

No. 17267

**UNITED STATES OF AMERICA
and
EGYPT**

**Project Grant Agreement for applied science and technology
research (with annexes). Signed at Cairo on 29 March
1977**

Authentic text: English.

Registered by the United States of America on 24 November 1978.

**ÉTATS-UNIS D'AMÉRIQUE
et
ÉGYPTE**

**Accord de don relatif à un projet de recherche scientifique
et technique appliquée (avec annexes). Signé au Caire
le 29 mars 1977**

Texte authentique : anglais.

Enregistré par les États-Unis d'Amérique le 24 novembre 1978.

PROJECT GRANT AGREEMENT¹ BETWEEN THE ARAB REPUBLIC OF EGYPT AND THE UNITED STATES OF AMERICA FOR APPLIED SCIENCE AND TECHNOLOGY RESEARCH

Dated: March 29, 1977

A.I.D. Project No. 263-0016

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A.I.D. Project No. 263-0016

PROJECT GRANT AGREEMENT dated March 29, 1977, between the ARAB REPUBLIC OF EGYPT, "Grantee," and the UNITED STATES OF AMERICA, acting through the AGENCY FOR INTERNATIONAL DEVELOPMENT ("A.I.D.").

¹ Came into force on 29 March 1977 by signature.

Article 1. THE AGREEMENT

The purpose of this Agreement is to set out the understandings of the parties named above ("Parties") with respect to the undertaking by the Grantee of the Project described herein, and with respect to the financing of the Project by the Parties.

Article 2. THE PROJECT

Section 2.1. DEFINITION OF PROJECT. The Project, which is further described in Annex 1, will consist of assistance to help organize and direct the Egyptian scientific community toward dealing with the practical problems inhibiting economic development and social improvement. The Project will consist of six components:

- (a) Policy Planning and Management.
- (b) Research Sub-project Support.
- (c) Demonstration Sub-project Support.
- (d) Provision of Scientific Equipment.
- (e) Scientific and Technical Information.
- (f) Planning for Phase II.

The goal of the Project is to reorient the Egyptian scientific and technical research community toward those types of research which are of priority importance and are applicable to solving national development problems. The purpose of the Project is to improve the institutional capability of the Egyptian scientific and technical community to develop and manage research programs to solve priority development problems. Anticipated Project outputs are:

- (a) Improvements in the qualifications of staff personnel of the Academy of Scientific Research and Technology ("Academy"), the Egyptian National Research Council ("NRC"), and other research institutions.
- (b) Expanded research capability and improvement in the use and maintenance of scientific equipment.
- (c) A widened and more accessible scientific and technical information system.
- (d) Tangible results from ongoing research which can be utilized in the solution of specific developmental problems.

More specifically, the outputs in Phase I associated with the Academy and NRC will be as follows:

Academy:

- (a) Initiation of a significant Academy-supported demonstration sub-project designed to deal with a critically important development problem.
- (b) Selection of research sub-projects for the solution of priority problems which can serve as models and training vehicles.
- (c) Installation and effective use of equipment required in the pursuit of the demonstration and research projects.
- (d) Development of criteria for selection of Academy sub-projects to be funded under this Grant.
- (e) Establishment of procedures, training of personnel, procurement of essential equipment and increased use of the scientific and technical information system.
- (f) Training of candidates for program monitor positions with the Academy.
- (g) Training of potential program managers, project directors and sub-project leaders from other research organizations receiving Academy support.
- (h) Development of clear Academy operating procedures for the initiation of new research programs and the management of ongoing programs.

National Research Center:

- (a) Initiation and pursuit of a mission-oriented, multidisciplinary demonstration sub-project consistent with Academy policies and procedures. The title of the sub-project will be "More and Better Food."
- (b) Development of an effective research and development marketing program servicing the needs of Egyptian industry in particular.
- (c) Utilization of the national scientific and technological information system including those components appropriate to NRC.
- (d) Development of improved management capabilities, including research organization management as well as management of specific research programs and projects.
- (e) Identification, selection, development of specifications, procurement, transport, installation, operation and servicing of equipment and other items germane to the development oriented projects of NRC.

Annex 1, attached, amplifies the definition of the Project contained in this Section 2.1. Within the limits of the definition of the Project in this Section 2.1., elements of the amplified description stated in Annex 1 may be changed by written agreement of the authorized representatives of the Parties named in Section 8.2., without formal amendment of this Agreement.

Section 2.2. INCREMENTAL NATURE OF PROJECT. (a) It is anticipated that A.I.D.'s contribution to the Project will be provided in increments, the initial one being made available in accordance with Section 3.1 of this Agreement. Subsequent increments will be subject to availability of funds to A.I.D. for this purpose, and to the mutual agreement of the Parties, at the time of a subsequent increment, to proceed.

(b) Within the overall Project Assistance Completion Date stated in this Agreement, A.I.D., based upon consultation with the Grantee, may specify in Project Implementation Letters appropriate time periods for the utilization of funds granted by A.I.D. under an individual increment of assistance.

Article 3. FINANCING

Section 3.1. THE GRANT. To assist the Grantee to meet the costs of carrying out the Project, A.I.D., pursuant to the Foreign Assistance Act of 1961, as amended, agrees to grant the Grantee under the terms of this Agreement [an amount] not to exceed three million nine hundred thousand United States dollars (\$3,900,000) and seven hundred sixty thousand Egyptian pounds (L.E. 760,000) ("Grant").

The Grant may be used to finance foreign exchange costs, as defined in Section 6.1, and local currency costs, as defined in Section 6.2, of goods and services required for the Project, except that, unless the Parties otherwise agree in writing, Local Currency Costs financed under the Grant will not exceed the Egyptian pound portion of the Grant.

Section 3.2. GRANTEE RESOURCES FOR THE PROJECT. (a) The Grantee agrees to provide or cause to be provided for the Project all funds, in addition to the Grant, and all other resources required to carry out the Project effectively and in a timely manner.

(b) The resources provided by Grantee for the Project will be not less than one million four hundred ninety-five thousand Egyptian pounds.

Section 3.3. PROJECT ASSISTANCE COMPLETION DATE. (a) The "Project Assistance Completion Date" (PACD), which is October 1, 1979, or such other date as the Parties may agree to in writing, is the date by which the Parties estimate that all services financed under the Grant will have been performed and all goods financed under the Grant will have been furnished for the Project as contemplated in this Agreement.

(b) Except as A.I.D. may otherwise agree in writing, A.I.D. will not issue or approve documentation which would authorize disbursement of the Grant for services

performed subsequent to the PACD or for goods furnished for the Project, as contemplated in this Agreement, subsequent to the PACD.

(c) Requests for disbursement, accompanied by necessary supporting documentation prescribed in Project Implementation Letters are to be received by A.I.D. or any bank described in Section 7.1 no later than nine (9) months following the PACD, or such other period as A.I.D. agrees to in writing. After such period, A.I.D., giving notice in writing to the Grantee, may at any time or times reduce the amount of the Grant by all or any part thereof for which requests for disbursement, accompanied by necessary documentation prescribed in Project Implementation Letters, were not received before the expiration of said period.

Article 4. CONDITIONS PRECEDENT TO DISBURSEMENT

Section 4.1. FIRST DISBURSEMENT. Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

- (a) A statement of the name of the person holding or acting in the office of the Grantee specified in Section 8.2. and of any additional representatives, together with a specimen signature of each person specified in such statement;
- (b) An executed contract for technical advisory services for the Project acceptable to A.I.D. with an organization acceptable to A.I.D.;
- (c) Such other documentation as A.I.D. may require.

Section 4.2. ADDITIONAL DISBURSEMENT. Prior to disbursement under the Grant, or to issuance by A.I.D. of documentation pursuant to which disbursement will be made, for any research or development sub-project, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

- (a) Evidence of the establishment of a Joint Egyptian-United States Consultative Committee to jointly develop program policies, set program goals, review program results and establish criteria for the selection of sub-projects;
- (b) Evidence of the establishment of criteria for sub-project selection;
- (c) Evidence that the proposed sub-project meets the criteria cited in subsection (b) above, and is directed at a priority problem area among those jointly agreed upon by Grantee and A.I.D.

Section 4.3. NOTIFICATION. When A.I.D. has determined that the conditions precedent specified in Section 4.1 and 4.2 have been met, it will promptly notify the Grantee.

Section 4.4. TERMINAL DATES FOR CONDITIONS PRECEDENT. If all of the conditions specified in Section 4.1 have not been met within 120 days from the date of this Agreement, or such later date as A.I.D. may agree to in writing, A.I.D., at its option, may terminate this Agreement by written notice to Grantee.

Article 5. SPECIAL COVENANTS

Section 5.1. PROJECT EVALUATION. The Parties agree to establish an evaluation program as an integral part of the Project. Except as the Parties otherwise agree in writing, the program will include, during the implementation of the Project and at one or more points thereafter:

- (a) Evaluation of progress toward attainment of the objectives of the Project;
- (b) Identification and evaluation of problem areas or constraints which may inhibit such attainment;

- (c) Assessment of how such information may be used to help overcome such problems, in this or other projects; and
- (d) Evaluation, to the degree feasible, of the overall development impact of the Project.

Evaluation arrangements are described in further detail in the section entitled "Functional and Evaluation Arrangements" in Annex 1.

Article 6. PROCUREMENT SOURCE

Section 6.1. FOREIGN EXCHANGE COSTS. Disbursements pursuant to Section 7.1 will be used exclusively to finance the costs of goods and services required for the Project having their source and origin in the United States (Code 000 of the A.I.D. Geographic Code Book as in effect at the time orders are placed or contracts entered into for such goods or services ("Foreign Exchange Costs"), except as A.I.D. may otherwise agree in writing, and except as provided in the Project Grant Standard Provisions Annex, Section C.1(b), with respect to marine insurance.

Section 6.2. LOCAL CURRENCY COSTS. Disbursements pursuant to Section 7.2 will be used exclusively to finance the costs of goods and services required for the Project having their source and, except as A.I.D. may otherwise agree in writing, their origin in Egypt ("Local Currency Costs").

Article 7. DISBURSEMENTS

Section 7.1. DISBURSEMENT FOR FOREIGN EXCHANGE COSTS. (a) After satisfaction of conditions precedent, the Grantee may obtain disbursements of funds under the Grant for the Foreign Exchange Costs of goods or services required for the Project in accordance with the terms of this Agreement, by such of the following methods as may be mutually agreed upon:

- (1) By submitting to A.I.D. with necessary supporting documentation as prescribed in Project Implementation Letters, (A) requests for reimbursement for such goods or services, or, (B) requests for A.I.D. to procure commodities or services in Grantee's behalf for the Project; or
- (2) By requesting A.I.D. to issue Letters of Commitment for specified amounts (A) to one or more U.S. banks, satisfactory to A.I.D., committing A.I.D. to reimburse such bank or banks for payments made by them to contractors or suppliers, under Letters of Credit or otherwise, for such goods or services, or (B) directly to one or more contractors or suppliers, committing A.I.D. to pay such contractors or suppliers, through Letters of Credit or otherwise, for such goods or services.

(b) Banking charges incurred by Grantee in connection with Letters of Commitment and Letters of Credit will be financed under the Grant unless Grantee instructs A.I.D. to the contrary. Such other charges as the Parties may agree to may also be financed under the Grant.

Section 7.2. DISBURSEMENT FOR LOCAL CURRENCY COSTS. (a) After satisfaction of conditions precedent, the Grantee may obtain disbursements of funds under the Grant for Local Currency Costs required for the Project in accordance with the terms of this Agreement, by submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, requests to finance such costs.

(b) The local currency needed for such disbursements may be obtained from local currency already owned by the U.S. Government.

Section 7.3. OTHER FORMS OF DISBURSEMENT. Disbursements of the Grant may also be made through such other means as the Parties may agree to in writing.

Article 8. MISCELLANEOUS

Section 8.1. COMMUNICATIONS. Any notice, request, document or other communication submitted by either Party to the other under this Agreement will be in writing or by telegram or cable, and will be deemed duly given or sent when delivered to such party at the following addresses:

To the Grantee:

Mail Address: Academy of Scientific Research and Technology
101 Kasr El Eini Street
Cairo, Egypt

Alternate address for cables: Academy of Scientific Research and Technology
101 Kasr El Eini Street
Cairo, Egypt

To A.I.D.:

Mail Address: A.I.D.
U.S. Embassy
Cairo, Egypt

Alternate address for cables: A.I.D.
U.S. Embassy
Cairo, Egypt

All such communications will be in English, unless the Parties otherwise agree in writing. Other addresses may be substituted for the above upon the giving of notice.

Section 8.2. REPRESENTATIVES. For all purposes relevant to this Agreement, the Grantee will be represented by the individual holding or acting in the office of President, Academy of Scientific Research and Technology, and A.I.D. will be represented by the individual holding or acting in the office of Director, U.S.A.I.D., Cairo, Egypt, each of whom, by written notice, may designate additional representatives for all purposes other than exercising the power under Section 2.1 to revise elements of the amplified description in Annex 1. The names of the representatives of the Grantee, with specimen signatures, will be provided to A.I.D., which may accept as duly authorized any instrument signed by such representatives in implementation of this Agreement, until receipt of written notice of revocation of their authority.

Section 8.3. STANDARD PROVISIONS ANNEX. A "Projected Grant Standard Provisions Annex" (Annex 2) is attached to and forms part of this Agreement.

IN WITNESS WHEREOF, the Grantee and the United States of America, each acting through its duly authorized representative, have caused this Agreement to be signed in their names and delivered as of the day and year first above written.

Arab Republic of Egypt:
By: [Signed]
Name: Prof. A. ABOU EL-AZM
Title: President, Academy of Scientific
Research and Technology

United States of America:
By: [Signed]
Name: DONALD S. BROWN
Title: Director, U.S.A.I.D.

ANNEX I
DESCRIPTION OF PROJECT

A. *Introduction*

This Project Grant Agreement provides assistance to the GOE Academy of Scientific Research and Technology for the purpose of stimulating and assisting universities, research institutes, government agencies and others in solving high priority development problems through applied research.

It also provides assistance to the largest single research institution in Egypt, the National Research Center, to enable it to deal directly with a number of national development problems through applied research.

The project is to be carried out through following five closely related implementation paths:

1. The training of selected staff of the Academy, NRC and other research entities in science policy, administration, management, and equipment operation and technical information and technology transfer procedures.

2. The identification by the Academy, in agreement with AID, of important development problems within which accelerated research effort can be applied in Phase I to projects undertaken by NRC, universities, research institutes and/or other agencies. The problem areas agreed upon from which three to five projects will be chosen by the Academy are those applied areas of concern to the Research Councils of the Academy, which include:

- a) Plant production and protection
- b) Animal research and fisheries
- c) Soil and water resources
- d) Medical research
- e) Building technology
- f) Industrial research
- g) Petroleum and mineral resources
- h) Energy research
- i) Transportation research
- j) Physical and electronics applications.

It is planned that one project will be selected by the Academy within the first three months of the signing of the Grant Agreement and the others will be selected during the first year of the project. These projects should:

- Provide the opportunity during this project to produce concrete research results; and
- Provide explicit projects to which training in science management, science administration and use of science information can be related.

3. The up-dating and replacement of scientific instruments and equipment in NRC and in other research institutions supported by the Academy, beginning with selected research and demonstration projects, but also affecting "core" equipment needs. Operation and maintenance personnel for the instrumentation and equipment are to be trained as needed.

4. The conceptualization, planning, organization and implementation of initial aspects of two "demonstration projects," each of which should be oriented toward the solution of a critically important Egyptian development problem. The first one to be carried out by the NRC is in the area of food technology and is entitled "More and Better Food." It is planned to begin with laboratory work at the NRC facility in Cairo and lead to the selection of a "demonstration village" in which production, harvesting, preservation, transportation and marketing of local agricultural products will be investigated.

The food project and whatever second demonstration project is chosen are to be designed to develop economically viable processes which can be adapted by the private and/or public sectors for production and use either by or for lower-income levels. As with the applied research projects which are to receive support from the program, the demonstration projects should provide concrete research activities in which training in research policy, management and administration can take place.

5. The upgrading of scientific and technical information services to meet the information needs of the Egyptian scientific and technological community. A network of services are planned that should properly and adequately link the Academy of Scientific Research and Technology, the

National Research Center, universities, research institutes, industrial enterprises and other entities requiring use of scientific and technological information for the economic and social advancement of the country. The National Information and Documentation Center (NIDOC) of the Academy is expected to play a key role in the establishment and operation of such a nationwide network of services. Through the U.S. National Science Foundation, the first phase of a longer term project will be supported to define and design a network of nationwide information services. As part of this project, a system study will be made to develop an action plan to provide immediately the basic S&T information resources (journal literature, monographs, reports, etc.) that are presently unavailable to Egyptian scientists, engineers, research managers and industrial entrepreneurs. It is further expected that within 18 months, among other things, a plan for a nationwide network will have been developed together with appropriate guidelines and a schedule for implementation, which should begin during the initial period, approximately six months after the project has begun.

B. *Goal of the Science and Technology Sector*

The goal of this project is to reinforce the orientation of the scientific and technical research community towards those types of research which are of priority importance and are applicable to solving national development problems.

C. *Indicators of Goal Achievement*

The Academy of Scientific Research and Technology, as part of its defined functions, contributes to the articulation and implementation of Egyptian science policy. This project is to assist the Academy in more effectively performing these science policy functions. To provide indicators of goal achievement, it must be noted that the program is based on the designated role of the Academy of Scientific Research and Technology as the institution with central responsibility for reinforcing the scientific and technological community efforts toward "user-oriented" needs. Other institutions such as the National Research Center, the major universities and a number of research institutes have important roles to play as well. The project is designed to provide direct support to the Academy, to NRC and to other institutions through the Academy.

Support is provided in the form of technical assistance, provision of scientific and technical equipment, and participant training; and this support should be explicitly related to concrete research programs and projects.

Indicators of goal achievement are: the initial two years of activity under the project should be a complex program design effort. The only measurement of goal achievement as it relates to the GOE commitment to reinforce the orientation of the scientific and technical research community would be the assessed capability and determination of the GOE to undertake the long-term program which should be designed as a result of the first two-year effort.

D. *Project Purpose and End of Project Status*

The purpose is to improve the institutional capability of the Egyptian science and technology community to develop and manage research programs to solve priority development problems.

1. *Academy*

Working with research units in a variety of institutional frameworks and in liaison with potential users, the Academy should use AID assistance to:

- a) Conceptualize research and "demonstration" projects consistent with national development needs;
- b) Contract with appropriate research institutions for the execution of those programs;
- c) Provide incentives to assure efficient and effective participation by scientists, technicians, and institutions, mainly through the provision of contract fees and equipment;
- d) Monitor the performance of contracting institutions to ensure execution of research programs consistent with objectives, funding levels and time schedules;

- e) Help to provide up-to-date technical information to participating institutions;
- f) Follow up on research results to ensure that they are applied to actual problems.

2. *NRC*

To assist the NRC to restructure and redirect its resources and to assist other research organizations throughout the economy to coordinate with NRC to address more efficiently, through applied research, national development priorities, the NRC should use AID assistance provided under this Agreement to:

- a) Increase the efficiency and effectiveness of multi-disciplinary problem-oriented research projects, e.g., 'More and Better Food';
- b) Implement new management control systems;
- c) Acquire new equipment to be used in its applied research programs;
- d) Coordinate its programs with those of other research groups and try to assure proper "end-use."

3. *End of Project Status*

The above can be stated in a very succinct form to yield indicators that show the purpose of the project has been achieved. In general, the end of project status (EOPS) is given as:

- a) Sufficient data will have been made available to design a long-term project which should:
 - (i) Reinforce the orientation of GOE policies and expenditures toward applied research;
 - (ii) Provide measurable impact on the solution of key development problems.
- b) Long-term project design completed.

In order to verify the many qualitative factors implicit in the EOPS statement, the Academy and the AID Mission agree to establish a special evaluation team composed of Egyptians and Americans not connected with the day-to-day operations of the project or to the Joint Consultative Committee set up as an overview entity. Funding for the group will be provided from the project. It is planned that the evaluation group should assess:

- The extent to which project inputs have resulted in a core of trained personnel who are committed to the concept of reorienting the research community to applied research focused on priority development problems;
- The ability of the Academy to act as a coordinating agent to mount interagency and interdisciplinary projects and programs which investigate these development problems;
- The probable effectiveness and usefulness of the research conducted during the first two years in terms of addressing these problems; and
- The effectiveness of the Academy to act as a focal point for scientific information in Egypt.

The evaluation group will also be asked to study the design for any follow-on activity and render its opinion as to the adequacy and appropriateness of the design. AID will take their report into consideration in making a decision regarding support to further activities in the field, but it will be only one such input.

E. *Project Outputs*

The primary outputs to be achieved by the Academy consist of:

- 1. Implementation plans for Phases I and II completed;
- 2. Improvements in the qualifications of staff personnel of the Academy, NRC, and other research institutions;
- 3. An expanded research capability and improvement in the use and maintenance of scientific equipment;
- 4. A widened and more accessible scientific and technical information system; and

5. Tangible results from ongoing research which can be utilized in the solution of specific developmental problems.

More specifically, the outputs in Phase I associated with the Academy and NRC will be as follows:

Academy

- a) The initiation of a significant Academy-supported demonstration project designed to deal with a critically important development problem.
- b) Selection of five or more research projects for the solution of priority problems which can serve as models and training vehicles.
- c) Installation and effective use of equipment required in the pursuit of the demonstration and research projects.
- d) Development of criteria for U.S. AID and Egyptian funds in relation to Academy supported projects.
- e) Establish procedures, trained personnel, essential equipment and increased use of the scientific and technical information system.
- f) Approximately 12 candidates for program monitor positions with the Academy will be trained on the job in Egypt and, in some instances, in the U.S. or in other countries. Upon completion of the training, at least eight will be selected as monitors capable of conceptualizing and developing requests for research program and project proposals, reviewing proposals received from Egyptian research organizations, initiating contracts with the most appropriate institution, and monitoring the programs and projects until results are obtained and utilized.
- g) Approximately 15 potential program managers, project directors and subproject leaders from the institutes, universities and other research organizations receiving Academy support will be trained. The individuals will become (during the course of training) the managers, directors and leaders of research programs, projects and subprojects supported by the Academy. Training should be primarily on the job in Egypt in conceptualizing research to be done, preparing proposals, and then executing the research proposed. To a limited extent, some will be provided training outside Egypt if experience to be gained in Egypt is not sufficient to provide adequate guidance. The individuals should work with Academy program monitors, with officials in government ministries and departments, and with potential users of research results in identifying important development problems requiring research, and in developing both the programs of research and plans for research utilization.
- h) Clear Academy operating procedures for the initiation of new research programs and the management of on-going programs. The Academy has policies and procedures pertaining to its councils and committees. The reference here is to staff functions required of program monitors in order to make the system of councils and committees more effective. The policies and procedures should aid the integration of Academy supported research with the research needs arising from development plans and priorities.

National Research Center

- a) The initiation and pursuit of one mission-oriented, multi-disciplinary project consistent with Academy policies and procedures. The title of the project will be "More and Better Food."
- b) An effective research and development marketing program servicing the needs of Egyptian industry in particular.
- c) Utilization of the national scientific and technological information system including those components appropriate to NRC.
- d) Improved management capabilities, including research organization management as well as management of specific research programs and projects. This output pertains to the Office of the Director of NRC, to the major department heads, and to key people associated with research programs and projects. It should include the primary areas of:

- (i) Policy development and planning,
 - (ii) Organizational structure and development,
 - (iii) Formulation and implementation of management control systems,
 - (iv) Evaluation and evaluating methods.
- e) Identification, selection, specifications, procurement, transport, installations operation and servicing of equipment and other items considered germane to the development oriented projects of the NRC.

F. *Output Indicators*

The following indicators should determine if the outputs listed above are met:

Academy

- a) Restructuring and re-orientation as needed of the existing research supported by the Academy, including specific results from several applied research projects.
- b) An important Academy supported demonstration research program properly formulated and effectively under way.
- c) Mutually agreed criteria established for selection and funding of research projects.
- d) Program monitors trained in place, and functioning as planned.
- e) Program managers, project directors and sub-project leaders trained, in place in research institutions supported by the Academy, and functioning as planned.
- f) Established procedures whereby program monitors, program managers, project directors, and sub-project leaders function in initiating and carrying out Academy-supported development-oriented projects.

National Research Center

- a) The "More and Better Food" project properly conceived in relation to development needs and being executed effectively.
- b) Effective operation of the "user-oriented" research and development program serving the needs of industry and other development-oriented users.
- c) Equipment required in relation to development projects procured, in place and being used effectively.
- d) Effective use of the scientific and technological information resources.
- e) Significant improvements in the organization and management of NRC as evidenced by:
 - (i) Management control systems in place and functioning effectively;
 - (ii) Clearly defined policies and effective planning of NRC activity;
 - (iii) Properly designed system incentive and disincentive functioning to create high staff morale and effective performance;
 - (iv) Evaluation methods being applied to determine the effectiveness of research programs and personnel performance.
- f) The existence of techno-economic competence within NRC, including staff trained in the social sciences and functioning effectively with other scientists.

Scientific and Technical Information System

- a) National Plan devised.
- b) NIDOC and other information center personnel trained and in place.
- c) Information materials inventories and microfiched journals and other documents needed ordered and delivered to NIDOC, universities, research institutes, etc.
- d) Access equipment ordered for key centers.
- e) Initial links to domestic and foreign data banks in place.

G. *Project Inputs*

This Agreement provides technical assistance, scientific and technical equipment, and participant training to the Academy and NRC in relation to the five major project implementation paths noted in the beginning of this Annex I Project Description. In view of the central, catalytic role of the Academy, universities, institutes and other research organizations should be assisted indirectly. Inputs are described below by major category and by primary institutional linkage. (See also the illustrative Budget Summaries which follow.)

ILLUSTRATIVE BUDGET SUMMARY

	<i>Dollar Budget</i>		
	<i>Year 1</i>	<i>Year 2</i>	<i>Total</i>
1. Advisor to ASRT	\$ 86,000	\$ 90,160	\$ 176,160
2. ASRT Consultant Teams	163,190	171,050	334,240
3. Advisor to NRC	86,000	90,160	176,160
4. NRC Consultant Teams	269,900	283,020	552,920
5. Scientific/Technical Equipment	2,000,000	2,500,000	4,500,000
6. Contract Support to ASRT	—	—	—
7. ASRT Training in Egypt	91,085	95,125	186,210
8. ASRT Training in U.S.	156,910	163,470	320,380
9. NRC Training in Egypt	91,085	95,125	186,210
10. NRC Training in U.S.	165,480	172,040	337,520
11. Joint Consultative Committee	41,605	42,380	83,985
12. U.S. Project Support	139,930	146,075	286,005
13. National STI Service	473,600	278,710	752,310
14. Contingencies	135,215	72,685	207,900
TOTAL	\$3,900,000	\$4,200,000	\$8,100,000

ILLUSTRATIVE BUDGET SUMMARY

	<i>Egyptian Pound Budget</i>		
	<i>Year 1</i>	<i>Year 2</i>	<i>Total</i>
1. Advisor to ASRT	17,600	17,100	34,700
2. ASRT Consultant Teams	21,100	21,100	42,200
3. Advisor to NRC	17,600	17,100	34,700
4. NRC Consultant Teams	37,500	37,500	75,000
5. Scientific/Technical Equipment	—	—	—
6. Contract Support to ASRT	150,000	200,000	350,000
7. ASRT Training in Egypt.	15,025	15,025	30,050
8. ASRT Training in U.S.	4,200	4,200	8,400
9. NRC Training in Egypt	15,025	15,025	30,050
10. NRC Training in U.S.	5,600	5,600	11,200
11. Joint Consultative Committee	6,600	6,600	13,200
12. U.S. Project Support.	2,950	2,950	5,900
13. National STI Service.	58,000	44,500	102,500
14. Contingencies	8,800	13,300	22,100
TOTAL	LE 360,000	LE 400,000	LE 760,000

1. *Inputs to the Academy and Associated Institutions*a) *Advisor to the Academy*

This will consist of one fully qualified individual who will work closely with the President, Vice-Presidents, Secretary General, Program Monitors and other senior officials of the Academy and associated research institutions in:

- (i) Conceptualizing the role of Academy Program Monitors and potential research managers and directors in research institutions supported by the Academy in formulating and executing

programs of Academy supported research consistent with national development needs. This should entail developing and/or extending working relations with ministries and departments of the GOE with research institutions and with various types of users of research results.

- (ii) Developing new research programs and restructuring existing research programs in line with development objectives. These activities will also serve as on-the-job training vehicles for the monitors and research managers and directors noted above.
- (iii) Providing guidance and liaison with appropriate Egyptian and U.S. institutions and agencies in utilizing other components of U.S. AID technical assistance, e.g., training short-term consultant teams.

b) Consultant Teams to the Academy and Associated Institutions

Technical assistance teams will be provided as needed for specific purposes. Members of these teams will be from the U.S. or other appropriate countries. In order to estimate costs, an average of four teams per year, with an average of three members per team spending an average of six weeks in Egypt, is assumed. Alternative combinations within these resource limits are possible and it may not be feasible to field this many teams in the first phase. Among their functions will be the following:

- (i) Providing advice in formulating and executing research programs, e.g., assurance that research previously conducted in other countries is not being repeated unnecessarily, particularly in the demonstration projects and the selected R&D projects.
- (ii) Assisting in training Academy program monitors and research program managers, directors, technicians, in designing programs, proposing Projects, executing research projects, identifying equipment needs, etc.
- (iii) Facilitating the development of communications between the Egyptian scientific and technological community and comparable communities in the U.S. and other countries.
- (iv) Assisting in developing the policies and procedures for equipment purchases, use and maintenance, and other research support.

Funds for equipment, and contractual fees designed to attract scientists into applied research projects will be disbursed after review and approval by the Academy, the Joint Egyptian-U.S. Consultative Committee and the AID Mission. One of the first tasks of that Committee will be to define mutually agreed criteria, e.g., relevance to national needs, demand by potential user, appropriateness of technology, multi-disciplinary approach, extent of local commitment and contribution, lack of duplication elsewhere, etc. Once there is Egyptian-U.S. agreement, the money should be disbursed through the Academy. (In the case of equipment, AID through its procurement channels will purchase those items for which hard currency is required.)

c) Training of Academy Associated Staff

Academy associated staff is here defined to include not only individuals directly associated with the Academy, but also those associated with universities, institutes, and other agencies receiving research support from the Academy. In addition to the experience derived from working with consultant teams in formulating and executing projects, explicit training will be provided in Egypt to Academy supported staff. Three 2-week workshops should be held each year of Phase I. Professional consultants from the U.S. or other appropriate countries will provide the necessary inputs. Approximately 20 individuals should participate in each workshop. Subjects covered will be dictated by needs as they arise, but can include such topics as:

- (i) The requirements of research project formulation, execution and management, using explicit projects as case examples.
- (ii) The operation, maintenance and use of scientific and technical information services.
- (iii) The operation, maintenance and use of specific types of scientific equipment.

- (iv) Evaluation systems, accounting procedures, and reporting requirements essential to effective research management and execution.
- (v) Specific topics essential to several projects and requiring understanding on the part of several scientists and technicians. For example, the means by which utilization of research may be enhanced is an appropriate topic for a workshop.

In addition to training in Egypt, provision is made for the equivalent of 10 professional or technical staff members per year of the Academy and associated research institutions to spend a maximum of four months each in the United States or other appropriate countries for non-degree on-the-job training relating to functions in connection with which training in Egypt will not be adequate. For example, highly specialized laboratory equipment may require training in the U.S. before Egyptians will be qualified to install and operate it in Egypt.

2. *NRC Program*

There are eight principal categories of specific inputs to the NRC which facilitate and make possible the outputs described above. Additionally, NRC shares with the Academy certain common inputs such as assistance in equipment procurement.

a) A well qualified U.S. Advisor will be provided full time to NRC to coordinate, direct and administer the U.S. support activities to the Egyptian organization. This person will be equipped through extensive, directly relevant experience to afford the wide-ranging assistance and coordination demanded by the support program. His relationship to the Director of NRC is anticipated to be that of a peer, interacting in a dynamic, varied environment characteristic of a major research and development organization seeking to effect fundamental changes in its historic pattern of internal and external relationships and programs. Therefore, his qualifications will include commensurate experience in the development and management of applied research institutions in developing country environments, coupled with the personal characteristics that should facilitate his widely interactive and diversified role.

b) In accord with program goals for strengthening NRC management capabilities, services in the mode of U.S. type management consulting firms will be provided largely through the Advisor to NRC. These will comprise:

- (i) Policy development and planning assistance;
- (ii) Organization structure and development;
- (iii) Formulation and implementation of management control systems;
- (iv) Evaluations and evaluation methods.

In addition, it is planned that the Director, NRC, will be provided orientation and observation opportunities in the U.S. in three to four week visits to appropriate science and technology oriented organizations during the initial two years of the support program.

c) It is also planned that the experimental program identified as "More and Better Food" will be assisted through provision of technical assistance in conceptualizing the program, preparing an appropriate proposal, conducting the research, evaluating the results, and realizing the optimum application of those results. However, in accord with the objectives of the overall U.S. support program, maximum attention will be given to equipping and training NRC to accomplish such programs, unilaterally, to the greatest feasible extent. Thus, the assistance of the U.S. organization is definitely secondary and supportive, and will in no event seek to substitute for NRC capabilities when these are, or may be made adequate to the task.

d) For principal NRC management members, four two-week management development programs should be provided by the U.S. organization on site in Egypt. Additionally, NRC staff members should be provided both technical updating and management training programs at selected institutions in the U.S.

e) In addition to support in management and administrative subject areas, scientist/engineer assistance will be required in selected technical subject areas to be determined. Contractor will

assist in determination of these needs and will undertake to meet them either through provision of its own staff members, or by recruiting qualified outside individuals and organizations.

f) To meet needs for access to and acquisition of technology appropriate for adaptation to the Egyptian environment, the U.S. organization will act as a point of access to U.S. and other sources of technology.

g) To assist NRC in evolving its capability to effectively present its capabilities to potential users and to thereby realize research contracts and commissions (a principal objective), it is planned that the program will provide both formal and on-the-job training to carefully chosen NRC staff members, in the various aspects of marketing methods appropriate to contract research organizations.

This will include, depending upon developments in the earlier stages of the support program, assistance in the presentation of several seminars for user communities in Egypt. These will serve to introduce the NRC capabilities to these groups and to stimulate sponsored research programs.

3. U.S. Based Project Support Inputs

- a) Selection of chief contractor(s)*
- b) Recruitment and provision of in-residence Advisors to the Academy and to NRC by the chief contractor(s).
- c) Recruitment of the consultant and training teams as required in support of the Academy and NRC programs by the chief contractor(s).
- d) Procurement of U.S. equipment required in both Academy and NRC programs by the chief contractor(s).

To provide necessary support activity in the U.S. in performing these functions, it is thought that at least one professional individual will be required. Secretarial assistance and funds for travel in the U.S. and to and from Egypt will be needed also.

H. Implementation Targets

The following illustrative schedule of significant events in the course of project implementation does not replace the CPI network and description to be developed, but rather presents an idea of suggested dates for Academy, NRC and AID Mission project management. These implementation targets permit a projection of the completion of financial and technical plans necessary to carry out the project. In effect, these also become helpful dates for the scheduling of the issuance of implementation documents. Based on this description, the following illustrative schedule of implementation is foreseen after the signing of the Agreement.

<i>Item</i>	<i>Month</i>	
1. The issuance of PIL for the two arrangements (Prime Contractor)		3
	<i>Estimated Costs</i>	
	\$	LE
Prime Contractor	(450,000)	(73,000)
2 Long-Term Advisors	172,000	35,200
1 ASRT Consultant Team	54,377	7,033
1 NRC Consultant Team	89,967	12,500
JCC—First Year	41,605	6,600
½ of Training in Egypt	60,723	10,017
Contingencies	31,328	1,650
NSF	(485,000)	(60,000)
National STI Service.	473,000	58,000
Contingencies	11,400	2,000
	TOTAL	\$935,000 LE 133,000

* It is anticipated at the time of the signing of this Agreement that the U.S. National Academy of Science will be one prime contractor and the National Science Foundation will be the other.

<i>Item</i>	<i>Month</i>	
2. Departure of first group of two consulting teams from Cairo and issuance of PIL for part of US training and the rest of training in Egypt, basic equipment, second and third groups of two consulting teams and U.S. project support		6
<i>Estimated Costs</i>	<i>\$</i>	<i>LE</i>
Prime Contractor	(1,750,000)	(67,000)
2 ASRT Consultant Teams	108,813	14,067
2 NRC Consultant Teams	179,933	25,000
¾ of Training in Egypt	121,447	20,033
½ of U.S. Training	108,463	3,267
Basic Equipment	1,000,000	—
U.S. Project Support	139,930	2,950
Contingencies	91,414	1,683
TOTAL	\$1,750,000	LE 67,000

<i>Item</i>	<i>Month</i>	
3. Selection and approval of first research projects and issuance of PIL for part of research project equipment and of contract support		
<i>Estimated Costs</i>	<i>\$</i>	<i>LE</i>
Prime Contractor	(300,000)	(35,000)
Research project equipment	300,000	—
Contract Support	—	35,000
TOTAL	\$300,000	LE 35,000

<i>Item</i>	<i>Month</i>	
4. Departure of second consulting team ("More and Better Food," NRC) and issuance of PIL for remaining candidates for US training, support to demonstration projects (equipment and contract support)		7
<i>Estimated Costs</i>	<i>\$</i>	<i>LE</i>
Prime Contractor	(815,000)	(105,000)
Remaining US Training	213,927	6,533
Equipment	600,000	—
Contract Support	—	95,000
Contingencies	1,073	3,467
TOTAL	\$815,000	LE 105,000

<i>Item</i>	<i>Month</i>	
5. Departure of third consulting team, selection and approval of remaining research projects and issuance of PIL for remainder of research equipment and contract support		11
<i>Estimated Costs</i>	<i>\$</i>	<i>LE</i>
Prime Contractor	(100,000)	(20,000)
Research Project Equipment	100,000	—
Contract Support	—	20,000
TOTAL	\$100,000	LE 20,000

6. Total subobligations during FY 1977: \$3,900,000 and LE 360,000

<i>Item</i>	<i>Month</i>	
7. Signing of Project Agreement and issuance of PIL for second year services under both PASAs, including all project elements except some equipment and contract support		13
<i>Estimated Costs</i>	<i>\$</i>	<i>LE</i>
Prime Contractor	(2,800,000)	(250,000)
2 Long Term Advisors	180,320	34,200
JCC—Second Year	42,380	6,600
Advisor Teams	454,070	58,600

	<i>Estimated Costs</i>	\$	LE
Training in Egypt		190,250	30,050
Training in U.S.		335,510	9,800
U.S. Project Support		146,075	2,950
Equipment		1,400,000	—
Contract Support		—	100,000
Contingencies		51,395	7,800
NSF		(300,000)	(50,000)
National STI Service		278,710	44,500
Contingencies		21,290	5,500
	TOTAL	\$3,100,000	LE 300,000

*Item**Month*

8. First NRC consulting team leaves and issuance of PIL for remaining basic and demonstration project equipment and contract support 14

	<i>Estimated Costs</i>	\$	LE
Prime Contractor		(1,100,000)	(100,000)
Equipment		1,100,000	—
Contract Support		—	100,000
	TOTAL	\$1,100,000	LE 100,000

*Item**Month*

9. Issuance of PIL from FY 1978 agreement completed 15
Total amounts: \$4,200,000 and LE 400,000.

I. *Financial Analysis and Plan*

The Illustrative Budget gives a cost summary, in dollars and Egyptian pounds, of the various AID provided elements of the project.

Table II, Summary Cost Estimate and Financial Plan, shows AID and GOE inputs split into object class categories. Table III, Costing of Project Outputs/Inputs, shows inputs allocated to specific project outputs. The GOE input figures for these two tables were derived from the following data:

Table I. GOE INPUTS
(LE 000)

<i>Outputs/Use</i>	<i>Tech. Salaries</i>	<i>Training*</i>	<i>Equipment**</i>	<i>Other</i>	<i>Total</i>	
1. Trained Personnel	54	—	5	31	90	
2. Research Projects	352	—	75	328	755	
3. Demonstration Projects	287	—	76	237	600	
4. STI System	10	—	25	15	50	
	TOTAL	703	—	181	611	1495

* Included in technical salaries.

** Mainly administrative and support salaries and overhead items.

Table II. SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(\$000 or LE 000)

<i>Use</i>	<i>Source:</i>	<i>Dollar Grant</i>		<i>GOE*</i>	<i>Total</i>
		<i>AID</i>	<i>AID</i>		
Technical Salaries		1,571.8	272.1	703.0	975.1
Training		1,105.3	84.7	**	84.7
Equipment		4,835.0	—	181.0	181.0
Other Costs		380.0	381.1	611.0	992.1
Contingencies		207.9	22.1	—	22.1
	TOTAL	\$8,100.0	LE 760.0	LE 1,495.0	LE 2,255.0

* Estimated. Does not include data for institutions other than ASRT and NRC.

** Included in Technical Salaries.

Table III. COSTING OF PROJECT OUTPUTS/INPUTS
(\$000 or LE 000)

Project Inputs	Project Outputs				Total
	1. Trained Personnel	2. Research Projects	3. Demonstration Projects	4. Information System	
AID—Dollar Grant	\$ 1,466.6	\$ 3,275.8	\$ 2,605.3	\$ 752.3	\$ 8,100.0
AID—Local Currency	LE 162.3	LE 275.8	LE 219.4	LE 102.5	LE 760.0
Host Country*	LE 90.0	LE 755.0	LE 600.0	LE 50.0	LE 1,495.0
Total—Dollars	\$ 1,382.6	\$ 3,275.8	\$ 2,605.3	\$ 752.3	\$ 8,100.0
—Egyptian Pounds.	LE 252.3	LE 1,030.8	LE 819.4	LE 152.5	LE 2,255.0

* Does not include expenditures by institutions other than ASRT and NRC.

The above data included only projected cash expenditures by the Academy and the NRC in support of the project and exclude the value of inputs by other research organizations involved in the project. They were calculated conservatively in that they include only those elements of the Academy and NRC directly affected by AID inputs (working as counterparts to US consultant teams, for example).

Table IV. COOPERATING INSTITUTION BUDGETS
(LE, 1976 and 1977)

	1976		1977**	
	Academy	NRC	Academy	NRC
I. Salaries	2,773,300	1,750,600	2,900,000	2,000,000
II. Operating Expenses.	1,130,300	605,000	1,200,000	650,000
III. Research*	2,113,000	600,000	4,250,000	1,100,000
TOTAL	6,016,600	2,995,600	8,350,000	3,750,000

* Mainly equipment and supplies. Salaries for researchers are included in I Salaries.

** Budget request.

J. Functional and Evaluation Arrangements

1. Recipients

a) The key organizations that are to implement the project on the Egyptian side are the Academy and the NRC. These institutions, in turn, will be associated with other science and technology institutions, e.g., universities, institutes, industrial and agricultural groups, and government agencies in pursuing development-oriented research. The National Documentation and Information Center (NIDOC), the information arm of the Academy, will be the focal point for the information component of the project.

b) On the American side, the Prime Contractor will provide the link for the Academy to the U.S. science community, and will sub-contract as needed for specific implementation tasks. The National Science Foundation will perform a similar function for the information and the "core" equipment components of the project.

2. Joint Consultative Committee

Day-to-day management of the program will be carried out by Egyptian and U.S. representatives attached to the project. To provide for joint articulation of program policies, to set goals, and periodically review results obtained, a Joint Consultative Committee will be established with three U.S. members chosen by the U.S. Academy of Sciences, and three Egyptian members who will represent the user community.

The functions of the Joint Consultative Committee should be as follows:

a) To meet initially and review the policies in terms of which the program is to function and outline the procedures to follow in conducting periodic reviews.

- b) To meet at approximately six-month intervals to review accomplishments of the preceding period and plans for the coming year, and determine the extent to which operations are consistent with the goal.
- c) To provide suggestions to the Academy, NRC and other institutions and agencies for such improvement in program direction as may appear useful.
- d) The Joint Consultative Committee would function as an advisory body. Its influence will depend upon its vision, understanding, and powers of persuasion consistent with the goal of the joint relationship.
- e) To function as a “sounding board” in relation to policy questions relating to the proper role of science and technology in Egyptian development. For example, critical policy choices may be debated each year with committee members before making final decisions. Suggestions may be requested also regarding how particular research programs might be structured to meet explicit national development needs.
- f) In addition to the direct program-related functions of the Joint Consultative Committee, it should establish liaison with the Joint Working Group on Science and Technology (formed to foster cooperation among comparable scientific organizations in Egypt and the United States). The functions of the committee, while complementing the activities of the Joint Working Group, will not be constrained by any specific requirements.

To supplement the activities of the Joint Consultative Committee members, a special study team (of one or two individuals selected by the Committee) should conduct, in Egypt, prior to each meeting, data collection and analyses essential to the performance of evaluation and other Committee functions.

Despite the fact that the implementation of the Phase II portion of this effort will depend on progress achieved during the first two years (Phase I), it will be necessary to begin planning for Phase II during the course of the first year.

The Egyptian institutions will receive technical assistance, participant training, and equipment. The Academy will receive local currency funds for contract payments to be used as incentives. Two high-level advisors will be attached to the Academy and NRC respectively during the life of the project. The Academy has designated the General Secretary of the organization and the head of its R&D division as counterparts. The counterpart for the NRC advisor will be the head of the Technical Sector, the Project Manager, and the head of the Marketing and Sponsor Research Office.

Specialized teams brought to Egypt will work with counterparts as well. The design team for the information project will work directly with the Director of NIDOC, as well as with officials of other information entities.

3. *Prime Contractors*

The Prime Contractor(s)* will, directly or through sub-contractors:

- a) Provide the Advisor to the Academy and the Advisor to NRC.
- b) Recruit consultant and training teams as needed in Egypt.
- c) Make necessary arrangements in the U.S. for training of Egyptians.
- d) Assist in procuring equipment and materials for use in Egypt.

Logistical Support in Egypt: The Academy and the NRC will provide office space, internal transportation, and secretarial services to advisors, teams, and training personnel. The U.S. will provide international travel, per diem and associated costs.

Management Capabilities: The primary focus of the project will center upon improving management capabilities of the Academy, NRC and associated institutions. These will be tested in specific research and demonstration projects during the first two years.

* NSF

4. *Implementation Targets*

The proposed steps to be taken and their planned timing is outlined in pages 103–108.

5. *Monitoring and Evaluation Arrangements*

Monitoring of inputs, outputs and key project management actions will be carried out through the implementation plan.

In addition to the regular monitoring of project progress, there are two evaluations scheduled during Phase I. The first evaluation will occur one year after the arrival of the two advisors. This evaluation will focus primarily on a comprehensive review and analysis of implementation to date. It will attempt to identify any particular problem areas, to determine why the problems exist, what changes need to be made in the project design or the approach to implementation, and what steps external to the project may be required in order to permit progress at the planned rate.

In addition to this management-focused evaluation, the evaluation should also look at the questions of relevance and acceptability of the project in light of the conditions in the country as of that time, and in light of any impressions that activities thus far may have made on the scientific community, on the government, on the academic community, and on the public as a whole. To the extent possible, this evaluation should also take a preliminary look at progress in building an institution. The question of public acceptability relates to this, but in addition, the advisors may be able to make some judgments as to such factors as cohesiveness, a sense of common purpose and organization, etc.

When the advisors first arrive on board, they should be requested to prepare a set of criteria standards by which they will rate the satisfactory maturity of the institution. It also may be helpful for this to be worked out with the Egyptians, and possibly to be shared with all those working in activities directly affected by the project; this is equivalent to a good supervisor letting his staff know what he expects of them throughout a certain time period. These criteria would be used in evaluating the project along with implementation objectives and, ultimately, questions of the overall impact of the institution and its program. These criteria, and the standards attached to them should be examined for their own relevance during the initial evaluation.

It is anticipated that the first evaluation would be conducted with members of the Mission, the advisors to the Academy and the NRC, and key Egyptians associated with the project. The evaluation will take into account results of the first two meetings held by the Joint Consultative Committee.

The second evaluation is planned to be combined with design of the Phase II project. This evaluation will again look at questions of implementation management, but given that the project will have been in operation for approximately two years, it should be possible to focus to a greater extent on the questions of relevance, acceptability and progress in creating an institution. By this time a number of research projects and two demonstration projects will be underway. The evaluation team will need to make judgments on the ability of the Egyptian organizations to conceptualize, select, and manage goal oriented research; all of the questions discussed in this paragraph relate to an assessment of progress in achieving the project purpose, which is "improved institutional capability of the Egyptian S/T community to develop and manage research programs to solve priority development problems." While all such judgments may not be possible in quantitative terms, there should be qualitative assessments against the criteria/standards which have been agreed to.

This second evaluation will also need to define the issues and answer the questions which will determine the direction and design of Phase II, should continuation be deemed desirable.

It is anticipated, given the requirement for developing the project design for Phase II, that outside assistance will be required to conduct the second evaluation/design exercise. Further thought needs to be given to the composition of the team as the project progresses; however, at this point, it appears that a combined team of independent Egyptian-U.S. personnel would be helpful, particularly in conducting an assessment of the institutional performance of the project plus developing the design of Phase II. In addition, the inclusion of an AID direct hire person, or a consultant who

is experienced in developing Project Papers, should be included in order to help the team organize their findings and recommendations in such a manner that there will be a minimum transition between their product and a project paper.

The following types of information might be included in the assessment made during the second round of evaluation:

- a) The impact that technical assistance by advisors, policy management, and other consulting teams have had on the Academy and the NRC in helping them develop policies and programs which would re-orient a significant portion of the research they fund or conduct toward applied research projects which address priority development problems.
- b) Who has been trained, in what fields and the extent to which the training has resulted in or will result in line positions which permit efficient and functional carrying out of (a).
- c) A quantitative evaluation of equipment delivered, and preliminary assessment of its effectiveness in specific research projects. It will also be necessary to determine the extent to which equipment will be needed in follow-on or new projects as part of the design of Phase II.
- d) The status of the demonstration projects and their potential in Phase II.
- e) The capability of the Academy and the NRC to act as focal points for continued assistance in Phase II and for the project goal.
- f) As assessment of the draft design for follow-on activity and a judgment on whether or not it should be implemented.

STI

The STI evaluation will be carried out separately, through the office of the National Science Foundation, which has worked out specific means and methodology in the conceptualizing and elaboration of its portion of the program. The reason for this parallel evaluation is that the establishment of an information network is a component with separate but related objectives to the program as a whole. The NSF examination of the first phase will nevertheless be looked at by the main evaluation team in terms of the overall project objectives and to what extent the STI component is on track. Criteria for the evaluation of project performance should be in terms of specific output or deliverables for each of the four major STI tasks:

<i>Task</i>	<i>Output</i>
1. STI Design Study	— Formulation of a National Information Policy — Blueprint of a National System for STI — Survey and Assessment of Information Resources — Survey of Manpower for Information Work — Manpower Preparation Plan — Inventory of R&D Projects
2. Computer Accessed Information Reference	— Development of maximum of 150 profiles — Five trained specialists in SDI techniques — Provision of actual documents to service subscriber — Establishment of a base to measure cost/benefits actually derived from the system
3. Supply of Current Materials	— Development of a plan for supplying materials — Acquisition and delivery of materials and attendant equipment — Training and promotion program in place

<i>Task</i>	<i>Output</i>
4. Training	— In-service practical training provided in U.S. — Training workshops in Egypt — Completion of adjunct coursework by trainees in U.S.

Mechanisms for evaluating task accomplishment principally consist of:

- a) The Program Committee on STI under the U.S.-Egyptian Joint Working Group on Technology, Research and Development, which meet concurrently with the JCC at six-month intervals.
- b) A group of special experts, including a core of peers who participated in the NSF technical review of the proposals for performing these tasks. The group will be assembled under the aegis of the NAS Committee on International Scientific and Technical Information Programs whose function is to evaluate foreign and international information programs and to advise the NSF on them. It will be responsible for delivering an evaluation of the Phase I and an assessment of plans to Phase II of the STI program.

ANNEX 2

PROJECT GRANT STANDARD PROVISIONS ANNEX

DEFINITIONS. As used in this Annex, the "Agreement" refers to the Project Grant Agreement to which this Annex is attached and of which this Annex forms a part. Terms used in this Annex have the same meaning or reference as in the Agreement.

Article A. IMPLEMENTATION LETTERS

To assist Grantee in the implementation of the Project, A.I.D., from time to time, will issue Project Implementation Letters that will furnish additional information about matters stated in this Agreement. The parties may also use jointly agreed-upon Project Implementation Letters to confirm and record their mutual understanding on aspects of the implementation of this Agreement. Project Implementation Letters will not be used to amend the text of the Agreement, but can be used to record revisions or exceptions which are permitted by the Agreement, including the revision of elements of the amplified description of the Project in Annex 1.

Article B. GENERAL COVENANTS

Section B.1. CONSULTATION. The Parties will cooperate to assure that the purpose of this Agreement will be accomplished. To this end, the Parties, at the request of either, will exchange views on the progress of the Project, the performance of obligations under this Agreement, the performance of any consultants, contractors or suppliers engaged on the Project, and other matters relating to the Project.

Section B.2. EXECUTION OF PROJECT. The Grantee will:

- (a) Carry out the Project or cause it to be carried out with due diligence and efficiency, in conformity with sound technical, financial, and management practices, and in conformity with those documents, plans, specifications, contracts, schedules or other arrangements, and with any modifications therein, approved by A.I.D. pursuant to this Agreement; and
- (b) Provide qualified and experienced management for, and train such staff as may be appropriate for the maintenance and operation of the Project, and, as applicable for continuing activities, cause the Project to be operated and maintained in such manner as to assure the continuing and successful achievement of the purposes of the Project.

Section B.3. UTILIZATION OF GOODS AND SERVICES

(a) Any resources financed under the Grant will, unless otherwise agreed in writing by A.I.D., be devoted to the Project until the completion of the Project, and thereafter will be used so as to further the objectives sought in carrying out the Project.

(b) Goods or services financed under the Grant, except as A.I.D. may otherwise agree in writing, will not be used to promote or assist a foreign aid project or activity associated with or financed by a country not included in Code 935 of the A.I.D. Geographic Code Book as in effect at the time of such use.

Section B.4. TAXATION. (a) This Agreement and the Grant will be free from any taxation or fees imposed under laws in effect in the territory of the Grantee.

(b) To the extent that (1) any contractor, including any consulting firm, any personnel of such contractor financed under the Grant, and any property or transaction relating to such contracts and (2) any commodity procurement transaction financed under the Grant, are not exempt from identifiable taxes, tariffs, duties or other levies imposed under laws in effect in the territory of the Grantee, the Grantee will, as and to the extent provided in and pursuant to Project Implementation Letters, pay or reimburse the same with funds other than those provided under the Grant.

Section B.5. REPORTS, RECORDS, INSPECTIONS, AUDIT. The Grantee will:

- (a) Furnish A.I.D. such information and reports relating to the Project and to this Agreement as A.I.D. may reasonably request;
- (b) Maintain or cause to be maintained, in accordance with generally accepted accounting principles and practices consistently applied, books and records relating to the Project and to this Agreement, adequate to show, without limitation, the receipt and use of goods and services acquired under the Grant. Such books and records will be audited regularly, in accordance with generally accepted auditing standards, and maintained for three years after the date of last disbursement by A.I.D.; such books and records will also be adequate to show the nature and extent of solicitations of prospective suppliers of goods and services acquired, the basis of award of contracts and orders, and the overall progress of the Project toward completion; and
- (c) Afford authorized representatives of a Party the opportunity at all reasonable times to inspect the Project, the utilization of goods and services financed by such Party, and books, records and other documents relating to the Project and the Grant.

Section B.6. COMPLETENESS OF INFORMATION. The Grantee confirms:

- (a) That the facts and circumstances of which it has informed A.I.D., or caused A.I.D. to be informed, in the course of reaching agreement with A.I.D. on the Grant, are accurate and complete, and include all facts and circumstances that might materially affect the Project and the discharge of responsibilities under this Agreement;
- (b) That it will inform A.I.D. in timely fashion of any subsequent facts and circumstances that might materially affect, or that it is reasonable to believe might so affect, the Project or the discharge of responsibilities under this Agreement.

Section B.7. OTHER PAYMENTS. Grantee affirms that no payments have been or will be received by any official of the Grantee in connection with the procurement of goods or services financed under the Grant, except fees, taxes, or similar payments legally established in the country of the Grantee.

Section B.8. INFORMATION AND MARKING. The Grantee will give appropriate publicity to the Grant and the Project as a program to which the United States has contributed, identify the Project site, and mark goods financed by A.I.D., as described in Project Implementation Letters.

Article C. PROCUREMENT PROVISIONS

Section C.1. SPECIAL RULES. (a) The source and origin of ocean and air shipping will be deemed to be the ocean vessel's or aircraft's country of registry at the time of shipment.

(b) Premiums for marine insurance placed in the territory of the Grantee will be deemed an eligible Foreign Exchange Cost, if otherwise eligible under Section C.7(a).

(c) Any motor vehicles financed under the Grant will be of United States manufacture, except as A.I.D. may otherwise agree in writing.

(d) Transportation by air, financed under the Grant, of property or persons (and their personal effects) will be on carriers holding United States certification, to the extent service by such carriers is available. Details on this requirement will be described in a Project Implementation Letter.

Section C.2. ELIGIBILITY DATE. No goods or services may be financed under the Grant which are procured pursuant to orders or contracts firmly placed or entered into prior to the date of this Agreement, except as the Parties may otherwise agree in writing.

Section C.3. PLANS, SPECIFICATIONS AND CONTRACTS. In order for there to be mutual agreement on the following matters, and except as the Parties may otherwise agree in writing:

- (a) The Grantee will furnish to A.I.D. upon preparation,
- (1) Any plans, specifications, procurement or construction schedules, contracts, or other documentation relating to goods or services to be financed under the Grant, including documentation relating to the prequalification and selection of contractors and to the solicitation of bids and proposals. Material modifications in such documentation will likewise be furnished A.I.D. on preparation;
 - (2) Such documentation will also be furnished to A.I.D., upon preparation, relating to any goods or services which, though not financed under the Grant, are deemed by A.I.D. to be of major importance to the Project. Aspects of the Project involving matters under this subsection (a) (2) will be identified in Project Implementation Letters;
- (b) Documents related to the prequalification of contractors, and to the solicitation of bids or proposals for goods and services financed under the Grant will be approved by AID in writing prior to their issuance, and their terms will include United States standards and measurements;
- (c) Contracts and contractors financed under the Grant for engineering and other professional services, for construction services, and for such other services, equipment or materials as may be specified in Project Implementation Letters, will be approved by A.I.D. in writing prior to execution of the contract. Material modifications in such contracts will also be approved in writing by A.I.D. prior to execution; and
- (d) Consulting firms used by the Grantee for the Project but not financed under the Grant, the scope of their services and such of their personnel assigned to the Project as A.I.D. may specify, and construction contractors used by the Grantee for the Project but not financed under the Grant, shall be acceptable to A.I.D.

Section C.4. REASONABLE PRICE. No more than reasonable prices will be paid for any goods or services financed, in whole or in part, under the Grant. Such items will be procured on a fair and, to the maximum extent practicable, on a competitive basis.

Section C.5. NOTIFICATION TO POTENTIAL SUPPLIERS. To permit all United States firms to have the opportunity to participate in furnishing goods and services to be financed under the Grant, the Grantee will furnish A.I.D. such information with regard thereto, and at such times, as A.I.D. may request in Project Implementation Letters.

Section C.6. SHIPPING. (a) Goods which are to be transported to the territory of the Grantee may not be financed under the Grant if transported either:

- (1) On an ocean vessel or aircraft under the flag of a country which is not included in A.I.D. Geographic Code 935 as in effect at the time of shipment, or
- (2) On an ocean vessel which A.I.D., by written notice to the Grantee, has designated as ineligible; or
- (3) Under an ocean or air charter which has not received prior A.I.D. approval.

(b) Costs of ocean or air transportation (of goods or persons) and related delivery services may not be financed under the Grant, if such goods or persons are carried:

- (1) On an ocean vessel under the flag of a country not, at the time of shipment, identified under the paragraph of the Agreement entitled "Procurement Source: Foreign Exchange Costs," without prior written A.I.D. approval; or
- (2) On an ocean vessel which A.I.D., by written notice to the Grantee, has designated as ineligible; or
- (3) Under an ocean vessel or air charter which has not received prior A.I.D. approval.

(c) Unless A.I.D. determines that privately-owned United States-flag commercial ocean vessels are not available at fair and reasonable rates for such vessels,

- (1) At least fifty percent (50%) of the gross tonnage of all goods (computed separately for dry bulk carriers, dry cargo liners and tankers) financed by A.I.D. which may be transported on ocean vessels will be transported on privately-owned United States-flag commercial vessels, and
- (2) At least fifty percent (50%) of the gross freight revenue generated by all shipments financed by A.I.D. and transported to the territory of the Grantee on dry cargo liners shall be paid to or for the benefit of privately-owned United States-flag commercial vessels.

Compliance with the requirements of (1) and (2) of this subsection must be achieved with respect to both any cargo transported from U.S. ports and any cargo transported from non-U.S. ports, computed separately.

Section C.7. INSURANCE. (a) Marine insurance on goods financed by A.I.D. which are to be transported to the territory of the Grantee may be financed as a Foreign Exchange Cost under this Agreement provided

- (1) Such insurance is placed at the lowest available competitive rate, and
- (2) Claims thereunder are payable in the currency in which such goods were financed or in any freely convertible currency.

If the Grantee (or government of Grantee), by statute, decree, rule, regulation, or practice discriminates with respect to A.I.D.-financed procurement against any marine insurance company authorized to do business in any State of the United States, then all goods shipped to the territory of the Grantee financed by A.I.D. hereunder will be insured against marine risks and such insurance will be placed in the United States with a company or companies authorized to do a marine insurance business in a State of the United States.

(b) Except as A.I.D. may otherwise agree in writing, the Grantee will insure, or cause to be insured, goods financed under the Grant imported for the Project against risks incident to their transit to the point of their use in the Project; such insurance will be issued on terms and conditions consistent with sound commercial practice and will insure the full value of the goods. Any indemnification received by the Grantee under such insurance will be used to replace or repair any material damage or any loss of the goods insured or will be used to reimburse the Grantee for the replacement or repair of such goods. Any such replacements will be of source and origin of countries listed in A.I.D. Geographic Code 935 as in effect at the time of replacement, and, except as the Parties may agree in writing, will be otherwise subject to the provisions of the Agreement.

Section C.8. U.S. GOVERNMENT-OWNED EXCESS PROPERTY. The Grantee agrees that wherever practicable United States Government-owned excess personal property, in lieu of new items financed under the Grant, should be utilized. Funds under the Grant may be used to finance the costs of obtaining such property for the Project.

Article D. TERMINATION; REMEDIES

Section D.1. TERMINATION. Either Party may terminate this Agreement by giving the other Party 30 days' written notice. Termination of this Agreement will terminate any obligations of the Parties to provide financial or other resources to the Project pursuant to this Agreement, except for payments which they are committed to make pursuant to non-cancellable commitments entered into

with third parties prior to the termination of this Agreement. In addition, upon such termination A.I.D. may, at A.I.D.'s expense, direct that title to goods financed under the Grant be transferred to A.I.D. if the goods are from a source outside Grantee's country, are in a deliverable state and have not been offloaded in ports of entry of Grantee's country.

Section D.2. REFUNDS. (a) In the case of any disbursement which is not supported by valid documentation in accordance with this Agreement, or which is not made or used in accordance with this Agreement, or which was for goods or services not used in accordance with this Agreement, A.I.D., notwithstanding the availability or exercise of any other remedies under this Agreement, may require the Grantee to refund the amount of such disbursement in U.S. dollars to A.I.D. within sixty days after receipt of a request therefor.

(b) If the failure of Grantee to comply with any of its obligations under this Agreement has the result that goods or services financed under the Grant are not used effectively in accordance with this Agreement, A.I.D. may require the Grantee to refund all or any part of the amount of the disbursements under this Agreement for such goods or services in U.S. dollars to A.I.D. within sixty days after receipt of a request therefor.

(c) The right under subsection (a) or (b) to require a refund of a disbursement will continue, notwithstanding any other provision of this Agreement, for three years from the date of the last disbursement under this Agreement.

(d) (1) Any refund under subsection (a) or (b), or (2) any refund to A.I.D. from a contractor, supplier, bank or other third party with respect to goods or services financed under the Grant, which refund relates to an unreasonable price for or erroneous invoicing of goods or services, or to goods that did not conform to specifications, or to services that were inadequate, will (A) be made available first for the cost of goods and services required for the Project, to the extent justified, and (B) the remainder, if any, will be applied to reduce the amount of the Grant.

(e) Any interest or other earnings on Grant funds disbursed by A.I.D. to the Grantee under this Agreement prior to the authorized use of such funds for the Project will be returned to A.I.D. in U.S. dollars by the Grantee.

Section D.3. NONWAIVER OF REMEDIES. No delay in exercising any right or remedy accruing to a Party in connection with its financing under this Agreement will be construed as a waiver of such right or remedy.

Section D.4. ASSIGNMENT. The Grantee agrees, upon request, to execute an assignment to A.I.D. of any cause of action which may accrue to the Grantee in connection with or arising out of the contractual performance or breach of performance by a party to a direct U.S. dollar contract with A.I.D. financed in whole or in part out of funds granted by A.I.D. under this Agreement.
