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UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
MISSION TO PAKISTAN

Cable: USAIDPAK

HEADQUARTERS OFFICE
ISLAMABAD

June 29, 1987

Dr. F.H. Shah
Pakistan Council of Scientific and Industrial Research
Lahore

MISSION AUTHORIZATIONS

FM/LMD (if Loan)

FM/PAFD

GC/ANE

ANE/TR Officer

ANE Desk

ANE/DP

PBC/PB/RPA

✓ ANE/PD Officer & File

Subject: Grant No. 936-5542-G-00-7219-00

Dear Mr. Shah:

Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "Grantor") hereby grants to Pakistan Council of Scientific and Industrial Research (PCSIR), Lahore (hereby referred to as a "Grantee"), the sum of \$149,475 to provide support for a program in "Regeneration and clonal propagation of Pistacia vera Plant by Tissue Culture" as described in the schedule of this grant and the Attachment 1 entitled "Program Description". These funds represent maximum AID/SCI contribution. Additional resources required to complete specific objectives of the project will be provided by PCSIR. This grant is effective and obligation is made as of the date of this letter and shall apply to commitments made by the Grantee in furtherance of program objectives during the period beginning with the effective date and ending December 31, 1990.

The grant is made to PCSIR, on condition that the funds will be administered in accordance with the terms and conditions as set forth in "Schedule", Attachment 1 Program Description and, Attachment 2, entitled "Standard Provisions", which have been agreed to by your organization. Please sign the original and seven (7) copies of this letter to acknowledge your receipt of the grant, and return the original and six (6) copies to the Office of Contract Management.

Sincerely yours,

Frederick A. Will
Grant Officer

Attachments:

1. Schedule Page C1-2
2. Program Description Page D1-12
3. Standard Provisions

BEST AVAILABLE DOCUMENT

ACKNOWLEDGED:

Pakistan Council of Scientific & Industrial Research, Lahore

BY : Dr. F.H. Shah *FHShah*
Title : SSO, PCSIR, Lahore
Date : June 29th, 1987.

FISCAL DATA

Obligation No.	:	<u>7361210</u>
Appropriation	:	<u>72-1171021.6</u>
Budget Plan Code	:	<u>DDSA-87-10600-RG11 (746-36-099-00-19-71)</u>
Authorization	:	<u>STATE 097410 dated April 2, 1987</u>
Project No.	:	<u>936-5542 - AID/SCI Proposal 5.075</u>
Total Estimated Amount	:	<u>\$149,475.00</u>
Total Obligated Amount	:	<u>\$149,475.00</u>

Funding Source: AID/W () USAID ()

Clearance: O/FM *FH* *Shah*

ARD:ga/4410Q

BEST AVAILABLE DOCUMENT

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SCHEDULE

A. Purpose of Grant

The purpose of this Grant is to provide support for the Grantee's program entitled "Regeneration and Clonal Propagation of Pistacia vera Plant by Tissue Culture," as revised, which is hereby incorporated by reference, as more specifically described in Attachment 1 to this Grant entitled "Program Description." In the event of conflict the Program Description takes precedence over the Pakistan Council of Scientific and Industrial Research (PSCIR) proposal.

B. Period of Grant

Funds obligated hereunder are available for program expenditures for the period of July 1, 1987 to December 31, 1990.

C. Amount of Grant and Payment

1. AID hereby obligates the amount of \$149,475 for the purposes of this Grant.
2. Payment shall be made to the Grantee in accordance with procedures set forth in Standard Provisions 14.
3. All financial reports required by this provision shall be submitted to:

(O/FM, USAID/ISLAMABAD)

D. Grant Budget

The following is the Budget for this Grant, including local cost items, if authorized. Revisions to this Budget shall be made in accordance with Mandatory Standard Provision of this Grant entitled "Revision of Grant Budget." Within the total estimated cost of the grant, the Grantee may adjust the line items as reasonably as necessary for the performance of the grant program.

<u>Cost Element</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Salaries	9,721	10,217	10,687
Equipment	66,350	-	-
Chemical and Apparatus	2,500	1,250	1,250
Travel Int'l In-Country	7,500	-	-
Travel	1,500	1,000	1,250

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Green Home	31,250	-	-
Miscellaneous	<u>2,000</u>	<u>3,000</u>	<u>-</u>
Sub Total	120,821	15,467	13,187

GRAND TOTAL: \$149,475

E. Title to Property

Title to property acquired under this grant will vest in grantee.

F. Order of Precedence and Entire Agreement

The Cover Letter, this Schedule, the Program Description, the Mandatory Standard Provisions (AID 1420-53 (1-53) (1-85)) and the Optional Standard Provisions (AID 1420-54 (1085)) constitute the entire agreement. In event of inconsistency between the provisions of this Grnt, the inconsistency shall be resolved by giving precedence as follows (a) Letter, (b) Schedule, (c) Standard Provisions and (d) Program Description.

G. Reporting and Evaluation

1. Progress reports: Progress reports are required every six months. The principal investigator will submit progress reports stating what has been accomplished to date, including as an attachment the Financial Status Report, as discussed below. These reports are due within thirty days following the reporting period ending June 30 and December 31 for each year of the grant. One copy of the progress report should be submitted to the Office of the Science Advisor, Room 720 SA-18, Washington, D.C. 20523. In addition three copies should be submitted to the Project Officer, USAID/Pakistan, and two copies to A.I.D., PPC/CDIE, Room 215 - SA-18, Washington, D.C. 20523.
2. Final Report: The principal investigator will submit to the Office of the Science Advisor, A.I.D., Washington, D.C., 20523, a final report in three copies by December 31, 1990. Three copies of the final report will also be submitted to the Project Officer, USAID/Pakistan, and three to PPC/CDIE, Agency for International Development, SA-18 - Room 215, Washington D.C., 20523. The report should be sufficiently detailed to substantiate the findings and to permit a scientific evaluation of the research. All collaborators shall be given fair credit for their participation in the research and a change to review and comment on the final report before it is submitted. the principal investigator is encouraged to share a draft of the final report with the A.I.D. Project Officer,

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USAID/Pakistan, for comment prior to the formal submission. In order to promote dissemination, peer review and improvement of project results, the principal investigator shall send copies of the draft final report to at least three recognized researchers in the field of the grant -- preferably in countries other than that of the investigator-- for comments prior to submission to A.I.D. Publication of results in scientific journals is also encouraged.

3. The Financial Status Report (SF-269) is required every six months and will be submitted as an attachment to the progress report.
4. Voucher Paying Officer - USAID/Pakistan
5. Project Officer: - Harold L. Dickherber
O/ARD, USAID/Islamabad
6. Principal Investigator:- Dr. F.H. Shah
Pakistan Council of Scientific
&
Industrial Research, Lahore.

Project Officer approval required by paragraph (a) of optional standard Provision 3 of this grant entitled "Air Travel and Transportation", for travel between the United States and all other countries described in the project description will be considered on submission of separate proposal.

Source of Origin of Goods and Services

1. The country or countries where research or other scientific/technological cooperation takes place shall be deemed to be the cooperating country for the purpose of permitting local cost financing.
2. Goods and services, except for ocean shipping, financed by AID under the project shall have their source/origin in the Cooperating Country or in the United States as well as other Code 941 countries.
3. Ocean shipping financed by AID under the project shall, except as AID may otherwise agree in writing, be financed only on flag vessels of the United States.

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PROGRAM DESCRIPTION

Purpose of Grant

The purpose of the grant is to support the PSCIR study of the clonal propagation of Pistacia vera plant as more fully described in the implementation plan below.

Specific Objectives

1. To develop tissue culture methods of clonal propagation of superior varieties of pistacia vera.
2. To explore the possibility of rejuvenating mature pistachio trees by in vitro grafting of their shoot species onto juvenile seedling rootstocks.
3. To explore and develop tissue culture methods of screening pistachio with superior agronomic traits, including resistance to diseases and drought.

Implementation

The following descriptive material is excerpted from the principal investigator's proposal. The research proposal, as revised during the review process, is hereby incorporated by reference.

Technical Work Plan

Pistacia vera Studies

1. Clonal Propagation of Superior Varieties:

As a first step, female trees will be selected for superior kernel size, yield and vigour, and male trees for synchrony of its pollen activity with pistil receptivity of selected females. Where applicable, the trees will also be selected for drought tolerance, disease and pest resistance, and lateness of flowering. The last trait is important in reducing yield losses caused by injury to flowers and immature fruits by inordinately late frosts.

The propagation in vitro will follow the method of enhanced axillary branching, followed by rooting of individual shoots. Since difficulty is expected in rooting shoots from mature trees, the rejuvenation experiments that are described below will be critical in determining the applicability of the tissue culture method to pistachio propagation and will be conducted first.

Sections of bud bearing, rejuvenated shoots will be utilized as explants. They will be cultured in nutrient media containing high levels of cytokinin, e.g., 5-100 mg/l BA. By repeatedly sub-culturing in fresh media of the same composition, the axillary shoots can be increased to desired numbers.

Rooting of individual pistachio shoots will be achieved in 2 steps. First, the shoots will be biochemically induced in a medium containing very high levels of auxin, e.g., 100 Mg/l of IBA. After 1 to 2 weeks in induction medium, the shoots will be

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transferred to another medium, lacking auxin, to enable development and emergence of the roots. This method has worked well with other woody genera.

The optimum day-night temperatures, photoperiod and light intensities for both shoot multiplication and rooting steps will be determined, using experimental growth chambers. If appropriate, detailed experiments will also be carried out to establish the more precise requirements of certain nutrient medium ingredients, especially sugar, vitamins, purines, and rooting co-factors.

The rooted shoots will be removed to soil and re-established as plants in the greenhouse. Hardening of rooted shoots prior to their removal will be attempted by examining effects of high light intensities, forced aeration, etc., in vitro. Following transfer to soil, the acclimatization process will consider influences of fogging, light intensity and temperature variations, soil mixes, and other greenhouse factors.

2. Rejuvenating Mature Pistachio by Grafting

The grafting procedure developed for citrus by Navarro et al. (1975) will be followed. Quality seeds from any available pistachio cultivar will be germinated aseptically for rootstocks. Surface-sterilized seeds will be sown in nutrient agar and germinated in darkness. When the epicotyls are 3 cm long, they will be decapitated to 2 cm and used as rootstocks.

Scion shoot-tips will be obtained from quiescent buds of selected trees. Twigs containing the buds will be obtained from the field and surface sterilized, and their buds excised. The scion will consist of the apical meristem, 5-6 primordial and emerging leaves, and a small amount of subjacent stem; the total length of scions will be about 0.5 mm.

An inverted T-incision, 1 mm vertically and 1 mm horizontally, will be made in the epicotyl of the rootstock, about 1 cm from the region of decapitation. The bark-like tissue will be pried open and the scion shoot apex will be inserted into the incision. The shoot apex will be covered with the flaps of bark-like tissue and the grafted plant will be transferred to nutrient solution for development.

The nutrient solution will be of the same

composition as used for citrus by Navarro et al. (1975) and will be provided with filter-paper platforms to support the grafted pistachio plant. The grafted plants will be placed under temperature and light regimes that simulate the natural habitat of pistachio. After the grafted shoot apex has elongated to about 3 cm, the terminal 2 cm will be excised and tested for rooting, using the procedure described earlier for rooting of axillary shoots. The remainder of the scion will be left attached to the rootstock and maintained in further culture except for 1 or 2 buds. The excised buds will be regrafted onto fresh rootstocks as before. The process of testing for rooting and re-grafting will be repeated as necessary, perhaps 4 times, until tests reveal that rooting competence, an indicator of juvenility, has been restored in the tissues from mature trees.

The rejuvenated shoots will be multiplied by the axillary branching method and used for clonal propagation, as well as for callus and cell cultures.

3. Developing Improved Cultivars

Callus and cells in liquid suspension cultures will be established by following procedures paralleling those of date palm. The same parameters will be evaluated, i.e., nutrient media, source of explants, incubation temperatures and light, shaking rates, etc. Methods of protoplast isolation, fusion and culture will be similarly investigated. The cells in liquid suspension and the protoplasts will be plated in nutrient agar and screened for mutants, using selective conditions, i.e., different osmoticum concentrations, pathogen toxins, etc. The mutant cell lines will be cultured further for plant regeneration and retesting at the plant level. The mutant plants will be further tested under field conditions. The effectiveness of the above procedures will depend upon regenerability of plants from isolated cells. At the outset, therefore, explants will be restricted to rejuvenated shoots and immature pistachio embryos.

V. Scientific Collaborative Arrangements

All the work will be conducted at the PCSIR Laboratories in Lahore. The American Collaborator, Prof. Murashige of University of California, Riverside, will provide consultation as necessary by visiting Lahore and receiving investigators from Lahore in his laboratory. The American Collaborator will also provide training in basic aspects of plant tissue culture in his laboratory for the Lahore staff. He will also perform appropriate confirmatory and others experiments as applicable.

The value of the arrangement to the Lahore project staff will be in the expertise they will gain in plant tissue culture techniques and their application to crop improvement in Pakistan. Date palm and pistachio are only the beginning. Other crops can be explored in time. The project facilities and staff could become training resources for other Pakistani scientists and students.

The American Collaborator will benefit by experiencing the human value of extending the science and technology he has gained in the U.S. to needy and appreciative people of less developed countries. He will also be sharing any information that emerges from the project, in the form of new findings in tissue culture and their applications to date palm and pistachio production in the U.S.

VI. Facilities Available

A. Laboratory Facilities

1. Media and explant preparation room = 400 sq.ft.
2. Surgical and transfer room = 80 sq.ft.
3. Incubation rooms, 4 rooms totalling = 300 sq.ft.
4. Storage room (potentially another large incubation room) = 400 sq.ft.

B. Nursery Facilities

Open field = 45,000 sq.ft.

C. Laboratory Equipment

1. Drying oven, large Chinese make = 1
2. Window air conditioners = 2
3. Water baths = 2
4. Hot plates = 2
5. Cell colony counter = 1
6. Freeze dryer, Hungarian make = 1
7. Humidifier, portable = 1
8. Shaker, water bath, small = 1
9. Distilling apparatus, 5 l/h cap. = 1
10. Microscope, compound, Chinese make = 1
11. Centrifuge, refrigerated, IEC PR-2 = 1
12. Portable heaters for incubation rooms = 2

VII. Laboratory Equipment REQUIRED	<u>Number needed</u> or <u>expected cost</u>
1. Laminar air flow hoods, working area of each 30" tall x 24" deep x 48" wide	2
2. Balance, analytical	1
3. Balance, top loading	1
4. pH meter	1
5. Autoclave, horizontal type (approx. 16" diam. x 24" deep interior)	2
6. Air-conditioning units (compressors located outside, refrigerant circulated through inside cooling fins)	5
7. Time clocks	8
8. Day and night thermostats	4
9. Fluorescent lamp fixtures for 4' lamps	80
10. Fluorescent lamp fixtures for high intensity 4' lamps	16
11. Refrigerator/freezer	1
12. Growth chambers (small)	4
13. Microscope, research, compound, with photographic attachments	1
14. Microscope, dissecting, with lamps	4
15. Microscope, inverted, fluorescence, with photographic attachments	1
16. Shakers, gyratory, for 125-ml culture flasks	4
17. Microtome	1

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18.	Paraffin oven		1
19.	Slide warmer		2
20.	Embedding tray		1
21.	Roller drum apparatus for 80 1" culture tubes		1
22.	Heaters for incubation room		2
C.	Greenhouse, air conditioned and including fogging system		Rs 500,000
D.	Chemicals, glassware and other expendables		Rs 80,000
	First year	Rs 40,000	
	Second year	20,000	
	Third year	20,000	
E.	Travel within the country		Rs 60,000
	First year	Rs 25,000	
	Second year	15,000	
	Third year	20,000	
F.	International travel		Rs 120,000

VIII. Justification of Budget

At this time the laboratory equipment available for plant tissue culture does not include much of the basic items. Media preparation cannot be performed without balances, pH meters, autoclave and refrigerator/freezer. Performance of tissue isolation and transfer under sterile conditions require laminar air flow hoods. The project will have several investigators and technicians; thus, two autoclaves and two laminar air flow hoods would be minimal in accomodating their needs. Experiments on temperature and light requirements demand small growth chambers that can be precisely regulated. Four or more variables must be explored each time; thus, the request for 4 chambers.

The day and night temperatures must be regulated by thermostats. Since the project will be starting with 4 relatively small incubation rooms, 4 thermostats will be needed. Air conditioning units with external and remotely located compressors and with the refrigerant circulated through internally-located cooling fins will be necessary to maintain temperatures. Heat needed in incubation rooms during winter periods must be provided by portable heaters, two of which are already available. The incubation rooms must also be furnished with programmable light fixtures. We hope to achieve this with cool white fluorescent lamps, regulated by time clocks. For the four small incubation rooms we will need at least 80 fluorescent lamps. The hardening step following plant regeneration will require high light intensity lamps; we request 16 of them at this time.

The shakers are needed for liquid suspension cultures of cells and the roller drum for propagation of shoots in small values of liquid formulations.

Histological studies will require paraffin oven, slide warmers and embedding tray to prepare paraffin blocks and a microtome to section tissues. The observations of tissue sections will depend on a research quality compound microscope and photographic attachments to enable recording and publication of observations.

Dissecting microscopes are critical when isolating shoot apices, embryos and other small structures. The inverted microscope will be used to observe cell cultures and protoplasts; fluorescence attachments to this microscope will enable monitoring of protoplast release and subsequent cell regeneration processes, as well as determining their viability.

An air conditioned greenhouse, furnished with fogging system, will be required during acclimatization and re-establishment of tissue culture plants in soil.

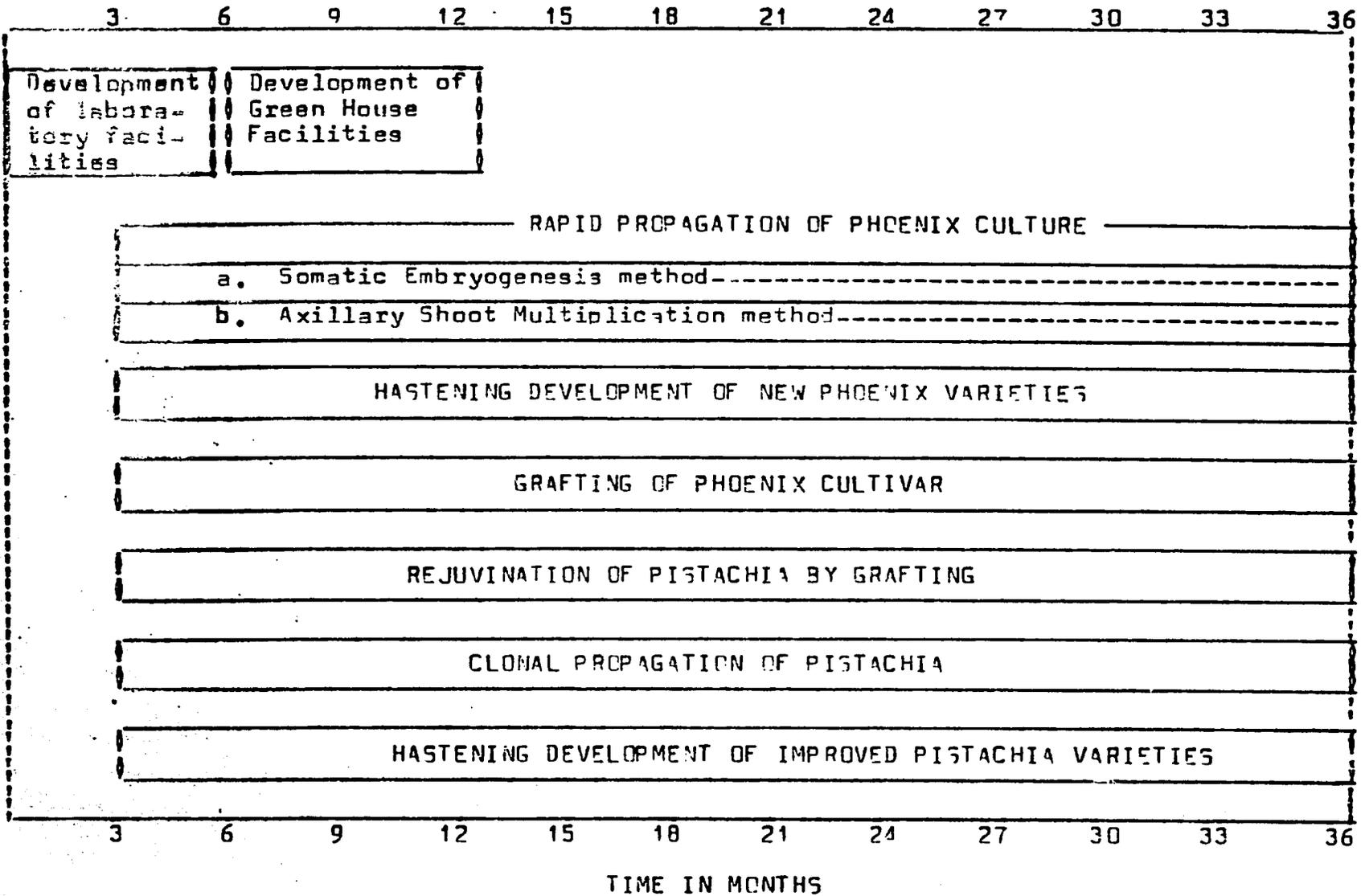
Chemicals to be purchased include nutrient ingredients and analytical reagents. Large numbers of culture tubes, culture flasks and other tissue culture and standard laboratory glassware and plasticware fall into the glassware category.

A priority item is the travel of the staff to the U.S. to obtain first-hand, formal training in plant tissue culture in the laboratory of the collaborator. Also, at least one of the staff should participate in the Congress of the International Association for Plant Tissue Culture, scheduled for August 1986 in Minneapolis, Minnesota.

The domestic travel will involve several trips to the date palm and pistachio growing areas of Pakistan to survey and collect plant material for tissue culture, and to eventually transfer tissue-cultured plants to the field.

PROJECT SCHEDULE ACTIVITIES

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SALARIES OF STAFF
(in US Dollars)

Sr. No.	Name of Post	No. of Posts	Basic Pay Scale No.	1st year	2nd year	3rd year	Total
1.	Principal Investigator			Zero Pay			
2.	Co-Principal Investigator		One pay a year	170	180	190	540
3.	Senior Research Officer	1	18	2,472	2,585	2,697	7,754
4.	Chemist	1	17	1,928	2,018	2,108	6,054
5.	Geneticist	1	17	1,928	2,018	2,108	6,054
6.	Junior Experimental Officer	2	14	2,105	2,180	2,330	6,615
7.	Laboratory Attendant	2	12	1,218	1,236	1,254	3,708
Total:				9,721	10,217	10,687	30,625

Standard Provisions

A. The following standard provisions are mandatory for use in all grants and cooperative agreements with non-U.S., non-governmental organizations:

1. ALLOWABLE COSTS (NOVEMBER 1984)

The grantee shall be reimbursed for costs incurred in carrying out the purposes of this grant which are determined by the grant officer to be reasonable, allocable, and allowable in accordance with the terms of this grant and the cost principles (hereinafter referred to as "applicable cost principles") in effect on the date of this grant, which are attached.*

(a) Reasonable. Shall mean those costs that do not exceed those which would be incurred by an ordinarily prudent person in the conduct of normal business.

(b) Allocable Costs. Shall mean those costs which are necessary to the grant.

(c) Allowable Costs. Shall mean those costs which must conform to any limitations set forth in this grant.

(d) Unallowable costs, direct or indirect, include but are not limited to the following examples: Advertising, bad debts, contingencies, entertainment, fines and penalties, interest, fund raising, investment management costs, losses on other awards, taxes, first class air fare unless specifically approved, certain relocation costs, and professional service costs incurred in connection with litigation against the U.S. Government, and organization or reorganization costs. Additionally, public information service costs are unallowable as indirect costs. The applicable cost principles do authorize some of the above listed unallowable costs in appropriate circumstances. Prior to incurring a questionable or unique cost, the grantee should obtain the grant officer's written determination as to whether the cost will be allowable.

* NOTE: OMB Circular A-21 shall apply to universities.
OMB Circular A-122 shall apply to all other non-profits.

2. ACCOUNTING, AUDIT, AND RECORDS (NOVEMBER 1984)

(a) The grantee shall maintain books, records, documents, and other evidence in accordance with the grantee's usual accounting procedures to sufficiently substantiate charges to the grant. The grantee's financial management system shall provide for the following:

1. Accurate, current, and complete disclosure for each AID-sponsored project or program in accordance with the reporting requirements of this grant. While AID requires reporting on an accrual basis, the grantee shall not be required to establish an accrual accounting system but shall develop such accrual data for its reports on the basis of an analysis of the documentation on hand.

2. Records that identify adequately the source and application of funds for AID-sponsored activities. These records shall contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, outlays, and income.

3. Effective control over and accountability for all funds, property, and other assets. Grantee shall adequately safeguard all such assets and shall ensure that they are used solely for authorized purposes.

4. Comparison of actual outlays with budget amounts for each grant. Financial information should be related to performance and unit-cost data whenever appropriate.

5. Accounting records that are supported by documentation that at a minimum will identify, segregate, accumulate, and record all costs incurred under a grant and which fully disclose (1) the amount and disposition by the grantee of the proceeds of such assistance, (2) the total cost of the project or undertaking in connection with which such assistance is given or used, (3) the amount of that portion of the cost of the project or undertaking supplied by other sources, and (4) such other records as will facilitate an effective audit.

(b) The grantee shall preserve and make available such records for examination and audit by AID and the Comptroller General of the United States, or their authorized representatives (1) until the expiration of three years from

the date of termination of the grant and (2) for such longer period, if any, as is required to complete an audit to resolve all questions concerning expenditures unless written approval has been obtained from the grant officer to dispose of the records. AID follows generally accepted accounting principles and auditing standards in determining that there has been proper accounting and use of grant funds. The grantee agrees to make available any further information requested by AID with respect to any questions arising as a result of the audit.

(c) The grantee shall require subgrantees to adopt the standards in paragraph (b) above.

3. REFUNDS (NOVEMBER 1984)

(a) If use of the AID funds results in accrual of interest to the grantee or to any other person to whom the grantee makes AID funds available, the grantee shall refund to AID the amount of interest accrued.

(b) Funds obligated by AID but not disbursed to the grantee at the time the grant expires or is terminated shall revert to AID, except for such funds encumbered by the grantee by a legally binding transaction applicable to this grant. Any funds disbursed to but not expended by the grantee at the time of expiration or termination of the grant shall be refunded to AID.

(c) If, at any time during the life of the grant, or as a result of final audit, it is determined by AID that funds provided under this grant have been expended for purposes not in accordance with the terms of this grant, the grantee shall refund such amount to AID.

4. REVISION OF GRANT BUDGET (NOVEMBER 1984)

(a) The approved grant budget is the financial expression of the grantee's program as approved during the grant award process.

(b) The grantee shall immediately request approval from the grant officer when there is reason to believe that within the next 30 calendar days a revision of the approved grant budget will be necessary for any of the following reasons:

1. To change the scope or the objectives of the project and/or revise the funding allocated among project objectives.

2. Additional funding is needed.

3. The grantee expects the amount of AID authorized funds to exceed its needs by more than \$5,000 or five percent of the AID award, whichever is greater.

4. The grantee plans to transfer funds budgeted for indirect costs to absorb increases in direct costs or vice versa.

5. The grantee intends to contract or subgrant any of the work under this grant, and such contracts or subgrants were not included in the approved grant budget.

(c) Except as required by other provisions of this grant specifically stated to be an exception from this provision, the Government shall not be obligated to reimburse the grantee for costs incurred in excess of the total amount obligated under the grant. The grantee shall not be obligated to continue performance under the grant (including actions under the "Termination" provision) or otherwise to incur costs in excess of the amount obligated under the grant, unless and until the grant officer has notified the grantee in writing that such obligated amount has been increased and has specified the new grant total amount.

5. TERMINATION AND SUSPENSION (NOVEMBER 1984)

(a) For Cause. This grant may be terminated for cause at any time, in whole or in part, by the grant officer upon written notice to the grantee, whenever it is determined that the grantee has failed to comply with the conditions of the grant.

(b) For Convenience. This grant may be terminated for convenience at any time by either party, in whole or in part, if both parties agree that the continuation of the grant would not produce beneficial results commensurate with the further expenditure of funds. Both parties shall agree upon termination conditions, including the effective date and, in the case of partial terminations, the portion to be terminated. The agreement to terminate shall be set forth in a letter from the grant officer to the grantee.

(c) Termination Procedures. Upon receipt of and in accordance with a termination notice as specified in either paragraph (a) or (b) above, the grantee shall take immediate action to minimize all expenditures and obligations financed by this grant and shall cancel such unliquidated obligations whenever possible. Except as provided below, no further reimbursement shall be made after the effective date of termination. The grantee shall within 30 calendar days after the effective date of such termination repay to the Government all unexpended AID funds which are not otherwise obligated by a legally binding transaction applicable to this grant. Should the funds paid by the Government to the grantee prior to the effective date of the termination of this grant be insufficient to cover the grantee's obligations in the legally binding transaction, the grantee may submit to the Government within 90 calendar days after the effective date of such termination a written claim covering such obligations. The grant officer shall determine the amount(s) to be paid by the Government to the grantee under such claim in accordance with the applicable cost principles.

(d) Suspension: Termination for Changed Circumstances. If at any time AID determines that continuation of funding for a program should be suspended or terminated because such assistance is not in the national interest of the United States or that it would be in violation of an applicable law, then AID may, following notice to the grantee, suspend this grant and prohibit the grantee from incurring additional obligations chargeable to this grant other than necessary and proper costs in accordance with the terms of this grant during the period of suspension. If the situation causing the suspension continues for 60 days or more, then AID may terminate this grant on written notice to the grantee and cancel that portion of this grant which has not been disbursed or irrevocably committed to third parties. Financial settlement of this grant shall be governed by the termination procedures specified in paragraph (c) above.

6. DISPUTES (NOVEMBER 1984)

(a) Any dispute under this grant shall be decided by the AID grant officer. The grant officer shall furnish the grantee a written copy of the decision.

(b) Decisions of the AID grant officer shall be final unless, within 30 days of receipt of the decision of the grant officer, the grantee appeals the decision to the Administrator of AID. Any appeal made under this provision shall be in writing and addressed to the Administrator, Agency for International Development, Washington, D.C. 20523. A copy of the appeal shall be concurrently furnished to the grant officer.

(c) In connection with any appeal proceeding under this provision, the grantee shall be given an opportunity to be heard and to offer evidence in support of its appeal.

(d) A decision under this provision by the Administrator or his authorized representative shall be final unless overruled by a court of competent jurisdiction.

7. INELIGIBLE COUNTRIES (NOVEMBER 1984)

Unless otherwise approved by the AID grant officer, no funds will be expended for costs incurred in countries ineligible for assistance under the Foreign Assistance Act of 1961, as amended, or under acts appropriating funds for foreign assistance.

8. NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS (NOVEMBER 1984)

No person in the United States, consistent with the laws of the United States, shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity funded by this grant on the basis of race, color, national origin, age, handicap, or sex.

9. U.S OFFICIALS NOT TO BENEFIT (NOVEMBER 1984)

No member of or delegate to the U.S. Congress or resident U.S. Commissioner shall be admitted to any share or part of this grant or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this grant if made with a corporation for its general benefit.

10. COVENANT AGAINST CONTINGENT FEES (NOVEMBER 1984)

The grantee certifies that no person or selling agency has been employed or retained to solicit or secure this grant upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee except bona fide employees or bona fide established commercial or selling agencies maintained by the grantee for the purpose of securing business. For breach or violation of this certification, AID shall have the right to cancel this grant without liability or, to deduct from the grant amount, or otherwise recover, the full amount of each commission, percentage, brokerage, or contingent fee.

11. NONLIABILITY (NOVEMBER 1984)

AID does not assume liability for any third party claims for damages arising out of this grant.

12. AMENDMENT (NOVEMBER 1984)

The grant may be amended by formal modifications to the basic grant document or by means of an exchange of letters between the grant officer and an appropriate official of the grantee.

13. NOTICES (NOVEMBER 1984)

Any notice given by AID or the grantee shall be sufficient only if in writing and delivered in person, mailed, or cabled as follows:

To the AID grant officer, at the address specified in the grant.

To grantee, at grantee's address shown in the grant or to such other address designated within the grant.

Notices shall be effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

14A. PAYMENT - PERIODIC ADVANCE (NOVEMBER 1964)

(This provision is applicable when (1) the grantee has an acceptable accounting system (2) the grantee has the ability to maintain procedures that will minimize the time elapsing between the transfer of funds and the disbursement thereof, and 3) the grantee's financial management system meets the standards for fund control and accountability required under the standard provision of this agreement entitled "Accounting, Audit and Records).

(a) AID funds shall not be commingled with other grantee owned or controlled funds. The grantee shall deposit all AID cash advances in a separate bank account and shall make all disbursements for goods and services from this account.

(b) Each quarter, after the initial cash advance, the grantee shall submit to the AID Controller, identified in the schedule, voucher form SF 1034 (original) and SF 1034-A (three copies), entitled "Public Voucher for Purchases and Services Other Than Personal", copies of which are attached.

(c) Each voucher shall be identified by the appropriate grant number and shall be accompanied by an original and three copies of a report in the following format:

**FEDERAL CASH ADVANCE STATUS REPORT
(Report Control No. W-245)**

A. Period covered by this report:

FROM (Month, day, year) _____
TO (Month, day, year) _____
Period covered by the next report
FROM (Month, day, year) _____
TO (Month, day, year) _____

B. Cash Advance Use and Needs:

1. Cash advance on hand at the beginning of this reporting period..... \$ _____

2. U.S. Treasury check advance(s) received during this reporting period..... \$ _____
3. Interest earned on cash advance during this reporting period..... \$ _____
4. GROSS cash advance available during this reporting period (Lines 1, 2, & 3)..... \$ _____
5. LESS, interest remitted to AID during this reporting period..... \$ _____
6. NET cash advance available during this reporting period (Line 4 minus Line 5)..... \$ _____
7. Total disbursements during this reporting period, including subadvances (see footnote 1)..... \$ _____
8. Amount of cash advances available at the end of this reporting period (Line 6 minus Line 7)..... \$ _____
9. Projected disbursements, including subadvances, for the next reporting period (see footnote 2)..... \$ _____
10. Additional cash advance requested for the next reporting period (Line 9 minus Line 8)..... \$ _____
11. Total interest earned on cash advance from the start of the grant to the end of this reporting period, but not remitted to AID..... \$ _____
12. Total cash advances to subgrantees, if any, as of the end of this reporting period..... \$ _____

FOOTNOTES:

1. The grantee shall submit a cumulative detailed report of disbursements by BUDGET line item quarterly.
2. The grantee shall attach a Summary, by BUDGET line item, of its projected disbursements for the next reporting period.

C. Certification:

The undersigned hereby certifies: (1) that the amount in paragraph B.9 above represents the best estimates of funds needed for the disbursements to be incurred over the period described, (2) that appropriate refund or credit to the grant

will be made in the event of disallowance in accordance with the terms of the grant, (3) that appropriate refund or credit to the grant will be made in the event funds are not expended, and (4) that any interest accrued on the funds made available herein will be refunded to AID.

DATE _____

BY _____
TITLE _____

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15. AIR TRAVEL AND TRANSPORTATION (NOVEMBER 1984)

(This provision is applicable when any costs for air travel or transportation are included in the budget).

(a) The grantee is required to present to the project officer for written approval an itinerary for each planned international trip financed by this grant, which shows the name of the traveler, purpose of the trip, origin/destination (and intervening stops), and dates of travel, as far in advance of the proposed travel as possible, but in no event less than three weeks before travel is planned to commence. At least one week prior to commencement of approved international travel, the grantee shall notify the cognizant mission, with a copy to the project officer, of planned travel, identifying the travellers and the dates and times of arrival.

(b) Travel to certain countries shall, at AID's option, be funded from U.S.-owned local currency. When AID intends to exercise this option, AID will, after receipt of advice of intent to travel required above, either issue a Government Transportation Request (GTR) which the grantee may exchange for tickets, or AID will issue the tickets directly. Use of such U.S.-owned currencies will constitute a dollar charge to this grant.

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(c) All air travel and shipments under this grant are required to be made on United States flag air carriers to the extent service by such carriers is available. A U.S. flag air carrier is defined as an air carrier which has a certificate of public convenience and necessity issued by the U.S. Civil Aeronautics Board authorizing operations between the United States and/or its territories and one or more foreign countries.

(d) Use of foreign air carrier service may be deemed necessary if a U.S. flag air carrier cannot provide the foreign air transportation needed, or if use of such service will not accomplish the agency's mission. Travel and transportation on non-free world air carriers are not reimburseable under this grant.

(e) U.S. flag air carrier service is considered available even though:

1. Comparable or a different kind of service can be provided at less cost by a foreign air carrier;

2. Foreign air carrier service is preferred by or is more convenient for the agency or traveler; or

3. Service by a foreign air carrier can be paid for in excess foreign currency, unless U.S. flag air carriers decline to accept excess or near excess foreign currencies for transportation payable only out of such monies.

(f) Except as provided in paragraph (b) of this section, U.S. flag air carrier service must be used for all Government-financed commercial foreign air travel if service provided by such carriers is available. In determining availability of a U.S. flag air carrier, the following scheduling principles should be followed unless their application results in the last or first leg of travel to or from the United States being performed by a foreign air carrier:

1. U.S. flag air carrier service available at point of origin should be used to destination or in the absence of direct or through service to the farthest interchange point on a usually traveled route;

2. Where an origin or interchange point is not served by U.S. flag air carrier, foreign air carrier service should be used only to the nearest interchange point on a usually traveled route to connect with U.S. flag air carrier service; or

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3. Where a U.S. flag air carrier involuntarily reroutes the traveler via a foreign air carrier the foreign air carrier may be used notwithstanding the availability of alternative U.S. flag air carrier service.

(g) For travel between a gateway airport in the United States (the last U.S. airport from which the traveler's flight departs or the first U.S. airport at which the traveler's flight arrives) and a gateway airport abroad (that airport from which the traveler last embarks enroute to the U.S. or at which he first debarks incident to travel from the U.S.), passenger service by U.S. flag air carrier will not be considered available:

1. Where the gateway airport abroad is the traveler's origin or destination airport, and the use of U.S. flag air carrier service would extend the time in a travel status, including delay at origin and accelerated arrival at destination, by at least 24 hours more than travel by foreign air carrier:

2. Where the gateway airport abroad is an interchange point, and the use of U.S. flag air carrier service would require the traveler to wait six hours or more to make connections at that point, or delayed departure from or accelerated arrival at the gateway airport in the United States would extend the time in a travel status by at least six hours more than travel by foreign air carrier.

(h) For travel between two points outside the United States the rules in paragraphs (d) through (f) of this section will be applicable, but passenger service by U.S. flag air carrier will not be considered to be reasonably available:

1. If travel by foreign air carrier would eliminate two or more aircraft changes enroute;

2. Where one of the two points abroad is the gateway airport (as defined in paragraph (g) of this section) enroute to or from the United States, if the use of a U.S. flag air carrier would extend the time in a travel status by at least six hours more than travel by foreign air carrier including accelerated arrival at the overseas destination or delayed departure from the overseas origin as well as delay at the gateway airport or other interchange point abroad; or

3. Where the travel is not part of a trip to or from the United States, if the use of a U.S. flag air carrier would extend the time in a travel status by at least six hours more

than travel by foreign air carrier including delay at origin, delay enroute and accelerated arrival at destination.

(i) When travel under either paragraph (g) or (h) of this section involves three hours or less between origin and destination by a foreign air carrier, U.S. flag air carrier service will not be considered available when it involves such travel time or more.

(j) Nothing in the above guidelines shall preclude and no penalty shall attend the use of a foreign air carrier which provides transportation under an air transport agreement between the United States and a foreign government, the terms of which are consistent with the international aviation policy goals set forth at 49 U.S.C. 1502(b) and provide reciprocal rights and benefits.

(k) Where U.S. Government funds are used to reimburse the grantee's use of other than U.S. flag carriers for international transportation, the grantee will include a certification on vouchers involving such transportation which is essentially as follows:

CERTIFICATION OF UNAVAILABILITY OF U.S. FLAG AIR CARRIERS

I hereby certify that the transportation service for personnel (and their personal effects) or property by certificated air carrier was unavailable for the following reason(s): (State appropriate reason(s) as set forth above).

(1) International Travel

(i) As used herein, the term "international travel" includes travel to all countries other than those within the home country of the grantee.

(ii) The grantee will be reimbursed for travel and the reasonable cost of subsistence, post differentials and other allowances paid to employees in an international travel status in accordance with the grantee's established policies and practices which are uniformly applied to federally financed and other activities of the grantee. The standard for determining the reasonableness of reimbursement for overseas allowance is the Standardized Regulations (Government Civilians, Foreign Areas), published by the U.S. Department of State, as from time to time amended. The most current subsistence, post differentials, and other allowances may be obtained from the grant officer.

(m) This provision will be included in all subagreements and contracts which require air travel and transportation under this grant.

16. OCEAN SHIPMENT OF GOODS (NOVEMBER 1984)

(This provision is applicable when goods purchased with funds provided under this grant are transported to cooperating countries on ocean vessels).

(a) At least 50% of the gross tonnage of all goods purchased under this grant and transported to the cooperating countries shall be made on privately owned U.S. flag commercial ocean vessels, to the extent such vessels are available at fair and reasonable rates for such vessels.

(b) At least 50% of the gross freight revenue generated by shipments of goods purchased under this grant and transported to the cooperating countries on dry cargo liners shall be paid to or for the benefit of privately owned U.S. flag commercial ocean vessels to the extent such vessels are available at fair and reasonable rates for such vessels.

(c) When U.S. flag vessels are not available, or their use would result in a significant delay, the grantee may request a determination of non-availability from the AID Transportation Support Division, Office of Commodity Management, Washington, D.C. 20523, giving the basis for the request which will relieve the grantee of the requirement to use U.S. flag vessels for the amount of tonnage included in the determination. Shipments made on non-free world ocean vessels are not reimbursable under this grant.

(d) Vouchers submitted for reimbursement which include ocean shipment costs shall contain a certification essentially as follows:

'I hereby certify that a copy of each ocean bill of lading concerned has been submitted to the U.S. Department of Transportation, Maritime Administration, Division of National Cargo, 400 7th Street, S.W., Washington, D.C. 20590, and that such bills of lading state all of the carrier's charges including the basis for calculation such as weight or cubic measurement.'

17. PROCUREMENT OF GOODS AND SERVICES (NOVEMBER 1964)

(This provision is applicable when goods or services are procured under the grant).

The grantee may use its own procurement policies and practices for the procurement of goods and services under this grant, provided they conform to all of AID's requirements listed below and the standard provision entitled "Ineligible and Restricted Goods and Services":

(a) General Requirements:

1. The recipient shall maintain a code or standards of conduct that shall govern the performance of its officers, employees or agents engaged in the awarding and administration of contracts using AID funds. No employee, officer or agent shall participate in the selection, award or administration of a contract in which AID funds are used, where, to his knowledge, he or his immediate family, partners, or organization in which he or his immediate family or partners has a financial interest or with whom he is negotiating or has any arrangement concerning prospective employment. The recipients' officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from contractors or potential contractors. Such standards shall provide for disciplinary actions to be applied for violations of such standards by the recipients' officers, employees or agents.

2. All procurement transactions shall be conducted in a manner to provide, to the maximum extent practical, open and free competition. The recipient should be alert to organizational conflicts of interest or noncompetitive practices among contractors that may restrict or eliminate competition or otherwise restrain trade. In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, invitations for bids and/or requests for proposals should be excluded from competing for such procurements. Awards shall be made to the bidder/offeror whose bid/offer is responsive/responsible to the solicitation and is most advantageous to the recipient, price and other factors considered. Solicitations shall clearly set forth all requirements that the bidder/offeror must fulfill in order to be evaluated by the recipient. Any and all bids/offers may be rejected when it is in the recipient's interest to do so.

3. All grantees shall establish procurement procedures that provide for, at a minimum, the following procedural requirements:

(i) Proposed procurement actions shall follow a procedure to assure the avoidance of purchasing unnecessary or duplicative items. Where appropriate, an analysis shall be made of lease and purchase alternatives to determine which would be the most economical practical procurement. Such an analysis shall not be required for motor vehicles.

(ii) Solicitations for goods and services shall be based upon a clear and accurate description of the technical requirements for the material, product or service to be procured. Such a description shall not, in competitive procurements, contain features which unduly restrict competition. "Brand-name or equal" descriptions may be used as a means to define the performance of other salient requirements of a procurement and when so used the specific features of the named brand which must be met by bidders/offerors shall be clearly specified.

(iii) Positive efforts shall be made by the recipients to utilize small business and minority-owned business sources of supplies and services. Such efforts should allow these sources the maximum feasible opportunity to compete for contracts utilizing AID funds. To permit AID, in accordance with the small business provisions of the Foreign Assistance Act of 1961, as amended, to give United States small business firms an opportunity to participate in supplying commodities and services procured under this grant, the grantee shall to the maximum extent possible provide the following information to the Office of Small Disadvantaged Business Utilization, AID/Washington, D.C. 20523, at least 45 days prior (except where a shorter time is requested of and granted by the Office of Small and Disadvantaged Business Utilization) to placing any order or contract in excess of \$25,000:

1. Brief general description and quantity of goods or services;
2. Closing date for receiving quotations, proposals, or bids; and
3. Address where invitations or specifications can be obtained.

(iv) The type of procuring instruments used, fixed price contracts, cost reimbursable contracts, purchase orders, incentive contracts, shall be determined by the recipient but must be appropriate for the particular procurement and for promoting the best interest of the program involved. The "cost-plus-a-percentage-of-cost" method of contracting shall not be used.

(v) Contracts shall be made only with responsible contractors who possess the potential ability to perform successfully under the terms and conditions of a proposed procurement. Consideration shall be given to such matters as contractor integrity, record of past performance, financial and technical resources or accessibility to other necessary resources.

(vi) All proposed sole source contracts or where only one bid or proposal is received in which the aggregate expenditure is expected to exceed \$5,000 shall be subject to prior approval by an appropriate official within the grantee organization.

(vii) Some form of price or cost analysis should be made in connection with every procurement action. Price analysis may be accomplished in various ways, including the comparison of price quotations submitted, market prices and similar indicia, together with discounts. Cost analysis is the review and evaluation of each element of cost to determine reasonableness, allocability and allowability.

(viii) Procurement records and files for purchases in excess of \$10,000 shall include the following:

1. Basis for contractor selection;
2. Justification for lack of competition when competitive bids or offers are not obtained;
3. Basis for award cost or price.

A system for contract administration shall be maintained to ensure contractor conformance with terms, conditions and specifications of the contract, and to ensure adequate and timely followup of all purchases.

(b) Such contract shall contain the following contract provisions as well as any provision within this grant which requires such inclusion of that provision. Whenever a provision is required to be inserted in a contract under this grant, the grantee shall insert a statement in the contract that in all instances where the U.S. Government is mentioned the grantee's name shall be substituted.

1. Contracts in excess of \$10,000 shall contain contractual provisions or conditions that will allow for administrative, contractual or legal remedies in instances in which contractors violate or breach contract terms, and provide for such remedial actions as may be appropriate.

2. All contracts in excess of \$10,000 shall contain suitable provisions for termination by the recipient including the manner by which termination will be effected and the basis for settlement. In addition, such contracts shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.

3. In all contracts for construction or facility improvement awarded for more than \$100,000, recipients shall observe generally accepted bonding requirements.

4. Contracts, the principal purpose of which is to create, develop or improve products, processes or methods; or for exploration into fields that directly concern public health, safety or welfare; or contracts in the fields of science or technology in which there has been little significant experience outside of work funded by Federal assistance, shall contain a notice to the effect that matters regarding rights to inventions and materials generated under the contract are subject to the regulations included in these grant provisions. The contractor shall be advised as to the source of additional information regarding these matters.

5. All negotiated contracts over \$10,000 awarded by recipients shall include a provision to the effect that the recipient, A.I.D., the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the contractor which are directly pertinent to the specific program for the purpose of making audits, examinations, excerpts and transcriptions.

18. INELIGIBLE AND RESTRICTED GOODS AND SERVICES (NOVEMBER 1984)

(This provision is applicable when goods or services are procured under the grant.)

a. Ineligible and Restricted Goods and Services: If AID determines that the grantee has procured any of the goods or services specified below, or has procured goods and services from unauthorized sources, and has received reimbursement for such purpose without the prior written authorization of the grant officer, the grantee agrees to refund to AID the entire amount of the reimbursement.

1. Ineligible Goods and Services. Under no circumstances shall the grantee procure any of the following under this grant:

- (a) Military equipment,
- (b) Surveillance equipment,
- (c) Commodities and services for support of police or other law enforcement activities,
- (d) Abortion equipment and services,
- (e) Luxury goods and gambling equipment, or
- (f) Weather modification equipment.

2. Ineligible Suppliers. Funds provided under this grant shall not be used to procure any commodity or commodity-related services furnished by any supplier whose name appears on the List of Ineligible Suppliers under AID Regulation 8, "Suppliers of Commodities and Commodity-Related Services Ineligible for AID Financing" (22 CFR 208). The grantee agrees to review said list prior to undertaking any procurement under this grant. AID will provide the grantee with this list.

3. Restricted Goods. The grantee shall not procure any of the following goods and services without the prior written authorization of the grant officer:

- (a) Agricultural commodities,
- (b) Motor vehicles,
- (c) Pharmaceuticals,
- (d) Pesticides,
- (e) Rubber compounding chemicals and plasticizers,
- (f) Used equipment,
- (g) U.S. Government-owned excess property, or
- (h) Fertilizer.

b. Source, Origin, and Nationality: The eligibility of the source, origin, and nationality of the goods and services is divided into the following categories of under and over \$250,000 for the total procurement element during the life of the grant. The total procurement element includes procurement of all goods (e.g. equipment, materials, supplies) and services. Guidance on the eligibility of specific goods or services may be obtained from the grant officer. AID policies on source, origin, and nationality are contained in Chapters 4 and 5 of AID Handbook 1, Supplement B, (Procurement Policies).

1. When the total procurement element during the life of this grant is valued at \$250,000 or less, the following rules apply:

(a) All goods and services, the costs of which are to be reimbursed under this grant and which will be financed with United States dollars, shall be purchased in and shipped from only "Special Free World" countries (i.e., AID Geographic Code 935) in accordance with the following order of preference:

- (1) The United States (AID Geographic code 000),
- (2) The Cooperating Country,
- (3) "Selected Free World" countries (AID Geographic Code 941),
- (4) "Special Free World" countries (AID Geographic Code 935)."

(b) Application of Order of Preference. When the grantee procures goods and services from other than U.S. sources, under the order of preference in paragraph b(1) above, the grantee shall document its files to justify each such instance. The documentation shall set forth the circumstances surrounding the procurement and shall be based on one or more of the following reasons, which will be set forth in the grantee's documentation:

(1) The procurement was of an emergency nature, which would not allow for the delay attendant to soliciting U.S. sources,

(2) The price differential for procurement from U.S. sources exceeded by 50% or more the delivered price from the non-U.S. source,

(3) Impelling local political considerations precluded consideration of U.S. sources,

(4) The goods or services were not available from U.S. sources, or

(5) Procurement of locally available goods and services, as opposed to procurement of U.S. goods and services, would best promote the objective of the Foreign Assistance program under the grant.

2. When the total procurement element exceeds \$250,000, the following rule applies: Except as may be specifically approved or directed in advance by the grant officer, all goods and services, which will be reimbursed under this grant and financed with United States dollars, shall be procured in and shipped from the United States (Code 000) and from any other countries within the authorized geographic code as specified in the Schedule of this grant.

c. Marine Insurance: The eligibility of marine insurance is determined by the country in which it is placed. Insurance is placed in a country if payment of the insurance policy is issued by an insurance company located in that country. Eligible countries for placement are governed by the authorized geographic code, except that if Code 941 is authorized, the Cooperating Country is also eligible. Section 604(d) of the Foreign Assistance Act requires that if a recipient country discriminates by statute, decree, rule, or practice with respect to AID-financed procurement against any marine

insurance company authorized to do business in the United States, then any AID-financed commodity shipped to that country shall be insured against marine risk and the insurance shall be placed in the United States with a company or companies authorized to do marine insurance business in the United States.

d. Ocean and Air Transportation shall be in accordance with the applicable provisions contained within this grant

e. Printed or Audio-Visual Teaching Materials. If the effective use of printed or audio-visual teaching materials depends upon their being in the local language and if such materials are intended for technical assistance projects or activities financed by AID in whole or in part and if other funds including U.S.-owned or U.S.-controlled local currencies are not readily available to finance the procurement of such materials, local language versions may be procured from the following sources, in order of preference:

1. Code 000, United States.
2. The Cooperating Country.
3. Code 941, Selected Free World.
4. Code 899, Free World.

f. Special Restrictions on the Procurement of Construction or Engineering Services: Section 604(g) of the Foreign Assistance Act provides that AID funds may not be used for "procurement of construction or engineering services from advanced developing countries, eligible under Geographic Code 941, which have attained a competitive capability in international markets for construction services or engineering services." In order to insure eligibility of a Code 941 contractor for construction or engineering services, the grantee shall obtain the grant officer's prior approval for any such contract.

20. LOCAL COST FINANCING WITH U.S. DOLLARS (NOVEMBER 1984)

(This Provision is applicable when local financing is authorized under the grant and must be used in conjunction with the provisions entitled "Procurement of Goods and Services" and "Ineligible and Restricted Goods and Services".)

(a) Local cost financing is the use of appropriated U.S. dollars to finance the procurement of goods and services paid for with local currency in the cooperating country for furtherance of grant purposes. Local cost financing must be specifically authorized in the Schedule of the grant. The amount of U.S. dollars which may be used must be specified in the authorization, together with any special restrictions on their use.

(b) Procurement of goods and services under local cost financing is subject to the restrictions listed in the grant provisions entitled "Procurement of Goods and Services" and "Ineligible and Restricted Goods and Services."

(c) Authorization of local cost financing makes the cooperating country, in addition to the United States and any other country included in the authorized geographic code for the project, an eligible source for the purchase of goods or services in the cooperating country. Goods or services purchased under local cost financing must be located in the cooperating country at the time they are purchased; they cannot be imported specifically for the project being implemented by this grant. The supplier from which goods or services are purchased under local cost financing must also be in the cooperating country. Suppliers of goods or services under local cost financing must meet the nationality eligibility tests prescribed in Chapter 5 of AID Handbook 1, Supplement B.

(d) Unless otherwise specifically authorized, the policies in Chapter 13 of AID Handbook 1, Supplement B are applicable to all local cost financing.

21. PATENT RIGHTS (NOVEMBER 1984)

(This provision is applicable whenever patentable processes or practices are financed by the grant).

a. Definitions.

(1) "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code.

(2) "Subject Invention", means any invention of the recipient conceived or first actually reduced to practice in the performance of work under this agreement.

(3) "Practical Application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

(4) "Made" when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) "Small Business Firm" means a small business concern which meets the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively.

(6) "Nonprofit Organization" means a university or other institution of higher education or an organization which is not organized for profit as described in the laws of the country in which it was organized.

b. Allocation of Principal Rights.

The recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the recipient retains title, the Federal Government shall have a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

c. Invention Disclosure, Election of Title and Filing of Patent Applications by Recipient.

(1) The recipient shall disclose each subject invention to AID within two months after the inventor discloses it in writing to recipient personnel responsible for patent matters. The disclosure to AID shall be in the form of a written report and shall identify the agreement under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to AID the recipient shall promptly notify AID of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the recipient.

(2) The recipient shall elect in writing whether or not to retain title to any such invention by notifying AID within twelve months of disclosure to the recipient, provided that in any case where publication, on sale, or public use has initiated the one-year statutory period wherein valid patent protection can still be obtained in the United States, the period of election of title may be shortened by AID to a date that is no more than 60 days prior to the end of the statutory period.

(3) The recipient shall file its initial patent application on an elected invention within two years after election or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The recipient shall file patent applications in additional countries within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure to AID, election, and filing may, at the discretion of AID be granted.

d. Conditions When the Government May Obtain Title.

The recipient shall convey to AID upon written request, title to any subject invention:

(1) If the recipient fails to disclose or elect the subject invention within the times specified in c. above, or elects not to retain title. AID may only request title within sixty days after learning of the recipient's failure to report or elect within the specified times.

(2) In those countries in which the recipient fails to file patent applications within the times specified in c. above; provided, however, that if the recipient has filed a patent application in a country after the times specified in c., above, but prior to its receipt of the written request of AID the recipient shall continue to retain title in that country.

(3) In any country in which the recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding, on, a patent on a subject invention.

e. Minimum Rights to Recipient.

(1) The recipient shall retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title except if the recipient fails to disclose the subject invention within the times specified in c., above. The recipient's license extends to its subsidiaries and affiliates, if any, within the corporate structure of which the recipient is a party and includes the right to grant sublicenses of the same scope to the extent the recipient was legally obligated to do so at the time the agreement was awarded. The license is transferable only with the approval of AID except when transferred to the successor of that party of the recipient's business to which the invention pertains.

(2) The recipient's license may be revoked or modified by AID to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions in the Federal Property Management Regulations and agency licensing regulations (if any). This

license shall not be revoked in that field of use or those geographical areas in which the recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of AID to the extent the recipient, its licensees, or its subsidiaries or affiliates have failed to achieve practical application.

(3) Before revocation or modification of the license, AID shall furnish the recipient written notice of its intention to revoke or modify the license, and the recipient shall be allowed thirty days (or such other time as may be authorized by AID for good cause shown by the recipient) after the notice to show cause why the license should not be revoked or modified. The recipient has the right to appeal, in accordance with applicable agency licensing regulations (if any) and the Federal Property Management Regulations concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

F. Recipient Action to Protect the Government's Interest.

(1) The recipient agrees to execute or to have executed and promptly deliver to AID all instruments necessary to (i) establish or conform the rights the Government has throughout the world in those subject inventions to which the recipient elects to retain title, and (ii) convey title to AID when requested under paragraph d. above, and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) The recipient agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the recipient each subject invention made under agreement in order that the recipient can comply with the disclosure provisions of paragraph c. above, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by c. (1) above. The recipient shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

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(3) The recipient shall notify AID of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding of a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(4) The recipient agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement: "This invention was made with Government support under (identify the agreement awarded by AID). The Government has certain rights in this invention."

g. Subagreements and Contracts.

The recipient shall include this clause suitably modified to identify the parties, in all subagreements and contracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or nonprofit organization. The subrecipient or contractor shall retain all rights provided for the recipient in this clause, and the recipient shall not, as part of the consideration for awarding the contract or subagreement obtain rights in the contractor's or subrecipient's subject inventions.

h. Reporting Utilization of Subject Inventions.

The recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the recipient, and such other data and information as AID may reasonably specify. The recipient also agrees to provide additional reports as may be requested by AID in connection with any march-in proceedings undertaken by AID in accordance with paragraph j. of this provision. To the extent data or information supplied under this section is considered by the recipient, its licensee or assignee to be privileged and confidential and is so marked, AID agrees that, to the extent permitted by law, it shall not disclose such information to persons outside the Government.

i. Preference For United States Industry.

Notwithstanding any other provision of this clause, the recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention shall be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by AID upon a showing by the recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances manufacture in the United States is not commercially feasible.

j. March-in Rights.

The recipient agrees that with respect to any subject invention in which it has acquired title, AID has the right in accordance with the procedures in OMB Circular A-124 to require the recipient, an assignee or exclusive licensee of a subject invention to grant a non-exclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the recipient, assignee, or exclusive licensee refuses such a request, AID has the right to grant such a license itself if AID determines that:

(1) Such action is necessary because the recipient or assignee has not taken or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the recipient, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the recipient, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph i. of this clause has not been obtained or waived or because a license of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

k. Special Provisions for Agreements with Nonprofit Organizations.

If the recipient is a nonprofit organization, it agrees that:

(1) Rights to a subject invention may not be assigned without the approval of AID, except where such assignment is made to an organization which has as one of its primary functions the management of inventions and which is not, itself, engaged in or does not hold a substantial interest in other organizations engaged in the manufacture or sale of products or the use of processes that might utilize the invention or be in competition with embodiments of the invention (provided that such assignee shall be subject to the same provisions as the recipient.

(2) The recipient may not grant exclusive licenses under the United States patents or patent applications in subject inventions to persons other than small business firms for a period in excess of the earlier of:

(i) Five years from first commercial sale or use of the invention; or

(ii) Eight years from the date of the exclusive license excepting that time before regulatory agencies necessary to obtain premarket clearance, unless on a case-by-case basis, AID approves a longer exclusive license. If exclusive field of use licenses are granted, commercial sale or use in one field of use shall not be deemed commercial sale or use as to other fields of use and a first commercial sale or use with respect to a product of the invention shall not be deemed to end the exclusive period to different subsequent products covered by the invention.

(3) The recipient shall share royalties collected on a subject invention with the inventor; and

(4) The balance of any royalties or income earned by the recipient with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, shall be utilized for the support of scientific research or education.

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1. Communications.

Communications concerning this provision shall be addressed to the grant officer at the address shown on the face of this agreement.

22. PUBLICATIONS (NOVEMBER 1984)

(This provision is applicable when publications are financed under the grant).

(a) If it is the grantee's intention to identify AID's contribution to any publication resulting from this grant, the grantee shall consult with AID on the nature of the acknowledgement prior to publication.

(b) The grantee shall provide the AID project officer with one copy of all published works developed under this grant and with lists of other written work produced under the grant.

(c) In the event grant funds are used to underwrite the cost of publishing, in lieu of the publisher assuming this cost as is the normal practice, any profits or royalties up to the amount of such cost shall be credited to the grant.

(d) Except as otherwise provided in the terms and conditions of the grant, the author or the recipient is free to copyright any books, publications, or other copyrightable materials developed in the course of or under this grant, but AID reserves a royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use the work for Government purposes.

24. PARTICIPANT TRAINING (NOVEMBER 1984)

(This provision is applicable when any participant are

(a) Definitions:

1. Participant training is the training of any non-U.S. individual outside of his or her home country using AID funds or under AID sponsorship.

2. A participant is any non-U.S. individual being trained under this grant outside of his or her home country.

(b) Application of Handbook 10:

Participant training under this grant is to be conducted according to the policies established in AID Handbook 10, Participant Training, except to the extent that specific exceptions to Handbook 10 have been provided in this grant with the concurrence of the Office of International Training. (Handbook 10 may be obtained by submitting a request to the grant officer.) The following provisions summarized from Handbook 10, however, may not be excluded from any grant.

(c) Participant Training Information System:

All grantees shall ensure that participants trained in the United States or in a third country are included in the Agency's Participant Training Information System.

For participants trained in the United States, data is submitted by means of the AID Form 1381-4, "Participant Data Form", simultaneously with enrollment in the Health and Accident Coverage Program (see Section (f) below). For participants trained in third countries, grantees shall submit to the grant officer only the top white sheet of the Participant Data Form (and blue copies if subsequent changes in the participant's training program are made). Copies of the Participant Data Form may be obtained from the grant officer. The grant officer will submit the completed forms to the Office of International Training (S&T/IT), Washington, D.C. 20523.

(d) Visa Requirements For Training Within The United States

1. Under the authority of Section 635(f) of the Foreign Assistance Act, AID-sponsored participants are admitted to the United States under the Department of State/USIA Exchange Visitor Program and are issued J-1 visas. The program identification number is G-2-0263.

2. J-1 visas are issued by the U.S. Embassy or Consulate for AID-sponsored participants upon submission of a participant of Form IAP-66A which may be obtained only from the AID Mission.

3. Holders of J-1 visas are subject to the Immigration and Nationality Act, as amended, and may not apply for an immigrant or a nonimmigrant visa until 2 years' residency is completed in their home country, after completion of training.

4. Participant passports and visas should normally be valid for six months beyond the duration of the proposed program to allow for program readjustments if necessary. This may not be regarded as an opportunity to encourage program extensions.

(e) Maintenance and Other Allowances:

Grantees must observe the maintenance and other allowances for AID-sponsored participants in the United States and third countries as set forth in Handbook 10. No exceptions or variations are permissible except with the advance concurrence of the Office of International Training.

(f) Health and Accident Coverage (HAC) Program For Training Within The United States

The grantee shall enroll all participants training in the United States in AID's HAC Program.

1. The HAC Program enables the participant, or the provider of medical services, to submit bills for medical costs resulting from illness and accident to the HAC Claims Office which pays all reasonable and necessary medical charges for covered services not otherwise covered by other insurance programs (see paragraph 5 below), in accordance with the standard coverage established by AID under the HAC Program.

2. The grantee shall, as early as possible and no later than the initiation of travel to the United States by each participant financed by AID under this grant, fill out AID Form 1381-4 entitled "Participant Data Form" and mail it to the grant officer, who shall transmit it to the addressees indicated on the back of the form. The grantee can obtain a supply of these forms and instructions for completing them from the grant officer.

3. Enrollment fees shall be submitted, thirty days prior to the beginning of each new enrollment period. The current enrollment fee amount shall be obtained from the grant officer.. Payments will be made via check made payable to A.I.D. and submitted to

Agency for International Development
Office of Financial Development
Central Accounting Division-Cashier (FW/CAD)
Washington, D.C. 20523

(a) The enrollment fee shall be accompanied by a letter which lists the names of the enrollees identical to that on the Participant Data Form) period of coverage, fee amount paid, grant number, and the U.S. Government appropriation number as shown on the grant cover letter.

(b) The enrollment fees shall be calculated on the basis of fixed rates per participant per each 30 day period. The enrollment fees may not be prorated for fractional periods of less than 30 days and should cover the current training period for which funds are obligated under the grant.

4. The grantee shall assure that enrollment begins immediately upon the participant's departure for the United States for the purpose of participating in a training program financed or sponsored by AID, and that enrollment continues in full force and effect until the participant returns to his or her country of origin or is released from AID's responsibility, whichever occurs first.

5. The grantee shall provide each participant with a copy of the HAC brochure, copies of which are available from the grant officer.

6. If the grantee has a mandatory, nonwaivable health and accident insurance program for participants, the costs of such insurance will be allowable under this grant. Any claims eligible under such insurance will not be payable under AID's HAC plan or under this grant. However, even though the participant is covered by the grantee's mandatory, nonwaivable health and accident insurance program, the participant must be enrolled in AID's HAC Program. In addition, a copy of the mandatory insurance policy must be forwarded to the grant officer, who will forward it to the HAC Claims Office.

7. Medical costs not covered by the grantee's health service program or mandatory, nonvoluntary health and accident insurance program, or AID's HAC Program shall not be reimbursable under this grant unless specific written approval from the grant officer has been obtained.

(g) Participant Counseling For Training Within The United States.

Problems involving participants such as serious physical or emotional illness, accident or injury, arrest, death, the voluntary or involuntary early termination of a program, and the refusal of a participant to return to the home country upon completion of the program should be referred to the AID Participant Counselor at the Office of International Training.

The Counselor can be reached by calling the Office of International Training during workdays and the AID Duty Officer (202-632-1512) at other times. In referring cases, give the Counselor the name, country, and current location of the participant as well as a brief description of the problem with names and telephone numbers of hospitals, physicians, attorneys, etc. Following verbal referral, the participant's name, home address, and next of kin, and location of training should be sent to the grant officer, who will transmit the information to the S&T/IT Counselor.

(h) Orientation:

In addition to the above mandatory requirements for all participants, grantees are strongly encouraged to provide, in collaboration with the Mission training officer, predeparture orientation (see Chapter 13 of Handbook 10) and orientation in Washington at the Washington International Center (see Chapter 13D of Handbook 10). The latter orientation program also provides the opportunity to arrange for home hospitality in Washington and elsewhere in the United States through liaison with the National Council for International Visitors (NCIV). If the Washington orientation is determined not to be feasible, arrangements for home hospitality can be arranged in most U.S. cities if a request for such is directed to the grant officer, who will transmit the request to NCIV through S&T/IT.

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27. NEGOTIATED OVERHEAD RATES - PROVISIONAL (REVISED 11/1/74)

(This provision is applicable to all recipients who have an established provisional overhead rate).

(a) An overhead rate shall be established for each of the grantee's accounting periods during the term of this grant. Pending establishment of a final rate, provisional overhead payments shall be at the rate(s), on the base(s), and for the period(s) shown in the Schedule of this grant.

(b) The grantee, not later than 6 months after the close of each of its accounting periods during the term of this grant, shall submit to the grant officer a proposed final rate(s) for the period, together with supporting cost data. Negotiation of final overhead rate(s) by the grantee and the grant officer shall be undertaken as promptly as practicable after receipt of the grantee's proposal.

(c) The results of each negotiation shall be set forth in an amendment to the grant and shall specify (1) the agreed upon final rate(s), (2) the base(s) to which the rate(s) apply, and (3) the period for which the rates apply. The overhead rate amendment shall not change any monetary ceiling, grant obligation, or specific cost allowance or disallowance provided for in this grant.

(d) To prevent substantial over or under payment, the provisional or billing rates may, at the request of either party, be revised by mutual agreement, either retroactively or prospectively. Any such revision of negotiated provisional rates provided in this provision shall be set forth in an amendment to this grant.

(e) Any failure by the parties to agree on any final rate(s) under this provision shall be considered a dispute within the meaning of the Standard Provision of the grant, entitled "Disputes".

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298. TITLE TO AND CARE OF PROPERTY (U.S. GOVERNMENT)
(NOVEMBER 1984)

(This provision is applicable when title to property is vested in the U.S. Government)

(a) Property, title to which vests in the Government under this grant, whether furnished by the Government or acquired by the grantee, is subject to this provision and is hereinafter collectively referred to as "Government property." Title to Government property shall not be affected by the incorporation or attachment thereof to any property not owned by the Government, nor shall such Government property, or any part thereof, be or become a fixture or lose its identity as personalty by reason of affixation to any realty.

(b) Use of Government Property

Government property shall, unless otherwise provided herein or approved by the grant officer, be used only for the performance of this grant.

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(c) Control, Maintenance and Repair of Government Property

The grantee shall maintain and administer in accordance with sound business practice a program for the maintenance, repair, protection, and preservation of Government property so as to assure its full availability and usefulness for the performance of this grant. The grantee shall take all reasonable steps to comply with all appropriate directions or instructions which the grant officer may prescribe as reasonably necessary for the protection of the Government property.

The grantee shall submit, for review and written approval of the grant officer, a records system for property control and a program for orderly maintenance of Government property; however, if the grantee's property control and maintenance system has been reviewed and approved by another Federal department or agency pursuant to Attachment N of OMB Circular No. A-110 (see paragraph 1T of Chapter 1, Handbook 13), the grantee shall furnish the grant officer proof of such approval in lieu of another approval submission.

(1) Property Control

The property control system shall include but not be limited to the following:

(A) Identification of each item of Government property acquired or furnished under the grant by a serially controlled identification number and by description of item. Each item must be clearly marked "Property of U.S. Government."

(B) The price of each item of property acquired or furnished under this grant.

(C) The location of each item of property acquired or furnished under this grant.

(D) A record of any usable components which are permanently removed from items of Government property as a result of modification or otherwise.

(E) A record of disposition of each item acquired or furnished under the grant.

(F) Date of order and receipt of any item acquired or furnished under the grant.

The official property control records shall be kept in such condition that at any stage of completion of the work under this grant, the status of property acquired or furnished under this grant may be readily ascertained. A report of current status of all items of property acquired or furnished under the grant shall be submitted yearly concurrently with the annual report.

(2) Maintenance Program

The grantee's maintenance program shall be consistent with sound business practice, the terms of the grant, and provide for:

(i) disclosure of need for and the performance of preventive maintenance,

(ii) disclosure and reporting of need for capital type rehabilitation, and

(iii) recording of work accomplished under the program.

(A) Preventive maintenance - Preventive maintenance is maintenance generally performed on a regularly scheduled basis to prevent the occurrence of defects and to detect and correct minor defects before they result in serious consequences.

(B) Records of maintenance - The grantee's maintenance program shall provide for records sufficient to disclose the maintenance actions performed and deficiencies discovered as a result of inspections.

A report of status of maintenance of Government property shall be submitted annually concurrently with the annual report.

(d) Risk of Loss

(1) The grantee shall not be liable for any loss of or damage to the Government property, or for expenses incidental to such loss or damage except that the grantee shall be responsible for any such loss or damage (including expenses incidental thereto):

(i) Which results from willful misconduct or lack of good faith on the part of any of the grantee's directors or officers, or on the part of any of its managers, superintendents, or other equivalent representatives, who have supervision or direction of all or substantially all of the grantee's business, or all or substantially all of the grantee's operation at any one plant, laboratory, or separate location in which this grant is being performed.

(ii) Which results from a failure on the part of the grantee, due to the willful misconduct or lack of good faith on the part of any of its directors, officers, or other representatives mentioned in (i) above,

(A) to maintain and administer, in accordance with sound business practice, the program for maintenance, repair, protection, and preservation of Government property as required by (i) above, or

(B) to take all reasonable steps to comply with any appropriate written directions of the grant officer under (c) above;

(iii) For which the grantee is otherwise responsible under the express terms designated in the Schedule of this grant.

(iv) Which results from a risk expressly required to be insured under some other provision of this grant, but only to the extent of the insurance so required to be procured and maintained, or to the extent of insurance actually procured and maintained, whichever is greater; or

(v) Which results from a risk which is in fact covered by insurance or for which the grantee is otherwise reimbursed, but only to the extent of such insurance or reimbursement;

Provided, that, if more than one of the above exceptions shall be applicable in any case, the grantee's liability under any one exception shall not be limited by any other exception.

(2) The grantee shall not be reimbursed for, and shall not include as an item of overhead, the cost of insurance, or any provision for a reserve, covering the risk of loss of or damage to the Government property, except to the extent that the Government may have required the grantee to carry such insurance under any other provision of this grant.

(3) Upon the happening of loss or destruction of or damage to the Government property, the grantee shall notify the grant officer thereof, shall take all reasonable steps to protect the Government property from further damage, separate the damaged and undamaged Government property, put all the Government property in the best possible order, and furnish to the grant officer a statement of:

(i) The lost, destroyed, and damaged Government property;

(ii) The time and origin of the loss, destruction, or damage;

(iii) All known interests in commingled property of which the Government property is a part; and

(iv) The insurance, if any, covering any part of or interest in such commingled property.

The grantee shall make repairs and renovations of the damaged Government property or take such other action as the grant officer directs.

(4) In the event the grantee is indemnified, reimbursed, or otherwise compensated for any loss or destruction of or damage to the Government property, it shall use the proceeds to repair, renovate or replace the Government property involved, or shall credit such proceeds against the cost of the work covered by the grant, or shall otherwise reimburse the Government, as directed by the grant officer. The grantee shall do nothing to prejudice the Government's right to recover against third parties for any such loss, destruction, or damage, and upon the request of the grant officer, shall, at the Government's expense, furnish to the Government all reasonable assistance and cooperation (including assistance in the prosecution of suits and the execution of instruments or assignments in favor of the Government) in obtaining recovery.

(e) Access

The Government, and any persons designated by it, shall at all reasonable times have access to the premises wherein any Government property is located, for the purpose of inspecting the Government property.

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(2) Final Accounting and Disposition of Government Property

Upon completion of this grant, or at such earlier dates as may be fixed by the grant officer, the grantee shall submit, in a form acceptable to the grant officer, inventory schedules covering all items of Government property not consumed in the performance of this grant or not theretofore delivered to the Government, and shall prepare, deliver, or make such other disposal of the Government property as may be directed or authorized by the grant officer.

(3) Communications

All communications issued pursuant to this provision shall be in writing.

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