. It was pointed out that FAO and UNDP both help to formulate country programs which include components designed to strengthen national capabilities for agricultural research. The desirability of such help was strongly endorsed. Basically, however, it was the national governments, and not FAO or UNDP, which set the priorities by which the money available for country programs is allocated.

40. Note was taken that the capital budget of CIAT had not been specifically endorsed by that Center's Board of Trustees and some donors felt that, in any event, it might be desirable to review CIAT's capital needs. It was agreed that the Rockefeller Foundation would conduct such a review, in time for CIAT's capital requirements for 1974 to be considered again at the Consultative Group's meeting in November.

Discussion of New Proposals

41. The Chairman of TAC indicated that TAC had been considering eleven new proposals, involving: The West African Rice Development Association (WARDA); the conservation of genetic resources; protein needs of Latin America; research needs of the Near East and North Africa; tropical fruits; soybean research; agricultural mechanization in West Africa; further work on trypanosomiasis; an FAO proposal on the control of diseases caused by fusarium fungi; horizontal resistance to wheat diseases; and aquaculture. TAC had decided it would not concern itself further with the questions of agricultural mechanization in West Africa or of fusarium diseases.

42. Two proposals being brought forward by TAC would involve expenditures for 1974: for WARDA and for the conservation of genetic resources.

43. The WARDA proposal now brought forward was considerably modified from the proposal originally presented to TAC, and included suggestions made by TAC. TAC now recommended its adoption by the Consultative Group, subject to certain conditions and qualifications. WARDA was asking for funds to support that part of its activities consisting of coordinated field trials of rice varieties at a network of locations, together with associated training activities.

44. TAC's observations included the following: First, the Committee was not certain that WARDA's scientific capabilities were adequate to expand the program at the rate proposed; second, WARDA must have close ties with IITA in training and field trials; third, the project should be closely integrated with WARDA's other activities; fourth, WARDA must collaborate closely not only with IITA but with other relevant institutions such as IRRI and the French Institut de Recherches Agronomiques Tropicales et des Cultures Vibrieres (IRAT); fifth, in order to strengthen the scientific direction of the project, a small steering committee should be given responsibility for guiding the trials, training and relationships with other institutions. TAC suggested that the steering committee should be composed of representatives of the WARDA Secretariat, FAO, IITA, IRRI, IRAT, and two member countries of WARDA, and should contain, in addition, one independent scientist.

45. After discussion, it was agreed that the Chairman of the Consultative Group would write to WARDA expressing the Group's willingness to consider financial support for WARDA, provided that satisfactory arrangements were made for strengthening WARDA's scientific management. It would remain for WARDA to respond with explanations of how this strengthening was to be accomplished, and to do so in time for the response to be reported to the November meeting of the Group.

46. Genetic Resources. The Chairman of TAC said that the Committee felt there was an urgent need for action to collect, evaluate, preserve and exchange the world's diminishing reserves of crop genetic materials. TAC felt that this work should be expanded, and that the existing international agricultural research Centers did not have the scope, and could not increase their existing programs sufficiently, to meet all the needs.

47. The Chairman of the Consultative Group recapitulated the subsequent discussion with the following points: Agreement existed that it was important to increase work on genetic resources, and that FAO should have a central role. There was, however, a variety of opinions on the scope of the work to be undertaken, on the scientific and administrative management of the program and its relationship to FAO, and on how the funding of the program should be organized and managed.

48. The Group accepted the Chairman's suggestion that a subcommittee should explore the subject in more detail. The subcommittee would consist of representatives of FAO, of TAC, and of Consultative Group members who wished to participate. It would be asked to prepare a more detailed proposal -- or, if it could not agree, alternative proposals -- on activities for the collection and exchange of genetic resources, and to do so in time for its report to be considered by the Consultative Group at the meeting in November.

49. Mr. Demuth acceded to a request that he serve as Chairman of the subcommittee. He designated Dr. de Bakker of the Netherlands to serve as vice chairman; and Dr. Bommer was designated as TAC's representative on the subcommittee.

50. Middle East Research. The Chairman of TAC said that the Committee had not finished its discussion of the report of the research review mission to the Near East and North Africa, led by Dr. Skilbeck. The report was an excellent one, and TAC accepted its broad priorities for research on more effective use of land and of water resources, and for improvement of crops.

51. TAC had not satisfied itself that the research proposed in the report could be carried out by a single center. Before the Committee's meeting in February, a subcommittee, together with several members of the review mission, would further consider the recommendations of the report. They would pay particular attention to the research priorities proposed; the long list of functions suggested, which seemed to be more than could be handled by one "center of excellence"; the adequacy of the staff and budget proposed; the location of the proposed institute; and the relationship of a Middle East research effort to national relay stations and to ICRISAT, ILCA and CIMMYT.

52. In discussion, reference was made to the slight attention given to barley in the report. It was observed that the report also gave little attention to research on livestock, including the development of pasture legumes, which, if undertaken by the proposed Middle East Institute, would require close cooperation with CIAT.

53. Protein Production in Latin America. On the basis of the final report of its Latin American mission, Sir John reported TAC's position under three headings.

54. First, a recommendation had been made to establish a cooperative research program in tropical America on field beans. A working group sponsored by CIAT had prepared a specific proposal for such a network which would be considered by TAC in February.

55. Second, the mission had recommended that CIAT conduct a seminar to formulate ideas for beef research. The recommendation had been accepted and the seminar would be held early in 1974.

56. Third, the report discussed the activities and prospects of the regional research center at Turrialba. Sir John noted that the difficulties facing this center had been resolved at least for the next two or three years. In the opinion of TAC, it could do useful work in legumes, possibly in genetic resources, and in tropical fruit research, supposing that there were a fruit program supported by the Consultative Group.

57. TAC's approach to the question of protein in Latin America was to make full use of CIAT, of one or two regional centers, and of national efforts. It was quite improbable that TAC would bring forward a proposal for a major new international program in this field.

58. Tropical Fruits. In its present thinking about priorities for Consultative Group support, TAC accorded a relatively low rating to fruits but acknowledged that their importance might vary as among regions, partly depending on dietary habits. There was a need for greater knowledge of the research under way and of its potential impact on small farmers. TAC expected to have a report prepared for its February meeting on such research.

59. Soybeans. TAC endorsed the need to expand research on soybean production in developing countries, and had recommended that ways should be found of tapping highly significant soybean research and research facilities that existed in the United States. The Committee had been delighted with the response that had come forward in the form of a proposal (known as "INTSOY") to support soybean research in the developing countries by using the staff and facilities of the University of Illinois and of its outreach station in Puerto Rico as an international resource base.

60. The major unresolved problem was how to organize contracts between the resource base and national and regional research organizations in a way that would avoid any intervention by the governing body of the University of Illinois in the use of funds provided by members of the Consultative Group. It was suggested that the matter be studied by the Secretariats of TAC and of the Consultative Group, and that the Secretariats should present TAC with a proposal for consideration. TAC would then, in its turn, return to the Consultative Group with a specific proposal for financing; the principal discussion in the Consultative Group would take place at that time.

61. The representative of a developing country said that he would not be very happy to have both the main base and principal outreach station, as had been suggested, in the United States. There was bound to be an important difference in approach between the United States, where soybeans were used principally as animal feed, and tropical countries where they were part of the human diet.

62. Trypanosomiasis. TAC welcomed the initiative taken by the Government of Upper Volta and the French Institut d'Elevage et de Medecine Veterinaire des Pays Tropicaux (IEMVT) to establish a project in Upper Volta for research in trypanosomiasis.

63. Some members of TAC, however, had expressed reservations concerning the probable effectiveness of the two main lines of activity proposed: the use of a sterile male technique to control the vector; and breeding to develop strains of cattle resistant to the disease. It was felt that further exploration of these matters would be justified.

64. TAC recommended the program for support by individual donors rather than by the Consultative Group as such; the proposal seemed to be one for a short-term program suited to bilateral financing. The work would be complementary to the research on immunization against trypanosomiasis contemplated for ILRAD.

65. The representative of the Rockefeller Foundation observed that the ultimate solution to the disease of trypanosomiasis in cattle will probably derive from a variety of approaches. It would be useful to bring together the scientists working on differing approaches, and the Foundation might be willing to organize a seminar for this purpose.

66. Aquaculture. TAC's expert panel on aquaculture had submitted a summary report to the recent meeting of TAC. The full report of the panel was awaited and was expected to be discussed at the February 1974 session of TAC. On a preliminary basis, TAC felt more optimistic than before; it appeared feasible to expect rapid progress in the expansion of fish production as a major protein source.

The TAC Paper on Priorities

67. The Chairman of the Consultative Group prefaced Sir John Crawford's remarks on TAC's draft priorities paper by pointing out that that paper was in fact a draft under continuing review, the latest of which had been by TAC itself in the previous week. The Chairman added that the paper was basic to the medium-term planning which members had felt was an important next step in the deliberations of the Consultative Group. Sir John's full statement is attached as Annex VI.

68. The Chairman of TAC briefly summarized some of the main points in the draft paper, again pointing out that he wished to revise the paper and submit it in more definitive form to the November meeting of the Consultative Group. He expected little change in the content or perspective of the paper, but he would give greater emphasis to the importance of strengthening national research capacities and of studying in greater depth the questions of training, outreach, relays and linkages.

69. Sir John emphasized that food was the first priority for TAC's work; in particular, cereals, legumes, starchy products and livestock, with other food products such as vegetables and fruit having second priority even though they were of major importance to particular regions. TAC was also open to considering industrial crops, provided such action did not impair the priority to be given to food crops and depending on the financial resources available. TAC would not on its own initiative bring forward proposals for forestry research.

70. TAC had begun its work largely on the basis of major food crops. It had become more and more concerned, however, with farming systems. In the programs of the Centers, the same trend was visible, even in crop-oriented institutes like IRRI.

71. TAC would continue its discussion of socio-economic research at its February meeting. It would have the benefit at that time of the discussion that had taken place in the socio-economic seminar, organized by Dr. Bernstein of the United States Agency for International Development, just before International Centers Week.

72. Under the heading "Institutional Approaches to Research," the Chairman said that TAC wished to remain flexible. The Committee encouraged the concept of a network of research institutions, and would give increasing attention to inter-relationships among international regional and national organizations. The strengthening of national research capabilities was a vital task for such multilateral bodies as FAO, UNDP and the World Bank.

73. With respect to the technical work of TAC, the Chairman referred to the section of the paper on applied as against basic or "break-through" research. He felt that the time was soon coming when it would be necessary to consider how far the Centers should become involved in some of the problems of basic research as against assigning such work to universities. A case in point was basic research designed to increase the presently low yields of legumes.

74. The Chairman of TAC then summarized his views on the future financial requirements of work supported, or envisaged for support, within the framework of the Consultative Group. The revised table which he had circulated as part of the priorities paper indicated expenditures on capital and current account for existing centers and possible new activities of \$60 - \$80 million by 1977-80, including the cost of outreach programs. By November, he hoped to improve these estimates. In particular, he would try to eliminate the inflationary element and present an estimate in constant prices.

75. Sir John recognized that there would be financial constraints on the activities which the Centers would undertake and that each new decision limited the room for maneuver of TAC and the Consultative Group. There was indeed a coincidence in objectives between members of the Group which wanted to see forward planning done for the Group's program, and the members of TAC who needed a financial framework within which to formulate recommendations on research priorities.

76. The Chairman of the Consultative Group said that he felt that, as a matter of principle, the Group should assure that the existing institutions supported by the Group would have adequate financing before new undertakings were embarked upon. This should not preclude, however, rigorous pruning of the programs of the existing Centers if and when parts of their programs were no longer of high priority.

77. Much of the subsequent discussion of the priorities paper centered on the importance of the paper as a basis for determining the Consultative Group's program over the coming years. It was suggested that there was need for an improved data base for the Consultative Group's work; and it was agreed that the UNDP, FAO and the Bank would consult on this matter, with a view to determining what information their various departments were in a position to provide. An improved data base was regarded by speakers as important, not only for the determination of international research priorities but also to indicate potential returns from such research priorities within financial limits, and on the other hand to have material which would help encourage donors. It was suggested that by November the three sponsoring institutions

might prepare a brief paper covering such points as: the separation of real as against inflationary factors in the program cost increases estimated for the next several years; some estimate of expenditures for national agricultural research in the developing countries (FAO and UNDP, in relation to their own studies and to their country programming work, might be able to provide data); information on whether donors were increasing their support of national agricultural research capacities or, as some speakers felt, were in fact reducing such support; and, hopefully, some material on the pay-off or rate of return of research by way of increased agricultural output.

Matters Introduced by Center Directors

78. On behalf of the Directors of the international agricultural research Centers, Dr. Chandler made statements on three matters.

79. The Directors had discussed with representatives of the Ford and Rockefeller Foundations the desirability of publishing a brochure describing the objectives and activities of the Centers. After discussion, it was decided that a detailed proposal for such a brochure, indicating its proposed contents, sponsorship, financing, etc. should be prepared by FAO, UNDP and the World Bank for further consideration by the Consultative Group.

80. With respect to the suggestion made by a member of the Group that notional financial limits be established for the core and capital budgets of the individual Centers, Dr. Chandler said that it was the impression of Center Directors that this was already being done in the five-year budget projections prepared by the Centers.

81. Dr. Chandler expressed the hope of the Directors that they would not be required to include in their annual budget estimates of the costs and time required for completing various program components and reaching specific program objectives (see paragraph 19 above). Such a requirement would be an undesirable limitation on the freedom that scientists should be given for the pursuit of agreed objectives. In the light of further discussion, the Chairman suggested that, in their 1974 presentations, the Centers should go as far as possible, on a voluntary basis, in giving estimates on the time horizons and the costs of particular parts of their programs. The matter would then be reviewed again. This position was generally acceptable to participants, including both the Center Directors and the speaker who had raised the question earlier.

Indication by Donors of Financial Support

82. The Chairman of the Consultative Group called the attention of donors to two financial tables that had been distributed on the previous day. One showed the estimated 1974 budget requirements of the six existing international agricultural research Centers supported by the Consultative Group, plus the financing estimated to be needed for 1974, for ILRAD, ILCA, the genetic resources network and WARDA; these needs totaled approximately \$33 million. The table is attached as Annex VII. The second tabulation showed projections of annual requirements through the year 1977,

rising from about \$23 million in 1973 to about \$53 million in 1977. That table is attached as Annex VIII.

83. The Chairman asked members of the Consultative Group to indicate their intentions concerning grants for international agricultural research in 1974 and 1975. Few donors were able to give any quantitative indications for 1975. Their intentions for 1974 are shown in the table which is attached as Annex IX. This Annex includes information received from donors since the Consultative Group meeting. It indicates available finance of slightly less than \$33 million.

Time and Place of Next Meeting

84. It was agreed that the Consultative Group would meet again at the headquarters of the World Bank in Washington on November 1 and 2, 1973.

Attachments

July 30 - August 3, 1973

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TAC MEETINGS, SOCIO-ECONOMIC SEMINAR ANDINTERNATIONAL CENTERS WEEKJULY - AUGUST, 1973REVISED SCHEDULE OF EVENTS

	<u>Room</u>
<u>July 25 - Wednesday</u> (9:00 a.m. - 6:00 p.m.)	C 1006
TAC -- all day (Closed)	
<u>July 26 - Thursday</u> (9:00 a.m. - 6:00 p.m.)	C 1006
TAC - Morning Session (Open)	
a. Research Needs for Protein Production in Latin America. Discussion of Report of TAC Sub-Committee Mission.	
b. Research Needs of the Near East and North Africa. Discussion of Report of TAC Mission.	
TAC - Afternoon Session (Closed)	
<u>July 27 - Friday</u>	
TAC - Morning Session (9:00 a.m. - 1:00 p.m.) (Closed until about 10:15 a.m.)	C 1006
a. Research on Tropical Fruits. (Open)	
b. International Soya-bean Research. (Open)	
Socio-Economic Seminar (see Agenda distributed April 13, 1973)	
9:00 a.m. - 1:00 p.m. - Topic I - Social Science Research Programs of the Existing Centers	IBRD BOARD ROOM
2:30 p.m. - 5:30 p.m. - Topic II - Expanding Usage of Centers' Research Findings	IBRD BOARD ROOM & C1006
<u>July 28 - Saturday</u>	
Socio-Economic Seminar (see Agenda)	
8:45 a.m. - 1:00 p.m. - Topic III - Socio-Economic Research Needed Outside the Centers	IBRD BOARD ROOM
TAC - Afternoon Session (Open) 2:30 p.m. - 5:30 p.m.	C 1006
a. Research on Agricultural Mechanization in W. Africa.	
b. Research Programme on Trypanosomiasis.	
c. Research on Pest Control (FAO Proposals).	
d. Aquaculture - Progress Report.	
Center Personnel (with other participants as invited by Center Directors) D 1156 (2:30p.m. - 5:30 p.m.)	

July 30 - Monday

Morning Plenary Session

Chairman: Mr. R. H. Demuth
Chairman, Consultative
Group

FUND
AUDITORIUM

9:30 - 9:45 a.m.

Opening Statement by the Chairman

9:45 - 10:45

CIMMYT Presentation

11:00 - 12:00

Discussion on CIMMYT

12:00 - 1:00 p.m.

IRRI Presentation

Afternoon Plenary Session

Chairman: Mr. J. F. Yriart
Assistant Director-
General, Development
Department, FAO

FUND
AUDITORIUM

2:30 - 3:30 p.m.

Discussion on IRRI

3:45 - 4:45

IITA Presentation

4:45 - 5:45

Discussion on IITA

July 31 - Tuesday

Morning Plenary Session

Chairman: Mr. I.G. Patel
Deputy Administrator,
United Nations Development
Programme (UNDP)

FUND
AUDITORIUM

9:30 - 10:30 a.m.

CIAT Presentation

10:30 - 11:30

Discussion on CIAT

11:45 - 1:00 p.m.

CIP Presentation

Afternoon Plenary Session

Chairman: Sir John Crawford
Chairman of the Technical
Advisory Committee of the
Consultative Group

FUND
AUDITORIUM

July 31 - Tuesday (Cont.)

2:30 - 3:30 p.m.

Discussion on CIP

3:45 - 4:45

ICRISAT Presentation

4:45 - 5:30

Discussion on ICRISAT

6:00 - 8:00

Reception by Consultative
Group Chairman

IBRD
PATIO

August 1 - Wednesday

Morning (9:00 a.m. - 1:00 p.m.)

TAC - Meeting with Center Directors (Closed to Others)

C 1006

Consultative Group - African Livestock Subcommittee

IBRD BOARD
ROOM

Afternoon (2:30 - 5:30 p.m.)

TAC - (Closed)

Consultative Group

- Adoption of the Agenda
- Reports on the status of ILRAD and ILCA (African Livestock)
- Asian Vegetable Center
- CG Position on UNCTAD Resolution on natural products
- Budget format and issues
- Center review procedures

IBRD BOARD
ROOM

August 2 - Thursday (9:30 a.m. - 1:00 p.m.; and 2:30 p.m. to 5:30 p.m.,
if needed)

Consultative Group (TAC and Center personnel invited)

IBRD BOARD
ROOM

1. Statement by Chairman of TAC on Center Programs
2. Discussion of Center Programs
3. Report by Chairman of TAC on status of other proposals
under consideration
 - a. Conservation of genetic resources
 - b. Middle East Institute
 - c. Latin America - protein
 - d. Aquaculture
 - e. Other
4. TAC paper on priorities

August 3 - Friday

Morning (9:30 a.m. - 1:00 p.m.)

IBRD BOARD
ROOM

Consultative Group (TAC and Center personnel invited)

- Matters introduced by Center Directors
- Indication by Donors of Financial Support for Calendar Years 1974 and 1975
- Time and place of next meeting

Afternoon (2:30 p.m. - 5:30 p.m.)

TAC - Other business, if needed (Open)

C 1006

Center personnel - Other business, if needed.

D 1156

July 27, 1973

ANNEX III, Center Directors' Presentations

Deleted when volume bound.

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CONSULTATIVE GROUP MEETING

August 1 - 3, 1973
IBRD Board Room

PROVISIONAL AGENDA

Wednesday, August 1
(2:30 - 5:30 p.m.)

1. Adoption of the Agenda
2. Reports on the status of ILRAD and ILCA (African Livestock)
3. Asian Vegetable Center
4. CG Position on UNCTAD Resolution on natural products
5. Budget format and issues
6. Center review procedures

Thursday, August 2
(9:30 a.m. - 1:00 p.m.; and
2:30 p.m. to 5:30 p.m., if needed)

(TAC and Center personnel invited)

7. Statement by Chairman of TAC on Center Programs for 1974
8. Discussion of Center Programs
9. Report by Chairman of TAC on status of other proposals under consideration
 - a. Conservation of genetic resources
 - b. Middle East Institute
 - c. Latin America - protein
 - d. Aquaculture
 - e. Other
10. TAC paper on priorities

Friday, August 3
(9:30 a.m. - 1:00 p.m.)

(TAC and Center personnel invited)

11. Matters introduced by Center Directors
12. Indication by Donors of Financial Support for Calendar
Years 1974 and 1975
13. Other Business
14. Time and place of next meeting.

July 20, 1973

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August 15, 1973

Mr. Manuel Perez-Guerrero
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Palais des Nations
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Dear Mr. Perez-Guerrero:

This is with reference to your letter of September 5, 1972, transmitting to the President of the Bank the resolutions of the Third UNCTAD Session, including the text of paragraph 2 (iii) of Resolution 50 (III) adopted at the 116th plenary meeting on May 19, 1972. This paragraph "requests the Consultative Group on Agricultural Research sponsored jointly by the Food and Agriculture Organization of the United Nations, the International Bank for Reconstruction and Development and the United Nations Development Programme to give urgent consideration to the need for assistance to research designed to improve the competitiveness of natural raw materials, including processing and end-use research as well as production research."

As Mr. McNamara indicated in his reply of September 14, 1972, the Resolution was circulated to the members of the Consultative Group. At its meeting of November 1972, the Group took note of this request and referred the question to its Technical Advisory Committee (TAC) for consideration and advice. With the collaboration of the Food and Agriculture Organization, the Secretariat of TAC prepared a paper, "Competitiveness of Natural Products, Synthetics and Substitutes," with reference to Resolution 50 (III). A copy of the paper is enclosed. The subject was then considered by the TAC on July 25, 1973, and the Committee submitted a note to the meeting of the Consultative Group on August 1. The note follows:

"The TAC discussed the research implications of UNCTAD Resolution 50 (III), para. 2 (iii), in the light of the information given in TAC Working Paper DDDR:IAR/73/26 Restricted, at its session on Wednesday, July 25.

"Whilst recognizing the need for substantial programs of research on agricultural raw materials, the Committee wished to maintain its stated intention to continue to give its highest priority to food crops.

"Nevertheless, the Committee did not preclude its consideration of well-prepared proposals for research on commodities other than food, especially those offering considerable employment opportunities or contributing markedly to foreign exchange earnings. It would therefore be prepared to advise the Consultative Group on the research needs of any such crops.

"The range of such crops is very wide, however, and the Committee did not wish at present to draw attention to any particular crop. It was the understanding of the Committee that FAO was currently about to begin a detailed study of the research needs of agricultural raw materials, which would consider, inter alia, the economic and social importance of several crops, and the need for additional research, both at production and end-use levels. The results of this study would be made available to the Committee and the Consultative Group and would assist the Committee in its future consideration of proposals for research on agricultural raw materials which might be submitted through recognized channels."

In the discussion by the Consultative Group which followed, there was a clear consensus in support of the position taken by the TAC -- i.e., that the Group should continue to give highest priority to food crops, but that this did not preclude consideration of the research needs of certain developmentally important non-food crops on the basis of well-prepared proposals. A distinction was drawn in the discussion between financing programs of research on non-food crops important to a large number of countries and financing those which are important to only a few countries; in the latter case, it would be both appropriate and feasible for the financing to be arranged by or through the few countries directly concerned. It was also observed that several of the institutes which the Consultative Group supports are engaged in research on cropping patterns appropriate to specific climatic and ecological conditions and that in this connection research would in all probability be conducted on some non-food crops which are likely to be desirable elements in such patterns. Finally, the Consultative Group noted the work now going forward in FAO to study the research needs and priorities for non-food agricultural raw materials as outlined in item (iii) of the enclosed paper.

Sincerely yours,

Richard H. Demuth
Chairman

Enclosure

ANNEX VI

STATEMENT BY SIR JOHN CRAWFORD,
CHAIRMAN OF THE TECHNICAL ADVISORY
COMMITTEE (TAC) ON PRIORITIES FOR
INTERNATIONAL AGRICULTURAL RESEARCH

May I make two or three introductory remarks. The first is that I hope you will defer your major discussion on this paper until your November meeting. This is because I would much prefer you to have the revised paper. The revisions are not, with one exception, of great substance; nevertheless I am rather partial, if I am going to be quoted, to being quoted from the right text rather than the wrong. Accordingly I do ask the members to realize that they are operating at the moment only on the draft that went before TAC at its current meeting.

There is a number of amendments to be made, but may I say, in referring to what you said about order of priorities, that broadly what is said about matters like national research, outreach, relations between centers and between other research bodies and centers, stands. The revisions made do, I believe, improve the paper considerably but they do not alter the main judgements made. I think the best thing I can do, Mr. Chairman, is to take the group through the paper, not paragraph by paragraph which would be unduly exhausting, but only through the main points. At the conclusion of my remarks I do want to say something of importance about the financial question about which I propose to be more emphatic than I appear to have been in the draft paper. However I will treat this question separately and at the end of my other remarks.

There is no doubt in our minds that the first order of priority is research on food commodities. I think I need not develop the argument although my original draft of the paper does give this rather more thoroughly than the present draft. I hardly need to remind you that at the back of our minds is the fundamental need to bring population growth under control. In the meanwhile, however, we are trying to purchase the necessary time by enabling the world to feed the inevitable further growth in population. We believe it is going to be difficult enough in the next three decades to meet the world food need, and that we will only meet it by sustained research effort. Moreover there must be a sustained effort to apply the research intelligently. We have no hesitation whatever in according first priority to this problem.

Within the first order of priority we place cereals first. Then we place legumes. Then we place starchy products which are listed on pages 3 and 4, and then livestock. I hope, Mr. Chairman, there is

no need for me to go through the details of the argument. I will say something in a moment as to why we chose to state the priorities in commodity terms, but we had no doubt we should do so. It follows from what I have just said however, that within the food priority, there could be second-level priorities: I think it important to develop this concept.

As I have often said, I think, at meetings of the Consultative Group, it is not really very difficult to say that the first priority should be for food. Everyone agrees with this but this fact does not remove all our problems in relation to research. Food is a big category and there has to be an attempt to develop priorities within the priorities, or sub-priorities.

We have already been confronted in TAC, as you have in the Consultative Group, with desirable research projects for which however we feel unable to accord first priority even though they come within the description 'food'. This is why we have been in some difficulty about vegetables and we are currently in some difficulty about fruit, as I mentioned this morning. They are foodstuffs, and it may well be true for certain regions that they are the most important area for research. On occasion we may make this particular judgement but in broad terms, we place, as paragraph 29 makes clear, some items in second-level priority. We will only amend this if they come through as matters of major importance for particular regions.

Since food crops are our priority there is an implication for other non-food crops. I think you have already had a communication from us about industrial crops. There are two or three matters here of importance. I would not find it very difficult to make a strong case for jute research, cotton research. I remember, with others, making it for wool in Australia in 1944, and I am very glad we made it then rather than wait until 1974 to do it, because I believe we won out in that case. Jute may have left the run too late.

While recognising the importance of some of these other crops it has to be remembered that TAC operates with a financial limit constantly in the minds of its members. This limit has not yet been defined and I will speak about it later. Nevertheless some limit there must be and I have to say, frankly, that we would be afraid to come to you with a strong recommendation for some industrial crop if this meant an impairment of the priority given to food oriented research. This has not been an easy conclusion to reach because the terms of reference you gave us are certainly wide enough to encompass these other crops. Your concern and ours is with the problems of economic development and for many countries, industrial crops are vital. Our deliberate decision was to give priority to food crops but two or three other factors are also relevant. While it is not universally true, a number of the non-food crops would require as much attention to processing as to their

actual farm production. Retting of jute, for example, is a very significant matter for the future of jute. I doubt if the TAC is a properly constituted group for advising on some of these problems. You may well say, and I think can fairly retort, that the TAC has the means or could be given the means to bring in additional forces to help it. This may well be so and on behalf of TAC I have to say that we are willing to examine proposals for research in these crops should you refer them to us. I will be forgiven however if I press the point: we would not be very happy if this was at the expense of the priority we give to the question of foodcrops.

If I may go on, sir, I now want to mention forestry. This subject is within our terms of reference but does not appear in our immediate plans for expanding international research for the reasons just given in respect of industrial crops. Every now and then you may find in a TAC recommendation a significant reference to forestry. This could happen if forestry is shown to be important to proper land use in some area important as a source of food. Generally speaking however, we are unlikely, on our own initiative, to bring forward proposals for forestry research.

The next point I deal with is an important one: it is a vital complement to our priority for research oriented to food commodities. I know when I first began to do some work on the priorities question with Dr. Frosty Hill, my first approach was to try to jot down the most important research problems in agricultural production.

If we do this, we need not necessarily talk of wheat as an important problem but rather of water management, of fertiliser usage in relation to water, soil and plants, of pesticides and indeed of managing all the inputs that go into a farming system. And yet it is not accidental that we named commodities first and then brought in these factors of production later. There is no implication that these matters are unimportant. Far from it, but we prefer to see them attended to as part of the primary research or development of technologies being evolved round commodities like wheat and rice. We are not suggesting that this will completely satisfy our research needs. I make a confession, I think for the third time to this group, that we have struggled with the problem of water management which is so obviously a factor of production of great importance. We have not as yet found an easy way to recognize research problems here that can be organized in a particular way, other than in association with an attack on particular problems of farm systems in particular ecological situations. But we may yet come up with some.

We contemplated for example the organization of people who really know about water management, let us say in an area I discussed this morning, the Near East and North Africa, in the form of a mobile team

to offer advice where it might be best received. Notice the shift from research to problems of extension and development of farm practices. It is a question whether this is appropriate for us to do, but we have not begun the debate in a serious way. I do want the Consultative Group nevertheless to understand that although we state our priorities in commodity terms, we are not using this approach as a means of denying the importance of work on the components of farming systems. Indeed, I think I ought to make a point which is probably not yet adequately made in the paragraphs, headed "Research on Intensification". I think it is significant that, by the sixth meeting of TAC, it had become more and more difficult for us to avoid talking about farming systems. Whether we are talking about IRRI or talking about a straight-out proposal for research in farming systems, such as the livestock animal husbandry proposal for Africa, a study of technologies in a system becomes the common meeting ground, whatever approach is first adopted.

We still think it has been good sense to approach the major problem in the initial stages and very substantially through the major food crops of the world. But I will be very surprised if we come up with proposals for the Near East and North Africa in terms that exclude direct approaches to the systems problem. I hope you will not regard that as a departure from research because, if I might take the converse now, that systems work will not be meaningful unless we have worthwhile varieties of wheat and barley to put into the system.

I am sorry if I am laboring this point but I am trying to make it clear that merely to get a high-yielding variety of rice or wheat is only the beginning, although a highly important one, in the problem of translation of the new varieties into a new technology or 'technological package' which can make a difference to the farming efficiency and incomes of farmers in the areas concerned.

Our discussions are bound to cover wide-ranging problems which, however, turn out to be very much inter-related. It is really no accident that the next main heading in the paper is 'Socio-economic Research'. I was not displeased to find, in summing up the seminar last Saturday, that paragraph 50 of the document now before you was amply confirmed by the discussion in the seminar.

In my capacity as Chairman of the TAC I should remind you that this part of the paper is not as yet as finished as the rest of the paper. This is because we took a decision not to do further work on the socio-economic aspects until we had the benefit of the seminar. We are all most grateful to Dr. Bernstein for his initiative. We will probably further consider our views in February but already it is clear from Section 7 of the paper before you that we have at no time divorced socio-economic issues from the problems of research or from the consequences, which are even more important, of changing the technological packages as a result of research.

I would like to remind members of the Consultative Group that we share their concern about the problem of small farmers, about poverty in rural areas, and about the social problems which inevitably attend needed changes in farm practices. We believe that agricultural research is a basic contribution to necessary change, but we do not believe that agricultural research alone can carry the whole burden of the solution of accompanying problems. But as I am in danger, Mr. Chairman, of repeating my summing up of last Saturday, I quickly pass to the next section of the paper, headed "Institutional Approaches to International Research".

I think we have here a case where efforts to think in a priori terms about institutional organization of research have been worthwhile but, not surprisingly, not capable of foreseeing all the situations that might arise. TAC has adopted a flexible approach in this matter. I do not believe it ever started with the proposition that there was only one way to do the job: The IRRI way or the CIMMYT way. It certainly recognized the value of doing things in their way because it was an already well tested approach.

We have left our minds open to the possibility and have already given you examples, that work could be organized in other ways. We have been relieved, although sometimes embarrassed, because of the difficulty of handling the question, by the fact that our terms of reference invite us to develop a network of research institutions throughout the world. This explains why at every meeting we give more and more attention to the relationship of one institution with another, one international institution with another international institution, international institutions in relation to local, regional organizations, such as WARDA, and not least but most difficult for us to handle, relations of international bodies with national organizations.

Now when I talk of difficulty in handling, I think it is because we have always felt rather nervous about some of the jargon of the Consultative Group: outreach, relay, linkages. In any one context these words read reasonably but it is not always easy to find consistency from one use to another. Simple definitions for use in all cases are not easy to find. Sometimes the word 'outreach' has a financial meaning of a particular kind and yet it can mean core programming repeated in another area under the control of the Center or simply support in this or that way of a national program using materials provided by an international Center. But as you know, to take another example, we envisage work related to ICRISAT objectives being done in Africa. We have talked about the problem of relationships there and we think this will develop quite differently from those of which we already have experience. This does not necessarily mean that outreach, in this form, will be any less effective.

But it has become, as I said this morning, important that we try to grapple with this problem because we have had to differentiate between outreach finance, special projects, and core budgets. Nevertheless, although we haven't yet been able to offer definitive limits to the nature of outreach or relay we have accepted the simple proposition that if there are no external linkages with other international institutes, other regional bodies, national research bodies, we will limit and indeed frustrate the effectiveness of the central bodies. It is only by effective linkages that we achieve the full dividends from efforts to economize extensive research effort through major research centers.

Accordingly, I have to confess our discussion is incomplete and that our views are likely to continue to evolve. We are perhaps clearest in our minds about the problem of national research.

As I mentioned this morning, we have a self-denying ordinance that we do not care to receive on our table proposals for strengthening national research. Now this could sound like sedition, treason and even stupidity. Fortunately, we do not mean that national research should not be strengthened; on the contrary we do very strongly want this. It is one end of the spectrum of our interests. If there isn't adequate research capacity in developing countries, then less than full use will be made of the work that the Consultative Group is supporting. We haven't any doubts about the need, Mr. Chairman, and we admit that we believe it has not been adequately met. Over the last couple of years, I must say I have been more and more concerned to prod multilateral bodies, FAO, UNDP, the World Bank, to get on with the job of strengthening the national research capacities through means open to them. One reason that made me particularly interested in WARDA was the impression of many countries there quite unable to marshal adequate resources on a national basis but willing to try to do so through a co-operative effort. This may prove to be one important way of strengthening national capacities.

WARDA also had another effect, in reminding us of the importance of the training component in major research efforts. Again however, a question of limits is raised. How far can international or even regional research bodies take their training problem? Should they train only the trainers? This may prove to be a major contribution by international bodies to the development of national capacity. Nevertheless these activities cannot replace the scope available to FAO, UNDP, IBRD and regional banks for developing national research capacity. If the international network is to be really effective, greater attention has to be given to this problem. It is nevertheless beyond the scope of TAC to do much more than draw attention to the need.

The next section of the paper does bring in a matter which was discussed for the first time at the current meeting of TAC. There may well

be some revisions in it before the final paper reaches you. I refer to the relation between applied and basic science. We come up from time to time against a problem which may call for quite expensive research apparently removed from applied research as this term is commonly used. An example I have given before is the possible need for some basic work to be done on the inherent characteristics of the legume in an effort to find some explanation of the comparatively low yields which appear to mark legumes generally.

In illustration of what I said before about a flexible attitude, it may be best to assign such a problem to a university or some other research institute willing and able to tackle such a problem. It may be wise to do some things this way rather than think automatically of yet another major center.

If I may take another example I was interested to learn today from an official of USAID about the possibility that there could be a very fruitful study of new forms of fertiliser in relation to tropical soils since it is clear that fertilisers do behave differently under tropical conditions compared with the temperate zone. This is a case again where a study of an important factor of production might well be taken up by an established organization. I propose to ask TAC to examine the possibility.

Well, trying to sum it up, Mr. Chairman, in terms which may wrongly appear trite: the priority is food. Within food we have given certain preferences. We have approached it through key food commodities, never forgetting that those commodities have to be grown in a farming system or systems which have to be found and managed if full results are to be obtained. We have not forgotten that there are economic problems associated with the development of technologies and that there are economic and social consequences of adopting these technologies or that there may be social constraints which prevent their adoption.

I referred the other day to a notion that I think some of us had in the first flush of enthusiasm about IRRI. Many undoubtedly felt that all that had to be done was to take I.R. 8 and put it into the field, replacing some other variety grown there for years, and hey presto! - nothing else changes. Of course it changes. More fertiliser is required: water has to be better managed: and there may be different pests to handle. A larger cash input becomes necessary: and credit institutions have to develop for this purpose.

If all these things are not attended to then the Green Revolution is blamed because it is mainly the larger farmers with resources, ability and know-how who can immediately adopt the new technology. Fortunately I exaggerate somewhat. However, we understand more clearly, that a new technology raises a great many inter-related problems. What I try not to do, however, and encourage my colleagues not to do, is to

fall into the error of thinking the effort isn't worthwhile because there are problems. As I think David Hopper once said at a meeting of the Consultative Group, if we want to avoid new problems, perhaps we should not try to develop at all. This is a false option also because few countries have the choice of whether to develop or not to develop; if living standards are to be raised agriculture productivity has to be enhanced. All the attendant problems have to be tackled. But, if I may repeat myself, the burden of tackling all these problems does not rest only on the shoulders of the research workers.

Let me now turn, Mr. Chairman, to the financial problem. I believe a paper has been distributed although I had great qualms about allowing any paper to be distributed at all. I want to share these qualms with you. I have learned from experience that if I put out a bit of paper, it becomes too readily quoted as the gospel.

With respect to the table in front of you, I do ask you to remember that it cannot pretend to the order of accuracy suggested by figures shown in two decimal places. It is quite impossible for me to know that ILRAD is going to cost, for example, \$ 2.23 million in 1977. I cannot know this for certain, nor can anyone else: the estimates result from certain assumptions about rates of inflation, numbers of staff and programs hypothetically adopted at this stage.

Again I think the letter C at the top of the column headed '1977' is very important. It means circa or thereabouts. It might be 1980. Please do not attach precise significance to the year 1977. Similarly with the column headed '1980'.

But what are the things that we can say are significant? First of all, the number of institutions which are in being and must continue in being for some time if they are to do their job. Even in the second category, II(a), there is now a number of proposals close to establishment or which have been virtually committed. This, of course, limits our degrees of freedom if we are to operate within a limited future financial total.

Of the other items in II(a) which have not yet been committed, I should stress that they have no significance at this stage other than to illustrate the kind of further proposal that might come into the total package. Moreover, there are many other items which might well have found a place, such as agricultural engineering and water management. Even so, Mr. Chairman, the table shows a rising cost ahead of us. Part of this is due to inflation which unfortunately is now shown separately in the figures. (I am determined to offer a proper dissection of this factor.) Even allowing for the inflationary factor, it is clear we cannot promise you a low financial bill at all if we are to meet at least the major needs in the various regions.

If we talk broadly about 1980, the Consultative Group will know that it will have to face expenditures of \$ 70 million or more. Any degree of precision depends not only on the rate of inflation but also on deciding what to do about core budgets and outreach programs. That is, we have to decide where the limit to Consultative Group funds lies in respect to the programs with which any one Center is associated.

In my own thinking I find it impossible to confine attention to core budgets only. This is for the reason already given, namely that a degree of outreach or relay programming is essential if the value of the centralised research is not to be lost. I also remind you that capital funds have to be allowed for although one hopes this will become a declining proportion of the total bill.

I wish to conclude with the two most important points that emerge from a table of this kind. I have said that we cannot promise you a low bill but I think it has been clear to you that TAC has operated with restraint. It has not given its blessing idly to proposals and I am sure it will continue in this way. It accepts the reality of having a financial constraint but if this is done then all have to realise the limitation this places on our range of future choice, which is what I meant by saying that the degrees of freedom left to us are rapidly diminishing.

If, however, we accept the constraint of some kind of target figure, we ask you to come to terms with the issue. It is necessary for us to know approximately what sort of financial constraint you wish to place on our proposals. I stress this for there is the other approach which would make the life of TAC members much easier. This is what I call the open-ended approach or notion that whatever TAC recommends will find donor support. Personally, I find this approach not very realistic and indeed dangerous in the encouragement it gives for people who may submit all kinds of less than worthwhile proposals.

The second important point which is implicit in all TAC proposals but needs to be made explicit by the Consultative Group is the need for assurance of continuity of support for the institutes or programs supported by the Consultative Group. It is essential that programs, once approved, are carried forward in confidence that they will not collapse suddenly for lack of financial support.

So what I hope we could begin to grapple with in November, Mr. Chairman, is the establishment of some order of events, some approach to the kind of financial cost that it is possible to contemplate, into which TAC will fit its judgements about priorities. In addition, I seek from the Consultative Group the assurance that work approved will be steadily supported so long as, and only so long as, the program is capable of producing results.

I think that is all I want to say on the subject at the present time, Mr. Chairman. I hope you will agree that it is not now the appropriate time for me to try to respond to questions of detail either about the paper or the financial estimates.

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

August 2, 1973

Estimates of Center Requirements, 1974^{a/}
(\$million)

	<u>Core</u>	<u>Capital</u>	<u>Total</u>
CIAT	4.40	1.50 ^{b/}	5.90
CIMMYT	5.13	.41	5.54
CIP	1.94	.31	2.25
ICRISAT	2.60	3.00	5.60
IITA	5.92	.50	6.42
IRRI	3.25	1.49	4.74
Gene Network ^{c/}	.52	.09	.61
WARDA ^{c/}	.53	.09	.62
ILRAD			.95 ^{d/}
ILCA			.50 ^{d/}
	<u>24.29</u>	<u>7.39</u>	<u>33.13</u>

a/ Amounts rounded to the nearest \$10,000. The figures are based on the budget presentations of the international agricultural research centers, except as otherwise indicated.

b/ CIAT's capital budget has not yet been formally approved by its Board of Trustees.

c/ As presented to TAC.

d/ Secretariat rough estimate.

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

Agenda Item 12

INTERNATIONAL AGRICULTURAL RESEARCH ^{a/}					
NET CORE AND CAPITAL FUNDING REQUIREMENTS: 1973-77					
(\$ million)					
	^{b/} <u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
CIAT	4.28	5.90	6.59	7.90	7.14
CIMMYT	5.81	5.54	5.80	5.60	5.81
CIP	1.38	2.25	2.18	2.26	2.30
ICRISAT	2.99	5.60	9.53	6.11	4.50
IITA	5.35	6.42	7.08	6.99	6.89
IRRI	<u>2.90</u> <u>22.71</u>	<u>4.74</u> <u>30.45</u>	<u>4.63</u> <u>35.81</u>	<u>4.56</u> <u>33.42</u>	<u>4.92</u> <u>31.56</u>
Gene Network		.61 ^{c/}	1.00 ^{c/}	.92 ^{c/}	.97 ^{d/}
WARDA ^{c/}		.62	.72	.74	.75
ILRAD		.95 ^{d/}	-	-	3.20
ILCA		.50 ^{d/}	-	-	3.23 ^{e/}
New Projects		- <u>2.68</u>	-	-	<u>13.18</u> <u>21.33</u>
	<u>22.71</u>	<u>33.13</u>			<u>52.89</u>

^{a/} Amounts rounded to the nearest \$10,000. The figures are derived from the budget presentations of the international agricultural research centers, except as otherwise indicated. They do not include the costs of outreach programs.

^{b/} Somewhat revised from the presentations made in 1972.

^{c/} As presented to TAC.

^{d/} Secretariat rough estimate.

^{e/} As estimated in the TAC priorities paper.

CGIAR ALLOCATIONS, 1974 (\$ million)

	<u>Total</u>	<u>CIAT</u>	<u>CIMMYT</u>	<u>CIP</u>	<u>ICRISAT</u>	<u>IITA</u>	<u>IRRI</u>	<u>ILRAD</u>	<u>ILCA</u>	<u>Genes</u>	<u>WARDA</u>	<u>Unallo- cated</u>
Australia												
Belgium	.440					.440			*			
Canada	[4.000]a/	.750	.545	.200	[1.555]	.750		.200				
Denmark	.275 b/			.175					[.025]			[.075]
Ford	3.000	[.750]	[.750]			[.750]	[.750]					
France	*								*			
Germany	3.375c/		.220		.500	.755		.420		*		1.480
IDRC	.910		.035		.275		.350	.100	.150			
Japan	[.280]						[.280]					
Keillogg	.280	.280										
Netherlands	.455	.125		.180		.125		.025		*		
Norway	.460				[.150]							[.310]
Rockefeller	3.100	[.750]	[.750]	[.150]		[.600]	[.750]	.100				
Sweden	[1.250]			.150	1.000				*	*		[.100]
Switzerland	.260	.065		.065	.130							
U.K.	2.460			.125	.375	.750	.435	.175	.100			[.500]
UNDP	1.550		.750		.700			.050	.050			
U.S.	7.000	.950	1.350	.550	1.000	1.500	1.100	[.390]	[.140]			[.020]
World Bank	3.200		[1.000]			[.750]						[1.450]
Available	32.295	3.670	5.400	1.595	5.685	6.420	3.665	1.460	.465			[3.935]
Required		5.900	5.550	2.250	5.600	6.420	4.750			.610	.620	
Net		-1.230	-.150	-.655	+.085	-	-1.085			-.610	-.620	

Figures in [] are Secretariat estimates. *indicates an expression of interest with no indication of amount.

a/ Includes \$300,000 available in 1973.

b/ Includes \$25,000 available in 1973.

c/ Includes \$420,000 available in 1973.

September 7, 1973