NO DESIGN DOCUMENT

(Project summaries/abstracts developed from

PRO AGs, PIOTs, and PARs)

ATTACHMENT I

PROPOSED BUDGET AND ANTICIPATED SOURCES OF FUNDS FOR IBPGR, 1979

I BUDGET

A. Regional Activities	$ 930,000
B. Forest Genetic Resources	56,000
C. Conservation	220,000
D. Other Exploration and Collection Activities	225,000
E. Crops Advisory Committees, Working Groups, Studies	55,000
F. Information and Documentation Activities	511,000
G. Training	80,000
H. General Administration	277,000
I. Quinquennial Review	35,000
J. Contingency	100,000
K. Provision for Price Changes	249,000
TOTAL CORE BUDGET*	$ 2,738,000

II SOURCES OF FUNDS

1. United States (AID) - 22.06% of the 1979 net requirements figure of $2,720,000	$ 600,000**
2. Australia, Belgium Canada, France, Federal Republic of Germany, Japan, The Netherlands, Norway, Sweden, The United Kingdom, The UNEP, and the IBRD	1,735,000
3. Income and Working Capital Carryover	18,000
TOTAL SOURCES	$ 2,353,000
Initial Shortfall***	385,000***
	$ 2,738,000

*Gross requirements, including 1978 income and carryover.
**AID anticipates contributing additional funding during 1979 of approximately $140,000 pending the availability of funds.
***CGIAR anticipates donor funding during course of 1979 budget year.

OBJECTIVES AND MANDATE OF THE IBPGR

The major task of the IBPGR is to organize an international network of plant genetic resources centres, to ensure that the genetic diversity of important food crops and other plants — which represents one of the world's major natural resources — is adequately collected, is satisfactorily conserved, evaluated and documented, and is made available for use by plant breeders and other scientists. The successful accomplishment of this task will prevent the threatened loss of significant genetic diversity of many crops in a time of great change and development in agriculture and land use, including the introduction of new varieties, and will provide genetic resources for future progress in plant improvement.

The emerging IBPGR network includes centres concerned with specific crops or groups of crops, and centres concerned with all crops in a particular geographical area, national or regional. The IBPGR has accepted the responsibility assigned to it by the CGIAR to encourage and, where necessary, support an appropriate and coordinated global programme of genetic resources activities by these various centres, and to foster collaborative efforts among them.

As set forth in IBPGR's Annual Report for 1977, the Board's work falls into four principal categories: (1) activities designed to assist in strengthening the genetic resources programmes of specific countries and regions, particularly centres of genetic diversity; (2) activities designed to encourage and support collection, conservation and other measures necessary to assure the availability for future breeding programmes of the genetic diversity of specific crops of major importance; (3) information activities designed to assure that all major genetic resources collections are so documented, in computer-readable form, that at least the minimum necessary information about the accessions in those collections can be made readily available to potential users; and (4) training programmes of various kinds designed to assure that trained personnel are available for the foregoing activities.

The Board's work in each of the four categories consists primarily of providing encouragement and technical and financial support for the work of other organizations, national, regional and international, on plant genetic resources. Essentially, the IBPGR sees itself as an institution of limited life which will establish a global network of plant genetic resources centres, ensure that it works, and then withdraw. By the same token, much of the Board's expenditure is designed to prime pumps and to help to set activities in motion which are then handed over for future funding to those who benefit from them. It is for this reason that the Board expects that, after its present period of maximum growth is concluded by around 1980 or 1981, its budgetary requirements, now at a level of around $2 million, will level off at around $3 million (in 1977 dollars).

In connection with one aspect of its mandate, however — the evaluation of collected materials — the Board has only recently begun to consider the extent of its responsibilities and how best they might be discharged. The Board believes that in general its task will be to assist plant breeders and others to develop uniform procedures for evaluation and for recording and communicating the results.

Before the Board can decide how it should eventually handle the problem of evaluation, it is seeking advice from its crop committees. It has also instructed its Secretariat to organize a pilot evaluation of wheat genetic resources held in several major collections, as proposed by its Wheat Committee, in the belief that this will help to identify the problems likely to be encountered. Until a final decision is reached on this matter, the Board intends to seek assurance, in connection with all IBPGR-supported collections, that a preliminary evaluation of the material collected will be undertaken by an institution identified as responsible for this work. The Board recognizes that the world community of plant breeders will meet substantial difficulties in designing procedures for the many different kinds of evaluation which will be required and in ensuring that these procedures are carried out; and it stands ready to assist in all ways open to it.

PROGRAM ELEMENTS

Information and Documentation Activities

The proposed 1979-80 budget provides for continuation of support, at a level only slightly above 1978, for the Information Sciences/Genetic Resources (IS/GR) Program at the University of Colorado in Boulder. Despite the very modest increase, the Board hopes and expects that the IS/GR Program will expand substantially over the biennium, but with a larger share of the costs borne by the users of the Program's services and with the IBPGR, accordingly, bearing a gradually declining share.

During 1977-78 the IS/GR Program shifted the emphasis of its work from the development of the EXIR (Executive Information Retrieval) system for the recording and management of information about the accessions in genetic resources collections to the provision of assistance to international and other centres in the installation and use of EXIR or other appropriate computerized systems. The Program has prepared and made available manuals dealing with data preparation for use in EXIR, with graphic and other visual displays of EXIR outputs, and with the EXIR report generator. It is expected that, during the 1979-80 biennium, the IS/GR Program will continue to emphasize and expand its help to centres in installing and using appropriate computerized information management systems for their genetic resources collections.

A significant recent development in the IS/GR Program has been extension of its activities from work on the assembly, communication and retrieval of information to work on systems for the management of genetic resources information and also for the management and use of the collections. This reflects the needs and pressures of the users.

In addition, the Program, with funding from FAO and supplemental funding from the IBPGR, organized for the first time in 1977 a short technical training course for scientists from developing countries. This course is being repeated in 1978, also with FAO funding,

and is expected to be continued during the 1979-80 biennium. Other types of training of longer duration are also expected to be inaugurated.

A new dimension was added to the work of IS/GR Program in late 1977, when arrangements were completed under which the Program staff will help the Agricultural Research Service of the U.S. Department of Agriculture to assemble and organize information about genetic resources held in the United States, in a manner compatible with the international system of the Board. It is contemplated that this work will be spread over five years at a cost likely to exceed $2.5 million.

The IBPGR recognizes that to assemble, manage and use information about genetic resources effectively is expensive. The numbers of species, of individual accessions and populations within species, and of centres interested in holding and using collections, are large. Two somewhat disparate consequences flow from this. First, IBPGR cannot, and will not attempt to, finance all operations relating to genetic resources information; in general, as already noted, it expects the IS/GR Program to recover the costs of its work from users, particularly those within the CG system or in developed counties, who can afford to pay for what they need. Second, it is important that systems be developed which are as simple as possible for the users to operate and which do not require installation of large, costly computers. To this end, IS/GR is seeking to develop systems which minimize computer-programming requirements and is investigating the technical and economic usefulness, in work on genetic resources information, of the newer types of small and inexpensive computers.

Regional Activities

The Board has identified the following regions for priority action: Mediterranean, Southwest Asia, South Asia, Southeast Asia, Western Africa, Ethiopia, Meso-America and Brazil. In 1978 the Board also intends to provide support in modest amount for national programmes in other countries of Eastern Africa and for activities in the Andean zone of South America. In 1979 the Board hopes to be able to extend assistance to other parts of South America and to support some work in the Far East/Pacific Islands.

Direct IBPGR financing has in the past gone, and will continue in 1978 to go, for work in the Mediterranean, Southwest Asia, South Asia, Southeast Asia and Western Africa regions. Three of these regions (the Mediterranean, Southwest Asia and Southeast Asia) account for the largest part of the total allocations for regional activities in the proposed budget for 1979-80 ($1,475,000 out of a total of just over $2 million). The regional programme in South Asia has yet to develop but, under the leadership of the newly established Indian National Bureau of Plant Genetic Resources, a meeting of representatives of countries in the South Asia region will be convened in May 1978 to formulate proposals for cooperative action. Support of $120,000 is proposed to continue this development in 1979-80, with the expectation that effective implementation of a regional programme will start in 1979.

By 1979, too, the Board expects genetic resources activities to have accelerated in other priority regions, particularly Western Africa (with a lead being provided already by the Germplasm Collection Unit of IITA).

The six major regional efforts to be supported in 1979-80 are:

Mediterranean: Collections have been undertaken in this region since 1975, first with UNEP support and subsequently with IBPGR financing. The collections in the earlier years concentrated on the countries of North Africa, particularly Algeria and Tunisia, with emphasis on the traditional varieties of wheat and barley which are rapidly being displaced by the spread of new varieties. Since 1976, this work has been based on the Germplasm Laboratory of the Italian National Research Council at Bari, Italy. Beginning in 1977, with a substantially greater involvement by FAO, the work has been expanded to take in other crops, especially forage and grain legumes, and to involve more countries: Spain, Portugal, Greece and Libya as well as Algeria and Tunisia.

In addition, in 1976-78, several of the IBPGR Crop Advisory Committees recommended specific collections in this region, especially wheat in many parts of the region, maize and *Phaseolus* in Spain, and millets in southern Spain and the oases of North Africa. Accordingly, in 1978, a series of collecting missions is being undertaken in countries of the region, with other crops in addition to wheat and barley being collected. The Germplasm Laboratory at Bari is continuing to play a key role in this expanded effort, and the scientists in each of the countries where collections are being made are participating fully. The Board has reallocated the amount budgeted for 1978 to support the increased exploration effort, and has provided for substantially increased funding for this region in the proposed budget for 1979-80.

Southwest Asia: The Board assumed financial responsibility as of 1 July 1976 for the support of genetic resources work in six countries of Southwest Asia (Afghanistan, Iran, Iraq, Pakistan, Syria and Turkey) which had previously participated in a regional project based at Izmir, Turkey, funded by SIDA and operated by FAO.

The proposed allocation of $760,000 for Southwest Asia for the 1979-80 biennium represents an increase from the level of $288,000 currently expected to be spent in 1978 to $380,000 for each of the years 1979 and 1980. This increase is primarily for expanded support to national programmes. It will pay for the continuation of the Board's technical experts in the field, provide funds for fellowships for scientists of the region to receive post-graduate training abroad, support some local training, and enable the Board to provide other help for collection, conservation and evaluation efforts, as may prove necessary. Although the project is to be operated by FAO, the IBPGR Secretariat will closely follow developments in order to ensure that the Board is able to support as fully as possible the development in the region.

South Asia: As stated above, a regional programme in South Asia has yet to develop but, following the meeting to be convened in India in 1978 to formulate proposals for cooperative action, the Board anticipates the need to support activities in Bangladesh, Bhutan, Burma, Nepal and Sri Lanka as well as the need to work closely with the Indian National Bureau of Plant Genetic Resources. However, the IBPGR does not envisage a rapid growth of activities in this region at least before 1980-81.

Southeast Asia: The countries of Southeast Asia (Indonesia, Malaysia, Papua New Guinea, Philippines and Thailand) have moved faster than those of any other region in developing a specific plan of action for their genetic resources activities. Late in 1976, technical experts from these countries, with help and encouragement from the Board, agreed on a plan of action for the region and on organizational arrangements to implement the plan. Support is being given in 1978 to exploration and collection as part of the activities of national programmes; indeed, the Board has increased its 1978 budgetary allocation for Southeast Asia from $140,000 to $162,000, primarily to finance expanded field activities. The priorities for action relate to the following crops: rice, durian, rambutan, soyabean, coconut, mango, banana and indigenous vegetables, especially winged bean and *Vigna* sp. The Board believes that some further modest increases in support of regional activities in Southeast Asia will be necessary in the 1979-80 biennium. Accordingly, budgetary provision of $175,000 has been made for 1979 and $185,000 for 1980.

Western Africa: Collections in Western Africa, especially of sorghum and millets, have been supported by the IBPGR since 1976 and further collections of these two important crops will need to be financed in the 1979-80 biennium. In addition, the work of the Germplasm Collection Unit of IITA has begun, with emphasis on grain legumes, roots and tubers, and *glaberrima* rice and its associated wild species.

Eastern Africa: In 1977 the Board supported, along with UNEP, the collection of sorghum and millets in the Sudan, and this work is being continued in 1978. In the forthcoming biennium, it is expected that these crops will be collected in other Eastern African countries as well, as part of their national programmes.

Europe: The Board has followed with interest, and endorsed, the initiative taken by EUCARPIA (European Association for Research on Plant Breeding) to encourage

Latin America: The Genetic Resources Centre funded by the Federal Republic of Germany, became fully operational in 1977 at the Centro Agronomico Tropical de Investigación y Enseñanza (CATIE) in Turrialba, Costa Rica. The IBPGR has stimulated collecting expeditions in South America; for small grains and tubers in the Andean region, for groundnuts in Brazil, Paraguay and Argentina, for maize and *Phaseolus* in Peru, and for maize and potatoes in Argentina. The Board has also provided financial assistance for storage facilities at CIAT; Puno and Cuzco, and for maize at La Molina, Peru. These activities are paving the way for cooperative action within the region which is expected to increase in 1979 and 1980.

Forest Genetic Resources

In 1976 the IBPGR considered the need for action in connection with forest genetic resources. In addition to food trees (e.g. fruits, and nuts) which clearly fall within its remit, the Board was of the view that support should be given to the conservation of other species of trees which are of importance in agricultural development, such as those useful for fuel for cooking and those used for environmental stabilization. At its fourth meeting

The Board proposes to fund in 1979 in-depth reconnaissance surveys in Africa, Asia and Latin America. These surveys are necessary to prepare a realistic programme of work based on the needs and possibilities for exploration and conservation of these three continents and to identify, and secure support and cooperation from, suitable local institutes to undertake the work.

Conservation

The Board has surveyed the availability and adequacy of seed storage facilities for long-term conservation at genetic resources centres in different regions. It is important that adequate seed stores be available at centres near where the seed is collected, because they are best suited for evaluation and for the necessary periodic regeneration and increase of seed stocks. On the other hand, long-term storage of duplicate samples of material can be undertaken satisfactorily far from the original sources of the material. Bearing these two points in mind, the Board, with the advice of its Crop Advisory Committees, has started to designate various centres, with their approval, as responsible for maintaining the major base collections of specific important crops, within the IBPGR global network. Such responsibility has already been assigned for the following crops: chickpeas, cowpeas, groundnuts, maize, millets, oats, *Phaseolus* beans, pigeon peas, rice, sorghum and wheat.

However, seed storage is far from the full answer to maintenance and conservation of genetic stocks. Many crops must be maintained as living collections in plantations or short-term stores of roots and tubers. This is because such plants produce what are called 'recalcitrant' seeds which do not survive drying and the freezing temperatures which are standard for the storage of 'orthodox' seeds. In tropical areas, such species present problems which have not yet been solved. Moreover, the longevity of different orthodox seeds in cold stores remains uncertain. Hence, the Board proposes to continue to support the investigations on seed physiology being carried out for it under the supervision of Professor E.H. Roberts of Reading University, U.K., one of the world's leading experts in seed physiology. These investigations should enable the Board to determine whether better methods of conservation can be recommended to gene bank managers.

In 1977-80 the Board also proposes to support collections of crop plants which must be maintained in plantations or grown out as vegetative material. A number of the Board's priority crops are of this type and centres, particularly in the tropics, are presently faced with the cost of preserving stocks in this way. This method of conserving material is an interim measure until better and safer methods of conservation have been perfected.

Crop Advisory Committees and Working Groups

As already noted, the Board has organized five Crop Advisory Committees, in co-operation (except for wheat) with the appropriate International Agricultural Research Centre. They consist of a Rice Committee, co-sponsored by IRRI; a Maize Committee, co-sponsored by CIMMYT; a Sorghum and Millets Committee, co-sponsored by ICRISAT; a *Phaseolus* beans Committee, co-sponsored by CIAT; and a Wheat Committee, the organisation of which was undertaken by the Board's Secretariat. Each of these Crop Advisory Committees held its first meeting in 1976, some have already had a second meeting, and all will meet again as necessary. These Crop Committees are an invaluable aid to the Board in obtaining the views of the scientific community working on each of the major crops concerning the priorities for action to collect, conserve and make available for use the genetic diversity of these crops.

Training

The 1979-80 budget proposes to continue support to the University of Birmingham to pay for the additional staff necessary to expand the University's International Training Course in Conservation and Utilisation of Plant Genetic Resources, so as to allow more nationals of developing countries to attend than would otherwise be able to do so. Support is expected to be at the level of $30,000 in 1979 and $35,000 in 1980.

In 1978, an additional $25,000 is being used to finance short practical training courses. The Board proposes to increase such support during the biennium 1979-80 to a level of $50,000 in 1979 and $75,000 in 1980, and to continue support at the $75,000 per annum level in 1981 and 1982. The 1978 courses will be on collecting techniques for tropical crops and on seed technology for gene bank workers, the latter in collaboration with the University of Edinburgh, U.K. The funds budgeted for regional activities in the Mediterranean, Southwest Asia and Southeast Asia regions include funds to pay for post-graduate training for a few scientists from those regions and to support short technical courses. A short course on collecting techniques was organized for the Southeast Asia region in 1977 and this will be repeated in 1978.

As already noted, some provision for training is also included in the total sum budgeted for the IS/GR Program.

In addition to the Crop Advisory Committees, the Board has established Working Groups, as necessary, to advise it on other specific crops. Coconuts were reported on in 1976 and 1978, bananas and plantains in 1977 and a Working Group on forage plants in South America will meet in 1978. It is proposed that a Working Group on coffee be organized in 1979. Moreover, the Board has also found it necessary from time to time to convene meetings of experts to agree on descriptors for particular crops.

Capital Expenditures: The Board does not have any separate item in its budget for capital expenditures since, unlike the IARC's, the Board has no buildings or other capital facilities of its own. Moreover, the Board has not financed the construction of capital facilities and is unlikely to do so unless, under exceptional circumstances, some limited amount of such financing should prove to be necessary for seed storage in a developing country. On the other hand, a number of the Board's grants for exploration, conservation and other genetic resources activities have contained and will continue to contain modest amounts for equipment, such as vehicles and refrigeration equipment, where necessary to carry out programmes approved by the Board. It is estimated that about 8-10% of the proposed budget for 1979-80 will be used for this purpose, and that expenditures for equipment will stabilize at about this level.

ATTACHMENT III

The following reports shall be prepared and submitted to AID as stated below:

(a) One hundred (100) copies of the Comprehensive Annual Report on overall program and fiscal matters for the entire calendar year for which the Grant or Grant Amendment was made;

(b) Ten (10) copies of such other reports as may be prepared in connection with the annual International Centers Week. (This report or these reports will describe proposed program and funding requirements for the ensuing calendar year.);

(c) Ten (10) copies of such other reports as may be prepared or requested from time to time on various other program activities;

(d) Copies of the above stated reports in the quantities indicated shall be submitted to:

Associate Director for Research
DS/AGR/Research SA-18 (RP-C)
Agency for International Development
Washington, D.C. 20523

(e) One (1) copy of each report shall be submitted to the Grant Officer whose name appears on the Grant and three (3) copies of each report shall be submitted to:

The Documentation Coordinator
DS/DIU SA-18 (RP-C)
Agency for International Development
Washington, D.C. 20523

(f) Questions of a general program nature should be addressed to the DS/AGR International Centers Program Analyst as follows:

DS/AGR SA-18 (RPC)
Program Analyst for IARCs
Agency for International Development
Washington, D.C. 20523

(g) And, all correspondence should reference both the Grant and Project numbers.

AID 1330-1X (1-78)

PIO/T

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT IMPLEMENTATION ORDER/TECHNICAL SERVICES

1. Cooperating Country: DS Bureau

Page 1 of 1 Pages

2. PIO/T No.: 931-0056 366289

3. ☒ Original or Amendment No. _____

4. Project/Activity No. and Title: 931-0056.11
International Board for Plant Genetic Resources (IBPGR)

DISTRIBUTION

5. Appropriation Symbol: 72-1101021.3

6. Allotment Symbol and Charge: 043-36-0099-00-20-01

7. Obligation Status: ☒ Administrative Reservation ☐ Implementing Document

8. Project Assistance Completion Date (Mo., Day, Yr.): 12-31-'80

9. Authorized Agent: AID/Washington

10. This PIO/T is in full conformance with PRO/AG: N/A Date _____

11a. Type of Action and Governing AID Handbook: ☐ AID Contract (HB 14) ☐ PASA/RSSA (HB 12) ☒ AID Grant (HB 13) ☐ Other

11b. Contract/Grant/PASA/RSSA Reference Number (If this is an Amendment): AID/DSAN-G-0084

12. Estimated Financing (A detailed budget in support of column (2) is attached as attachment no. 1)

		(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
Maximum AID Financing	A. Dollars		$750,000	-	$750,000
	B. U.S.-Owned Local Currency				

13. Mission References: ion Memo the nistra- Dated 19/79

14a. Instructions to Authorized Agent

CM/COD is authorized to amend Grant AID/DSAN-G-0084 with the International Board for Plant Genetic Resources (IBPGR) to provide partial support for the 1980 IBPGR Core Operations program. The funds represent part of the AID contribution of up to 25% of the total requirements for the 1980 Consultative Group on International Agricultural Research programs.

Vouchers: Address S.F. 1034 submissions as shown in block 14b and include Grant # AID/DSAN-G-0084, Project # 931-0056, and DS/AGR/Research.

Attachment I: IBPGR 1980 Budget

Attachment II: the 1980 IBPGR Programme Description.

FUNDS RESERVED BY

POSTED

SER/FM/CSD

14b. Address of Voucher Paying Office

SER/FM/PAD (AID) Rm 601 SA-12
Agency for International Development Washington, D.C. 20523

15. Clearances—Include typed name, office symbol, telephone number and date for all clearances.

A. The project officer certifies that the specifications in the statement of work are technically adequate
DS/AGR/R: FJWilliams
Phone No. 235-8893
Date 12/4/79

B. The statement of work lies within the purview of the initiating and approved agency programs
DS/PO/FN A. SILVER ok
DS/PO/FN: PGage
Date 12/17/79 12-13-79

C. DS/AGR/D: MMozynski
Date 12/12/79
DS/AGR/D: TJO'Hare
11/29/'79

D. Funds for the services requested are available
POSTED:
DS/SER/PPA: MEgan

E. DS/AGR/D: J. Wilson
Date 12/13/79

16. For the cooperating country: The terms and conditions set forth herein are hereby agreed to
Signature N/A Date _____
Title

17. For the Agency for International Development
Signature Kenneth A. Milow Date 12/18/79
Title DS/PO, Chief, Program Division

TABLE 1

1979-1980 BUDGET

Revised 21.6.79

SUMMARY OF COSTS BY PROGRAMME ACTIVITY 1977-1981
(US$ thousands)

	Actual Expenditure 1977	Actual Expenditure 1978	Approved Budget 1979	Current Estimate 1979	Approved Budget 1980	Current Estimate 1980	Projection 1981
1. Information and documentation activities	412	452	511	475	511	336	475
2. Regional activities	185	442	930	930	1 000	1 095	1 100
3. Other activities	220	190	225	200	250	220	250
4. Forest genetic resources	-	-	56	56	1/	1/	
5. Conservation	131	73	220	200	295	265	275
6. Crop Advisory Committees, Working Groups, studies, etc.	64	60	55	80	65	100	100
7. Training	48	61	80	95	110	110	115
8. General administration	166	237	277	272	287	277	277
9. All other:							
- Quinquennial review	-	-	35	50	-	-	-
- Contingency	12	-	100	65	100	100	100
10. TOTAL CORE BUDGET IN 1978 DOLLAR TERMS	1 258	1 715	2 489	2 523	2 718	2 603	2 872
11. Provision for Price Changes							
In 1979			249	249	249	249	249
In 1980					272	272	271
12. GRAND TOTAL	1 258	1 715	2 738	2 772	3 239	3 124	3 391 2/
Categories of expense:							
- Personal services	118	306	450	535	630	535	535
- Contracts with others	954	1 055	1 524	1 448	1 768	1 668	1 757
- Equipment, Supplies and Materials	25	45	65	65	65	65	65
- Travel	138	223	280	280	285	285	285
- General operating expenses (including project servicing costs)	19	58	70	70	70	70	70
- Fellowships	4	28		60		60	60
- Contingency			100	65	100	100	100
Total in 1978 Dollar Terms	1 258	1 715	2 489	2 523	2 718	2 603	2 872
- Provision for price changes in 1979-80			249	249	521	521	521
GRAND TOTAL	1 258	1 715	2 738	2 772	3 239	3 124	3 391 2/

1/ An additional budgetary provision may have to be requested after the results of the exploratory phase in 1979 are known but unlikely to exceed $ 100 000 in any one year.

2/ Plus provision for price changes in 1981.

ATTACHMENT I

PROGRAMME DESCRIPTION

INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES (IBPGR)

1 January - 31 December 1980

Objectives

The major task of the IBPGR is to organize an international network of plant genetic resources centres, to ensure that the genetic diversity of important food crops and other plans — which represents one of the world's major natural resources — is adequately collected, is satisfactorily conserved, evaluated and documented, and is made available for use by plant breeders and other scientists.

More specifically, the IBPGR seeks:

* to identify the needs for exploration, collection, evaluation and conservation of plant genetic resources with particular reference to species of major economic importance and their wild and cultivated relatives, to determine priorities, and to ensure that the materials conserved are made available for plant breeding and other specific activities as required

* to establish standards, methods and procedures for exploration and evaluation and to determine minimum standards for conservation and regeneration of stocks of both seeds and vegetative material

* to arrange for duplicate storage of seed and vegetative stocks

* to promote technical meetings on crop genetic resources

* to promote relevant training at all levels

* to develop a world-wide network of institutions, organizations and programmes able to contribute to the Board's objectives

* to promote the coordination of programmes to avoid unnecessary duplication and fill in gaps

* to strengthen the programmes of existing institutions and, where necessary, to encourage the establishment of new organizations, institutions and programmes, particularly in areas of major diversity

* to promote the dissemination of information and material among centres and institutions, and to encourage, within existing resources and possibilities, the establishment of inventories of collections

* to encourage the development and implementation of appropriate information storage and retrieval systems, linking together the genetic resources centres in the Board's international network

* to help finance those parts of priority genetic resources programmes not adequately supported by other sources of finance

PROGRAMME ELEMENTS (Table of costs as approved June 1979 attached)

1. Information and documentation activities: These activities will ensure that genetic resources collections are adequately documented, in machine-readable form (using internationally agreed descriptors) and put into suitable computerised systems. In the past, the Board contracted this work to the Information Sciences/ Genetic Resources Program at the University of Colorado at Boulder, U.S.A. In 1979 the Board's support to Boulder was for a programme of direct technical assistance to centres. This contract terminates at the end of 1979. In 1980 the Board's Secretariat will assume a central responsibility for work on information. It will continue to identify and catalogue data collections, organize assistance in cleaning up data and putting into machine-readable form, organize work on descriptors and use short-term consultants to work on collections of priority crops (wheat, rice, maize, fruits) in Latin America, Thailand, India and on other crops as necessary. There will be a much greater emphasis on on-site training.

2. Regional activities: The Board will work in the following regions in 1980:

(a) Mediterranean: Collecting will continue with the Germplasm Laboratory at Bari playing a central role. Bari is storing samples of all the seed material but in 1979-80 a seed storage facility in Spain, which has been provided by IBPGR, will be completed. In addition, storage facilities in Portugal will be completed in 1980. Documentation is centred on Bari but training of scientists in the region has continued for this as well as other subjects.

(b) Southwest Asia: In 1979 one officer in post in Iran was evacuated to Iraq from where he continued to assist national programmes of the region (Afghanistan, Iraq, Pakistan, Syria and Turkey). The second officer has resigned and his work will be undertaken by consultants. A senior officer at FAO will supervise the work. The Board's allocation provides for the personnel, training for scientists in the region and assistance for collection, storage and documentation.

(c) South Asia: The Board is seeking agreement of governments in the region for cooperative action. The Board will assist in 1980 to accelerate this work and will assist, in particular, for collection of priority crops, training and the mobilization of funds for storage and documentation.

(d) Southeast Asia: The regional cooperative plan approved by governments in Indonesia, Malaysia, Papua New Guinea, Philippines and Thailand has been implemented by the countries. Priority collection will continue; descriptor lists for priority crops are being agreed by specialists; training courses will be provided in 1980 for exploration, evaluation and documentation of vegetative crops in addition to on-the-job training. A regional officer was appointed in 1979 and the activities will intensify in 1980 as a result.

(e) Western Africa: Collections of priority crops will continue to be supported and regional training activities initiated by IITA will be supported in 1980.

(f) Eastern Africa: Collections of priority crops will continue in 1980.

(g) Latin America: Cooperative regional activities are expected to accelerate in 1980 following regional IBPGR meetings in 1979 for Meso-America and the Andean Zone. This work will be helped by a senior adviser in the region.

3. Other activities

This includes Board support given to activities of which priority collection recommended by the Board's Crop Advisory Committees and Working Groups is the major area of activity and which are not covered by allocations to regional activities (programme element 2). In addition the Board will put collections in order.

4. Forest genetic resources

The Board has funded in 1979 in-depth reconnaissance surveys in Africa, Asia and Latin America. Surveys are necessary to prepare a realistic programme of work based on the needs and possibilities for exploration and conservation of the three continents and to identify, and secure support and cooperation from suitable local institutes to undertake the conservation of species of trees important in agricultural development, such as those useful for fuel for cooking and those used for environmental stabilization. The results of the surveys will not be known until early 1980 and the Board does not intend to support projects until these have been clearly outlined. At the present support is not envisaged before 1981.

5. Conservation

The Board will continue to encourage the upgrading of storage facilities where necessary. However, seed storage is far from the full answer to maintenance and conservation of genetic stocks. Many crops must be maintained as living collections in plantations or short-term stores of roots and tubers. This is because such plants produce what are called 'recalcitrant' seeds which do not survive drying and the freezing temperatures which are standard for the storage of 'orthodox' seeds. In tropical areas, such species present problems which have not yet been solved. Moreover, the longevity of different orthodox seeds in cold stores remains uncertain. Hence, the Board proposes to continue to support the investigations on seed physiology being carried out for it under the supervision of Professor E.H. Roberts of Reading University, U.K. These investigations should enable the Board to determine whether better methods of conservation can be recommended to gene bank managers. The Board will turn its attention to other important vegetative crops in 1980.

6. Committees, Working Groups

The Board has organized five Crop Advisory Committees, in cooperation with the appropriate International Agricultural Research Centre, on rice, wheat, maize, sorghum and millets, and *Phaseolus* beans as well as a series of Working Groups. The Board in 1980, wishes to continue to be advised by the scientific communities through its committees, groups, or by commissioning studies to move forward to work on 3-4 additional priority crops per year.

7. Training

The 1979 budget proposes to continue support to the University of Birmingham to enable more students from developing countries to be trained under the University's International Training Course in Conservation and Utilisation of Plant Genetic Resources. In addition, the Board intends in 1980 to hold short technical courses (for the first time two courses in Spanish), provide fellowships for a few scientists from on-going national programmes, and to provide on-the-job training as appropriate. It is expected that 15 fellows will undergo one-year training and over 100 persons will attend IBPGR short courses.

8. General administrations

As far as possible, the Board wishes to see its budget allocated to pay for field activities rather than administration. Nevertheless an allocation is necessary to pay for Board meetings and missions, publications and Secretariat expenses. In 1980 the Secretariat - largely provided by FAO - will be further strengthened: the information officer (financed by IBPGR) and an additional officer (financed by FAO) will bring the strength to six full-time scientists backed by administrative and secretarial personnel.

Core-funded outreach activities

Not applicable

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

1818 H St., N.W. Washington, D.C. 20433 U.S.A.
Telephone (Area Code 202) 477-3592
Cable Address – INTBAFRAD

ICW/75

July 10, 1975

TO: Participants in International Centers Week

FROM. Executive Secretariat

SUBJECT: Commentary on the 1976 Program and Budget of the International Board for Plant Genetic Resources (IBPGR)

Attached for information of the members of the Consultative Group and of the Technical Advisory Committee is a paper giving the Secretariat's observations on the 1976 budget submission of the International Board for Plant Genetic Resources (IBPGR).

Attachment

The 1976 Program and Budget of the International Board for Plant Genetic Resources (IBPGP)

Observations of the Consultative Group Secretariat

I. INTRODUCTION

1. This Commentary by the Consultative Group Secretariat on the draft 1976 Program and Budget proposal of the International Board for Plant Genetic Resources is based on a review of the program and correspondence with the Chairman of the Board.

2. The decision to establish the International Board for Plant Genetic Resources (the 'Genes' Board) was taken at the November 1973 meeting of the Consultative Group. The Secretariat for the Board is provided by FAO and the Board held its first meeting in Rome in June 1974. This meeting agreed that the Secretariat should prepare a document setting out the terms of reference of the Board and the basic rules and procedures by which the Board should operate. These terms are set out in Appendix 3 of the Annual Report for 1974.

3. The mandate of the Board as defined by the Consultative Group is to promote an international network of genetic resource activities for collection, conservation and utilization of plant germ plasm. In addition to supporting the collection of germ plasm of important crops, the Board is sponsoring an information storage and retrieval system for management of genetic resources. It is also sponsoring regional genetic resource centers; the Near East, Ethiopia, Costa Rica, India and the Far East are under consideration. The Board is also working closely with the international centers in strengthening their role as major centers of collection for crops with which they are associated. It is organizing symposia on major crops and studying training requirements.

II. PROGRAMS AND BUDGETS

Activities in 1974

4. Five donors pledged approximately $252,000 to the Genes Board for 1974. However, the Board's activities were very limited during the year, and expenditure reached only $53,000, of which the Secretariat spent $12,000 and Board missions and meetings $40,500, leaving approximately $200,000 to be carried forward to 1975. One Genes Board-supported project became operational during 1974: this was the Communication, Information and Documentation System (CIDS), organized by a team at the University of Colorado and financed out of FAO's regular program in 1974, with the initial Genes Board contribution in 1975. The objective of this information system is the development of genetic resource data into a machine readable format.

1975 Program and Budget

5. In 1974 the Board proposed a program for 1975 costing $729,000 (Table I) in which it estimated a carry-over from 1974 of $175,000, thus requiring $554,000 of new funds. These were provided by 7 donors. The largest item in the 1975 budget was $237,000 for the support of CIDS. The FAO regular program contributed approximately $131,000 and the University of Colorado, $35,000, giving a total of $403,000 for this project. The University of Colorado team has visited CIMMYT, IRRI, IITA, ICRISAT and CIP as well as several national centers, CIMMYT will be used as a model for setting up this project.

Table I

1975 and 1976 Budgets ($'000)

	1975	1976
Genetic Resources, Communication, Information and Documentation System (CIDS)	237	360
Support for germ plasm activities at Genetic Resource Centers	100	583
Symposia and review papers	100	60
Plant Quarantine projects	10	10
Support of training programs	-	35
Publication of papers from symposia, etc.	25	-
Meetings of Board and Executive Committee	90	90
Board missions and publication of Board documents	48	40
Secretariat expenses	54	60
Contingencies	65	100
Totals	729	1,338
Carry-over	175	250
Net requirements	554	1,088

6. Amongst other funds allocated in 1975 are $31,500 for the first 6 months of a program on food legumes and root crops at IITA and $50,000 also for the first six months of a tropical forage legume and grass program at CIAT.

The Board is investigating the needs of genetic resource centers at Turrialba, Costa Rica, Izmir, Turkey; Bari, Italy and also in Ethiopia, India and Indonesia. The Board is sponsoring two symposia, one on groundnuts in Florida, the other on wheat in the Soviet Union. Plant quarantine regulations are also receiving the attention of the Board since these, while essential for disease control, may also hamper exchange of germ plasm.

1976 Program and Budget

7. The Board has submitted a program for 1976 costing $1.338 million (Table I). The IBPGR Secretariat states that the budget has been cast in flexible terms. With an estimated surplus of $250,000 from 1975, the Board estimates new funds needed at $1.088 million. The 1976 budget represents an increase of 84% over that for 1975. The largest item in the 1976 budget ($583,000) is for support of germ plasm activities at international centers, for regional centers and for exploration of germ plasm sources and collection of priority crops for which $250,000 is provided. The Genetic Resources, Communication, Information and Documentation System (GIDS) program will require $352,000. This includes $7,500 for a steering committee which will offer guidance in the development of this system. The 1976 budget also includes $65,000 for a forage legume program at CIAT and $50,000 for a rice program at IRRI.

8. In its program for 1976 the Board plans to select, from some 35 crops, 10 of high priority; priority regions have also been selected; these are South Asia, South East Asia, the Mediterranean, Ethiopia and the Central and South American tropical lowlands.

9. The Board has also decided to create, in cooperation with appropriate international centers, Crop Advisory Committees to review the genetic resources situation in each major crop and suggest necessary action - exploration, evaluation, storage and maintenance. IRRI (rice) CIMMYT) (maize) and ICRISAT (sorghum and millets) are likely to be involved soon.

III. ISSUES

10. Although it is proposed that IBPGR will be a coordinating and planning body rather than a financing agency, there are some financial issues to which attention should be drawn. Clarification on a number of points has already been received from the Chairman of the Board, but some remain.

11. A sum of $65,000 is allocated to CIAT for work on tropical forage legumes and grasses. This follows a grant of $50,000 in 1975. However, CIAT has included one new post for a forage legume germ plasm specialist in its core budget for 1976 so it would appear that this post is being provided for by both organizations; the Secretariat recommends that the provision of $65,000 be deleted from the IBPGR budget.

12. In 1975, $31,500 was provided to IITA for the collection of germ plasm of food legumes and tubers. No provision for continuing this work has been made in the IBPGR 1976 budget; the Secretariat has been informed by the Chairman of the IBPGR that IITA has a 10-year plan, costed at $1.450 million, for this project. However, IITA has not provided for the item in its 1976 core budget, as the Center had understood that the IBPGR had provided $150,000 for it in its 1976 budget. The Secretariat takes the view that, wherever possible, long-term projects of this nature should be included in core budgets. Consequently, it has requested IITA to include this item in its 1976 budget, basing its proposal on a costing agreed between the Center and the IBPGR. It will be noted that the budget provides $50,000 for rice collecting work by IRRI and the Secretariat endorses the Genes Board view that this project should be in the core budget of the Center.

13. The budget provided $100,000 for Izmir and/or ICARDA; the Swedish Government has agreed to support the Izmir center until mid-1976 and this sum will carry the costs until the end of 1976. The Izmir project is largely for the support of local programs in the region and the Secretariat assumes that the annual running costs, presumably $200,000, will then be provided by the Board through ICARDA or some other headquarters in the region. The Secretariat will keep the Board informed of the development of ICARDA.

14. The budget provides $90,000 for meetings of the Board and its executive committee. This is more than double the amount being budgeted at some of the older centers for the costs of their boards and the Secretariat has asked the Secretary of the Board for additional details on this item.

15. From its 1975 budget of $729,000, the Board estimates a carry-over of $250,000, or more than one-third of its budget for this year, into 1976. The 1976 budget includes $100,000 for contingencies (7.5%) and while the Secretariat accepts that it may be difficult to provide a form of budget for some projects, it considers that this figure could be reduced to about $20,000 or perhaps eliminated altogether. The Secretariat considers that in view of the large unspent balances in previous years, there may be room for some additional economies in the 1976 budget, especially when a revised figure for the 1975 carry-over is obtained. The effect of these changes, including the elimination of the grant to CIAT, would be to reduce IBPGR's budget request by at least $145,000; on the other hand, the inclusion of the food legume and root crop germ plasm in the core budget of IITA would increase that Center's needs by $150,000 and its man-years by 2.7.

16. The year 1976 promises to be one of considerable progress in the work of the Board. However, it would appear that a number of its recommendations will result in considerable increase in both capital and operating funds needed by the other centers and the Secretariat should be kept informed of these proposals, so that members of the Consultative Group can be kept up-to-date on developments.

NOV 7 9 41 AM '78

EXECUTIVE SECRETARIAT

ACTION MEMORANDUM FOR THE ADMINISTRATOR

NOV 7 1978

THRU : ES

FROM : AA/DS, Sander M. Levin

SUBJECT: International Centers Week, Washington, D. C. November 6-10, 1978

Problem: Your approval is required for the position to be taken by the U.S. Representative at the annual meeting of the Consultative Group on International Agricultural Research (CGIAR) regarding the general policy issues to be discussed during the meeting and your authorization is required for setting the maximum level of A.I.D.'s grant contribution toward the 1979 requirements of the nine international agricultural research centers and two associated programs supported by the CGIAR. (The Asian Vegetable Research and Development Center (AVRDC) is not financially supported under the CGIAR.)

Discussion: A flow of improved agricultural technology is essential for sustained agricultural development. While most of the technology needed in a given developing country will have to be molded to fit the country's unique conditions, the raw materials and ingredients for much of that technology (in the form of knowledge, or crop germplasm and varieties) can come from the outside world.

An informal global research network has evolved to supply the needed technology. While extending globally, the network has its origins in the farmer's problems in the developing nations. The network extends through the national research systems, includes the international agricultural research centers (IARCs), and is beginning to incorporate the research institutions in the developed nations. The international centers were the early focal point in this research network and retain their unique and essential central position as suppliers of new technology, technology components, and training.

The centers are best known for the wheat, rice and corn varieties that came from the first two centers and sparked the sharp increase in developing country food supplies during the last decade. The continuing contributions of the centers have been less dramatic than the high yielding varieties, but are substantial and important. Each established center is a focal point for technology generation and spread, for practical training of developing country personnel, and each is an important resource in efforts to upgrade national research systems and commodity production programs.

Most of the centers in this network are supported through the CGIAR, and A.I.D.'s steadfast support of the CGIAR activities has been the foundation of the system. Since 1972 the system has grown from 16 to about 30 donor members, from 4 to 11 centers and programs, and the funding has grown from $20 to $100 million.

The growth of the center system is a tribute to the performance of the centers and an indication of the confidence of the donor community. However, the donors have responded to this rapid growth with a note of caution and have declared the years of 1976 to 1979 as a consolidation period. No new centers or programs have been assumed under CGIAR since 1976. A.I.D. has shared the concern for the rapid growth, noting that however successful the system, resources are limited and must be expended prudently.

Reflecting our mutual concern regarding future growth of the system, the Technical Advisory Committee (TAC) of CGIAR has been considering the validity of placing an upper limit to the growth of each center. We have encouraged such consideration, especially in conjunction with an analysis of priorities for international research. A key element of the growth limits concept is to retain the present unique character of the centers, including: highly capable but relatively few scientists; well integrated, multidisciplinary, problem-solving research programs; quick response capability; and minimal managerial impediments. We want to affirm our interest in maintaining the unique qualities of the centers and express our concern for the hazards of unlimited growth.

TAC has produced a thoughtful paper on priorities for international support to agricultural research. It reaffirms the TAC position that the amount, quality and stability of food supplies in the developing countries and meeting the nutritional needs of the less advantaged people should be the primary objectives. TAC notes a number of alternatives that need to be considered as CGIAR's priorities are further developed, and asks guidance from CGIAR on what assumptions should be made about growth of the CGIAR system in the future. We consider this one of the fundamental questions that should be addressed by CGIAR within the next year. We will be supportive of a policy study group within CGIAR that would examine the future of CGIAR, including its expected growth and the activities so be included.

The growth of the core research programs of the centers has been accompanied by a sharp increase in the off-campus activities of some centers. Some off-compus activities are part of the core function of the center, but most of the off-campus work involves supplying long-term technical assistance to developing nations to assist in

commodity research and development programs. The latter programs are funded as special projects, usually involving host country and external donor funds. Several such projects are funded by A.I.D. through loan or grant country programs. These programs are important to the developing country and a minimum level of involvement in such programs helps keep the center well informed of problems at the farm level. There is however, some concern that if centers become too involved in such programs they will be distracted from their primary purpose - the production of usable technology. TAC will likely conduct an analysis of off-campus activities at centers during 1979, and we want to encourage that analysis.

As part of our response to the rapid growth of center programs and budgets, A.I.D. has taken a more active part in center board meetings. During 1978, a senior A.I.D. agriculturist was present at nearly every board meeting where programs and budgets were discussed. While A.I.D. employees do not accept board membership, our people are freely involved in the discussions. We intend to maintain our involvement in board meetings in order to have a positive effect on center programs.

The self-imposed consolidation period of CGIAR will end in 1979 and several institutions seek either inclusion within CGIAR or some form of association with the group. Previously, each proposed new activity has been considered independently by TAC and a recommendation made for CGIAR consideration. Since there are several entities now seeking inclusion or recognition, we want to suggest that the CGIAR develop a procedure for dealing with these several applicants at one time. The process will likely be encumbered by a consideration of "associate" versus "full" membership status. (A.I.D. has not been enthusiastic about "associate" membership because we think it is without meaning in such an informal organization.) The approach we will suggest is to have TAC do an analysis of the technical aspects of each potential entrant and present the analysis and their recommendation to CGIAR. The CGIAR could then consider each potential entrant as part of the total package of future CGIAR activities. We think this approach would encourage donors to give more consideration to the scope of activities to be included under CGIAR and the impact on the finite resources of the donor group. The potential entrants include:

- International Food Policy Research Institute (IFPRI)
- International Fertilizer Development Center (IFDC)
- International Center for Living Aquatic Resource Management (ICLARM)
- International Center for Insect Physiology and Ecology (ICIPE)
- International Council for Research Agroforestry (ICRAF)
- International Service for National Agricultural Research (ISNAR)

Each potential entrant's cause has been championed by one or more donors. We want to suggest that CGIAR ask TAC to do an analysis of the technical aspects of each potential entrant and we want CGIAR to consider how the inclusion of each potential entrant would affect both the future scope of CGIAR and the demand on resources. These effects could be examined by the policy study group mentioned above.

The ISNAR proposal is considerably more advanced than the others. The concept of such a service has been discussed at a previous Centers Week, at two other international meetings, and was further developed by a task force named by the CGIAR. The report of the task force was reviewed by TAC at its September 1978 meeting, and TAC will report on that review at this Center's Week. The Group may accept our suggestions to examine the effects of admitting the other new entrants, but many donors within CGIAR will not want to delay CGIAR consideration of ISNAR. While we acknowledge the work that has been done in relation to ISNAR and are aware that many donors want to move ahead, we believe the inclusion of ISNAR within CGIAR would constitute a major new area of responsibility for CGIAR. We thus will ask CGIAR to examine carefully the effects of including ISNAR along with the other potential new activities during the next several months.

The IFPRI proposal is fairly well developed and has been supported by the three donor members who have funded IFPRI to date. Consideration of IFPRI along with the other institutions mentioned above will be timely.

At this meeting we will formally request CGIAR to consider IFDC membership. We expect IFDC to be one of the potential new entrants to be considered by TAC and CGIAR in 1979. We will expect IFDC to distribute information on its programs to CGIAR members and we expect the IFDC Board to actively seek funding from CGIAR members and other potential donors during 1979.

The General Accounting office reviewed A.I.D.'s relationships with the International Centers in January, 1978. There are no outstanding issues to be resolved, but we are concerned about the continued availability of funding from Inter-American Development Bank (IDB) for the Mexico Center. Our concern is shared by the CGIAR Chairman and we are jointly encouraging IDB to maintain its support, without regard to its source of funds.

In August 1978, we responded to a letter from Senator Frank Church concerning potential duplication (and related issues) between International Centers and collaborative research programs involving U.S. Universities. As stated in our response, there is great potential for complementarity between center programs and U.S. University programs, both within the United States and in developing countries, because the U.S. Universities have such vast resources of both people and facilities. There is also substantial danger of needless duplication between center and U.S. University efforts. This duplication can be avoided if key center personnel are involved in planning collaborative programs. It is A.I.D.'s responsi-

bility to assure that the needed planning takes place. Also, when both centers and U.S. Universities are involved in a developing country program, A.I.D. must bear some responsibility for assuring complentarity of efforts. This requires capable A.I.D. mission technical staff.

The current estimate of the combined 1979 budgets of the CGIAR-sponsored activities is about $104 million. An A.I.D. contribution of 25% would be about $26.0 million. A discussion of the illustrative budget is presented in Annex A, attached. A.I.D. would also contribute $0.6 million to the Asian Vegetable Research and Development Center (AVRDC) which is not a member of the CGIAR. (This amount is included in the total figure of $26.6 million presented in the FY 1979 Congressional Presentation.)

Recommendation: I recommend that you authorize the U. S. Representative to the CGIAR Centers Week, 1978 to take the positions listed in attachment A, and to indicate that A.I.D. is prepared to grant up to twenty-five (25) percent, to a maximum of twenty-six million U. S. dollars ($26,000,000), of the total contributions to the core and capital budget requirements of the nine international agricultural research centers and two associated programs sponsored by CGIAR, subject to the provision by Congress of adequate funds and A.I.D. review of plans and progress that warrant such support. This approval included authorization for FY 1979 A.I.D. grants not to exceed twenty-six million U. S. dollars ($26,000,000) for 1979 core and capital costs for the nine international centers and two associated programs sponsored by the CGIAR. Grants will be made to individual centers after review of the proposal submitted from each center by appropriate technical offices and clearance by GC/TFHA. (Authorization for FY 1979 A.I.D. grant funding for the AVRDC is to be covered in a separate memorandum.)

Approved: _____

Disapproved: _____

Date: 11-8-78

Clearances:

DS/AGR, DPeterson	(Draft)	Date 10/30/78
DS/AGR, MMozynski	(Draft)	Date 10/30/78
DS/PO, RSimpson	(Draft)	Date 10/31/78
DAA/FN, ENBabb	[illegible]	Date 11/6/78
GC, STisa	(Phone)	Date 11/3/78
AA/AFR, GButcher	(Draft)	Date 11/6/78
AA/ASIA, JSullivan	[illegible]	Date 11/6/78 — with comments attached
AA/LA, ALValdez	[illegible]	Date 11/6/78 — with comments attached
AA/NE, JCWheeler	(Draft)	Date 11/6/78
AA/HA, JOweiss	(Phone)	Date 11/3/78
AA/PPC, JStepanek	(Phone)	Date 11/3/78
GC, MBall	M B by AAR	Date 11/6/78

DSB/AGR/R,FJWilliams:sab:10/25/78

ATTACHMENT A

SUMMARY OF POSITIONS FOR THE U.S. REPRESENTATIVE TO THE CGIAR CENTERS WEEK, 1978

1. Support a proposal for a Technical Advisory Committee (TAC) analysis during 1979 of off campus activities of the International Agricultural Research Centers (IARCs) in the CGIAR system;

2. Support a proposal for a policy study group within the CGIAR that would examine the future of the CGIAR;

3. Propose that the CGIAR ask TAC to conduct a technical analysis of the several current potential entrants into the CGIAR system and further, that the CGIAR conduct a policy analysis of the impact of the inclusion of any or all of these institutions on the future scope, and administrative and monetary requirements of the CGIAR system;

4. Propose that the CGIAR consider, as a part of the policy analysis proposed in paragraph 3 above, the advisability of including the International Fertilizer Development Center (IFDC) and the International Food Policy Research Institute (IFPRI) under the CGIAR system; and

5. Propose that the CGIAR defer its decision regarding the inclusion of the International Service for National Agricultural Research (ISNAR) until the policy analysis proposed in paragraph 3 above is completed because inclusion of ISNAR would represent a major new block of responsibility for the CGIAR.

Proj. No. 931005 6 (4)
PN - PD-AAF-374

31b

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

Dr. Robert J. Pichel
Food and Agriculture Organization
of the United Nations
The International Board of Plant Genetic
Resources (IBPGR)
Via delle terme di Caracalla 00100
Rome, Italy

JAN 27 1975

Subject: Grant No. AID/ta-G-1190
(Revised)
PIO/T No. 931-11-130-056-73-
3158616

Dear Dr. Pichel:

Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "A.I.D." or "the Grantor"), hereby grants to the Food and Agriculture Organization of the United Nations (hereinafter referred to as "FAO" or "the Grantee") the sum of eighty thousand dollars ($80,000) in support of an International Board of Plant Genetic Resources' work plan to identify general and specific needs for exploration, collection, evaluation and conservation of plant genetic resources with particular reference to species of major economic importance and their wild and cultivated relatives.

The funds contributed under this grant, along with contributions from other specified donors, will enable the FAO to support the IBPGR's (1) project activity for the development of a computer-based system for the storage, retrieval and analysis of all relative data on genetic

CERTIFIED A TRUE COPY THIS
20th DAY OF June '75
R.D. Hindstaff

resources; (2) germplasm activities at genetic resources centers (3) activities related to specific crops through the sponsorship of symposia and preparation of review papers; (4) the preparation of a technical paper on plant health and quarantine problems, and (5) the publication of review papers resulting from the symposia and reviews sponsored by IBPGR. The IBPGR project will provide a resource for improved communications between institutions and scientists; information developed will provide complementarity between national, regional and international research programs.

This grant is effective as of the date of this letter and shall continue in effect through December 31, 1975. Funds granted hereunder shall apply to specified costs incurred during the period January 1 through December 31, 1975.

This grant is made subject to the following conditions:

1. Funds provided by this grant are to be used exclusively by the FAO in support of the IBPGR core budget which is set forth as Attachment II hereto and made a part hereof. These funds represent up to 25% of the IBPGR Budget for Calendar Year 1975, and such funds represent A.I.D.'s commitment to support the Grantee in an amount of $80,000 for the IBPGR core budget of $554,000 for the Calendar Year 1975.

2. Grant funds will be expended only for the purpose of implementing

the IBPGR project as more fully described in the Program Description (Attachment I) as supported by the aforementioned budget (Attachment II) and in accordance with the procedures and financial regulations of the Food and Agriculture Organization of the United Nations as set forth in the FAO manual which pertains thereto.

3. The following reports shall be prepared and submitted to A.I.D. as stated below:

(a) One hundred (100) copies of the Comprehensive Annual Report on overall program and fiscal matters for the entire calendar year for which the grant was made.

(b) Five (5) copies of such other reports as may be prepared in connection with the annual International Centers Week. (This report will describe proposed program and funding requirements for the ensuing calendar year).

(c) Five copies of such other reports as may be prepared or requested from time to time on various other program activities.

(d) Copies of the above stated reports shall be submitted to the below listed Technical Specialist:

Dr. Guy B. Baird
Associate Director Research
Technical Assistance Bureau
Office of Agriculture
Agency for International Development
Washington, D. C. 20523

Additionally, one copy of each report shall be submitted to the Grant Officer whose name appears on the grant.

(e) In addition one copy of each report described in paragraphs (a) and (c) above shall be sent to all A.I.D. Missions. The Grantee will be advised, by the Technical Specialist of these recipients and changes as they occur.

(f) General Grant/Program questions can be addressed to the bwlow listed Program Specialist:

Mr. Ryland Holmes, Chief
Program Division
Technical Assistance Bureau
Office of Agriculture
Washington, D. C. 20523

4. If, after expiration of the Grant there are unexpended funds as they relate to this grant, the Grantee will refund to A.I.D. an amount of such unexpended funds equivalent to the percentage of AID's support in relation to support provided by other Donors.

Upon acceptance of the conditions set forth above, the Agency for International Development will make a cash grant of $80,000. It is understood that the funds thus obtained, together with other funds obtained from other donors, will be deposited in Trust Fund account No. 9150 which has been established for this purpose with the Banca Commerciale Italiana, FAO Branch, Rome, for the credit of the FAO/UN General Dollar Account, "International Board For Plant Genetic Resources (IBPGR)."

Please sign the original and six copies of this letter to acknowledge your understanding of the conditions under which these funds have been granted. Please return the original and five (5) copies to my office.

Sincerely yours,

V. C. Perelli
Grant Officer
Technical Assistance Branch
Central Operations Division
Office of Contract Management

Attachments:
I. Program Description
II. CY 1975 IBPGR Program Budget

ACKNOWLEDGED:

FOOD AND AGRICULTURE ORGANIZATION OF
THE UNITED NATIONS

BY: A. J. Bronsema

TITLE: Director, Financial Services Division

DATE: MAY. 27 1975

International Board for Plant Genetic Resources (IBPGR)

Program Description

January 1, 1975 through December 31, 1975

A - Objectives:

To identify general and specific needs for exploration, collection, evaluation and conservation of plant genetic resources with particular reference to species of major economic importance and their wild and cultivated relatives, to determine priorities among them and to insure to the fullest extent possible that the materials conserved are made available for plant breeding and other scientific activities as required.

To establish standards, methods and procedures for exploration and evaluation and to determine minimum standards for conservation and renewal of stocks of both seeds and vegetative material.

To arrange for replicated storage of seed and vegetative stocks; to promote technical meetings; to promote training activities at all levels.

To develop a world-wide network of institutions, organizations and programs able and willing to contribute to the above objectives.

To promote the articulation of ongoing programs so as to avoid duplication and to fill in gaps.

To strengthen the programs of existing institutions and to encourage the establishment of new organizations, institutions and programs to the above ends, where necessary, particularly in areas of major genetic diversity.

To promote the dissemination of information and material among centers and institutions and to encourage, within existing resources and possibilities, the establishment of inventories of collections.

To make appropriate recommendations with respect to computerized

information storage and retrieval systems, taking into account their suitability for an effective international genetic resources network, and their compatibility with existing systems in operation at regional and national centers.

Under the "genetic resources" sub-program the medium-term objective is to conserve genetic resources in crop plants. The objectives for CY 1975 are to continue development of a world network of genetic resource centers; to coordinate the collection, coding, retrieval and exchange of genetic information; to assist exploration missions, especially in areas where genetic material is endangered; to continue publication of the plant genetic resources newsletter; and to convene a regional meeting of experts in the utilization of genetic resources.

Under the "crop ecology" sub-program the medium-term objective is to determine the optimum ecological conditions for crop production. The objectives for CY 1975 are to provide countries and field projects with better agro-meteorological information by improving field observation methods and completing the collection of agro-meteorological data; to publish agro-climatology surveys for Latin America and South East Asia; and to cooperate in experiments on effects of ecological factors on identical crop varieties.

B. Projected activities:

1. Conservation, through the establishment of a world network of genetic centers, a task already initiated, in which twenty of the most important institutions in the world have to date agreed to cooperate; in promoting the establishment of regional centers in the areas of genetic diversity, and to continue the technical supervision of the center already established for the Near East in Izmir, Turkey; in providing technical advice and financial help to national and regional institutes for the long-term conservation and rejuvenation of crop germplasm.

2. Exploration, through the planning and support of collecting missions in areas and crops according to the priorities recommended by the Panel* and in the distribution and evaluation of the material collected.

3. Documentation, through the further development of standardized data recording procedures, and of information storage and retrieval systems, and by providing this information to all interested institutions or scientists.

4. Information, through the publication of the Plant Genetic Resources Newsletter and other materials, and the promotion of technical meetings and seminars.

5. Training, through the promotion and support of training at the M. Sc. level in genetic resources and regional short courses in exploration, conservation and documentation.

C. Specific Activities to be Undertaken:

1. Communication, Information and Documentation System (CIDS)

(a) Program support

This item is to help finance continuation and expansion of work on development of a computer-based system, by a team at the University of Colorado under FAO auspices, for the storage, retrieval and analysis of all relevant data on genetic resources. The Board believes that such a system is basic to achievement of its objectives, and that the University of Colorado team, under the leadership of Dr. D.J. Rogers, is making excellent progress towards development of a comprehensive, portable and adaptable scheme which can be used by all genetic resource centers and by plant breeders who need genetic information, irrespective of the type of computing facilities available to them. The IBPGR will serve as the Policy Board for this project.

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* A genetic advisory panel to be appointed by the Board.

The actual work has three aspects:

(i) The development of the CIDS for use in genetic resources information storage, retrieval and analysis. Such development includes:

- improving the generality of the system to handle most of the problems in utilization of genetic data;
- insuring the "portability" of the system so that it can be moved from one computing center to another with a minimum cost, thereby reducing the problems of "compatibility";
- training computing centers personnel in the use and maintenance of CIDS.

(ii) The application of the system to data drawn from collections in different parts of the world. The purpose is to demonstrate the capacity of the system to uncover the real problems facing genetic resources workers with respect to the designation of proper descriptors and the handling of data.

(iii) The application of the system to data which are needed for program planning and evaluation.

(b) Support for Further use of the system by genetic resources centers

This item is a direct response by IBPGR to several urgent requests from centers (e.g., CIP, INIA (Mexican National Institute of Agriculture), EMBRAPA (Brazilian National Research Center) for assistance from the University of Colorado team in establishing CIDS. The fund will meet the expenses of the team, but not those of the centers, in responding to at least some of these requests in addition to some similar assistance provided for in the team's core program.

2. Support for germplasm activities at genetic resources centers

It is expected that, in future, this team will constitute a major part of the Board's program. For 1975, however, the requirements for support to genetic resources centers at Turrialba and in Ethiopia have not yet been finally organized and basic financing for these centers is to be provided by the Federal Republic of Germany under its bilateral program. The Board is sending a mission to Turrialba and, if appropriate, will send one to Ethiopia to determine whether additional support will be needed from IBPGR, but until the Board receives the reports of these missions, the amount of Board support, if any, for these centers in 1975 is not known. Similarly, the Swedish Government has agreed, subject to the receipt of certain assurances from the Turkish Government, to continue support of the Izmir Center until July 1976. The Board is planning to send a mission to Izmir in the Spring of 1975, but it is not known if additional support will be needed from the Board by that center. The Board is also investigating the needs of centers in India and in Indonesia and at Bari in Italy (for the Mediterranean region). It is also planning to obtain from the various international centers any proposals which they may have for Board support for genetic resources work which falls outside thier normal responsibilities and is therfore not included in their own core financing. This item of the budget is intended to meet any well-founded requirements of national regional or international centers which may develop from these investigations or from requests for support which may be otherwise received by the Board.

3. Support of activities related to specific crops

(a) Symposia

The information which is presently available on the genetic resources of many important world crops is incomplete or inadequate. The Board has decided to cosponsor two symposia to enable further information to be collected; to determine what gaps in germplasm collections need to be filled and how they can best be filled, and to arrange for more adequate information exchange in the future. The first such symposium will be on wheat and will be hosted by the N.I. Vavilov Ala-Union Scientific Research Institute of Plant Industry in Leningrad. The second symposium will be on groundnuts at the University of Florida, which the IBPGR expects to cosponsor with the Rockefeller foundation. No final decision has been made on a third symposium, but the Board believes it likely that it will wish to cosponsor one on maize. IBGPR support of these symposia is designed to meet only a part of their cost, the other part to be borne by the cosponsor.

(b) Preparation of review papers

The Board agreed that it was necessary to identify the most urgent requirements and priorities in genetic resources activities for several important world crops in addition to those for which symposia are arranged. To this end it was felt that review papers on two or three of the major crops should be prepared each year. The objective of such papers is to identify the location of present collections, the gaps in genetic resources material, where and to what extent further collections are needed, the specific requirements for germplasm material of the plant breeders of each of these crops, and the appropriate descriptors for such crops for purposes of the CIDS system. These review papers may also form the basis, where appropriate, for future crop symposia to be sponsored by the Board.

4. Preparation of a technical paper on plant health and quarentine problems arising in international genetic resources transfers

Either for the utilization or the conservation and storage of genetic stocks, the transfer of plant materials on a global scale, involves possible risks of widespread distribution of plant pathogens; the quarantine regulations designed to minimize these risks, on the other hand, often hamper desirable exchanges of genetic resource materials. As a basis for consideration by the Board of the effect of these problems on its future work, the Board has decided to have a technical paper prepared on this important subject.

5. Publication of papers resulting from symposia and reviews

This item is to enable the Board to publish, if it deems desirable, the information assembled as the result of the symposia and the reviews on specific crops included in its program. The Board believes that its objectives require wide dissemination of such information to plant breeders at international, regional and national centers and institutes.

D-General Discussion and Linkages

The continuing development of satisfactory planned breeding programs greatly depends upon the availability of primative varieties and wild relatives of crop species which are disappearing rapidly. Collection and conservation of these resources and their evaluation for subsequent use in plant breeding programs are most important. A world-wide effort needs to be mobilized in order to achieve this objective within the limited time available. The exploration and collection of genetic resources in areas which are dangerously threatened by genetic erosion is of particular importance. Also there needs to be more emphasis on establishing and

consolidating conservation installation (gene banks) and developing evaluation and utilization procedures in the IDCs.

The above needs have been recognized and implementation activities will include: establishing liaison with existing centers, promoting the establishment of new centers in regions of crop diversity, supporting specific exploration and conservation activities, and developing and establishing systems for storage and retrieval of genetic information.

INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES

SUMMARY OF 1975 BUDGET

1.	**Communication Information and Documentation system (CIDS)**		
	- Programme support	212,000	
	- Support for further use of the system by genetic resources centres	25,000	237,000
2.	**Support for germplasm activities at genetic resources centres**		
	- Regional centres	50,000	
	- International and national centres	50,000	100,000
3.	**Support of activities related to specific crops**		
	(a) Symposia		
	- Support for symposia on wheat genetic resources in Leningrad, and groundnut genetic resources in Florida, and one other symposium, probably on maize	75,000	
	(b) Preparation of review papers		
	- Three papers to be selected from sorghum and millet, soya, food legumes of the genus *Phaseolus*, and rice if needed	25,000	100,000
4.	**Preparation of a technical paper on plant health and quarantine problems arising in international plant genetic resources transfers**		10,000
5.	**Publication of papers resulting from symposia and reviews**		25,000
6.	**Board missions and meetings**		
	- Meetings of Board and Executive Committee	90,000	
	- Missions to international, and regional centres and other genetic resources activities	33,000	
	- Publication of Board documents including annual report and programme and budget proposals	10,000	
	- Other assignments undertaken by Chairman and Board members	5,000	138,000

INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES
SUMMARY OF 1975 BUDGET (Cont'd)

7.	Secretariat expenses		
	- Travel	16,500	
	- Personal services (G-6 and G-4)	29,000	
	- Miscellaneous (postage, stationery, cables, duplicating, telephone calls)	8,500	54,000
8.	Contingencies		65,000
	Total		729,000
	Less: Estimated carry over from 1974		-175,000
	New funds needed for 1975		$554,000

Attachment II.

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DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

(3)

Dr. Robert J. Pichel
Food and Agriculture Organization of the United Nations
The International Board of Plant Genetic Resources (IBPGR)
Via delle terme di Caracalla 00100
Roma, Italy

MAR 31 1976

Subject: Grant No. AID/ta-G-1272
PIO/T No. 931-11-130-056; 3168629

Dear Dr. Pichel:

Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "A.I.D." or "the Grantor") hereby grants to the Food and Agriculture Organization of the United Nations (hereinafter referred to as "FAO" or "the Grantee") the sum of two hundred thousand dollars ($200,000) in support of its Calendar Year 1976 program to develop an international network of genetic resources activity. Funds contributed under this grant, along with contributions from other specified donors, will enable the FAO (1) to support the IBPGR's program of identifying general and specific needs for exploration, collection, evaluation and conservations of plant genetic resources with particular reference to species of major economic importance and their wild and cultivated relatives; and (2) determine priorities and ensure to the fullest possible extent that the materials conserved are made available for plant breeding and other scientific activities as required. Attachment I hereto, entitled Program Description, contains a more detailed description of IBPGR's program activities and the priorities amongst these activities and is incorporated herein by reference.

This grant is effective as of the date of this letter and shall continue in effect through December 31, 1976. Funds granted hereunder shall apply

to specified costs incurred during the period January 1 through December 31, 1976.

This grant is made subject to the following conditions:

1. Funds provided by this grant are to be used exclusively by the FAO in support of the IBPGR core budget which is set forth as Attachment II hereto and made a part hereof. These funds represent up to 25% of the IBPGR Budget for Calendar Year 1976, and such funds represent A.I.D.'s commitment to support the grant in an amount of $200,000 for the IBPGR budget for the Calendar Year 1976.

2. Grant funds will be expended only for the purpose of implementing the IBPGR project as more fully described in the Program Description (Attachment I), as supported by the aforementioned budget (Attachment II) and in accordance with the procedures and financial regulations of the Food and Agriculture Organization of the United Nations as set forth in the FAO manual which pertains thereto.

3. The following reports shall be prepared and submitted to A.I.D. as stated below:

a. One hundred (100) copies of the Comprehensive Annual Report on overall program and fiscal matters for the entire calendar year for which the grant was made.

b. Five (5) copies of such other reports as may be prepared in connection with the annual International Centers Week. (This report will describe proposed program and funding requirements for the ensuing calendar year).

c. Five copies of such other reports as may be prepared or requested from time to time on various other program activities.

d. Copies of the above stated reports in the number indicated shall

be submitted to the below listed Technical Specialist:

Dr. Guy B. Baird
Associate Director Research
Technical Assistance Bureau
Office of Agriculture
Agency for International Development
Washington, D.C. 20523

e. Additionally, one copy of each report shall be submitted to the Grant Officer whose name appears on the grant.

f. General Program questions can be addressed to the below listed Program Specialist:

Mr. John W. Wiles
Program Analyst
Technical Assistance Bureau
Office of Agriculture
Washington, D.C. 20523

g. General Grant questions concerning its terms should be addressed to the Grant Officer.

4. If, after expiration of the Grant there are unexpended funds as they relate to this grant, the Grantee will refund to A.I.D. an amount of such unexpended funds equivalent to the percentage of AID.'s support in relation to support provided by other Donors.

Upon acceptance of the conditions set forth above, the Agency for International Development will make a cash grant of $200,000. It is understood that the funds thus obtained, together with other funds obtained from other donors, will be deposited in Trust Fund account no. 9150 which has been established for this purpose with the Banca Commerciale Italiana, FAO Branch, Rome, for the credit of the FAO/UN General Dollar Account, "International Board for Plant Genetic Resources (IBPGR)."

Please sign the original and all copies of this letter in the space provided below to acknowledge your understanding of the conditions under which these funds have been granted.

The original and five copies of this letter and accompanying attachments are to be returned to my office.

You may retain two copies of the letter with attachments.

Sincerely yours,

W. C. Borelli
Grant Officer
Technical Assistance Branch
Central Operations Division
Office of Contract Management

Attachments:
I. Program Description
II. Budget

ACKNOWLEDGED:

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

BY: A.J. Bronsema

TITLE: Director, Financial Services Division

DATE: 16 June 1976

ATTACHMENT I

PROPOSAL

INTERNATIONAL BOARD OF PLANT GENETIC RESOURCES

January 1 - December 31, 1976

A. Introduction

The International Board for Plant Genetic Resources (IBPGR) had its second meeting in May 1975. Its Executive Committee met in September 1974 and April 1975 to review progress in the Board's pre-programming activities, to consider proposals submitted to the Board and, within the framework of the activities initiated in 1975 and referred to below, to formulate a budget for the Board's programme in 1976.

Understandably, in only the second year of the Board's operation some of the program activities are still in the development stage. Accordingly, the budget is cast in general terms to permit flexibility in the use of funds by the Board. The percentage of such funds devoted to the development of an international network of genetic resources activities will be progressively increased as the Board's medium and long-term programmes develop. It is intended that such programmes will be closely integrated with the present and future programmes of the International Institutes and those of other centres, at national and regional level, with the objective of meeting the immediate priority needs, both for crops and particular regions.

B. General Policy of the Board

1. The principal objectives of the Board as defined by the terms of Reference given to it by the Consultative Group for International Agricultural Research include:

- "To identify general and specific needs for exploration, collection, evaluation and conservation of plant genetic resources with particular reference to species of major economic importance and their wild and cultivated relatives, to determine priorities among them, and to ensure to the fullest possible extent that the materials conserved are made available for plant breeding and other scientific activities as required;

- To this end, inter alia, it is to develop a world-wide network of institutions, organizations and programmes able and willing to contribute to the above objectives."

Accordingly, the Board has directed considerable attention to the priorities to be assigned to particular crops, or groups of crops, to particular regions of the earth, and to the design and establishment of a coordinated network of institutions and activities.

2. Priorities among crops: The Board will select individual species or groups of species for attention according to the following criteria:

(a) Economic and social importance measured in terms of their present, intended or potential contribution to development, including human diets, the income and well-being of farmers and other rural people, and the economic progress of mankind;

(b) The recognized requirements of plant breeders and research workers in developing and developed countries for genetically diverse materials (including advanced breeding lines) for their work, and the expected significance in economic and social development of the improved types and varieties of crops they will be able to produce with the help of these materials;

(c) The size, scope and quality, including documentation, of existing collections;

(d) The risk that genetically diverse materials of the species and their wild relatives will be lost in the future, particularly the near future, as a result of change and development in agriculture and land use.

Following these criteria, the Board is in the process of assigning provisional priority classifications to some 35 crops or groups of crops, of which less than 10 will be given highest priority and thus receive immediate attention from the Board, and the remainder of which will be given second or third priority. The Board will give continuing attention to the problem of crop priorities under the criteria above stated.

3. Priorities among regions: The Board further determined that regions should be selected for attention according to the following criteria:

(a) That they contain significant genetic diversity of one or more crops or species selected according to the criteria outlined in paragraph 2;

(b) That change and development in agriculture, and/or change in land use are occurring in them at such a rate, that if nothing is done, genetically diverse materials are likely to be lost;

(c) That widespread crop failures have occured or are imminent, or reasonably to be expected, on such a scale that diverse indigenous materials are likely, if nothing is done, to be lost.

In accordance with these criteria, the Board has assigned highest priority to the following five regions: South Asia, Southeast Asia, Mediterranean, Ethiopia and the Central and South American tropical lowlands. In addition, two other regions have been assigned highest priority with regard to particular crops: western Africa with regard to rice, and the Andean zone for potatoes and other tuber bearing Solanums. The Board will be giving further consideration during the coming year to the priorities of other regions of the earth.

4. Networks and coordination: The two sets of priorities lead directly to the two principal dimensions of the world-wide genetic resources network. The first of these genetic resources dimensions is geographical, based on genetic resources institutions and activities in individual nations, associated together in whatever wave are most appropriate, in any one region, into a cooperative regional programme. Within such a cooperative program , one centre (which may or may not be at an International Agricultural Research Centre) might be assigned coordinating, storage, or other functions and so become accepted as a regional centre. This whole dimension relates to the collection and conservation of material, to be evaluated and documented in collaboration with the main users of genetic resources. These users are grouped together as the second dimension.

This second dimension is based on crops or groups of crops. This dimension will link together, using existing links (such as Eucarpia) wherever possible, the leading scientists and breeding or other institutions in the world concerned with each of the priority crops. For each crop or group of crops, the Board intends, in consultation with the leading specialists on it, worldwide, to establish a crop committee to advise it on the genetic resources program so that the Board can ensure so far as possible that geographical priorities for collection are correctly defined, that the requirements of plant breeders and research workers are met, and that the collected and conserved materials are available for use in national, regional and international programmes. In addition, the Board hopes that wherever an international centre carries primary responsibility within the CGIAR system for a particular crop, it will also accept responsibility for cosponsoring and convening the relevant crop committee. Where an international centre is not available, or is not willing to accept this responsibility, the Board will seek to designate some other appropriate institution for this purpose.

The Board has collated lists of institutions, in the priority regions and the nations within them, which could cooperate in the geographical dimension of the network; similarly it is accumulating information about institutions which could cooperate in the crops dimension.

The Genetic Resources Communication, Information and Documentation System (GR/CIDS) is providing a most important means of bringing together specialists on particular crops or groups of crops and of moving towards international agreement on discriptors and methods for storing and retrieving information. In this way it provides an essential element of the crops dimension of the network and (through the consequent guidance it offers to those who collect and evaluate genetic resources material) an essential linkage with the geographical dimension of the network.

5. Basis principles: The Board adopted the following principles relating to the distribution and conservation of genetic materials collected with its support:

(a) Duplicates of all collections are to be deposited at appropriate institutions in the countries in which they are collected;

(b) Base collections are to be duplicated in at least two different institutions;

(c) Participants in the genetic resources network will be expected to exchange freely both genetic materials and information related to them.

SPECIAL PROVISIONS

C. The following reports shall be prepared and submitted to A.I.D. as stated below:

(1) One hundred (100) copies of the Comprehensive Annual Report on overall program and fiscal matters for the entire calendar year for which the grant was made.

(2) Five (5) copies of such other reports as may be prepared in connection with the annual International Centers Week. (This report will describe proposed program and funding requirements for the ensuing calendar year).

(3) Five copies of such other reports as may be prepared or requested from time to time on various other program activities.

(4) Copies of the above stated reports in the numbers indicated shall be submitted to the below listed Technical Specialist:

Dr. Guy B. Baird
Associate Director
Research
Technical Assistance
Bureau
Office of Agriculture
Agency for International
Development
Washington, D.C. 20523

Additionally, one copy of each report shall be submitted to the Grant Officer whose name appears on the grant.

D. General Program questions can be addressed to the below listed Program Specialist:

John W. Wiles
Program Analyst
Technical Assistance Bureau
Office of Agriculture
Washington, D.C. 20523

E. General Grant questions concerning its terms should be addressed to the Grant Officer.

ATTACHMENT II

IBPGR @
Net Financial Requirements
1 January - 31 December 1976

Communications, Information and Documentation	$360,000
Germplasm Activities	468,000
Support to Specific Crops	60,000
Quarantine Problems	10,000
Training Program Support	35,000
Board Meetings/Missions	115,000
Administrative Expenses (travel, services etc.)	60,000
Contingencies	100,000
TOTAL	1,208,000
Minus carryover	- 250,000
Total	958,000

Sources of Funds

United States (AID) - 20.9%	$200,000
Belgium, Canda, Nigeria, Saudi Arabia, Sweden, UNEP	648,000 *
Other	110,000

@ Based on estimates available in October 75 and on consultations between AID and CGIAR in November 75.

* Specific contributions of those listed not confirmed at the time this budget was perpared (nov. 75). It is estimated, however, that the $648,000 is the minimum amount that will be subsequently approved by the respective governments and organizations.

ATTACHMENT II

AGPE:IBPGR/74/8
September 1974

INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES

PROGRAMME AND BUDGET PROPOSALS FOR 1975

I. INTRODUCTION

The International Board for Plant Genetic Resources (IBPGR) had its first organizational meeting in June 1974 at which time it set in train a number of preprogramming activities and requested its Executive Committee to prepare, on behalf of the Board, a programme and budget for 1975. The Executive Committee did so, at a meeting held from 23-25 September 1974. The budget agreed upon by the Executive Committee is summarized on the immediately following pages and is briefly described in programme terms in the remainder of this memorandum.

Since the Board has only been in existence for six months and since none of the investigations which it decided upon in June 1974 have yet been completed, the programme activities which can be undertaken in 1975 are still uncertain. Accordingly, the budget, so far as programme activities are concerned, is cast in general terms and contemplates substantial flexibility in the use of funds by the Board. Moreover, a substantial percentage of the 1975 budget is necessarily devoted to investigations and other preprogramming activities which the Board feels must be carried out before it can, with confidence, formulate its longer-term substantive programme.

Subject to the foregoing qualifications, the Board feels that the budget presented herein, while moderate in amount, will enable the Board to make substantial progress during 1975 towards achieving its objectives.

III. SUMMARY EXPLANATION OF BUDGET IN PROGRAMME TERMS

1. Communication, Information and Documentation System (CIDS) $237,000

(a) Programme support $212,000

This item is to help finance continuation and expansion of work on development of a computer-based system, by a team at the University of Colorado under FAO auspices, for the storage, retrieval and analysis of all relevant data on genetic resources. The Board believes that such a system is basic to achievement of its objectives, and that the University of Colorado team, under the leadership of Dr. D.J. Rogers, is making excellent progress towards development of a comprehensive, portable and adaptable scheme which can be used by all genetic resource centres and by plant breeders who need genetic information, irrespective of the type of computing facilities available to them. The IBPGR will serve as the Policy Board for this project.

The actual work has three aspects:

(i) The development of the CIDS for use in genetic resources information storage, retrieval and analysis. Such development includes:

- improving the generality of the system to handle most of the problems in utilization of genetic data;
- insuring the "portability" of the system so that it can be moved from one computing centre to another with a minimum cost, thereby reducing the problems of "compatibility";
- training computing centres personnel in the use and maintenance of CIDS.

(ii) The application of the system to data drawn from collections in different parts of the world. The purpose of this is to demonstrate the capacity of the system to uncover the real problems facing genetic resources workers with respect to the designation of proper descriptors and the handling of data.

(iii) The application of the system to data which are needed for programme planning and evaluation.

The total cost of the foregoing work in 1975 is estimated to be $378,000, to be financed, in round figures, as follows: FAO Regular Programme, $131,000; University of Colorado, $35,000; IBPGR, $212,000.

(b) Support for further use of the system by genetic resources centres $25,000

This budget item is a direct response by IBPGR to several urgent requests from centres (e.g., CIP, INIA (Mexican National Institute of Agriculture), EMBRAPA (Brazilian National Research Centre) for assistance from the University of Colorado team in establishing CIDS. The fund will meet the expenses of the team, but not those of the centres, in responding to at least some of these requests in addition to some similar assistance provided for in the team's core programme.

2. Support for germplasm activities at genetic resources centres $100,000

It is expected that, in future, this item will constitute a major part of the Board's programme. For 1975, however, the requirements for support to genetic resources centres is still uncertain. The proposed centres at Turrialba and in Ethiopia have not yet been finally organized and basic financing for these centres is to be provided by the Federal Republic of Germany under its bilateral programme. The Board is sending a mission to Turrialba and, if appropriate, will send one to Ethiopia to determine whether additional support will be needed from IBPGR, but until the Board receives the reports of these missions, the amount of Board support, if any, for these centres in 1975 is not known. Similarly, the Swedish Government has agreed, subject to the receipt of certain assurances from the Turkish Government, to continue support of the Izmir Centre until 1 July 1976. The Board is planning to send a mission to Izmir in the Spring of 1975, but it is not known if additional support will be needed from the Board by that centre. The Board is also investigating the needs of centres in India and in Indonesia and at Bari in Italy (for the Mediterranean region). It is also planning to obtain from the various international centres any proposals which they may have for Board support for genetic resources work which falls outside their normal responsibilities and is therefore not included in their own core financing. This item of the budget is intended to meet any well-founded requirements of national, regional or international centres which may develop from these investigations or from requests for support which may be otherwise received by the Board.

3. Support of activities related to specific crops $100,000

(a) Symposia $75,000

The information which is presently available on the genetic resources of many important world crops is incomplete or inadequate. The Board has decided to cosponsor two symposia to enable further information to be collected, to determine what gaps in germplasm collections need to be filled and how they can best be filled, and to arrange for more adequate information exchange in the future. The first such symposium will be on wheat and will be hosted by the N.I. Vavilov All-Union Scientific Research Institute of Plant Industry in Leningrad. The second symposium will be on groundnuts at the University of Florida, which the IBPGR expects to cosponsor with the Rockefeller Foundation. No final decision has been made on a third symposium, but the Board believes it likely that it will wish to cosponsor one on maize. The budget item for support of these symposia is designed to meet only a part of their cost, the other part to be borne by the cosponsor.

(b) Preparation of review papers $25,000

The Board agreed that it was necessary to identify the most urgent requirements and priorities in genetic resources activities for several important world crops in addition to those for which symposia are arranged. To this end it was felt that review papers on two or three of the major crops should be prepared each year. The objective of such papers is to identify the location of present collections, the gaps in genetic resources material, where and to what extent further collections are needed, the specific requirements for germplasm material of the plant breeders of each of these crops, and the appropriate descriptors for such crops for purposes of the CIDS system. These review papers may also form the basis, where appropriate, for future crop symposia to be sponsored by the Board.

4. Preparation of a technical paper on plant health and quarantine problems arising in international genetic resources transfers $10,000

The transfer of plant materials on a global scale, either for the utilization or the conservation and storage of genetic stocks, involves possible risks of widespread distribution of plant pathogens; the quarantine regulations designed to minimize these risks, on the other hand, often hamper desirable exchanges of genetic resource materials. As a basis for consideration by the Board of the effect of these problems on its future work, the Board has decided to have a technical paper prepared on this important subject.

5. Publication of papers resulting from symposia and reviews — $25,000

This item is to enable the Board to publish, if it deems desirable, the information assembled as the result of the symposia and the reviews on specific crops included in its programme. The Board believes that its objectives require wide dissemination of such information to plant breeders at international, regional and national centres and institutes.

6. Board missions and meetings — $138,000

In addition to meetings of the Board and its Executive Committee, the Board proposes to undertake missions to particular regions, where genetic resources activities may need to be identified and supported, and to the international centres, in order to identify and delineate future projects in the germplasm activity of those centres. This budget item also includes the publication for submission to the Consultative Group of the Annual Report and the Programme and Budget Proposals of the Board, and an information publication on the establishment and objectives of the Board.

7. Secretariat expenses — $54,000

The Secretariat of the Board is expected to be provided, without charge, by FAO, as was the case in 1974. This item covers certain direct identifiable costs which the Secretariat will have to incur on behalf of the Board, such as travel, postage, cables, duplicating and the like, as well as the costs of two secretaries necessary for the work of the Board.

8. Contingencies — $65,000

Several of the programmes of the Board will be more clearly identified only in early 1975, based on the results of review and fact-finding missions. Therefore, a contingency sum is included in the budget to provide some support for new requirements of specific programmes which arise in 1975.

A total budget of $729,000 is proposed for the activities of IBPGR in 1975. The unused balance of the Board's central fund at the end of 1974 is estimated at approximately $175,000. Therefore, an amount of $554,000 is requested of the Consultative Group for the activities of IBPGR in 1975.

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

1818 H St., N.W Washington, D.C. 20433 U.S.A.
Telephone (Area Code 202) 477-3592
Cable Address – INTBAFRAD

ICW/75

July 10, 1975

TO: Participants in International Centers Week

FROM: Executive Secretariat

SUBJECT: Commentary on the 1976 Program and Budget of the International Board for Plant Genetic Resources (IBPGR)

Attached for information of the members of the Consultative Group and of the Technical Advisory Committee is a paper giving the Secretariat's observations on the 1976 budget submission of the International Board for Plant Genetic Resources (IBPGR).

Attachment

The 1976 Program and Budget of the International Board for Plant Genetic Resources (IBPGR)

Observations of the Consultative Group Secretariat

I. INTRODUCTION

1. This Commentary by the Consultative Group Secretariat on the draft 1976 Program and Budget proposal of the International Board for Plant Genetic Resources is based on a review of the program and correspondence with the Chairman of the Board.

2. The decision to establish the International Board for Plant Genetic Resources (the 'Genes' Board) was taken at the November 1973 meeting of the Consultative Group. The Secretariat for the Board is provided by FAO and the Board held its first meeting in Rome in June 1974. This meeting agreed that the Secretariat should prepare a document setting out the terms of reference of the Board and the basic rules and procedures by which the Board should operate. These terms are set out in Appendix 3 of the Annual Report for 1974.

3. The mandate of the Board as defined by the Consultative Group is to promote an international network of genetic resource activities for collection, conservation and utilization of plant germ plasm. In addition to supporting the collection of germ plasm of important crops, the Board is sponsoring an information storage and retrieval system for management of genetic resources. It is also sponsoring regional genetic resource centers; the Near East, Ethiopia, Costa Rica, India and the Far East are under consideration. The Board is also working closely with the international centers in strengthening their role as major centers of collection for crops with which they are associated. It is organizing symposia on major crops and studying training requirements.

II. PROGRAMS AND BUDGETS

Activities in 1974

4. Five donors pledged approximately $252,000 to the Genes Board for 1974. However, the Board's activities were very limited during the year, and expenditure reached only $53,000, of which the Secretariat spent $12,000 and Board missions and meetings $40,500, leaving approximately $200,000 to be carried forward to 1975. One Genes Board-supported project became operational during 1974; this was the Communication, Information and Documentation System (CIDS), organized by a team at the University of Colorado and financed out of FAO's regular program in 1974, with the initial Genes Board contribution in 1975. The objective of this information system is the development of genetic resource data into a machine readable format.

1975 Program and Budget

5. In 1974 the Board proposed a program for 1975 costing $729,000 (Table I) in which it estimated a carry-over from 1974 of $175,000, thus requiring $554,000 of new funds. These were provided by 7 donors. The largest item in the 1975 budget was $237,000 for the support of CIDS. The FAO regular program contributed approximately $131,000 and the University of Colorado, $35,000, giving a total of $403,000 for this project. The University of Colorado team has visited CIMMYT, IRRI, IITA, ICRISAT and CIP as well as several national centers; CIMMYT will be used as a model for setting up this project.

Table I

1975 and 1976 Budgets ($'000)

	1975	1976
Genetic Resources, Communication, Information and Documentation System (CIDS)	237	360
Support for germ plasm activities at Genetic Resource Centers	100	583
Symposia and review papers	100	60
Plant Quarantine projects	10	10
Support of training programs	-	35
Publication of papers from symposia, etc.	25	-
Meetings of Board and Executive Committee	90	90
Board missions and publication of Board documents	48	40
Secretariat expenses	54	60
Contingencies	65	100
Totals	729	1,338
Carry-over	175	250
Net requirements	554	1,088

6. Amongst other funds allocated in 1975 are $31,500 for the first 6 months of a program on food legumes and root crops at IITA and $50,000 also for the first six months of a tropical forage legume and grass program at CIAT.

The Board is investigating the needs of genetic resource centers at Turrialba, Costa Rica, Izmir, Turkey; Bari, Italy and also in Ethiopia, India and Indonesia. The Board is sponsoring two symposia, one on groundnuts in Florida, the other on wheat in the Soviet Union. Plant quarantine regulations are also receiving the attention of the Board since these, while essential for disease control, may also hamper exchange of germ plasm.

1976 Program and Budget

7. The Board has submitted a program for 1976 costing $1.338 million (Table I). The IBPGR Secretariat states that the budget has been cast in flexible terms. With an estimated surplus of $250,000 from 1975, the Board estimates new funds needed at $1.088 million. The 1976 budget represents an increase of 84% over that for 1975. The largest item in the 1976 budget ($583,000) is for support of germ plasm activities at international centers, for regional centers and for exploration of germ plasm sources and collection of priority crops for which $250,000 is provided. The Genetic Resources, Communication, Information and Documentation System (CIDS) program will require $352,000. This includes $7,500 for a steering committee which will offer guidance in the development of this system. The 1976 budget also includes $65,000 for a forage legume program at CIAT and $50,000 for a rice program at IRRI.

8. In its program for 1976 the Board plans to select, from some 35 crops, 10 of high priority; priority regions have also been selected; these are South Asia, South East Asia, the Mediterranean, Ethiopia and the Central and South American tropical lowlands.

9. The Board has also decided to create, in cooperation with appropriate international centers, Crop Advisory Committees to review the genetic resources situation in each major crop and suggest necessary action - exploration, evaluation, storage and maintenance. IRRI (rice) CIMMYT) (maize) and ICRISAT (sorghum and millets) are likely to be involved soon.

III. ISSUES

10. Although it is proposed that IBPGR will be a coordinating and planning body rather than a financing agency, there are some financial issues to which attention should be drawn. Clarification on a number of points has already been received from the Chairman of the Board, but some remain.

11. A sum of $65,000 is allocated to CIAT for work on tropical forage legumes and grasses. This follows a grant of $50,000 in 1975. However, CIAT has included one new post for a forage legume germ plasm specialist in its core budget for 1976 so it would appear that this post is being provided for by both organizations; the Secretariat recommends that the provision of $65,000 be deleted from the IBPGR budget.

12. In 1975, $31,500 was provided to IITA for the collection of germ plasm of food legumes and tubers. No provision for continuing this work has been made in the IBPGR 1976 budget; the Secretariat has been informed by the Chairman of the IBPGR that IITA has a 10-year plan, costed at $1.450 million, for this project. However, IITA has not provided for the item in its 1976 core budget, as the Center had understood that the IBPGR had provided $150,000 for it in its 1976 budget. The Secretariat takes the view that, wherever possible, long-term projects of this nature should be included in core budgets. Consequently, it has requested IITA to include this item in its 1976 budget, basing its proposal on a costing agreed between the Center and the IBPGR. It will be noted that the budget provides $50,000 for rice collecting work by IRRI and the Secretariat endorses the Genes Board view that this project should be in the core budget of the Center.

13. The budget provided $100,000 for Izmir and/or ICARDA; the Swedish Government has agreed to support the Izmir center until mid-1976 and this sum will carry the costs until the end of 1976. The Izmir project is largely for the support of local programs in the region and the Secretariat assumes that the annual running costs, presumably $200,000, will then be provided by the Board through ICARDA or some other headquarters in the region. The Secretariat will keep the Board informed of the development of ICARDA.

14. The budget provides $90,000 for meetings of the Board and its executive committee. This is more than double the amount being budgeted at some of the older centers for the costs of their boards and the Secretariat has asked the Secretary of the Board for additional details on this item.

15. From its 1975 budget of $729,000, the Board estimates a carry-over of $250,000, or more than one-third of its budget for this year, into 1976. The 1976 budget includes $100,000 for contingencies (7.5%) and while the Secretariat accepts that it may be difficult to provide a form of budget for some projects, it considers that this figure could be reduced to about $20,000 or perhaps eliminated altogether. The Secretariat considers that in view of the large unspent balances in previous years, there may be room for some additional economies in the 1976 budget, especially when a revised figure for the 1975 carry-over is obtained. The effect of these changes, including the elimination of the grant to CIAT, would be to reduce IBPGR's budget request by at least $145,000; on the other hand, the inclusion of the food legume and root crop germ plasm in the core budget of IITA would increase that Center's needs by $150,000 and its man-years by 2.7.

16. The year 1976 promises to be one of considerable progress in the work of the Board. However, it would appear that a number of its recommendatins will result in considerable increase in both capital and operating funds needed by the other centers and the Secretariat should be kept informed of these proposals, so that members of the Consultative Group can be kept up-to-date on developments.

93100560
PD-AAC-374

AID 1330-1X (7-7)

DEPARTM . OF STATE
AGENCY FOR
INTERNATIONAL DEVELOPMENT

PIO/T

PROJECT IMPLEMENTATION ORDER/TECHNICAL SERVICES

1. Cooperating Country: Worldwide 0158616

Page 1 of N/3 Pages

2. PIO/T No.: 931-11-130-056-73

3. ☒ Original or Amendment No. 11

4. Project/Activity No. and Title: International Board for Plant Genetic Resources (IBPGR)

DISTRIBUTION

5. Appropriation Symbol: 72-11X1023

6.A. Allotment Symbol and Charge: 402-31-099-00-20-51

6.B. Funds Allotted to: ☒ A.I.D./W ☐ Mission

7. Obligation Status: ☒ Administrative Reservation ☐ Implementing Document

8. Funding Period (Mo., Day, Yr.) From 1/1/75 To 12/31/75

9.A. Services to Start (Mo., Day, Yr.) Between 1/1/75 and ______

9.B. Completion date of Services (Mo., Day, Yr.) 12/31/75

10.A. Type of Action: ☐ A.I.D. Contract ☐ Cooperating Country Contract ☐ Participating Agency Service Agreement ☒ Other Grant Agreement

10.B. Authorized Agent: AID/W

Estimated Financing $1.00=		(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
11. Maximum A.I.D. Financing	A. Dollars		$80,000		$80,000
	B. U.S.-Owned Local Currency				
12. Cooperating Country Contributions	A. Counterpart				
	B. Other				

FUNDS RESERVED 12/31/74
POSTED
SER/FM/CSD

Mission References

14. Instructions to Authorized Agent.

This PIO/T requests the Contract Office execute a grant with the International Board of Plant Genetic Resources (IBGPR) in the amount of $80,000 for CY 1975. These grant funds will be utilized by IBGPR as a part of their overall CY 1975 work plan attached as A. Other donor contributions are a part of this work plan.

Special provisions are attached as attachment B.

Use of these funds shall be attributed to the core budget portion of IBGPRs overall budget unless otherwise authorized by AID/W.

15. Clearances – Show Office Symbol, Signature and Date for all Necessary Clearances.

A. The specifications in the scope of work are technically adequate
TA/AGR, S. Litzenberger Date: 12/6/74

B. Funds for the services requested are available
AFR/CARA, W. Leake Date: 12/6/74

C. The scope of work lies within the purview of the initiating and approved Agency Programs
TA/AGR, L. Hesser Date: 12/6/74
TA/AGR, G. Baird Date: 12/6/74
TA/AGR, R. Holmes Date: 12/6/74

D. TA/PM, C. Molfetto Date: 12/6/74

F. TA/PM, M. Mozynski Date: 12/10/74

16. For the cooperating country: The terms and conditions set forth herein are hereby agreed to
Signature and date:
Title:

17. For the Agency for International Development
Signature: John Gunning
Title: Chief, TA/PM Program Division

18. Date of Signature: 12/10/74

GPO 887-266

Attachment A

International Board for Plant Genetic Resources (IBPGR)

Program Description

January 1, 1975 through December 31, 1975

A - Objectives:

To identify general and specific needs for exploration, collection, evaluation and conservation of plant genetic resources with particular reference to species of major economic importance and their wild and cultivated relatives, to determine priorities among them and to insure to the fullest extent possible that the materials conserved are made available for plant breeding and other scientific activities as required.

To establish standards, methods and procedures for exploration and evaluation and to determine minimum standards for conservation and renewal of stocks of both seeds and vegetative material.

To arrange for replicated storage of seed and vegetative stocks; to promote technical meetings; to promote training activities at all levels.

To develop a world-wide network of institutions, organizations and programs able and willing to contribute to the above objectives.

To promote the articulation of ongoing programs so as to avoid duplication and to fill in gaps.

To strengthen the programs of existing institutions and to encourage the establishment of new organizations, institutions and programs to the above ends, where necessry, particularly in areas of major genetic diversity.

To promote the dissemination of information and material among centers and institutions and to encourage, within existing resources and possibilities, the establishment of inventories of collections.

To make appropriate recommendations with respect to computerized

information storage and retrieval systems, taking into account their suitability for an effective international genetic resources network, and their compatibility with existing systems in operation at regional and national centers.

Under the "genetic resources" sub-program the medium-term objective is to conserve genetic resources in crop plants. The objectives for CY 1975 are to continue development of a world network of genetic resource centers; to coordinate the collection, coding, retrieval and exchange of genetic information; to assist exploration missions, especially in areas where genetic material is endangered; to continue publication of the plant genetic resources newsletter; and to convene a regional meeting of experts in the utilization of genetic resources.

Under the "crop ecology" sub-program the medium-term objective is to determine the optimum ecological conditions for crop production. The objectives for CY 1975 are to provide countries and field projects with better agro-meteorological information by improving field observation methods and completing the collection of agro-meteorological data; to publish agro-climatology surveys for Latin America and South East Asia; and to cooperate in experiments on effects of ecological factors on identical crop varieties.

B. Projected activities:

1. Conservation, through the establishment of a world network of genetic centers, a task already initiated, in which twenty of the most important institutions in the world have to date agreed to cooperate; in promoting the establishment of regional centers in the areas of genetic diversity, and to continue the technical supervision of the center already established for the Near East in Izmir, Turkey; in providing technical advice and financial help to national and regional institutes for the long-term conservation and rejuvenation of crop germplasm.

2. Exploration, through the planning and support of collecting missions in areas and crops according to the priorities recommended by the Panel* and in the distribution and evaluation of the material collected.

3. Documentation, through the further development of standardized data recording procedures, and of information storage and retrieval systems, and by providing this information to all interested institutions or scientists.

4. Information, through the publication of the Plant Genetic Resources Newsletter and other materials, and the promotion of technical meetings and seminars.

5. Training, through the promotion and support of training at the M. Sc. level in genetic resources and regional short courses in exploration, conservation and documentation.

C. Specific Activities to be Undertaken:

1. Communication, Information and Documentation System (CIDS)

(a) Program support

This item is to help finance continuation and expansion of work on development of a computer-based system, by a team at the University of Colorado under FAO auspices, for the storage, retrieval and analysis of all relevant data on genetic resources. The Board believes that such a system is basic to achievement of its objectives, and that the University of Colorado team, under the leadership of Dr. D.J. Rogers, is making excellent progress towards development of a comprehensive, portable and adaptable scheme which can be used by all genetic resource centers and by plant breeders who need genetic information, irrespective of the type of computing facilities available to them. The IBPGR will serve as the Policy Board for this project.

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* A genetic advisory panel to be appointed by the Board.

The actual work has three aspects:

(i) The development of the CIDS for use in genetic resources information storage, retrieval and analysis. Such development includes:
- improving the generality of the system to handle most of the problems in utilization of genetic data;
- insuring the "portability" of the system so that it can be moved from one computing center to another with a minimum cost, thereby reducing the problems of "compatibility";
- training computing centers personnel in the use and maintenance of CIDS.

(ii) The application of the system to data drawn from collections in different parts of the world. The purpose is to demonstrate the capacity of the system to uncover the real problems facing genetic resources workers with respect to the designation of proper descriptors and the handling of data.

(iii) The application of the system to data which are needed for program planning and evaluation.

(b) Support for Further use of the system by genetic resources centers

This item is a direct response by IBPGR to several urgent requests from centers (e.g., CIP, INIA (Mexican National Institute of Agriculture), EMBRAPA (Brazilian National Research Center) for assistance from the University of Colorado team in establishing CIDS. The fund will meet the expenses of the team, but not those of the centers, in responding to at least some of these requests in addition to some similar assistance provided for in the team's core program.

2. Support for germplasm activities at genetic resources centers

It is expected that, in future, this team will constitute a major part of the Board's program. For 1975, however, the requirements for support to genetic resources centers at Turrialba and in Ethiopia have not yet been finally organized and basic financing for these centers is to be provided by the Federal Republic of Germany under its bilateral program. The Board is sending a mission to Turrialba and, if appropriate, will send one to Ethiopia to determine whether additional support will be needed from IBPGR, but until the Board receives the reports of these missions, the amount of Board support, if any, for these centers in 1975 is not known. Similarly, the Swedish Government has agreed, subject to the receipt of certain assurances from the Turkish Government, to continue support of the Izmir Center until July 1976. The Board is planning to send a mission to Izmir in the Spring of 1975, but it is not known if additional support will be needed from the Board by that center. The Board is also investigating the needs of centers in India and in Indonesia and at Bari in Italy (for the Mediterranean region). It is also planning to obtain from the various international centers any proposals which they may have for Board support for genetic resources work which falls outside thier normal responsibilities and is therfore not included in their own core financing. This item of the budget is intended to meet any well-founded requirements of national regional or international centers which may develop from these investigations or from requests for support which may be otherwise received by the Board.

3. Support of activities related to specific crops

(a) Symposia

The information which is presently available on the genetic resources of many important world crops is incomplete or inadequate. The Board has decided to cosponsor two symposia to enable further information to be collected, to determine what gaps in germplasm collections need to be filled and how they can best be filled, and to arrange for more adequate information exchange in the future. The first such symposium will be on wheat and will be hosted by the N.I. Vavilov Ala-Union Scientific Research Institute of Plant Industry in Leningrad. The second symposium will be on groundnuts at the University of Florida, which the IBPGR expects to cosponsor with the Rockefeller foundation. No final decision has been made on a third symposium, but the Board believes it likely that it will wish to cosponsor one on maize. IBGPR support of these symposia is designed to meet only a part of their cost, the other part to be borne by the cosponsor.

(b) Preparation of review papers

The Board agreed that it was necessary to identify the most urgent requirements and priorities in genetic resources activities for several important world crops in addition to those for which symposia are arranged. To this end it was felt that review papers on two or three of the major crops should be prepared each year. The objective of such papers is to identify the location of present collections, the gaps in genetic resources material, where and to what extent further collections are needed, the specific requirements for germplasm material of the plant breeders of each of these crops, and the appropriate descriptors for such crops for purposes of the CIDS system. These review papers may also form the basis, where appropriate, for future crop symposia to be sponsored by the Board.

4. Preparation of a technical paper on plant health and quarantine problems arising in international genetic resources transfers

Either for the utilization or the conservation and storage of genetic stocks, the transfer of plant materials on a global scale, involves possible risks of widespread distribution of plant pathogens; the quarantine regulations designed to minimize these risks, on the other hand, often hamper desirable exchanges of genetic resource materials. As a basis for consideration by the Board of the effect of these problems on its future work, the Board has decided to have a technical paper prepared on this important subject.

5. Publication of papers resulting from symposia and reviews

This item is to enable the Board to publish, if it deems desirable, the information assembled as the result of the symposia and the reviews on specific crops included in its program. The Board believes that its objectives require wide dissemination of such information to plant breeders at international, regional and national centers and institutes.

D-General Discussion and Linkages

The continuing development of satisfactory planned breeding programs greatly depends upon the availability of primative varieties and wild relatives of crop species which are disappearing rapidly. Collection and conservation of these resources and their evaluation for subsequent use in plant breeding programs are most important. A world-wide effort needs to be mobilized in order to achieve this objective within the limited time available. The exploration and collection of genetic resources in areas which are dangerously threatened by genetic erosion is of particular importance. Also there needs to be more emphasis on establishing and

consolidating conservation installation (gene banks) and developing evaluation and utilization procedures in the LDCs.

The above needs have been recognized and implementation activities will include: establishing liaison with existing centers, promoting the establishment of new centers in regions of crop diversity, supporting specific exploration and conservation activities, and developing and establishing systems for storage and retrieval of genetic information.

E-Support to IBPGR

Budget for IBPGR for CY 1975 calls for $555,000 of new financing; AID's contribution would be $80,000 or 14.41 percent.

Summary of Support for IBPGR
(as of November 14, 1974)

Total requirements	$555,000
AID contributions	80,000
Support from other donors	475,000 1/
AID as proportion of total	14.4% 2/

1/ Canada, W. Germany, Netherlands, Sweden, United Kingdon, and UNEP.

2/ Larger U.S. donation not needed due to availability of other funds.

Special Provisions

1. Reports

A. The following reports shall be submitted to the TA/AGR Technical Specialist as stated in B below:

(1) Comprehensive Annual Report on overall program and fiscal matters for CY 1975 in 100 copies.

(2) Report prepared in connection with annual International Centers Week. (This report will describe proposed program and funding requirement for CY 1976 in five copies.)

(3) Reports that may be prepared from time to time on various program activities.

B. The AID/Technical Specialist is: Dr. Guy B. Baird
Associate Director Research
Technical Assistance Bureau
Office of Agriculture
Washington, D.C. 20523

General Grant/Program questions can be addressed to:

Mr. Ryland Holmes, Chief
Program Division
Technical Assistance Bureau
Office of Agriculture
Washington, D.C. 20523

C. In addition to the report requirements of A above, Grantee shall send one (1) copy of the technical and annual reports (items 1 and 3 above) to all AID Missions. Grantee will be advised, by the Technical Specialist of these recipients and changes as they occur.

2.

A. PIO/T is subject to AID regulations governing grants of funds.

B. Except as specifically authorized by AID/W, all services financed with funds from this grant agreement must be obtained from U.S. sources.

C. Except as specifically authorized by AID/W, the purchase of commodities financed under this PIO/T must be limited to the U.S. under Geographic Code 000.

D. The Federal Reserve Letter of Credit (FRLC) method of financing is to be used and funds are to be advanced periodically as needed by the Grantee in accordance with AID's terms and conditions for such reimbursement.

AGENCY FOR INTERNATIONAL DEVELOPMENT

PIO/T

PROJECT IMPLEMENTATION ORDER/TECHNICAL SERVICES

WO Tawide 931 0547

2. PIO/T No. 931-11-130-056-73

3. ☒ Original or Amendment No. ____

4. Project/Activity No. and Title: International Board of Plant Genetic Resources (IBPGR)

931005 (7) PD-AAE-374

DISTRIBUTION

5. Appropriation Symbol: 72-11X1023

6.A. Allotment Symbol and Charge: 402-31-099-00-20-61

6.B. Funds Allotted to: ☒ A.I.D./W ☐ Mission

7. Obligation Status: ☒ Administrative Reservation ☐ Implementing Document

8. Funding Period (Mo., Day, Yr.): From 1/1/76 To 12/31/76

9.A. Services to Start (Mo., Day, Yr.): Between Continuing and ____

9.B. Completion date of Services (Mo., Day, Yr.): 12/31/76

10.A. Type of Action: ☐ A.I.D. Contract ☐ Cooperating Country Contract ☐ Participating Agency Service Agreement ☒ Other Grant Agreement

10.B. Authorized Agent

Estimated Financing $1.00=		(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
11. Maximum A.I.D. Financing	A. Dollars		200,000		200,000
	B. U.S.-Owned Local Currency				
12. Cooperating Country Contributions	A. Counterpart				
	B. Other				

13. Mission References

14. Instructions to Authorized Agent

The contract office is requested to execute a grant agreement between AID and the Food and Agriculture Organization of the United Nations (FAO) to provide funds in support of IBPGR for CY 1976 activities. These funds will be used for core budget expenses only. The work plan is included in attachment A. Special provisions are contained in attachment B. (AID provides up 25% of IBPGR's overall budgetary requirements)

15. Clearances – Show Office Symbol, Signature and Date for all Necessary Clearances.

A. The specifications in the scope of work are technically adequate
TA/AGR: GBaird Date: 11/12/75

B. Funds for the services requested are available
TA/PM: CMolfetto Date: 11/14/75

C. The scope of work lies within the purview of the initiating and approved Agency Programs
TA/AGR: LHesser Date: 11/13/75

D. TA/PM: TECHOT Date: 11/14/75
TA/PM: MMozynski Date:

E.
TA/AGR: RHolmes Date:

F.

16. For the cooperating country: The terms and conditions set forth herein are hereby agreed to

Signature and date:

Title:

17. For the Agency for International Development

Signature:

Title: TA/DIR

18. Date of Signature: 3/12/76

GPO 867-266

PROPOSAL

INTERNATIONAL BOARD OF PLANT GENETIC RESOURCES

January 1 - December 31, 1976

A. Introduction

The International Board for Plant Genetic Resources (IBPGR) had its second meeting in May 1975. Its Executive Committee met in September 1974 and April 1975 to review progress in the Board's pre-programming activities, to consider proposals submitted to the Board and, within the framework of the activities initiated in 1975 and referred to below, to formulate a budget for the Board's programme in 1976.

Understandably, in only the second year of the Board's operation some of the program activities are still in the development stage. Accordingly, the budget is cast in general terms to permit flexibility in the use of funds by the Board. The percentage of such funds devoted to the development of an international network of genetic resources activities will be progressively increased as the Board's medium and long-term programmes develop. It is intended that such programmes will be closely integrated with the present and future programmes of the International Institutes and those of other centres, at national and regional level, with the objective of meeting the immediate priority needs, both for crops and particular regions.

B. General Policy of the Board

1. The principal objectives of the Board as defined by the terms of Reference given to it by the Consultative Group for International Agricultural Research include:

- "To identify general and specific needs for exploration, collection, evaluation and conservation of plant genetic resources with particular reference to species of major economic importance and their wild and cultivated relatives, to determine priorities among them, and to ensure to the fullest possible extent that the materials conserved are made available for plant breeding and other scientific activities as required;

- To this end, inter alia, it is to develop a world-wide network of institutions, organizations and programmes able and willing to contribute to the above objectives."

Accordingly, the Board has directed considerable attention to the priorities to be assigned to particular crops, or groups of crops, to particular regions of the earth, and to the design and establishment of a coordinated network of institutions and activities.

2. Priorities among crops: The Board will select individual species or groups of species for attention according to the following criteria:

(a) Economic and social importance measured in terms of their present, intended or potential contribution to development, including human diets, the income and well-being of farmers and other rural people, and the economic progress of mankind;

(b) The recognized requirements of plant breeders and research workers in developing and developed countries for genetically diverse materials (including advanced breeding lines) for their work, and the expected significance in economic and social development of the improved types and varieties of crops they will be able to produce with the help of these materials;

(c) The size, scope and quality, including documentation, of existing collections;

(d) The risk that genetically diverse materials of the species and their wild relatives will be lost in the future, particularly the near future, as a result of change and development in agriculture and land use.

Following these criteria, the Board is in the process of assigning provisional priority classifications to some 35 crops or groups of crops, of which less than 10 will be given highest priority and thus receive immediate attention from the Board, and the remainder of which will be given second or third priority. The Board will give continuing attention to the problem of crop priorities under the criteria above stated.

3. Priorities among regions: The Board further determined that regions should be selected for attention according to the following criteria:

(a) That they contain significant genetic diversity of one or more crops or species selected according to the criteria outlined in paragraph 2;

(b) That change and development in agriculture, and/or change in land use are occurring in them at such a rate, that if nothing is done, genetically diverse materials are likely to be lost;

(c) That widespread crop failures have occured or are imminent, or reasonably to be expected, on such a scale that diverse indigenous materials are likely, if nothing is done, to be lost.

In accordance with these criteria, the Board has assigned highest priority to the following five regions: South Asia, Southeast Asia, Mediterranean, Ethiopia and the Central and South American tropical lowlands. In addition, two other regions have been assigned highest priority with regard to particular crops: western Africa with regard to rice, and the Andean zone for potatoes and other tuber bearing Solanums. The Board will be giving further consideration during the coming year to the priorities of other regions of the earth.

4. Networks and coordination: The two sets of priorities lead directly to the two principal dimensions of the world-wide genetic resources network. The first of these genetic resources dimensions is geographical, based on genetic resources institutions and activities in individual nations, associated together in whatever ways are most appropriate, in any one region, into a cooperative regional programme. Within such a cooperative program , one centre (which may or may not be at an International Agricultural Research Centre) might be assigned coordinating, storage, or other functions and so become accepted as a regional centre. This whole dimension relates to the collection and conservation of material, to be evaluated and documented in collaboration with the main users of genetic resources. These users are grouped together as the second dimension.

This second dimension is based on crops or groups of crops. This dimension will link together, using existing links (such as Eucarpia) wherever possible, the leading scientists and breeding or other institutions in the world concerned with each of the priority crops. For each crop or group of crops, the Board intends, in consultation with the leading specialists on it, worldwide, to establish a crop committee to advise it on the genetic resources program so that the Board can ensure so far as possible that geographical priorities for collection are correctly defined, that the requirements of plant breeders and research workers are met, and that the collected and conserved materials are available for use in national, regional and international programmes. In addition, the Board hopes that wherever an international centre carries primary responsibility within the CGIAR system for a particular crop, it will also accept responsibility for cosponsoring and convening the relevant crop committee. Where an international centre is not available, or is not willing to accept this responsibility, the Board will seek to designate some other appropriate institution for this purpose.

The Board has collated lists of institutions, in the priority regions and the nations within them, which could cooperate in the geographical dimension of the network; similarly it is accumulating information about institutions which could cooperate in the crops dimension.

The Genetic Resources Communication, Information and Documentation System (GR/CIDS) is providing a most important means of bringing together specialists on particular crops or groups of crops and of moving towards international agreement on discriptors and methods for storing and retrieving information. In this way it provides an essential element of the crops dimension of the network and (through the consequent guidance it offers to those who collect and evaluate genetic resources material) an essential linkage with the geographical dimension of the network.

5. Basis principles: The Board adopted the following principles relating to the distribution and conservation of genetic materials collected with its support:

(a) Duplicates of all collections are to be deposited at appropriate institutions in the countries in which they are collected;

(b) Base collections are to be duplicated in at least two different institutions;

(c) Participants in the genetic resources network will be expected to exchange freely both genetic materials and information related to them.

IBPGR @
Net Financial Requirements
1 January - 31 December 1976

Communications, Information and Documentation	$360,000
Germplasm Activities	468,000
Support to Specific Crops	60,000
Quarantine Problems	10,000
Training Program Support	35,000
Board Meetings/Missions	115,000
Administrative Expenses (travel, services etc.)	60,000
Contingencies	100,000
TOTAL	1,208,000
Minus carryover	- 250,000
Total	958,000

Sources of Funds

United States (AID) - 20.9%	$200,000
Belgium, Canda, Nigeria, Saudi Arabia, Sweden, UNEP	648,000 *
Other	110,000

@ Based on estimates available in October 75 and on consultations between AID and CGIAR in November 75.

* Specific contributions of those listed not confirmed at the time this budget was perpared (nov. 75). It is estimated, however, that the $648,000 is the minimum amount that will be subsequently approved by the respective governments and organizations.

SPECIAL PROVISIONS

1. The following reports shall be prepared and submitted to A.I.D. as stated below:

   (a) One hundred (100) copies of the Comprehensive Annual Report on overall program and fiscal matters for the entire calendar year for which the grant was made.

   (b) Five (5) copies of such other reports as may be prepared in connection with the annual International Centers Week. (This report will describe proposed program and funding requirements for the ensuing calendar year).

   (c) Five copies of such other reports as may be prepared or requested from time to time on various other program activities.

   (d) Copies of the above stated reports in the numbers indicated shall be submitted to the below listed Technical Specialist:

   Dr. Guy B. Baird
   Associate Director
   Research
   Technical Assistance
   Bureau
   Office of Agriculture
   Agency for International
   Development
   Washington, D.C. 20523

Additionally, one copy of each report shall be submitted to the Grant Officer whose name appears on the grant.

2. General Program questions can be addressed to the below listed Program Specialist:

   John W. Wiles
   Program Analyst
   Technical Assistance Bureau
   Office of Agriculture
   Washington, D.C. 20523

3. General Grant questions concerning its terms should be addressed to the Grant Officer.