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517-0160/42
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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D. C. 20523

DOMINICAN REPUBLIC

PROJECT PAPER

AGRICULTURAL SECTOR TRAINING

Project Number: 517-0160
Loan Number: 517-T-043
517-V-044

AID/LAC/P-141

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete)

Amendment Number

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: DOMINICAN REPUBLIC

3. PROJECT NUMBER: 517-0160

4. BUREAU/OFFICE: LAC 05

5. PROJECT TITLE (maximum 40 characters): Agricultural Sector Training

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 90

7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4)

A. Initial FY 83 B. Quarter 3 C. Final FY 90

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY 83 B. FX	C. L/C	D. Total	LIFE OF PROJECT E. FX	F. L/C	G. Total
AID Appropriated Total	300	40	340	4,907	93	5,000
(Grant)	( )	( )	( )	( )	( )	( )
(Loan)	(300)	(40)	(340)	(4,907)	(93)	(5,000)
Other U.S. 1.						
Other U.S. 2.						
Host Country		250	250		3,000	3,000
Other Donor(s)						
TOTALS	300	290	590	4,907	3,093	8,000

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	2. Loan	D. OBLIGATIONS TO DATE 1. Grant	2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	2. Loan	F. LIFE OF PROJECT 1. Grant	2. Loan
(1)	180		050	0	0		5,000		5,000
(2)									
(3)									
(4)									
TOTALS							5,000		5,000

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): 010, 240

11. SECONDARY PURPOSE CODE: 280

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	BR	R/AG					
B. Amount							

13. PROJECT PURPOSE (maximum 480 characters)

(1) to strengthen the research, teaching, extension and program implementation capabilities of agricultural sector institutions (public agencies and universities); (2) to establish a coordinated, ongoing system for determining graduate training objectives and requirements in the agricultural sector; and (3) to finance training for priority agricultural sector needs on a continuing basis.

14. SCHEDULED EVALUATIONS

Interim MM 09 YY 84 MM 06 YY 86 Final MM 06 YY 90

15. SOURCE/ORIGIN OF GOODS AND SERVICES

☒ 000 ☒ 941 ☐ Local ☐ Other (Specify) _____

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment)

17. APPROVED BY

Signature: [signature]

Title: Director, USAID/DR

Date Signed: MM 06 DD 30 YY 83

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

AID 1330-4 (8-79)

PROJECT AUTHORIZATION

Name of Country:	Dominican Republic
Name of Project:	Agricultural Sector Training
Number of Project:	517-0160
Number of Loan:	517-T-043 517-V-044

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Agricultural Sector Training project for the Dominican Republic (the "Cooperating Country") involving planned obligations of not to exceed Five Million United States Dollars ($5,000,000) in loan funds ("Loan") over a seven year period from date of authorization, subject to the availability of funds in accordance with the AID OYB/allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project ("Project") consists of assisting in a program to be implemented by the Technical Secretariat of the Presidency (STP) through its National Planning Office (ONAPLAN), to establish the capability within the Government of the Dominican Republic to assess sector-wide agricultural training needs, select candidates for advanced degree training, monitor the placement, training and thesis research of scholarship recipients, assist in the development of graduate level programs in domestic universities and finance on a continuing basis advanced degree agricultural training required in the future.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority is delegated in accordance with AID regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

a. Interest Rate and Terms of Payment (Loan)

The Cooperating Country shall repay the Loan to A.I.D. in U.S. Dollars within twenty-five (25) years from the date of first disbursement of the Loan, including a grace period of not to exceed ten (10) years. The Cooperating Country shall pay to A.I.D. in U.S. Dollars interest from the date of first disbursement of the Loan at the rate of (i) two percent (2%) per annum during the first ten (10) years; and (ii) three percent (3%) per annum thereafter, on the outstanding disbursed balance of the loan and on any due and unpaid interest accrued thereon.

b. Source and Origin of Goods and Services (Loan)

Goods and services, except for ocean shipping, financed by A.I.D. under the Loan shall have their source and origin in the Cooperating Country or countries included in A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the Project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the Cooperating Country or of countries included in A.I.D. Geographic Code 941.

c. Conditions Precedent to Loan Disbursements

1. First Disbursement. Prior to the first disbursement under the Loan, or to the issuance by A.I.D. of documentation pursuant to which disbursements will be made, the Cooperating Country will, except as

A.I.D. may otherwise agree to in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(a) An opinion of the legal advisor to the Cooperating Country that this Agreement has been duly authorized and/or ratified by, and executed on behalf of, the Cooperating Country, and that it constitutes a valid and legally binding obligation of the Cooperating Country in accordance with all of its terms;

(b) A statement of the name of the person holding or acting in the office of the Cooperating Country specified in Section 9.2, and of any additional representatives, together with a specimen signature of each person specified in each statement;

(c) The name of the Cooperating Country's project coordinator together with evidence that the coordinator will be able to contribute adequate time for the successful implementation of the project;

2. Disbursement for Initial Participant and Other Training. Prior to any disbursement under the Loan or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for participant and other training, the Cooperating Country will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(a) An Operational Manual duly adopted and established by the Cooperating Country, which establishes (i) procedures for the preparation of a comprehensive operational training plan, including participant selection procedures and training priorities, and (ii) firm

arrangements regarding the responsibilities of scholarship recipients, their sponsoring institutions and the Technical Secretariat of the Presidency (STP).

(b) Evidence of the assignment of adequate staff in STP/ONAPLAN to support the training activities;

(c) Evidence of the establishment by STP of a Fund for Advanced Education within the Cooperating Country to support the activities planned under the project; and

(d) An operational plan for the first training period of the project which describes in detail the anticipated training activities during the period.

3. Subsequent Disbursement for Training Activities.

Prior to any disbursement under the Loan, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for new training activities after the first training period and for each subsequent training period, the Cooperating Country will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(a) A detailed evaluation report on the training and technical assistance activities being carried out under the Project including a report on the effectiveness of the inputs provided; and

(b) A detailed annual training plan endorsed by the national training commission outlining the activities planned for each subsequent project year and including an assessment of the human resource

needs in the agriculture sector and identifying the priority disciplines of study and elaborating a program to meet those needs at U.S., domestic and third country universities.

d. Special Covenants

1. Project Evaluation

The Cooperating Country shall establish an evaluation program as part of the Project. Except as AID may otherwise agree in writing, the program will include annual evaluations during the implementation of the Project and at least one more at the Project conclusion. The evaluation will include, but not be limited to: (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; and (d) evaluation, to the degree feasible, of the overall development impact of the Project.

In addition, a mid project evaluation will be conducted in the fourth project year to review the development of in-country training programs and the adequacy of the Fund for Advanced Education to meet the in-country training needs.

2. Evaluation Plan.

Except as A.I.D. may otherwise agree in writing, the Cooperating Country will prepare and submit to A.I.D. within 12 months of the signing of this Agreement a time phased plan for evaluation.

3. Support for Fund for Advanced Education.

The Cooperating Country shall assure adequate support to meet the in-country training needs contemplated under the Fund for Advanced Education Activity during the life of the project.

Philip R. Schwab, Director
USAID Mission to the Dominican Republic

6/30/83
Date

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DOMINICAN REPUBLIC

PROJECT PAPER

FOR

AGRICULTURE SECTOR TRAINING

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GUIDE TO ACRONYMS

AID	-	Agency for International Development
BAGRICOLA	-	Agriculture Bank of the Dominican Republic
CEA	-	State Sugar Council
DITC	-	Department of International Technical Cooperation
DGF	-	Directorate General for Forestry
GODR	-	Government of the Dominican Republic
IDB	-	Inter-American Development Bank
INDRHI	-	National Hydraulic Resources Institute
INESPRE	-	Price Stabilization Institute
ISA	-	Superior Agricultural Institute
LASPAU	-	Latin American Scholarship Program for American Universities
NARMA	-	Natural Resource Management Project
PIO	-	Project Implementation Order
ODC	-	Office of Community Development
ONAPLAN	-	Office of National Planning
OUC	-	Office of University Coordination
SEA	-	Secretariat of State for Agriculture
SEAPLAN	-	Sub-Secretary for Agricultural Sector Planning
SEIECA	-	Sub-Secretary for Research and Extension
SPM	-	Sub-Secretary for Production and and Marketing
STP	-	Technical Secretariat of the Presidency
TAMU	-	Texas A & M University
UASD	-	Autonomous University of the Dominican Republic
UCE	-	Central University of the East
UCMM	-	Catholic University
UNPHU	-	Pedro Henríquez Ureña National University

I. SUMMARY PROJECT DESCRIPTION AND RECOMMENDATION

The Agricultural Sector Training Project will establish the capability within the Technical Secretariat of the Presidency to: 1) assess sector-wide training needs; 2) select candidates for advanced degree training; 3) monitor the placement, training and thesis research of scholarship recipients; 4) assist in the development of graduate level programs in domestic universities; and 5) finance on a continuing basis advanced degree agricultural training required in the future. The project will be carried out by the Office of International Technical Cooperation within the National Planning Office of the Technical Secretariat of the Presidency with the assistance of an educational placement organization contracted with project funds, and with the collaboration of the Interuniversity Coordinating Committee, composed of representatives of the four faculties of agriculture of domestic universities. In addition, up to ten institutions of the public sector and the faculties of agriculture will participate as sponsoring organizations for scholarship recipients.

The Project Committee recommends the authorization of $5.0 million in A.I.D. loan funds to finance the Agricultural Sector Training Project, which will receive a counterpart contribution of RD$3.0 million.

II. Background

A. The Problem

Over the last ten years, a time when government involvement in the agricultural sector has expanded considerably, output of the sector has lagged behind population growth. The overall output of agricultural production increased roughly two percent annually during the 1972-81 period while population grew at about 2.7 percent annually. Within the small farm and agrarian reform subsector, where government attention has been concentrated, output expanded approximately 2.5 percent annually.

The principal instruments of public policy in the sector have been investments in infrastructure, especially irrigation, and programs for small farmer credit, marketing services, seed production, machinery services, research, extension and training. The combined investment and operating expenditures of the five principal agricultural sector agencies (excluding the State Sugar Council) increased approximately 400 percent in real terms, or about 25 percent per year.

The mediocre performance of the agricultural sector can be attributed to many factors, but prominent among them are (1) lack of systematic assessment, definition and priority ranking of problems; (2) poor design and untimely execution of programs; (3) slow rate of generation, adoption and dissemination of technology; and (4) insufficient breadth of skills for technical and administrative needs.

All too often when problems develop, insufficient or untimely responses are made and a resolution of the issues is delayed. Concurrently, plans are formulated for widening the scope of activities which will further tax the capabilities of personnel who manage agricultural sector programs.

In the last five or six years, significant expansion of agricultural sector activities has occurred: the number of research centers was increased; government supported activities, including the performance of marketing, machinery, input and seed propagation se vices were undertaken; satellite offices for credit were developed; grea numbers of families were incorporated in agrarian reform programs, encompassing a range of activities for production support and social infrastructure; the number of products subject to commercialization by the public sector was increased; irrigation programs and related services were expanded; and further promotion of cooperative programs was undertaken. In the private sector, university faculties of agronomy and animal sciences have greatly expanded their course offerings and enrollment has increased considerably. Furthermore, agricultural businesses, especially exporters of non-traditional products, have grown rapidly.

Consequently, significant problems have arisen in the design and execution of programs, the conduct of research, university instruction and the investment of public and private resources in production, transformation and marketing of agricultural products. Especially noteworthy is the insufficient supply of highly trained professionals capable of assessing problems and designing technically and economically feasible solutions. The consequences of the shortage of expert personnel within public sector institutions and university faculties of agronomy are manifested by: (1) scant progress in the generation of improved varieties of basic grains (e.g.; rice, beans and corn); (2) slow dissemination of improved agronomic practices among small farmers; (3) low profitability and productivity on many agrarian reform settlements; (4) inadequate assessment (before action is taken) of the probable consequences of government policy; (5) inadequate thesis research among many university students of agronomy and animal sciences; and (6) foregone opportunities to raise production, incomes and employment on small farms.

A major premise undelying the agricultural sector training project is that agronomic research, investigation and teaching are critical constraints to the development and improved performance of the agricultural sector in the Dominican Republic. The nature of agronomic research is such that a corps of highly trained individuals working over long periods of time is required to devise more productive farming systems and better methods of crop management. This is all the more important in a nation with high rural population density per unit of arable land, a wide variety of soils and ecological zones, an overdependence on production inputs that are manufactured off-shore and an elementary level of education among most agricultural producers.

These factors contribute to the generally low productivity of agriculture. As indicated in the USAID Agricultural Sector Strategy, estimates of prospective versus actual yields of important crops indicate an enormous potential for increasing production.

Given this situation, there is no substitute for locally generated and adapted technologies. Yet at the present time there are only three Ph.D. level and 27 M.S. level professionals employed in government research centers throughout the Republic, and many of these have substantial administrative responsabilities which limit their conduct of research and teaching. Among the university faculties of agronomy there are 7 Ph.D. level and 93 M.S. level professionals who similarly are dedicated only partially to research because of other duties or outside employment. The net result is substantial reduction in professional effort dedicated to research, which has led to a situation wherein expatriate professionals are carrying out national research programs, as in the case of rice research.

The proposed project would substantially increase the supply of professional talent to research and teach, contributing toward greater production and efficiency in the agricultural sector. The technical competence of personnel greatly influences the overall performance of public sector institutions and should receive particular attention. Although personnel with advanced degrees do not guarantee improved performance of public and private sector entities, they will contribute to improving the capability to assess needs, analyze options and evaluate outcomes of actions or inaction. These are precisely the aspects of government management which appear to constrain economic development. With an infusion of upgraded skill and new talent, the GODR could acquire the critical mass of expertise to significantly strengthen its development programs.

Because the GODR will continue to play a strong role in research and extension programs, it is essential to increase the professional capacity of the personnel responsible for these programs. Furthermore, as the responsibility for training agricultural sector professionals shifts increasingly to Dominican faculties of agriculture, it is essential to strengthen these university faculties and further raise the competence of their graduates. The financing of post-graduate study for university professors has not received the support offered in recent years to public institutions by international donors. Thus, as discussed in the following section, funding has been insufficient to meet the demand for trained staff, though donor financing for infrastructural needs has been adequate. Now the major constraint to development is the lack of human resources to maximize the use of past investments.

1. Personnel and Training Needs

Despite the increased scope and complexity of activities undertaken by agriculture sector agencies, personnel directing and

managing public programs have had insufficient opportunities to receive advanced training commensurate with their added responsibilities. Several studies of the training levels and needs of agricultural sector personnel have identified serious shortages and have projected expanding needs. A 1975 study in conjunction with the AID Agricultural Sector II Loan estimated a need for 890 Bachelor of Sciences level personnel in all agricultural disciplines and veterinary science for the principal agricultural sector agencies during the 1976-1980 period. The need for graduate level training was not assessed. Over the same period the projected supply of B.S. graduates from national universities was 500, leaving a deficit of about 400 B.S. level personnel. Virtually all graduates would receive training to the level since the national universities were not offering degrees at the Master's level. In 1982 the only Master's program in an agriculture related discipline is Applied Economics, established in late 1981 in UCMM, with an enrollment of 44 students.

A 1979 study conducted by the Secretariat of State for Agriculture (SEA) in conjunction with the preparation of the 1980-82 investment plan, identified a need for 625 university level professionals required for the agricultural sector agencies and universities, and also for 35 professionals trained at the graduate level. This study was updated in early 1982 by the Latin American Scholarship Program for American Universities (LASPAU) under a USAID contract. The analisys confirmed the need for significant training as projected by SEA. The report noted that the lack of personnel trained at the graduate level places serious limitations on the ability to conduct relevant research and to plan and implement research policies. Moreover, the report suggested that the deficit of advanced degree professionals could be much greater than previously thought (35 graduate degrees), since a comprehensive assessment of the sector-wide need had not been undertaken.

A detailed re-examination of the advanced degree training needs of 13 agricultural sector institutions was completed in April 1982 by SEA. It identified a need over the next five years for 514 professionals trained at the post-graduate level, 435 M.S. plus 79 Ph.D. See Annex F, Table 2. This comprehensive study proposes a major reorientation of training from a predominantly university level (B.S.) emphasis to graduate degree training. In other words, while a significant deficit of university level training continues to exist, the priority need for training is at the graduate level rather than at the B.S. level. Since advanced degree programs in agricultural sciences cannot be offered in the near future at domestic universities, the training must be done outside the Dominican Republic.

Although the identification of academic requirements at the graduate level is necessarily subjective, there is an evident need to raise the overall level of education among agricultural sector personnel. Among public sector agencies and university faculties of agriculture, there are currently only 153 personnel with graduate

degrees, which represent only FOUR percent of the 3,640 professionals employed by these institutions. Staff with university level degrees represent 37%, while vocational agriculturalists comprise the remaining 59%. Over the last six years, the rate of growth of employment among agriculture sector personnel trained at the M.S. and Ph.D. levels was virtually identical to that of personnel trained at vocational and B.S. degree levels, i.e., 45.8 percent versus 45 percent. In other words, the hiring of highly trained staff has only kept pace with hiring of mid-level staff, even though the need for assimilating complex agricultural sciences has greatly increased. Existing national university programs will be unable to fulfill the need for greater training at the graduate level in agricultural sciences. However, at the B.S. level it is possible that over the next 8-10 years, requirements can be met by Dominican universities.

2. University Programs

The four universities offering studies in agricultural sciences are the Autonomous University of Santo Domingo (UASD), Pedro Henriquez Urena National University (UNPHU), the Superior Institute of Agriculture (ISA) in association with the Catholic University (UCMM) and the Central University of the East (UCE). Their combined staff of 170 professors in the agricultural sciences is in many instances composed of part-time employees who work full time in public sector agricultural institutions.

A relatively new program of instruction in the field of public administration is being conducted by the Superior Institute for Agricultural (ISA) through its Rural Development Management Center (CADR), which began operation in 1982. This program is tailored to principally three groups: managers of agrarian reform settlements, mid-level public administrators and high level officials in the agricultural sector. Hundreds of managers at these various levels will be trained annually by this program.

A significant new program in business and public administration at UCMM will complement AID and CODR efforts under this project. This Master's degree program, which will receive AID funded technical assistance, will begin graduating students in 1985 and eventually graduate 50 per year. It is anticipated that many of these graduates will be returning to the agricultural sector, making it possible for at least some technicians in management positions to return to work in their areas of training and expertise.

With the combined graduations of the four faculties of agronomy over the next five years, the Dominican Republic can expect to greatly reduce the current deficit of 940 university graduates, which was estimated by SEA in 1979. Assuming the rate of growth in demand does not exceed 5 percent per year, by 1990 the deficit of B.S. graduates will be eliminated. However, the need for graduate level professionals in

agricultural sciences will be largely unmet. Unless a substantial program of advanced training is initiated soon, the agricultural sector will face a severe deficit of personnel required to perform the highest level scientifc and leadership functions.

3. Recent Training Programs

The forerunner of agricultural training programs in the Dominican Republic was undertaken by AID in 1966 to establish a large professional cadre of Dominican agriculturalists through a program of university level training at Texas A&M University (TAMU). There is wide agreement among Dominican profesionals today that the program was a resounding success, and that it may be the most significant contribution made by a foreign assistance agency to the development of Dominican agriculture. A substancial number of the 130 B.S. graduates of Texas A&M today are occupying key positions in the public sector. Many received graduate training following to their TAMU education. Undoubtedly some of these individuals will be among those selected for advanced degrees under this project.

More recently, AID gave additional support to agricultural training through Agricultural Sector Loans I and II in 1974 and 1976. As a result of these projects, an agreement was signed between the SEA and three universities (UASD, ISA and UNPHU) to introduce new curricula in the faculties of agronomy and veterinary sciences with the objective of training professionals in the Dominican Republic and undertaking studies relevant to national priorities. A subsequent agreement was made among these four entities to undertake: (a) collaboration with vocational schools; (b) reorientation and specialization of research; (c) off-shore academic training; (d) technical assistance to university faculties; and (e) seminars and conferences. The Office of University Coordination (OUC) was established within SEA to manage the activities and coordinate actions among universities, and now operates within the Subsecretariat of Agriculture for Research, Extension and Training. The office director works closely with the SEA department directors for research extension and training, and also with representatives of each university. Major on going activities include coordination of research, reorientation of university curricula and administration of SEA agreements for advanced training outside the Dominican Republic. Agreements between SEA and three U.S. universities are currently in effect for the advanced degree training of 22 students. These are in addition to the 43 who received graduate degrees between 1975 and 1979, mostly from U.S. universities, with financing provided under the now concluded Agricultural Sector Loan programs.

A second major source of support for training in agriculture is the Interamerican Development Bank through the PIDAGRO III program, which is operated much like an AID sector loan and encompasses several institutions of the agriculture sector. This program calls for

M.S. training for 24 employees from the Subsecretariat of Agriculture for Research, Extension and Training; 15 in research, 3 in extension, 3 in training and 3 in technical specializations. Virtually all have begun training and are expected to return to the public sector by 1984.

Also, the AID Natural Resource Management Project calls for M.S. training for 23 students, including 19 in various disciplines related to natural resources and 4 in farming systems research. These individuals are expected to be working the public sector by 1986.

Finally, the LAC Training Iniciative Project for FY 1982-84, will contribute approximately 10 scholarships per year to the Dominican Republic. Three individuals from the agricultural sector received scholarships in FY82, and an equal number are expected to be alloted to agricultural disciplines in coming years.

4. The Deficit of Agricultural Sector Professionals

As a result of current graduate degree training programs or those about to be implemented, by 1986 about 100 highly trained employees are expected to return to positions in the public sector or universities. Nevertheless, according to SEA's most recent study, by 1986-87 there will still be a deficit of 414 professionals at graduate levels. Although some professional training may be financed by other programs, and participants may return to positions in the Dominican Republic during the 1982-86 period, there still could be a deficit of 400 unless significant training is begun soon. Assuming that at least half the projected deficit represents high priority needs, 200 individuals should begin training immediately. The proposed training project would finance 130 scholarships in priority disciplines and create a source of continuing contributions by the GODR for additional scholarships in the future. Beyond this, it is expected that additional training will be financed by other international donors and by future AID projects.

B. Project Rationale

A basic premise of the proposed project is that sector-wide advanced degree training is a fundamental need which represents the next logical step in a progression of USAID support of long-term training for the agricultural sector. The first major step in the progression was B.S. training of about 130 Dominicans at Texas A&M University in the late 1960's and early 1970's. Graduates of this program subsequently served in positions such as Undersecretaries of Agriculture, and in two cases as Secretary of State for Agriculture. In general, the graduates either rose through the ranks in the public sector and then received graduate training or took high positions in private enterprise, including multinational enterprises. Among the Dominican who attended TAMU, approximately 30 percent now work in public sector institutions related to agriculture, 30 percent work for private national enterprises, 15

percent work for international enterprises in the Dominican Republic, and 10 percent for universities.

It is very important to recognize the extremely low rate of emigration among the TAMU graduates, only three percent. This shows commitment to return to the Dominican Republic to assist in its development. These returned graduates exemplify the pool of potential scholarship recipients under this project. The TAMU experience is supported by successful M.S. training of forty-three students under the Agricultural Sector Loans I and II. Virtually all in this group were university staff members.

Additionally, under the two sector loans, significant assistance was provided to the three principal universities' faculties of agronomy. The bulk of this money supported new laboratories, equipment, research projects, and other infrastructure. The existing capital stock of these agronomy schools is now considered adequate for the scale of operations. However, the human resources are still relatively deficient.

The proposed project will further raise the educational level of some 40 to 50 university personnel without causing a significant reduction in their current teaching programs. Moreover, this project proposes to meet the critical professional education needs of up to ten public agencies associated with the agricultural sector. The need for advanced degree training among these institutions falls into the general categories of soil, plant, animal and social sciences. In the case of the first three categories, there are no opportunities for advanced degree training in national universities. Master's programs in economics and social sciences are just beginning and will graduate a significant number of professionals in the next five years. Hence, the concentation of the proposed project is in those disciplines for which training at national universities is unavailable.

As mentioned above, the GODR also recognizes the importance of advanced degree training and has adopted a policy of training agricultural technicians whenever funds are available. This project will solidify their policy by establishing a Fund for Advanced Education which will receive annual contributions from the national budget to finance advanced, long-term training in agriculture on a continuing basis. The project will also institutionalize the process of determining priority training areas and selection of participants.

Finally, a major objective of the project is to establish a mechanism through which other international donors may channel resources for additional academic training for the agricultural sector. The assistance provided under this project could lead to the institutional capability to administer a long-term program for efficient and rational assignment of financing for human resources development.

C. Relationship of the Project to the CDSS and Host Country Priorities

This project directly meets two of the Mission's major development strategies: (1) to strengthen the human resource base, and (2) to increase food production. The human resource base will be strengthened as participants under this project receive advanced training in areas of greatest need. Participants who return to teach in Dominican universities will continue the process of strengthening the human resource base and introduce new agricultural production, planning, and management techniques which lead to increased food production. Follow-on AID activities in the areas of research and extension will further serve to disseminate these new techniques to the field, particularly to the small farmer.

The GODR has shown an increased interest in the agricultural sector, as demonstrated by the fourfold increase in agriculture's share of the national budget in the period 1977-1981 (3.6% to 14.9%, as stated in the FY-1985 CDSS). Within the overall GODR policy to improve agricultural performance, there has be a concomitant increase in financing for professional training. In 1981, SEA assigned US$300,000 of its own resources to multiple-year commitments for advanced degree training of professional staff in U.S. universities. In the development of this project, the GODR, particularly SEA, has played a major role in identifying priority training needs, and in determining the specific subject areas that this project will address.

The USAID Agricultural Sector Strategy, as detailed in the recent CDSS update, reflects and strongly supports the GODR commitment to training. The mission is concerned that, without skill enhancement in several key disciplines, the administration of public programs could detract from the effectiveness of specific development projects within the sector. Training is an area in which AID has particular expertise and which is highly appreciated by GODR officials. The proposed project will continue AID's pre-eminence in the field and uphold the USAID's commitment to training as a priority.

D. Beneficiaries

The immediate beneficiaries of the agricultural sector training program will be approximately 130 employees of public sector agencies or universities. They will be selected on the basis of the priority disciplines established by SEA and their scholastic credentials. Once selected for scholarship assistance, participants will be required to sign an agreement with SEA to return to the employment of their parent organization for a stipulated number of years, which will depend on the length of graduate training. In addition to the 95 people trained abroad, approximately 35 more will be trained locally by GODR's continuing contribution to the Fund for Advanced Education over the Life of Project.

A secondary category of project beneficiaries will be the one thousand or more students who will receive instruction and direction from professors who have completed advanced degree training. Also, the knowledge gained through research conducted under the supervision of these returned professors constitutes an immeasurable benefit for agriculture and the nation.

The ultimate beneficiaries of the returned professionals' work will be the thousands of private sector agricultural producers who are affected by public sector and university programs. In many instances, farmers will be able to identify direct benefits of professional research and investigation, for example, higher yielding varieties of seeds or improved agronomic practices which reduce costs of inputs or labor. Farmers and society in general will also benefit from improved government agricultural programs, from the standpoint of more efficient use of resources invested in services or infrastructure, as well as improved decision making regarding overall agricultural policy.

E. Role of Women

The Agriculture Sector Training Project will contribute to the enhancement of the role of women in Dominican society through the advanced degree training of women employees of agricultural sector institutions. The employment of women in positions of responsibility is a well established practice of GODR. Within agricultural sector agencies and universities women have a notable presence among professional and administrative staff. The preparation of this project included the participation of three women out of the eight Dominican professionals who most contributed to project development activities. A representative sampling of the prospective scholarship recipients to be selected under this project indicated that 21 percent are women.

Throughout the design of the project, representatives of the GODR have given evidence of their concern that prospective beneficiaries should not be excluded from consideration for scholarship because of their family responsibilities. The GODR project team has recommended the continuation of the normal salary received by scholars before their selection so that families may accompany the scholarship recipient. This is especially important for women recipients since according to the social analysis almost all probably will have children. Similarly, the selection procedures are designed to eliminate sex-biased criteria and measures have been adopted which will provide equal treatment to scholars regardless of sex.

III. PROJECT DESCRIPTION

A. Goals and Purpose

The overall goal of this project is to increase productivity, employment and income of the Dominican farm population, as well as the general well-being of the population as a whole. The project will contribute to this goal by improving the technical and professional capabilities of personnel responsible for utilization of resources allocated to agricultural development and university teaching. Productivity, employment and income will increase as a result of more efficient and effective programs carried out by highly trained individuals employed in public institutions and universities. Evidence of project success will include increased yields of major crops which will be subject to research by the returned participants, increased numbers of farmers receiving the benefits agricultural research through more effective agricultural extension services, and increased numbers of graduates of advanced degree agricultural programs of domestic universities.

The project purpose is to (1) strengthen the research, teaching, extension and program implementation capabilities of agricultural sector institutions (public agencies and universities) by raising the professional capabilities of technical staff, researchers and professors, (2) establish a coordinated, ongoing system for determining graduate training requirements in the agricultural sector, and (3) finance training for priority agricultural sector needs on a continuing basis.

B. Project Activities

The principal project activities will be (1) assessments of human resource needs, (2) selection and placement of 130 candidates for training in priority disciplines in U.S., domestic and third country universities, and monitoring academic studies of all scholarship recipients, (3) establishment of the Fund for Advanced Education, and (4) strengthening agricultural faculties and conducting thesis research.

1. Human Resource Assessments (AID$52,000; GODR $50,000)

A major difficulty encountered in programming resources for the training of personnel has been the isolated and uncoordinated manner in which training has been conducted in the past. There has been insufficient attention to obtaining an overall vision of the scope of sector training needs. As a result, agricultural institutions and universities have not undertaken staff training in a manner directly related to national priorities.

To remedy this situation, ONAPLAN/DITC and the Office of University Coordination (OUC) of SEA jointly will perform systematic and

periodic assessments of (a) the supply of and demand for human resources in the agriculture sector (including universities), this is, the actual and projected levels of academic training and number of personnel needed at each level, and (b) the capacity of national universities to meet training needs in the future. The assessments will be performed annually by ONAPLAN/DITC with the collaboration of the Subsecretariat of Agriculture for Research, Extension and Training, with the participation of the Interuniversity Coordinating Committee, and with the assistance of an outside entity, e.g. an educational placement organization or a U.S. university which will be contracted for this purpose. The assessment will serve as the basis for an annual revision of the long-range training plan for the agricultural sector, which will identify the priority disciplines of study and elaborate a program to meet those training needs at U.S., domestic and third country universities. This will be accomplished by undertaking an annual inventory of the number and level of trained personnel working in the agricultural sector, including universities. ONAPLAN will obtain endorsement of the training plan by a commission composed of: the Subsecretariats of Agriculture for Sectoral Planning and for Research, Extension and Training; representatives of the four university faculties of agriculture; and representatives of public sector agricultural institutions. The training plan will then be submitted for approval of the Technical Secretary of the Presidency and it will serve as the basis for selecting candidates for scholarships provided by this project.

A draft training plan (Annex F), which will be formally submitted to AID upon the initiation of this project, identifies the need for the advanced degree off-shore training of 52 persons in various disciplines of agronomy and plant sciences, 21 in soil sciences; 12 in animal sciences; and 30 in other disciplines. In addition, 35 individuals will be provided scholarships for advanced degree study at domestic universities in agricultural economics and rural sociology. (See Technical Analysis.)

The inputs required for implementing this activity consist of: an additional four-person professional staff of DITC, two person-months of technical assistance provided intermittently over the first two years of the project; and incidental expenditures associated with conducting surveys of human resource needs.

2. Selection and Placement of Participants (AID $4,893,000; GODR $2,542,000)

Candidates will be selected from among the approximately 1,500 university level employees of public sector agencies and universities. Notice of the availability of scholarships will be published in institutional bulletins and newsletters. Persons interested in advanced degree training will apply for scholarship assistance through their sponsoring institution by submitting their request to ONAPLAN/DITC

with supporting documentation. This will include: an endorsement of the request by the individual's sponsoring institution and academic records.

Scholarship applicants will be screened by a selection committee composed of 4 permanent members:

- the Director of ONAPLAN as chairperson;
- a representative of one of the following colleges of agriculture: ISA, UASD, UCE and UNPHU, who will participate on a rotating basis;
- The Secretariat of Agriculture; and
- AID

In addition, the committee will include a representative of each candidate's sponsoring institution (IAD, INESPRE, INDRHI, BAGRICOLA, CEA, IDECOOP, DGF, and STP) who will participate on a rotating basis.

The selection committee will make a preliminary selection of candidates on the basis of the priority of the proposed discipline of study, as established in the overall national training plan, academic credentials, and when appropriate the attainment of a passing score on the Level Three Elementary English exam given by the Dominican-American Cultural Institute or a similar examination of language aptitude. A screening of academic credentials will also be done by a representative of the placement organization prior to the meeting of the selection committee, and a recommendation will be made as to each person's suitability for the proposed graduate study. (Detailed criteria for selection are contained in the Technical Analysis.)

The best qualified applicants are then informed that they are scholarship candidates. They will become participants upon (1) receiving notice from the placement organization that the results of their Graduate Record Exam (GRE) or similar academic exam are sufficient to gain admittance to a graduate program, and (2) if English is required for the graduate program, candidates must attain the minimal level of English proficiency required for admittance into their proposed university program.

a. In-Country Language Training

Once scholarship candidates are selected, they will be enrolled in an intensive English language course at a qualified local center of instruction, and will pursue full-time language study until attaining a TOEFL score at the level required for entry in their prospective U.S. university of enrollment. Candidates who are unable to attain the minimum score required for admittance in U.S. universities

will be considered for a scholarship to attend graduate training at universities in Spanish speaking countries. Alternatively, at the discretion of the selection panel, when circumstances indicate that the required training can only be obtained at an institution in the United States, the selected candidate may be replaced by another with the necessary language aptitude.

Tuition for language classes will be financed by this AID loan at a cost of approximately $12,000 per 20 week course for 12 students. TSP will contract with a center of language instruction on the basis of competitive proposals from qualified and interested institutions. Language classes will be scheduled sufficiently in advance of the expected departure dates to allow all candidates to attain the minimum TOEFL proficiency before departure. Hence, it is expected that the time devoted to language instruction in the U.S. will be limited to a maximum of one month and only if so required by the university in which the participant is placed. The placement organization will be responsible for verifying the minimum level of language proficiency required by each university in advance of the participants' placement and departure such that no participant will spend more than one month in language training in the U.S. Moreover, the placement organization will be instructed to arrange for English training as part of the prerequisite course work that all participants at the M.S. level will take. That is, since virtually all M.S. level participants are expected to need one semester of prerequisite course work, this semester will serve a dual purpose: language and academic training.

b. Placement

ONAPLAN will be responsible for scheduling on a bi-annual basis a review of the scholarship requests and the establishment of a timetable for each candidate, which will assure the timely initiation of language studies and academic training in the United States. The placement organization contracted for the project will: assist ONAPLAN in the scheduling of examinations required for the candidates' acceptance in U.S. graduate schools and local language training institutions; manage their admission into U.S. universities; and administer funds for candidates' support payments while in the United States. The placement organization would also assist in any special arrangements for specific training that may be required before a candidate's admission into a degree program. Other short-term assistance to be provided by the placement organization to ONAPLAN in conjunction with participant selection and placement will include: assistance in reviewing academic credentials of candidates and advising as to their suitability for graduate level study; assistance concerning administration and processing of participant selection; presentation of examinations of academic aptitude, specification of academic programs requested for participants; and other details necessary for effective participant selection and placement.

Upon final designation of participants, the scheduling of their departure will be managed by ONAPLAN in conjunction with the sponsoring institutions. Groups of participants will depart approximately every six months begining in January 1984, for those who already have achieved the minimum language capability. Prior to departure, the placement organization will provide a 2-3 day orientation to each group of participants to brief them on the role of the placement organization, participants' responsibilities and management of academic and personal affairs.

Most participants are expected to be enrolled in graduate programs of U.S. Land Grant Universities, while some, probably not more than ten percent of the participants, will be placed in Mexico, Costa Rica, Colombia and/or Venezuela. The decision as to the country of placement will be made on the basis of the strength of alternative university offerings, the particular need for a specific program, the recommendation of ONAPLAN and the placement organization, and individual capabilities and preferences.

The typical M.S. program will encompass 28 months of study, consisting of four months of prerequisite course work in conjunction with language training if required by the university, and 24 months of M.S. course work including thesis. Approximately one-half of the participants are expected to return to the Dominican Republic for two to six months to conduct thesis research. They will receive the direct support of ONAPLAN in arranging for the timely collaboration of sponsoring institutions in carrying out the participants' research. Participants who are unable to return to the Dominican Republic to conduct thesis research, nonetheless, will be expected to select a research topic which has a direct application to Dominican agriculture.

Participants who are enrolled in Ph.D. programs are expected to terminate their studies and dissertation in a 36-month period. Most of them will not need to take language training, but may need some prerequisite courses. They, too, generally will return to the Dominican Republic to conduct their research on a problem relevant to Dominican agriculture. Up to six months of the 36-month program may be spent doing in-country research, and may involve up to three round trips for the participants plus one for the academic advisor. Funds for local costs, travel and per diem, incurred in conjunction with in-country research will be disbursed from the Fund for Advanced Education, while payment of allowable costs incurred in the U.S. will be administered by the placement organization.

Upon the completion of long-term academic training, the returned participants will be required to work for their sponsoring institution during a period equivalent to twice the duration of their academic training. If returned participants fail to fulfill this work requirement, they will be obliged to repay the amount spent on their university tuition in proportion to the unfulfilled work commitment. All

scholarship recipients will be required to sign an agreement to this effect. A second agreement will be signed by SEA and sponsoring institutions committing the latter to employ returned participants in positions relevant to their areas of academic preparation. Both agreements will be submitted for approval as a condition precedent to disbursement.

The inputs required for implementing this activity consist of: the staff of DITC; services of an educational placement organization to manage the admission of participants in graduate schools, and to administer the participants educational expeditures and support payments; and direct and indirect educational expenditures

3. Fund for Advanced Education (AID 0; GODR $350,000)

In recognizing that AID-financed off-shore training can meet only part of the long-term advanced training needs in agriculture, the GODR will make a permanent commitment to the continuous financing of training in agricultural fields. A Fund for Advanced Education will be established through annual budgetary allotments to TSP, amounting to $50,000 each year of the project so that a level of $350,000 is reached during the life of the project. After project termination GODR will continue the allotment, which constitutes a continuing commitment to long-term agricultural sector training programs.

The fund will be used to finance thesis research undertaken locally and graduate training at domestic universities in agricultural economics and rural sociology, the only two advanced degree programs currently offered in disciplines related to agriculture. Candidates for these scholarships will be selected in the same manner as candidates for off-shore training, except for the need to meet a language requirement. DITC will be responsible for administering the tuition and related educational expenditures, through existing mechanisms of ONAPLAN.

By the fifth year of the project, it is expected that two or more additional graduate programs in agricultural sciences will be initiated at domestic universities. The Fund will finance scholarships for these programs using the same participant selection procedures. In addition, DITC will explore the possibility of using the Fund to finance costs involved in developing and initiating these graduate programs. The plans elaborated under the Agricultural Faculty Development Component will serve as the basis for identifying the financial needs of new graduate programs. University personnel who have returned from graduate training during years one through four of the project will be involved in the initiation of the new graduate programs. It is estimated that RD$84,000 will be available for this purpose.

The average cost of advanced training at domestic universities for a two-year Master of Science program is approximately $7,000 per year. Approximately 35 scholarships at domestic universities

will be financed by the fund over the life of the project at an estimated cost of RD$227,000. In addition, the Fund will finance the local costs estimated at RD$39,000 associated with conducting in-country thesis research by about 50 participants from U.S. universities and 35 from domestic universities.

4. Research and Agricultural Faculty Development (AID $55,000; GODR $54,000)

The body of research and stock of investigation on problems which constrain the performance of the agircultural sector is woefully insufficient, and when conducted it is often focussed on lesser priority issues. To partially remedy this situation, TSP will establish a policy of requiring thesis research on problems of Dominican agriculture from all recipients of scholarships. In certain cases, the policy will have to be relaxed when the foreign university involved is unable to comply with the stipulation. However, for approximately 50 percent of the scholarships financed by this project, recipients will return to the Dominican Republic for a period during their advanced study to conduct research on Dominican agricultural problems.

ONAPLAN, with the assistance of the Subsecretariat of Research, Extension and Training and the Interuniversity Coordinating Committee, will prepare and continuously update a comprehensive listing of priority topics for investigation which will be provided to scholarship recipients. They will be expected to obtain the collaboration of their major advisor in electing a research topic from among these priorities. The participants will elicit the opinion of their sponsoring institutions as to the most appropriate topic of investigation and will formulate a thesis proposal on a mutually agreed topic. Once the proposal is accepted by the participant's major advisor, the participant and advisor will be authorized to travel to the Dominican Republic to begin thesis research. The project will finance travel and per diem of the participant and the advisor. Expenditures will also be authorized for each participant to defray direct costs incurred in conducting the investigation. ONAPLAN will be responsible for monitoring each participant's work, assisting in obtaining the collaboration of appropiate Dominican entities when required, and approving disbursement of funds for allowable research costs.

In addition, SEA/OUC will serve as the repository for the thesis and research documents produced under this scholarship program, and will continuosly re-evaluate the priority topics for future investigation. OUC will arrange for the publishing of the results of research conducted by participants. The Subsecretariat of Research, Extension and Training has a facility for publishing and mecahanisms for distribution of research results, to extensionists and through training programs conducted by the Subsecretariat. In conjunction with project evaluations, ONAPLAN will assess the degree to which thesis research is being utilized by participants' sponsoring institutions.

Beyond their contributions to the stock of research available to government agencies and universities, returned participates will help establish graduate programs in the agricultural faculties of Dominican universities. Through its leadership of the Interuniversity Coordinating Committee, SEA/OUC will assist faculties of agronomy and animal science to develop graduate programs commensurate with the academic specialization of the returned participants, and within the context of an overall plan for the strengthening and distributing of specializations among the faculties. OUC will receive four person-months of technical assistance from a U S. university or a private consultant for educational planning in elaborating an overall plan for the development of faculties of agronomy and animal sciences. The plan will identify the human, material and financial requirements for establishing graduate programs in each of the four faculties. By the fourth year of the project, the Interuniversity Coordinating Committee will initiate the faculty development plans with the colaboration of returned participants reintegrated in their university positions.

Project inputs for this activity consist of four months of technical assistance to OUC, staff of DITC, and funds for university strengthening.

5. Project outputs

The primary project outputs are: 205 person-years of graduate academic training in various U.S. or Third Country universities for 95 individuals, of which 80 will receive M.S. degrees and 15 will receive Ph.D.; 70 person-years of graduate study in various Dominican universities for 35 individuals who will receive M.S. degrees; and up to 130 theses, dissertations or research documents dealing with problems of Dominican agriculture. In addition, the project will: develop plans for establishing new graduate programs in Dominican universities; establish a Fund for Advanced Education, which will provide financing on a continuous basis for scholarship to pursue advanced degree studies at Dominican universities in fields related to agriculture; and will institutionalize a mechanism to assess sector-wide training needs, select candidates to pursue priority disciplines of study, and administer the placement of scholarship recipients in domestic and foreign universities. The project will also promote the effective utilization of the services of returned participants through agreements with agricultural sector agencies, which require the employment of returned participants in positions relevant to their disciplines of training.

The project will be carried out over seven years with participants beginning studies during years 1 through 5 of the project and returning during years 3 through 7. The training activity will continue at a reduced level beyond the seventh year with funding provided annually by ONAPLAN.

The training schedule is as follows:

Category of Participant	Project Year 1	2	3	4	5	6	7	Total
	Number of Participants							
Off-Shore (Ph.D.)	3	5	7	-	-	-	-	15
(M.S.)	12	20	15	25	8	-	-	80
Domestic	5	5	5	5	5	5	5	35
	Person/Year of Study							
Off-Shore (Ph.D.)	3	8	15	12	7	-	-	45
(M.S.)	12	32	35	40	33	8	-	160
Domestic (M.S.)	10	10	10	10	10	10	10	70
Total Years	25	50	60	62	50	18	10	275

In sum, the project will substantially increase the resources available to the GODR and universities for advanced training. It will also introduce new and standardized procedures for the selection and placement of scholarship recipients. An institutional capability to manage effectively an overseas advanced training program will be developed in TSP. With the continuous support of GODR budget authorities, the Fund for Advanced Education will make a significant contribution to the development of human resources for the agricultural sector.

Upon project completion, agricultural sector institutions will be considerably reinforced in their professional capability and there will be an increased stock of research on problems of Dominican agriculture. The participants who return to their university positions will enable the agricultural faculties to establish graduate programs in agricultural sciences at domestic universities. Furthermore, through their experiences with conducting investigation under the standards required for obtaining a graduate degree, participants will substantially augment the stock of high quality university research on problems facing the Dominican agricultural sector.

The training provided under this project and the initiation of an overall plan for the strengthening of faculties of agronomy will constitute a substantial improvement in advanced agricultural education in the Dominican Republic.

Project Inputs

Project inputs consist of financial resources for tuition and direct educational expenditures, language training, subsistence allowances for participants undergoing training, travel, participants' salaries, contract services of an academic placement organization, operational expenditures for project management, and short-term technical assistance.

The staff of ONAPLAN/DITC will be responsible for carrying out all project activities. Three additional professionals will be added to the existing DITC staff and one additional bilingual secretary will be hired. Additional office space and some office equipment and furniture will be procured by TSP with counterpart funds.

Technical services from a U.S. university or private educational placement organization will be contracted to provide six months of intermittent short-term assistance to DITC and OUC in assessing sector-wide human resource needs, selecting participants, administration of examinations for placement, identifying priority topics of research, and developing plans for graduate programs at domestic universities in disciplines appropiate to national needs and expanding university capabilities.

The services of an educational placement organization will be contracted by USAID to assist in all aspects of managing the placement of participants in U.S. universities; administering the payment of educational costs and expenditures related to participants support while in the United States; and monitoring the academic progress of participants.

C. Financial Plan

The total cost of the project over seven years is $8.0 million, of which $5.0 million is AID loan funds and $3.0 million is counterpart funds.

The overall financial plan is presented in Tables 1 and 2 as follows:

TABLE 1
SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(US $000)

SOURCE	AID FX	AID LC	GODR LC	TOTAL
Domestic Training:				
English		80	-	80
M.S. Scholarships			243	243
Off-Shore Training:				
Direct Educational Expenditures	1,441			1,441
Maintenance Allowance and Fees	2,367			2,367
Travel (including Thesis Travel)	177		196	373
Thesis Research Costs			24	24
Participant Salaries			1,989	1,989
Technical Assistance/Evaluation	95			95
Program Management			301	301
Domestic University Strengthening			84	84
Inflation Factor	742	12	139	893
Contingency	85	1	24	110
TOTAL	4,907	93	3,000	8,000

TABLE 2

PROJECTION OF EXPENDITURES BY PROJECT YEAR

(US$ 000)

Year	A.I.D.	GODR	TOTAL
1983	0	0	0
1984	340	250	590
1985	837	514	1,351
1986	980	620	1,600
1987	1,019	645	1,664
1988	803	533	1,336
1989	166	182	348
1990	15	93	108
Inflation Factor	754	139	893
Contingency	86	24	110
TOTAL	5,000	3,000	8,000

The AID loan will finance all educational expenditures, maintenance allowances for the participant only, administrative fees charged by the educational placement service, educational travel of the participant and his major advisor to the Dominican Republic to conduct thesis research, short-term technical assistance for the project management office, language training and inflation/contingency costs. GODR counterpart funds will finance travel of participants to the university, salaries, scholarships for participants attending domestic universites, and costs of operating the project management office.

The average cost of participant training at U.S. universities is $41,235 for M.S. level training and $51,075 for a Ph.D. (See Annex H. for details.)

D. Implementation Plan.

Initially, three principal entities will be involved in the execution of this project. They are TSP, SEA and USAID. At a later date , following the selection and placement of an initial group of participants now planned for January 1984, AID will issue a Request for Proposal (RFP) inviting bids from education organizations interested in managing the placement of participants for this project.

The collaborating institutions in the Dominican Republic will be the government agencies in the agricultural sector and the faculties of agriculture of the four major universities. The AID Office of International Training (S&T/IT), and the U.S. Department of Agriculture (USDA) will arrange the September placements and will administer the financial and other support for the first group of participants until a placement organization has been contracted.

1. Management and Coordination Responsibilites

ONAPLAN/DITC will manage the project and coordinate the activities of the agricultural sector agencies and universities. Before the first group of participants is selected, ONAPLAN in conjunction with OUC when appropriate will:

a. Prepare an assessment of the training needs of the agricultural sector. This assessment will serve as the basis for assigning training priorities.

b. Prepare a detailed training plan that takes into consideration the training needs of the collaborating organizations.

c. Develop participant selection criteria. A copy of the criteria developed for the Natural Resources Management Project, which will constitute the basis for criteria under this project is presented in the Technical Analysis.

d. Assist prospective candidates to apply for the Graduate Record Examination (GRE), and the Test of English as a Foreign Language (TOEFL).

e. Convene a selection committee composed, in part, of representatives of the collaborating organizations. The committee will meet in July and March of each year to select the participants for the January and September semesters, respectively. The expected composition of the committee is included in Annex F.

f. Facilitate the documentation and placement of the initial group of participants by providing to USAID as soon as possible after selection, names of the participants, their biographic data, academic transcripts, a comprehensive statement of the training being requested and, at the committee's discretion, names of several universities suggested to provide the training. Prior to departure, ONAPLAN will provide USAID a copy of participants' post-training agreement with their sponsoring organization.

g. Ensure that those participants requiring additional language training will be released from their employment to attend an intensive in-country English course at project expense. The course will be designed to raise the participants TOEFL score from an elementary level as required for selection to the minimum required by his U.S. training institution, usually, between 525 and 550.

h. Take part in the selection of and, after the contract has been signed, oversee the activities of the education placement organization.

i. Monitor the participants' progress while in training and during the period of their commitment to their sponsoring organization after they have returned from training.

OUC will carry out other activities under this project, which will include:

a. Developing a plan to strengthen the programs of the faculties of agriculture of the collaborating universities and assisting in the execution of the plan.

b. Preparing a plan outlining research priorities and obtaining its ratification by the appropriate authorities.

c. Obtaining the support of the agricultural sector organizations for in-country thesis research on priority problems by the scholarship recipients, and arranging for the publication and distribution of the research conducted by participants.

The main contributions of ONAPLAN to this project will be:

a. Fulfilling the Conditions Precedent to AID disbursement.

b. Monitoring the performance of the placement organization.

c. Preparing the documentation required by AID for the disbursement of loan funds.

USAID and S&T/IT will be responsible for placing participants in the initial stages of this project. S&T/IT will channel funds to USAID to provide for participants' training and support. S&T/IT will monitor the participants progress and send reports to USAID.

After its selection, the placement organization will assume the responsibility for placing all new participants and providing for their training and support. Arrangements will be made, where possible, to turn over to the organization, the responsibility for those project participants already in the U.S. Since the processing of the initial group of participants under this project will add considerably to the workload of the USAID Training Office, the Scope of Work for the RFP will ensure that the major part of the workload associated with participants' processing will be assumed by the contractor.

The main responsibilities of USAID in the implementation of this project are related to the procurement of both the placement organization and the technical assistance required for DITC and OUC. An effort will be made to obtain both services from the same contractor through AID's normal competitive procedures, with the placement activities to begin before the advisory services. As a temporary measure, in the event that one or more groups of participants are selected before the placement organization has been contracted, and to ensure that there are no delays in the placement process, USAID may request the S&T/IT to provide (1) an Admissions Officer or Registrar to assist the selection committee review the applicants academic transcripts and qualifications for further education and (2) a Training Officer to help the USAID Training Office prepare the PIO/Ps and other documents.

E. Procurement

The major procurement action for this project involves obtaining the services of an educational placement organization to assume the responsibility for placing and supporting participants enrolled in U.S. and third country universities, and to provide technical assistance to the project management office -- the Department of International Technical Cooperation -- within ONAPLAN and the Office of University Coordination of SEA in conducting human resource assessments and in developing plans for graduate programs in the faculties of agriculture of domestic universities. Organizations interested in this contract could include LASPAU, IIE, the Academy for Educational Development and one or more universities active in the participant placement field.

Given the lack of experience within ONAPLAN regarding AID procurement procedures, it is recommended that USAID carry out the procurement and contracting for the placement organization. The possibility of establishing the capability within a Dominican institution to undertake such procurement was thoroughly explored in the course of project development. It was concluded that SEA's experience with contracting LASPAU for placement services was not relevant since the direct contract mode was followed rather than competitive procurement procedures. Moreover, it became evident that no other institution in the agricultural sector had the requisite experience, and therefore the possibility of establishing this procurement capability would be extremely doubtful.

The option of utilizing a local private sector firm to perform the placement services was also considered. In the opinion of several experts, the only possible candidate for such services is the Foundation for Educational Credit, however, it too has not yet actually performed university placements, and therefore would not be capable of handling the placements for this project.

Furthermore, the procurement action in the case of this project will be a one-time only procedure, which does not lend itself to an institution building exercise. Requiring the GODR to carry out the procurement, in accordance with AID regulations would entail continuous involvement by AID personnel throughout the contracting process and would contribute little to improving the procurement capability of the project management office. Therefore as a practical measure and for expediency of implementation it is recommended that USAID carry out the procurement and contracting of the services of an educational placement service.

The schedule of major events in the implementation of the project is as follows:

Event	Date	
Project Authorization	May	1983
Signing of Loan Agreement	June	"
Selection of Ph.D. Candidates 1/	June	"
Fulfillment of Conditions Precedent	July	"
Procurement of Advisory and Placement Organization	July	"
Selection of First Regular Group of Participants	July	"
Placement of First Group in Language Training in the Dominican Republic	July	"
Placement of First Ph.D. Participants in U.S. Universities	Sept	"
Presentation of Priority Training Needs for 1984	Nov	1983
Selection of Second Group of Participants	Jan	1984
Placement of Second Group in Language Training in the Dominican Republic	Jan	"
Placement of the First Group of Participants in U.S. Universities	Jan	"
Presentation of Progress Report on First Group of Ph.D. participants	Feb	"
Presentation of Plan for Priority Thesis Research	Mar	"
Presentation of Plan for University Development	Jun	"
Selection of Third Group of Participants	Jul	"
Placement of Third Group in Language Training in the Dominican Republic	Jul	"
Placement of the Second Group in U.S. Universities	Sep	"
Ratification of Plan for University Development	Sep	"
Thesis Research begins in Dominican Republic for First Group of Participants	Jun	1985
Continuation of Selection, Placement and Thesis Research Activities Following Selection and Placement Schedule Indicated Above	1985/1987	
Initiation of University Development Plan	Sep	1985
Mid-term Evaluation of Project	Jun	1986
Final Selection of Participants	Jul	"
Placement of Final Group of Participant	Jan	1987
Return of Last Participants	Jun	1989
Final Evaluation	Jun	1990

1/ An effort will be made to select an initial group of Ph.D. candidates immediately after the Loan Agreement is signed. Since these candidates should not require English language training, it is possible that they could be placed in training starting in September 1983.

F. Monitoring Plan

Responsibility for the day-to-day monitoring of this project will be shared by the USAID Project Officer and Training Officer. The Project Officer's tasks will be to assist the GODR Project Director in ONAPLAN/DITC to fulfill the conditions precedent, obtain the services of an educational placement organization and obtain technical assistance. Pending the selection of the placement organization, the USAID Training Officer will serve as an advisor to the participant selection committee; process the documentation of those participants who will be placed by an AID S&T/IT contractor and, in conjunction with the Project Officer, monitor the performance of the placement organization and the participants progress.

Implementation of the project will entail an additional workload on the USAID staff, principally in participant selection, processing, in-country language training and monitoring of participants in training. USAID's participation as an advisor to the selection committee implies that USAID will pay considerable attention to enforcement of the selection criteria and that the Training Officer or an S&T/IT procured academic credentials analyst will review candidates transcripts and other credentials prior to each scheduled meeting of the Selection Committee.

Before the education placement organization can assume these duties, one or two groups of participants may be selected and the first group may actually depart for training. It is estimated that this could require a total of six person-weeks of USAID and S&T/IT provided staff. However, after the initial start-up period is past and the placement organization has assumed responsibility for the above mentioned activities, the staff time required of USAID and other personnel should diminish. Hence, it is not anticipated that permanent additional staff will be required for the long-range implementation of this project.

Although this project will contribute to the overall USAID workload, new USAID procedures are being instituted to ensure the timely performance of various implementing actions related to this and other USAID projects.

G. Evaluation Plan

Evaluations of this project will be conducted at several levels during the implementation phase and an impact evaluation will be conducted upon the return of all partcipants. The first level involves the continuous evaluation of the performance of the participants by DITC. The USAID Training Office will assist in this activity by insuring that progress reports for each participant are available in a timely manner. Participants not making satisfactory progress in some cases may be transferred to a different university or, if it is determined by their academic advisor that they are unable to achieve their academic

objectives may be removed from the scholarship program. DITC will closely scrutinize the efforts of the placement organization in dealing with problem cases and it will require that failing or substandard participants not be permitted to remain in training.

A second level of evaluation, which will be undertaken by DITC, will review the degree of compliance of agricultural sector institutions with the stipulations in the agreements signed with the Secretariat and the participants. Since the USAID Training Office will be monitoring the participants utilization of training during the period of their commitment to the GODR, the Training Office may provide useful information in this matter. The evaluation will focus specifically on the degree to which the returned participants are assigned to positions commensurate with their training, on the utility of the research undertaken by the participants, and on whether research results are being utilized by agricultural sector institutions.

The major evaluation of the project will involve an assessment of the accomplishments of the participants several years after their return from training and of the output of the university programs strengthened under the project. This evaluation will also be conducted by DITC with short-term technical assistance contracted by the project and participant follow-up information provided by USAID. It will be conducted at the end of the project to allow the fullest development of the results of the participants' work and the Dominican Republic universities' programs. The evaluators will attempt to assess the significance of the overall accomplishment of the project and its impact on the performance of the Dominican agricultural sector.

H. Conditions and Covenants

1. Negotiation Status

Representatives of SEA and the Technical Secretariat of the Presidency (STP) have worked closely with the Mission staff on the design of the project. The GODR will be the borrower and will pass the program funds to the executing agency, TSP. There are no remaining issues which will require substantive negotiation. (Representatives of SEA and STP will be meeting regularly during project implementation to discuss the adequacy of the resources available in the Fund for Advanced Education and will explore the possibility of seeking additional resources for in-country training from sources outside the project such as other donor institutions and the PL-480 Title I Program). Once the project is authorized, the loan agreement will be developed and negotiated with the GODR. The loan agreement will then be reviewed and approved by the legal advisor to the President. The agreements will then be signed shortly after.

2. Conditions Precedent

a) Initial Conditions

Initial conditions precedent to any disbursement under the project will include the usual A.I.D. legal requirements, including a statement by a recognized legal entity that the project is legally binding, and that the recipients of the loan are responsible and legally bound to all requirements under the Project Agreement. In addition, the GODR will be required to name a project coordinator, acceptable to A.I.D., who can devote adequate time and effort necessary for the successful implementation of this project. Once these conditions are met, the procurement of the placement services and the TA may begin.

The initial conditions precedent to disbursement of Loan funds under the project require the submission of an operational manual which will: (1) establish the Commission responsible for preparing and approving the annual plan for priority training in the agricultural sector; (2) establish a Committee which will function as the selection panel for scholarship candidates; (3) establish the selection criteria which will be applied to all candidates; (4) establish procedures which define the process of candidate selection and the responsibilities and authority of all parties involved in the selection process; (5) propose binding agreements which spell out the responsibilities of (i) scholarship recipients and their sponsoring institutions, and (ii) the Technical Secretariat of the Presidency and the sponsoring institutions, and (6) describe the administrative procedures to be followed in the expenditure of the Fund for Advanced Education. It has been agreed that the number of participants enrolled in non- U.S. off-shore educational institutions will be limited to 10 percent.

The initial conditions precedent to disbursement of loan funds for training will also require evidence of the assignment of adequate staff in ONAPLAN/DITC to support the training activities. Prior to any disbursement of loan funds for training activities under the project, ONAPLAN/TSP will also be required to show evidence of the establishment of a Fund for Advanced Education within the GODR to support the activities planned under the project. ONAPLAN/TSP will be required to have a separate account for this fund.

Also prior to the disbursement of any project funds for participant training activities the GODR will submit an operational plan for the first training period of the project (from approximately January 1984 to July 1984). This plan will describe in detail the anticipated training activities during this period. This plan will identify sponsoring institutions and include the number of participants, dates of initiation, duration and academic area of study for each participant.

b) Conditions to Subsequent Disbursement of Loan Funds

Disbursement of loan funds for training activities after the first training period and as appropriate for each subsequent training period will be contingent upon the completion of a detailed evaluation report on the training and technical assistance activities being carried out including a report on the effectiveness of the inputs provided. (The exact scope and content of the evaluation will be determined as the project is implemented). In addition, prior to A.I.D. commitment of loan funds, a detailed annual training plan endorsed by the national training commission will be submitted annually to AID which will outline the activities planned for each subsequent project year and will include an assessment of the human resource needs in the agriculture sector and will identify the priority disciplines of study and elaborate a program to meet those needs at U.S., domestic and third country universities. A mid-project evaluation will be conducted in the fourth project year to review the development of in-country training programs and the adequacy of the Fund for Advanced Education to meet the in-country training needs.

3. Covenants

The GODR will covenant to assure adequate GODR support to meet the in-country training needs contemplated under the Fund for Advanced Education activity during the life of the project.

IV. PROJECT ANALYSES

A. Technical Analysis

1. Introduction

Over recent years numerous studies have been conducted to assess the need for advanced training of personnel employed in Agricultural Sector institutions. These include studies conducted by SEA in 1979, by the Latin American Scholarship Program for American Universities in 1981, by SEA with the assistance of a contracted U.S. trained specialist in 1982, and by a Texas A&M University team of specialists contracted in 1982. The recommendations and conclusions of these studies are reflected in the design of this project.

2. Discussion

The technical analysis addresses the following aspects of the project: (1) assessment of the training needs for the agricultural sector by level of training and discipline; (2) complementarity with other ongoing and planned training projects; (3) design of in-country language training and thesis research; (4) determination of selection criteria; and (5) the techniques used in selection and placement by contracted technical assistance. The Texas A&M University Report of October 1982 contains a detailed examination of the project and constitutes the substantive basis for this analysis.

To assess the present levels of training of professional staff, future personnel needs by level of training and discipline, and projected deficts over the next five years, a TAMU team surveyed SEA, other public sector institutions and the four universities with agricultural curricula. The survey effectively established the levels of expertise and the deficits anticipated by disciplines. Using this data, OUC of SEA prepared an assessment of priority training areas, recommending approximately 50 percent for agronomy and plant science, 25 percent for soil science and another 25 percent for other fields including animal science. Eighteen students are currently enrolled in the M.S. programs at UQMM/ISA in agricultural economics and rural sociology. They were deducted from the total needs to arrive at the following figures.

Priority Training Areas and Degree Levels

Priority Area	Number of students M.S.	Ph.D.
Soils	13	3
Irrigation and Drainage	4	1
Agricultural Engineering	6	-
Agricultural Education and Extension	7	2
Administration and Rural Development	6	1
Planning	3	-
Plant Protection	11	2
Agronomy	31	8
Animal Sciences	10	1
Veterinary Medicine	1	-
Forestry	2	-
Agribusiness	3	-
Total	97	18

This assesment and the resulting priorities for overseas training by OUC take into account training under projects funded by AID, the Interamerican Development Bank and other donors, as well as the capacity of Dominican university programs. Thus the training in this sector training project does not duplicate other on going or planned training in the Dominican Republic or abroad. By complementing other off-shore training and new or continuing domestic programs, such as the master's program in public administration at the UCMM the sector training approach allows the best use of off-shore training funds. (See Annex F, Table 2).

Selection criteria used for this project are based upon USAID's past experience with graduate level training in the U.S., the recommendations of the TAMU team, and scholarship selection criteria of SEA. These criteria cover the major training considerations for AID projects, according to S&T/IT. Establishment of these selection requirements will be a condition precedent to disbursement of loan funds.

The proposed selection criteria are as follows:

1. The candidate will be a full-time employee of one of the participating agricultural sector institutions.

2. The candidate will have a minimum of two years experience in an area directly related to the area of proposed training.

3. For training in an English speaking country, the candidate will present proof of English language proficiency.

4. The candidate's request for a scholarship must fall within a designated priority field of study established in the annual training plan prepared by ONAPLAN/DITC.

5. The candidate must be a university graduate with an appropriate degree for the level and field of advanced study with a "B" average throughout his/her academic career. The candidate will present official university transcripts.

6. The candidate must be recommended by the director of the sponsoring institution.

7. The candidate must demonstrate the ability for graduate level study with appropriate technical and/or scientific courses related to the area of specialized training to be undertaken.

8. The candidate must be a citizen of the Dominican Republic an adult, with good health and must present three references, one from a professor, one character reference, and one professional reference.

9. The candidate must have the sponsorship and support of the institution recommending him/her, be able to continue working there in the same or higher ranking position following training, with the understanding that the training program will not be detrimental to his/her rank, longevity, salary, retirement and similar benefits.

Regarding criteria No. 3, English language proficiency, a TOEFL score of 525 or an equivalent score on a similar test, such as the ALIGU, will be accepted as proof of English language competency. This level will be attained through a language institute in the Dominican Republic prior to final selection and placement. Candidates demonstrating sufficient aptitude and basic knowledge of English will be trained to graduate study proficiency under the project, provided they meet other selection criteria. Candidates unable to attain graduate level proficiency in English, will be considered for third country training in a Spanish speaking country.

English Language instruction can be obtained through several local institutions. The largest of which is the Dominican-American Cultural Institute which can instruct upwards of 400 students with its staff of 25 instructors. Classes are normally scheduled for between one and three hours daily, which special intensive instruction can be arranged. The Institute also schedules the TOEFL exam on two occasions each year and administers the exam to several hundred students. Results of these examinations indicate that the level of instruction is good. Students with normal language aptitude commonly attain a proficiency that is sufficient for admittence in U.S. universities. Hence, there would appear to be no obstacles to obtaining language training for this project through local institutions.

Language testing, either TOEFL or ALIGU, will be administered in-country by either the principal technical assistance contractor or the contracted language institute. Other admissions tests such as the GRE will also be administered in the Dominican Republic according to international testing schedules. Testing will be accomplished well in advance of admission dates to facilitate selection and placement.

In addition to in-country language training, another aspect of project design which is a departure from normal training program is the conducting of thesis research in-country on topics relevant to agriculture sector problems. Over recent years a precedent has been established by the Secretariat of Agriculture for conducting thesis research on Dominican problems. Through SEA's agreements both formal and informal with U.S. universities which are training SEA personnel, the University of Florida and Ohio State University have assisted Dominican students in conducting thesis research in the Dominican Republic. Moreover, there are at least two other universities, (Kentucky and Nebraska) which currently are involved in supporting thesis research here in conjunction with work undertaken with university resources. The apparent willingness of U.S. universities to participate in thesis

research overseas will be encouraged under this project by arranging the placement of project participants in universities which are disposed to support overseas thesis research. The ample experience in this regard indicates that the concept is not only feasible but in the self-interest of both parties involved. Therefore there appear to be no major obstacles to realizing in-country thesis research in conjunction with the graduate studies financed by this project.

One other aspect of project design which has been examined from the standpoint of piror implementation experience concerns the method of placing participants in U.S. universities, and administration of their financial support. The three most common approaches are placement through: (1) the International Training Office of S&T/AID; (2) contracting with an educational placement organization and (3) contracting with a university or a university consortium. After consultations with personnel of S&T/AID it became evident that the most economical method of placement would be through either method (2) or (3). Therefore USAID in consultation with the GODR will use a Request for Proposal (RFP) procedure for the procurement of technical assistance. The technical assistance will include the following areas: (1) selection of candidates; (2) placement of candidates in U.S. universities; (3) testing of students in preparation for admission; and (4) evaluation of U.S. training. It is expected that upon project completion, DITC will have the capability to manage all aspects of participant training expected for the actual placement of participants and administration of their financing support. These two aspects of the training program do not lend themselves to management by an entity located outside the U.S. and therefore those functions will probably be contracted out in future training programs.

3. Conclusions

The major aspects of project design have been examined from the standpoint of feasibility and appropriateness for execution. The techniques involved in project execution do not require adoption of complex methods but rather, execution of systematic procedures in the assessment of training needs, selection of participants, supervision of participants academic programs, and procurement of language training and placement services. These actions pose no serious feasibility questions and therefore it is reasonable to expect that the project can be executed in an expedicious manner.

B. Social Soundness Analysis

1. Introduction

The social soundness analysis focuses on the following concerns: (1) the availability of qualified personnel willing to be trained abroad in the identified fields, (2) the experience of past recipients of overseas training, both during their training and

afterward, (3) the benefits derived from previous off-shore training, and (4) the direct and indirect beneficiaries of this training project. The USAID project file contains the in-depth study conducted by a Texas A&M University team in October 1982, from which this summary is taken.

2. Discussion

Approximately 1,500 employees of public sector agencies and universities who have university degrees form the pool of potential applicants for training at graduate levels under this project. A representative sample of this population was interviewed as part of the social soundness analysis. The majority expressed interest in receiving advanced degree training outside the Dominican Republic, provided that they received full scholarships. Most of the sample were under 35 years old, married, with children, and affected by recent salary cuts. Approximately 20 percent were women. With few exceptions, the interviewees cited financial constraints as their most pressing concern with studying abroad and they favored contractual arrangements for continued employment by the sponsoring agency or university in return for the training abroad. The TAMU team found no lack of motivation on the part of those interviewed, either to seek or compete for the scholarships and to complete their degrees if selected. It is the team's recommendation that full scholarships be provided for this program. In our view, a partial loan would create a financial hardship for most of the potential participants since a high percentage are married, have children, and undoubtedly have other financial obligations to their family, e.g., school fees for a brother or sister. Additionally, if a loan were part of the requirement, the number of qualified applicants from which to select would be considerably reduced and very likely would mostly be limited to single persons under 25, just graduated from a Dominican university.

The interviewer was impressed with the caliber of a number of interviewees who stated they were unable to accept a loan. In particular, ten potential Ph. D. candidates in the priority areas were interviewed. All had graduated from strong Masters programs in the U.S., Mexico (Chapingo) or Costa Rica (the University of Costa Rica and CATIE). None would be able to continue their studies if a loan were part of the program. In the team's opinion, to eliminate these ten potential candidates because of the loan requirement would be highly regrettable in that there are at present only 19 Ph.D.s recorded in the PID as working in the public university agricultural sector throughout the country.

Those interviewed who had previously received training abroad said they had few problems during their training. Several did have some trouble initially with classroom English in the United States and strongly urged adequate advanced training and a period of adjustment before beginning instruction. A few students had some financial troubles abroad, some related to delayed monthly allotments. Upon return to the Dominican Republic, most of those trained abroad received promotions, pay

increases, increased responsibility, and other recognition of their accomplishments, though those employed in the public sector had somewhat less rapid advancement.

Those interviewed felt they have made significant contributions to development of the agricultural sector since their return, which they attribute to their study overseas. Remarkably, over 95 percent of students sent abroad under AID financed projects have returned and are working in the Dominican Repuublic. Among benefits to the country as a whole are much improved instruction at the professional and bachelor's degree levels, greater ability to absorb and adopt innovations from abroad, higher quality research in the public sector and at universities, and better program design and implementation. Many recipients of overseas training in technical areas have been promoted to high administrative posts in the public sector, as well.

Beneficiaries of this project will fall principally in two groups. Primary beneficiaries will be the scholars themselves who receive graduate level training overseas, the vast majority in technical fields. Secondary beneficiaries will include those who receive instruction, either formal classroom work or indirectly as co-workers, from participants trained abroad, and also farmers who will benefit from improved extension services, seed varieties and methods of cultivation, and, it is hoped, greater employment and income resulting from increased productivity.

3. Conclusions

The project design takes into account the financial needs of prospective participants by assuring through formal agreements with sponsoring institutions that participants will receive salaries while in training and will be reincorporated in positions relevant to their training and with salaries commensurate with their qualifications. In return, participants will be required to work for the sponsoring institutions for a period equivalent to twice the duration of their training. Concerning English Language Training, the project is designed to reduce the incidence of failure stemming from a lack of language aptitude. Participants will receive language instruction in-country, under an intensive, four to five month program to ensure that they attain the level of proficien y required for admission into a U.S. university.

Aside from the employment, salary and language issues, there do not appear to be any major obstacles to obtaining the participation of well qualified professionals in this training project. Moreover, the project is designed to encourage the competitive selection of candidates for priority human resource needs, and to promote advancement on the basis of performance and personal initiative.

C. Financial Analysis

GODR is undertaking numerous programs in all sectors of the economy which have as their principal objective the acceleration of economic and social development of the population. Fiscal revenues for these programs are extremely limited owing to reduced price levels on products which earn foreign exchange. However, because of the high priority assigned to development programs, GODR is attempting to borrow significant amounts to finance priority development projects, among which is the Agricultural Sector Training Project. There is a growing appreciation for the valuable contribution that well trained personnel can make toward the overall success of development activities. Undertaking this project serves as demonstration of a commitment to improving the administration of programs in the agricultural sector and a recognition that having well trained human resources is a requirement for attaining development objectives.

The demand for this project has been demonstrated on a secondary plane by interest expressed by public and private sector authorities in the improvement of technical capabilities of personnel throughout the agricultural sector. Training at an advanced level has been obtained by hundreds of individuals in agricultural disciplines over the last decade, yet this is only a modest beginning. The need for advanced training is greater than ever, and the apparent willingness of agriculture sector personnel to undertake advanced training exceeds GODR capacity to provide training. However, this project is designed to satisfy a major part of the training demand, and at a reasonable cost.

One element of project design which will economize project funds is the utilization of in-country, private sector resources for English language training. To a lesser extent, those who will benefit from training will contribute private funds toward the achievement of an elementary level of language proficiency.

A second source of cost economy will be the contracting of a private sector organization to manage the placement of scholarship recipients in U.S. and third country universities. As explained in the technical analysis, cost savings might be realized through a contractor as opposed to standard charges of a U.S. government placement agency.

Other elements of project design reflect the least cost option available for the outputs that the project will produce. For some items, such as university tuition and salaries, there is little flexibility for negotiation of cost, hence the prevailing rates have been used for calculating project cost. In all instances the project budget reflects the minimum, realistic level of staff and periods of time required to achieve the outputs. Reducing the time devoted to studies, the administrative cost of placing participants, or the project management staff could seriously constrain the achievement of project outputs.

One issue of project design involving financial concerns which encountered considerable scrutiny was salary levels and their relationship to educational costs. It became apparent that, under the prevailing wage structure, requiring return participansts to repay the cost of their education would be virtually impossible, and that even repaying a portion would entail a major financial burden on the individual, not to mention creating a serious obstacle to their participation. The amortization of a $40,000 cost of an M.S. degree over 10 years at 10 percent interest would require monthly payments of $528.60. Even repayment of tuition and fees only ($10,850) would cost $143.38 monthly. Under those repayment schedules it became evident that prospective scholarship recipients would be unlikely to accept an opportunity to obtain an advanced degree.

A related issue concerning salary levels of personnel in the agricultural sector was examined to determine if there would be sufficient financial incentive for personnel to undertake advanced training. Considering that project participants are expected to prefer taking their families with them while in training, this represents a potential financial burden, because the project does not cover maintenance expenses for families. To reduce this potential burden, STP will ensure that participants receive a "scholarship salary" which is roughly the median salary currently earned by agriculture sector personnel -- $600 per month for persons with an Ingeniero Agrónomo degree and $750 per month for persons with an M.S. degree. This salary is estimated to be sufficient to allow participants to finance the travel and relocation of families as well as their maintenance at the university site.

Upon the participants' return, there is no explicit guarantee concerning salary levels. However, it is anticipated that they will be employed in the position they held before training, at a salary at least equal to their former salary. Also, experience has shown that persons who have obtained advanced training eventually move up the salary scale after their return and often undertake additional employment outside their principal occupation. The resulting salary increase ranges widely among different employees, but for university faculty it was about RD$350.00 per month while for public sector employees it may be only RD$100 owing to recent salary reductions in the public sector. Despite the potential risks and variability of incomes, it is believed that participants have a good prospect for increasing their incomes in compensation for having completed advanced university study.

1. Distribution of Project Costs

The AID loan will finance all educational expenditures, maintenance allowances for the particpant, administrative fees charged by the educational placement service, educational travel of the participant and advisor to the Dominican Republic to conduct theis research, short-term technical assistance for the project management office, in-country language instruction, inflation and contingency costs. GODR counterpart will finance travel of participants to the university, salaries, scholarships for participants attending domestic universities, local costs of in-country thesis research and costs of operating the project management office.

The average cost of participant training at U.S. universities is $40,235 for M.S. level training and $51,075 for a Ph.D. degree, at domestic universities the cost is $8,000 for an M.S. degree. Adding the cost of in-country language training, in-country thesis travel of participant and advisor, local thesis costs, salaries and participant travel to the U.S. brings the total cost to $63,285 for M.S. degrees and $80,825 for Ph.D. degrees. The relatively high cost of the M.S. training is due to the programming of four months of prerequisite course study in addition to the regular 24-month program. Also, the M.S. candidates will need four months of in-country language training, whereas the PhD. candidates will not need English training, as it is assumed they have sufficient English proficiency as a result of their M.S. training. (See Annex H).

The structure of the M.S. and Phd. programs and the cost estimates were done on the basis of recommendations by the TAMU team of consultants and by personnel from S&T/IT. The costs are believed to be representative of most Land Grant Universities in the U.S. where participants are expected to be placed. Assuming inflation in the U.S. will continue to decline somewhat in coming years, a seven percent inflation factor is included as of project year two.

2. Annual Financial Plan

The placement of participants in accordance with the project implementation plan will involve the expenditure of loan funds in years one through seven of the project. To simplify the calculations for years one through six the expenditure of funds for the 28 month M.S. program is shown in a period of 24 months; hence in the following table, year seven expenditures will involve only the cost of four months of the 28 month program for the last eight participants.

The annual project cost estimate is as follows:

AGRICULTURE SECTOR TRAINING PROJECT
COST PER YEAR
($000)

CATEGORY OF PARTICIPANT	PROJECT YEAR 1	2	3	4	5	6	7	TOTAL
	NUMBER OF PARTICIPANTS							
Off-Shore - Ph.D.	3	5	7	0	0	0	0	15
- M.S.	12	20	15	25	8	0	0	80
Domestic	5	5	5	5	5	5	5	35
COST PER PERSON PER YEAR:								
Off-Shore - Ph.D. (Loan)	18	16	17					51
- M.S. (Loan)	20	21						41
- Ph.D. (CP)	10	9	11					30
- M.S. (CP)	11	11						22
Domestic - M.S. (CP-Fund)	4	4						8
	TOTAL COST PER YEAR							
-TRAINING-								
LOAN FUNDED:								
Off-Shore - Ph.D.	55	138	258	196	119	0	0	766
- M.S.	245	658	723	823	684	166	0	3299
Sub-total	300	797	980	1019	803	166	0	4065
Inflation - 7% (Year 2)	0	56	142	229	250	67	0	744
Total Loan Funded	300	852	1122	1248	1053	233	0	4809
COUNTERPART FUNDED:								
Off-Shore - Ph.D.	29	75	145	119	79	0	0	446
- M.S.	128	350	388	438	369	91	0	1764
Domestic - M.S. (Fund)	18	38	38	38	38	38	38	243
Sub-total	174	462	570	595	486	128	38	2453
Inflation - 3% (Year 3)	0	0	17	36	45	14	6	119
Total Counterpart Funded	174	462	587	631	531	143	43	2572
TOTAL TRAINING COST	474	1315	1710	1879	1583	376	43	7380

AGRICULTURE SECTOR TRAINING PROJECT
COST PER YEAR
($000)

-OTHER COSTS-

	PROJECT YEAR 1	2	3	4	5	6	7	TOTAL
LOAN FUNDED:								
Technical Assistance	40	40	0	0	0	0	0	80
Evaluation	0	0	0	0	0	0	15	15
Sub-total	40	40	0	0	0	0	15	95
Inflation - 7% (Year 2)	0	3	0	0	0	0	8	10
Total Loan Funded	40	43	0	0	0	0	23	105
COUNTERPART FUNDED:								
Project Management	43	43	43	43	43	43	43	301
Inflation - 3% (Year 3)	0	0	1	3	4	5	7	20
Domestic University Strengthening*	33	10	7	8	5	11	13	84
Total Counterpart Funded	76	53	51	53	51	58	62	404
TOTAL OTHER COSTS	116	95	51	53	51	58	85	510
TOTAL TRAINING AND OTHER COSTS	590	1410	1761	1932	1635	435	128	7890
CONTINGENCY								110
TOTAL PROJECT COST								8000
TOTAL COSTS (EXCLUDING INFLATION & CONTINGENCY)	590	1351	1600	1664	1336	348	108	6997

*Contribution of $50 per year less costs of domestic M.S. degrees and off-shore M.S. and Ph.D. local thesis costs as detailed below:

Thesis Research Costs -								
Off-shore - Ph.D.	0	0	1	1	2	0	0	4
- M.S.	0	3	5	4	6	2	0	20
Domestic M.S.	0	3	3	3	3	3	3	15
Sub-total	0	6	8	8	11	5	3	39
Domestic M.S. - Tuition,etc	18	35	35	35	35	35	35	228
Total	18	41	43	43	46	40	38	266

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D. Economic Analysis

The standard method of economic analysis compares the discounted value of a benefit stream resulting from a project to the economic costs of the project. Project are designed to be the most cost efficient among the possible alternative mixtures of inputs, and presumably the level of the resulting output corresponds with the level at which the marginal value of output just exceeds the marginal cost of the last unit of input. This project has been examined from both economic and financial points of view, and the analysis concludes that the project is the least cost alternative and economically feasible. The optimal level of project outputs, i.e. number of trained professionals, was not examined since the available financial resources are insufficient to supply the apparent need for training. Potential benefits to society from investment in training could be much greater than the hypothesized returns presented in this analysis, hence an even larger investment in training may be economicaly justified.

The method of anlysis used in the case of this training project involves estimating the aggregate, discounted benefit of human resource training. Project benefits are the professional services of returned participants, which are valued in economic terms, i.e. at the apparent market value of the services of agricultural professionals in the world market. The market value of these services is measured by the salary levels that agricultural professionals would command at various levels of training. This analysis must ignore all the other variables which might influence the market value of services, e.g. natural ability, because of the complexity of factoring out these influences on salary levels. Hence, the benefit stream consists of the increased market value of services that comes about as a result of advanced degree training; the increment is measured by the salary levels that would prevail with training versus the salary levels without training. According to information gathered on salary levels, an M.S. degree in the agricultural sciences commands an annual salary increment of between $9,000 and $12,000 over the B.S. level salary, whereas Ph.D. level training commands an annual increment of between $5,000 and $7,000 over the M.S. degree level.

As mentioned in the Financial Analysis, a benefit stream calculated on the basis of solely financial flows, i.e. actual salary levels of return participants, would not capture the economic benefit to society of undertaking a training project. Hence, this analysis uses shadow prices of the value of benefits resulting from the project, which are the market value of services of M.S. and Ph.D. level agriculturalists.

The analysis accounts for all project costs, which consist of direct and indirect expenditures on advanced degree training, and include all project management costs, maintenance allowances and salaries. Peso costs are adjusted to the dollar equivalent. Inflation is ignored, as are future salary increases.

The stream of net project benefits accruing over the 25-year working lifetime of return participants, discounted at ten percent, yields positive net benefits after accounting for all project costs. The internal

rate of return is about 15 percent. Even when allowing for below average salary increments, and for dropouts among participants, the project shows a beneficial rate of return to society for investment in agricultural sector training. While there are several refinements in the analysis which might be done to obtain a more accurate measurement of benefits, the data base is not sufficiently comprehensive to allow precise estimates of benefits and rate of return. However, the results of the analysis show considerable evidence for a positive return on investment, and support the conclusion that the Agricultural Sector Training Project is economically justified.

E. Administrative Analysis

The Administrative Analysis deals with the experience of the project management office, its mode of operation for this project, and its technical assistance needs. This section is supported by documentation from SEA and the intitutional analysis by the TAMU team cited.

The implementing agency will be the Department of International Technical Cooperation (DITC) within the Office of National Planning (ONAPLAN) of the Technical Secretariat of the Presidenty (TSP). A secondary role in project implementation will be assigned to the Office of University Coordination (OUC) of SEA.

In accordance with Ley No. 55 promulgated on November 22, 1965 the Technical Secretariat of the Presidency through the National Planning Office and the Department of International Technical Cooperation is responsible for programming, coordinating and evaluating all technical assistance provided by international institutions to the GODR. The general functions assigned to DITC include: advising higher authorities concerning technical assistance policies and priorities which are consistent with GODR development plans; examining in coordination with other entities of ONAPLAN, all GODR requests for technical assistance before they are transmitted to bilaterial or multilateral agencies, carry out technical assistance policies as defined by the National Coordinating Committee for International Technical Assistance; negotiating agreements with international donor organizations and establishing norms; defining procedures which should be followed by GODR institutions in formulating technical assistance requests, and evaluating the implementation of approved technical assistance projects, including substantive and financial aspects. In addition DITC is responsible for exercising oversight of projects involving, technical advising services, scholarships and equipment purchases. The Training Division within DITC is responsible for maintaining records of training opportunities provided through foreign organizations, evaluating and attending the demands for training which arise in conjunction with international projects, and maintaining a register of scholarship recipients financed by international agreements.

Created by Resolution number 151/79 (see Annex J), OUC is charged with: coordinating the research programs at participating universities with national development guidelines set by SEA; supervising the placement organization which manages students while abroad; and orienting and

integrating returned students into programs for national agricultural development; collaborating with universities' efforts to strengthen their agricultural faculties; and channeling offers of assistance from international donors to universities for the development of higher education in the agricultural sciences.

Currently, the staff of OUC consist of two professionals, one translator and one secretary. The office is supporting the training of approximately 10 students at Ohio State University with the assistance of LASPAU in Ohio, while the University of Florida is administering SEA's support to 15 students there.

In the past, OUC has used the services of the Latin American Schorlaship Program for American Universities (LASPAU) for testing and placement of students for U.S. study. This appears to have been a mutually satisfactory arrangement. It is anticipated that similar technical assistance will be used in this project, subject to competitive procurement.

The four major duties of DITC under this project are the assesment of training needs, the selection of scholarship candidates, the monitoring of an educational placement organization to be contracted for the project, and assistance with the planning of M.S. degree programs in the four major universities. These functions will be carried out in partnership with OUC, which will share the day to day tasks involved in carrying out the mentioned duties. An operational manual explaining the division of labor between DITC and OUC will be submitted as a condition precedent to initial disbursement of loan funds.

Assisting DITC in its assessments of personnel deficits and training needs will be the OUC and the Interuniversity Coordinating Committee (ICC). This committee was created under the Small Farmer Development Project II (PPA II). It advises OUC and SEA concerning university needs and capacities and attempts to establish a division of labor within the university community for research and teaching in agricultural disciplines. Representatives of each university meet monthly with OUC and discuss university programs, training needs and related matters. Participation in this forum will be augmented under this project to include other representative of agricultural sector agencies when discussion of the priority training plan is on the meeting agenda. In this way OUC will receive the recommendation of relevant sector authorities on training priorities, without having to establish a new mechanism or entity to conduct the training needs assessments. Participation on this committee will ensure that agencies' training needs are given consideration, while failure to participate could result in the exclusion of a prospective sponsoring institution from consideration in the priority training plan. Furthermore, wide participation on this committee is mandated in order to reduce the chances for irregular assignment of scholarships among a select group of institutions. Conditions precedent to disbursement will stipulate AID-GODR agreement on the operational procedures for establishing sector-wide training priorities and selecting scholarship recipients.

Leadership in the assessment of training needs and selection of participants will be the responsibility of DITC, while OUC will collaborate as a full partner in all phases of these activities. The main functions of DITC will consist of scheduling the activities which will lead to timely and systematic selection of candidates; presiding over meetings to establish training priorities and select candidates, assisting USAID with the selection of an educational placement organization, and monitoring the performance of all entities involved in the project.

Procedures for the selection of scholarship candidates have been established by SEA for prior training programs and the mechanism for selection has a good record of performance. By integrating OUC in the operational details of participant selection, DITC will be able to quickly assimilate the procedures involved in managing this task. Other entities to be represented on the selection committee include public sector institutions, such as the Agricultural Bank, Agrarian Institute, Water Resources Institute and Price Stabilization Institute. The USAID Project Manager will also be represented on the selection committee. The SEA "Participant Selection Manual" will form the basic criteria for selection, and the Operational Manual to be submitted as a condition precedent to disbursement will govern the procedural aspects of participant selection. Once agreement is reached between USAID and GODR concerning these operational procedures, all the significant issues concerning implementation responsibilities and authority will be resolved. Therefore, this aspect of project implementation presents no apparent obstacle to effective execution.

The tasks involved in monitoring and assisting an educational placement organization and in assisting with the planning of university programs, likewise, do not represent a significant departure from DITC's current mode of operation, and therefore are not expected to present any particular difficulty for the project management office. The addition of three professional staff members and a secretary, should be sufficient to enable DITC to cary out the additional workload resulting from this project.

Further technical assistance for DITC will be needed in the following areas: final assessment of the training needs for the agricultural sector and annual updating; assignment of priorities for training by degree level and area of specialization; review of candidates academic credentials; and planning of advanced degree programs at cooperating universities. The assistance will be provided through the educational placement organization contracted for this project. Since DITC will be able to draw upon SEA's experience with using the services of a placement organization, this aspect of project management is not expected to present any particular difficulty.

Two aspects of project execution which present a slight departure from DITC's past operations are the administration of the Fund for Advanced Education, and assisting with the conduct of thesis research in-country. Guidance and assistance with the operation of the fund will be provided by the Department of Administration of TSP, while the establishment of operating procedures for the fund will be ensured through USAID review as a condition

precedent to disbursement. Hence, DITC should be adequately supported in executing this aspect of its responsibilities. Similarly, in the case of assisting with the conduct of thesis research, DITC will be supported by several interested parties, especially OUC; the participant's sponsoring institution, which has requested the research; the participant's advisor and the placement organization. Considering the previous experience of these entities, DITC will have ample support for this activity, hence, there appears to be no major obstacle to the realization of in-country research. Furthermore, the motivation of scholarship recipients to fulfill their degree requirements will probably be the determining factor in achieving the objective of in-country thesis research.

In summary, the major tasks involved in the execution of this project are well known to the project management office and the collaborating institutions. Assistance with several aspects of project implementation will be provided by outside entities which have either a functional responsibility to collaborate with the project or a contractual obligation with the GODR. Therefore, the project appears to be administratively sound, and there is a reasonable assurance that the project purpose can be achieved.

Department of State INCOMING TELEGRAM

American Embassy Santo Domingo

RECEIVED SEP 1 48 PH '82 FOOD & AGRIC DIVISION

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E.O. 12356: N/A
TAGS: -
SUBJECT: AGRICULTURAL SECTOR TRAINING PID

1. BUREAU REVIEW OF SUBJECT PID HELD AUGUST 30, 1982. MISSION MAY PROCEED WITH INTENSIVE REVIEW OF PROJECT, TAKING INTO CONSIDERATION BUREAU CONCERNS OUTLINED BELOW.

2. IDENTIFICATION OF TRAINING NEEDS: THE TASK OF IDENTIFYING PRIORITY POST-GRADUATE TRAINING NEEDS FOR AGRICULTURE SECTOR INSTITUTIONS IS CRITICAL TO ACHIEVING PROJECT'S OBJECTIVES. IT IS NOT CLEAR FROM PID NOR DISCUSSION AT DAEC REVIEW THAT SEA'S OFFICE OF UNIVERSITY COORDINATION (OUC) HAS CAPACITY FOR ADEQUATELY DETERMINING THESE TRAINING NEEDS. IN ADDITION TO THOROUGH ANALYSIS OF OUC'S CAPABILITIES TO CARRY OUT THIS ANBOTHER TASKS UNDER PROJECT, MISSION SHOULD ESTABLISH SPECIFIC PROCEDURES FOR PERIODICALLY ASCERTAINING TRAINING NEEDS AMONG THE VARIOUS INSTITUTIONS PARTICIPATING IN PROJECT. IN THIS CONTEXT, MISSION MAY WANT TO ENGAGE SERVICES OF SENIOR CONSULTANT TO HELP ANALYZE TRAINING NEEDS OF KEY AGRICULTURE SECTOR

INSTITUTIONS DURING PP PREPARATION. BUREAU PREPARED TO ASSIST IN IDENTIFICATION OF SUCH CONSULTANT IF MISSION DESIRES.

3. SELECTION OF PARTICIPANTS: TO MINIMIZE POTENTIAL FOR LOG ROLLING IN DETERMINING DEMAND AND SELECTING PARTICIPANTS, DET
CMD SELECTION CRITERIA SHOULD BE ESTABLISHED AND INCORPORATED IN PP AND LOAN AGREEMENT AND/OR LETTER OF IMPLEMENTATION. IN ADDITION, HIGH LEVEL REPRESENTATIVE OF TECHNICAL SECRETARIAT OR OTHER APPROPRIATE NON-AGRICULTURAL ENTITY SHOULD PARTICIPATE IN ANNUAL HUMAN RESOURCE ASSESSMENTS AND ON SELECTION COMMITTEE TO ASSURE PROPER DEGREE OF OBJECTIVITY.

4. SCHOLARSHIPS VS. LOANS: THE PID PROPOSES THAT AID LOAN PROCEEDS ALONG WITH ANNUAL GODR CONTRIBUTIONS

ACTION:	
AID10	
INFO:	
AMB	X
DCM	X
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BIO	
ECON	
FCS	
CONS	
AC	X
BNO	
CPU	
GSO	
PER	
RSO	
RMO	
NCOIC	
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CHRON	X

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FINANCE SCHOLARSHIPS FOR PROJECT PARTICIPANTS, WITH ANNUAL GODR CONTRIBUTIONS TO A FUND FOR PROFESSIONAL EDUCATION PROVIDED IN POST-PROJECT PERIOD TO CONTINUE THIS TRAINING PROGRAM. AFTER LENGTHY DISCUSSION OF PROS AND CONS OF PROVIDING SCHOLARSHIPS (GRANTS) OR LOANS TO PARTICIPANTS, WE CONCLUDED THAT MISSION SHOULD CONDUCT A STATISTICALLY SIGNIFICANT SAMPLING OF PROSPECTIVE TRAINEES WITH VIEW TO ASCERTAINING WHETHER OR NOT IT WOULD BE FEASIBLE AND CONSISTENT WITH OBJECTIVES OF THE PROJECT TO REQUIRE REPAYMENT OF A PORTION OF THE TOTAL TRAINING EXPENSE (E.G., TUITION) FPTLOWING COMPLETION OF THEIR TRAINING PROGRAM. THIS ANALYSIS SHOULD BE UNDERTAKEN DURING INTENSIVE REVIEW AND INCLUDED IN PP.

5. INITIAL ENVIRONMENTAL EXAMINATION: BUREAU CONCURS WITH MISSION'S NEGATIVE DETERMINATION REGARDING PROJECT'S ENVIRO
PANTAL IMPACT. ENVIRONMENTAL THRESHOLD DECISION HAS BEEN POUCHED TO MISSION AND SHOULD BE INCLUDED AS ANNEX TO PP.

6. AT DAEC MEETING MISSION REPRESENTATIVE SUGGESTED THAT PARTICIPATION OF AID/W REPRESENTATIVE IN MISSION REVIEW OF PP WOULD BE USEFUL. WE WOULD MAKE EVERY ATTEMPT TO BE RESPONSIVE TO SUCH A MISSION REQUEST..

7. FYI: ALL LAC MISSION PID APPROVALS ARE SUBJECT TO BUREAU REVALIDATION IF THE POST-PID PROJECT DEVELOPMENT PROCESS EXZN YOND ONE YEAR. END FYI?! SHULTZ
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P.P.
AGRICULTURAL SECTOR TRAINING

Logical Framework Matrix

Summary	Objectively Verifiable Indicators	Important Assumptions
A.1. Goal: Increase productivity, employment, income and quality of life of the Dominican farm population.	A.2. Measurement of Goal Achievement: Overall agricultural production expands at greater than historical rates, employment and real incomes per capita of farm poor increase above historical levels.	A.3. (As Related to Goal): GODR policies continue to support effective agricultural development programs. Professional qualifications of personnel have a direct bearing on the performance of agriculture sector institutions; university collaboration is effective.
B.1. Purpose: To (a) strengthen the research extension and program implementation capability of agricultural sector institutions by the advanced degree training of their technical staff; (b) establish a coordinated ongoing system for determining graduate training requirements in the agricultural sector; and (c) finance training for priority agricultural sector needs.	B.2. End of Project Status: a) 130 professionals trained in priority disciplines at the post-graduate level and working in agricultural sector institutions. b) Five and ten-year training investment plans for graduate training developed and being executed. c) Post-graduate training programs initiated using proceeds of the Educational Fund.	B.3. (As Related to Purpose): Authority of Secretariat of Agriculture will be exercised to obtain adherence to agreements on reincorporation of returned participants, salaries and allotments to Educational Fund. National and other donor financing for training programs will be continued.
C.1. Outputs: a) Participants. b) Training investment plans. c) Graduate-level training system.	C.2. Output Indicators: - 375 person-years of post graduate training (approx. 115 MS + 15 PhD degrees). - 5-year plan and priority ranking of personnel training needs by discipline and level. - Program of institutional development made including long term objectives, investment plans and training needs. - GODR budget allocation for graduate training.	C.3. (As Related to Outputs): Collaboration between public sector agencies and universities will be effected on a continuous basis; US universities' curricula respond to developing country needs; adequate numbers and sufficiently well qualified candidates will seek advanced degree training.
D.1. Inputs: - Direct educational expenditures. - Indirect educational expenditures. - Travel including educational trips. - Management and administration. - Technical assistance. - Contingencies and inflation.	D.2. Budget/Schedule: AID / GODR ($000) / Total - Domestic training: 80 / 327 / 407 - Off-shore training: 3,985 / 220 / 4,205 - Program management: 95 / 301 / 396 - Participant salaries: - / 1,989 / 1,989 - Contingencies/Inflation: 840 / 163 / 1,003 Total: 5,000 / 3,000 / 8,000	D.3. (As Related to Inputs): GODR continues financial commitments to advanced training

5C (1) COUNTRY CHECKLIST

Listed below are, first, statutory criteria applicable generally to FAA funds, and criteria applicable to individual fund sources: Development Assistance and Economic Support Fund.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1.	FAA Sec. 481. Has it been determined that the government of the recipient country has failed to take adequate steps to prevent narcotic drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?	No
2.	FAA Sec. 620 (c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such a citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government?	No

3.	FAA Sec. 620(e)(1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?	No
4.	FAA Sec. 532 (c), 620 (a), 620 (f), 620D; FY 1982 Appropriation Act Secs. 512 and 513. Is recipient country a Communist country? Will assistance be provided to Angola, Cambodia, Cuba, Laos, Vietnam, Syria, Libya, Iraq, or South Yemen? Will assistance be provided to Afghanistan or Mozambique without a waiver?	No
5.	ISDCA of 1981 Secs. 724, 727 and 730. For specific restrictions on assistance to Nicaragua, see Sec. 724 of the ISDCA of 1981. For specific restrictions on assistance to El Salvador, see Secs. 727 and 730 of the ISDCA of 1981.	N/A
6.	FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property?	No
7.	FAA Sec. 620 (l). Has the country failed to enter into an agreement with OPIC?	No

8.	FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5. (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters?	N/A
	(b) If so, has any deduction required by Fishermen's Protective Act been made?	
9.	FAA Sec. 620 (q); FY 1982 Appropriation Act Sec. 517. (a) Has the government of the recipient country been in default for more than six months on interest or principal of any AID loan to the country?	No
	(b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the appropriation bill appropriates funds?	No
10.	FAA Sec. 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the amount of foreign exchange or other resources which the country has spent on military equipment? (Reference may be made to the annual "Taking into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)	Yes

11.	FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?	No
12.	FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? (Reference may be made to the Taxing into Consideration memo.)	Current
13.	FAA Sec. 620A; FY 1982 Appropriation Act Sec. 520. Has the country aided or abetted, by granting sanctuary from prosecution to, any individual or group which has committed an act of international terrorism?	No
	Has the country aided or abetted, by granting sanctuary from prosecution to, any individual or group which has committed a war crime?	No
14.	FAA Sec. 666. Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under FAA?	No

15. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements on safeguards? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device, after August 3, 1977? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.)

No

16. ISDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Session of the General Assembly of the U.N. of Sept. 25 and 28, 1981, and failed to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the Taking into Consideration memo.)

N/A

17. ISDCA of 1981 Sec. 721. See special requirements for assistance to Haiti.

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria.

a. FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy? — No

2. Economic Support Fund Country Criteria

a. FAA Sec. 502B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the country made such significant improvements in its human rights record that furnishing such assistance is in the national interest? — No

b. ISDCA of 1981, Sec. 725 (b). If ESF is to be furnished to Argentina, has the President certified that (1) the Government of Argentina has made significant progress in human rights; and (2) such assistance is in the national interests of the U.S.? — N/A

c. ISDCA of 1981, Sec. 726 (b). If ESF assistance is to be furnished to Chile, has the President certified that (1) the Government of Chile has made significant progress in human rights; (2) it is in the national interest of the U.S.; and (3) the Government of Chile is not aiding international terrorism and has taken steps to bring to justice those indicated in connection with the murder of Orlando Letelier? — N/A

5C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable generally to projects with FAA funds and project criteria applicable to individual fund sources: Development Assistance (with a subcategory for criteria applicable only to loans); and Economic Support Fund.

IS COUNTRY CHECKLIST UP TO DATE? Yes.
HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT? Yes.

A. GENERAL CRITERIA FOR PROJECT

1. Continuing Resolution Unnumbered; FAA Sec. 634(a); Sec. 653(b).

   (a) Describe how authorizing and appropriations Committees of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than $1 million over that amount)?

   (a) The project was included in the FY 83 Congressional Presentation as an FY 83 project. A Congressional Notification is required.

   (b) An Advice of Program Change will be submitted for the change in funding.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of $100,000, will there be (a) engineering, financial, other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

   (a) Not Applicable.

   (b) Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

   No further legislative action needed.

4.	FAA Sec. 611 (b); Continuing Resolution Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973?	Not Applicable.
5.	FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed $1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?	Yes. See Mission Director's certification in the Project Paper.
6.	FAA Sec. 209. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.	The Project cannot be executed as part of a regional project.
7.	FAA Sec. 601(a). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.	This project will indirectly increase the flow of international trade by encouraging increased agricultural production. The project will encourage government entities and private universities initiatives in developing agricultural research. It will improve the technical efficiency of agriculture through improved farming.

8. FAA Sec. 601 (b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).	It is anticipated that the technical assistance and equipment for the project will be procured from U.S. private sector sources.
9. FAA Sec. 612(b); Sec. 636(h); Continuing Resolution Sec. 508. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.	The loan agreement will require that counterpart contribution will be used.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?	There is no excess, U.S. owned local currency available for this program.
11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?	Yes.
12. Continuing Resolution Sec. 522. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar, or competing commodity?	This project will not directly produce any commodity for export which is produced in the U.S.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(b); Sec. 111; 113; 281 (a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is Assistance being made available? (Include only applicable paragraph which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.)

his project is directed to the romotion of the participation of the ural poor in the benefits of evelopment. This will be accomplished hrough the training at graduate level f Dominicans researchers. The esulting gain from this strengthen the esearch, teaching, extension apabilities of agricultural sector nstitutions will include raising the rofessional capabilities of technical taff, researchers and professors. his project will also promote the articipation of women in educational rograms. This project will indirectly romote regional cooperation by ncreasing the flow of interregional nowledge and by fostering cooperative fforts to take similar problems within he region through the interchange of xperience and information on research.

(1) [103] for agriculture, rural development or nutrition; if so (a) extent to which activity is specifically designed to increase productivity and income of rural poor; 103A if for agricultural research, full account shall be taken of the needs of small farmers, and extensive use of field testing to adapt basic research to local conditions shall be made; (b) extent to which assistance is used in coordination with programs carried out under Sec. 104 to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value, improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use of indigenously produced foodstuffs; and the undertaking of pilot or demonstration of programs explicitly addressing the problem of malnutrition of poor and vulnerable people; and (c) extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging domestic	(a) The proposed loan program directly addresses the problem of income, productivity and quality of life for the poor in rural areas. Through improving the technical and professional capabilities of personnel responsible for utilization of resources allocated to agricultural development and university teaching this project will increase the productivity and income of the small farm families.

production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.

(2) [104] for population planning under sec. 104 (b) or health under sec. 104 (c); if so, (i) extento to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems and other modes of community research.

(4) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development; and (ii) extent to which assistance provides advanced education and training of people in developing countries in such disciplines as are required for planning and implementation of public and private development activities.

The proposed project would substantially increase the supply of professional talent to conduct research and teach, thereby contributing toward greater production and efficiency in the agricultural sector.

(5) [106; ISDCA of 1980, Sec. 304] for energy, private voluntary organizations, and selected development activities; if so, extento to which activity is: (i) (a) concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; (b) facilitative of geological and geophysical survey work to locate potential oil, natural gas, and coal reserves and to encourage exploration

for potential oil, natural gas, and coal reserves; and (c) a cooperative program in energy production and conservation through research and development and use of small scale, decentralized, renewable energy sources for rural areas;

(ii) technical cooperation and development, especially with U.S. private and voluntary or regional and international development, organizations;

(iii) research into, and evaluation of, economic development process and techniques;

(iv) reconstruction after natural or manmade disaster;

(v) for special development problems, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

(vi) for programs of urban development, especially small labor intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

c. [107] Is appropriate effort placed on use of appropriate technology? — Not Applicable.

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for "relatively least-developed" country)? Yes.

e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least-developed?"	Yes.
f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.	The project directly re utilizes the needs, des capabilities of the pop the implementing agenci
g. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?	Yes. The project should contribute directly to the development of economic resources and to increasing the agricultural productive capacity of the Dominican Republic.
2. Development Assistance Project Criteria (Loans Only)	
a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest.	The Dominican Government is not in default on any AID loans and appear capable to repay the proposed loan.
b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?	Not applicable.

3. Project Criteria Solely for Economic Support Fund

a. FAA Sec. 531(a). Will this assistance promote economic or political stability? To the extent possible, does it reflect the policy directions of section 102?	Not applicable.
b. FAA Sec. 531 (c). Will assistance under this chapter be used for military, or paramilitary activities?	No.

REPUBLICA DOMINICANA

RECEIVED

Secretariado Técnico de la Presidencia

SANTO DOMINGO, D. N.

"AÑO DE LA REFORESTACION"

AID C&R

6 JUN. 1983

Señor
Philip R. Schwab
Director de la Agencia para el
Desarrollo Internacional (AID)
Su Despacho.

Distinguido señor Director:

El Gobierno de Concentración Nacional, que preside el Ciudadano Presidente de la República, doctor Salvador Jorge Blanco, está interesado en incrementar la capacidad técnica y profesional de los recursos humanos que laboran en el sector agropecuario, tanto a nivel de la enseñanza superior como en los servicios de extensión y de investigación.

Para un eficaz trabajo en el sector agrario es indispensable el capacitar a nivel de postgrado a unos 100 profesionales dominicanos en el exterior. Para realizar un esfuerzo que conlleve hacia estos lineamientos, se ha elaborado un proyecto de Capacitación de Personal del Sector Agropecuario al nivel deseado, bajo el cual se financiarían especializaciones en diversas áreas, las cuales fueron determinadas por un diagnóstico realizado por la Secretaría de Estado de Agricultura.

Con este proyecto se fortalecerán las actividades de la investigación, la enseñanza, la extensión y la ejecución de los programas de las instituciones del Sector Agrícola, mediante el incremento de las capacidades del personal técnico, los investigadores y profesores, y se establecerá un sistema coordinado sobre la marcha, para determinar nuevos adiestramientos en el área.

En función de lo anterior, cúmpleme solicitar por este medio a la AID un financiamiento por valor de US$5,000,000.00, bajo las condiciones más favorables que puedan ser obtenidas. Del total del proyecto (RD$8,000,000.00) el Gobierno Dominicano proveerá como contrapartida nacional la suma de RD$3,000,000.00 para cubrir, entre otros, el costo de salario, gastos operacionales y un aporte para establecer un Fondo de Educación Avanzada a través de asignaciones presupuestales anuales

.../

ACTION: CRD
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ascendientes a la suma de RD$50,000.00 cada año del proyecto, de modo que se alcance un nivel de RD$350,000.00 duranta la vida del mismo, que se ha establecido en 7 años. Luego de la terminación del proyecto, el Gobierno Dominicano continuará la asignación, lo que constituye un compromiso contínuo a los programas de adiestramiento a largo plazo del sector agrícola.

Mucho agradeceríamos a esa Agencia bajo su digna dirección, la atención que conceda a la presente solicitud, a fin de que las instituciones dominicanas responsables de ejecutar el programa adopten oportunamente las disposiciones necesarias para la exitosa realización de este proyecto.

Con sentimientos de consideración y estima le saluda,

Muy atentamente,

Ing. Ramón Alburquerque B.
Secretario Técnico de la Presidencia

PRESIDENCIA DE LA REPUBLICA
SECRETARIADO TECNICO

RAB/MAG/CJ
MPG/mco.

CERTIFICATION PURSUANT TO

Section 611 (e) of the

FOREIGN ASSISTANCE ACT

As Amended

I, Philip R. Schwab, the principal officer of the Agency for International Development in the Dominican Republic, do herewith certify that in my judgment, the Dominican Republic has both the financial capability and human resources to maintain and utilize effectively goods and services procured under the capital assistance project entitled Agricultural Sector Training.

This judgment is based upon the record of implementation of AID financed projects in the Dominican Republic and the results of the consultations undertaken during intensive review of this new project.

Philip R. Schwab
Director, USAID Dominican Republic

6/30/83
Date

ANNEX F

TABLE 1

ADVANCED DEGREE TRAINING REQUIREMENTS
OF THE AGRICULTURAL SECTION, 1983 - 1987

Institution	Personnel on Board		Needed	
Secretariat of Agriculture	M.S.	Ph.D.	M.S.	Ph.D.
Research Dept.	27	3	141	33
Extension Dept.	2	-	67	1
Planning Dept.	1	-	24	10
Agrigultural Bank (BAGRICOLA)	-	-	9	1
Agrarian Institute (IAD)	-	-	9	1
Water Institute (INDRHI)	-	-	11	1
Marketing Institute (INESPRE)	1	-	14	-
Sugar Council (CEA)	9	1	9	1
Cooperative Institute (IDECOOP)	-	1	4	-
Technical Secretariat	-	-	4	-
Other Public Agencies	4	-	11	1
Sub-Total				
Universities				
UASD	16	3	41	6
ISA	17	3	22	9
UCE	-	-	37	3
UNPHU	18	1	32	9
TOTAL	95	12	435	76

Source: Agriculture Sector Training Needs, Secretariat of Agriculture, 1982.

ANNEX F

TABLE 2

DOMINICAN REPUBLIC

Deficit of Post-Graduate Trained Personnel in the Agricultural Sector and Projected Training by General Academic Area and Source of Funds, 1982-1986

Academic Area	Projected Overall Deficit 1982-86		Coverage of Existing Training Programs by Funding Source							Unattended Deficit		Coverage of Proposed AID Project	
			Universities		IDB-PIDAGRO	AID Natural Resource Mgt.	SEA-US Universities		Local Program (UCMM)				
	MS	PhD	MS	PhD	MS	MS	MS	PhD	MS	MS	PhD	MS	PhD
Soils	67	16	1	-	3	-	1	-	-	62	16	15	4
Agr. Engineering	25	2	3	-	1	-	-	-	-	21	2	5	-
Agronomy	85	15	2	1	7	4	1	-	-	71	14	23	5
Food Technology	7	-	1	1	-	-	1	-	-	5	-	3	-
Plant Sciences	44	16	-	-	3	-	-	-	-	41	16	9	2
Animal Sciences	35	5	-	-	3	-	3	-	-	29	5	8	1
Socio-Economic Sciences	136	21	3	1	7	4	11	3	55	56	17	49	3
Veterinary Medicine	18	-	1	-	-	-	-	-	-	17	-	1	-
Natural Resources	18	2	-	-	-	15	-	2	-	3	-	2	-
Total	435	79	11	3	24	23	17	5	55	305	70	80	15

Source: Secretariat of Agriculture and AID.

SOCIAL SOUNDNESS ANALYSIS

Please refer to Texas A&M University Report on Agriculture Sector Training Project, October 1982, on file USAID/DR.

AGRICULTURE SECTOR TRAINING PROJECT

LOAN FUNDED U.S. DOLLAR COSTS:

Category	M.S. YEAR 1	M.S. YEAR 2	M.S. TOTAL COST	Ph.D. YEAR 1	Ph.D. YEAR 2	Ph.D. YEAR 3	Ph.D. TOTAL COST
[illegible] English	450	0	450	0	0	0	0
1 Semester - Prerequisites	1400	0	1400	1400	0	0	1400
Tuition	4500	4500	9000	4500	4500	2250	11250
Sub-total	6350	4500	10850	5900	4500	2250	12650
Books	420	420	840	420	420	210	1050
Typing	200	200	400	200	200	100	500
Professional Travel	300	300	600	300	200	200	700
Computer Costs	0	500	500	0	300	300	600
Book Shipment	0	160	160	0	0	160	160
Equipment	100	300	400	100	200	300	600
Dissertation	0	300	300	0	0	800	800
Insurance	300	300	600	300	300	300	900
Sub-total	7670	6980	14650	7220	6120	4620	17960
Maintenance							
$600 per month‡	4800	9600	14400	7200	7200	7200	21600
Settling-in Allowance	900	0	900	900	0	0	900
One month-English	600	0	600	0	0	0	0
Three months-Prereq.	1800	0	1800	0	0	0	0
Administrative Fee							
Based on USDA	2530	2530	5060	2530	2530	2530	7590
One month-English	200	0	200	0	0	0	0
Three months-Prereq.	600	0	600	0	0	0	0
Orientation Course (in DR)	325	0	325	325	0	0	325
Sub-total	19425	19110	38535	18175	15850	14350	48375
Thesis Travel (50% * $1000) 1 or 3	0	500	500	0	0	1500	1500
Adviser Cost (50% * $2400)	0	1200	1200	0	0	1200	1200
Total US Costs	19425	20810	40235	18175	15850	17050	51075
DR PESO COSTS:							
Loan Funded:							
Tuition-English	1000	0	1000				
TOTAL - LOAN FUNDED	20425	20810	41235	18175	15850	17050	51075
COUNTERPART FUNDED R.D. PESO COSTS							
Round Trip Travel (Student)	500	500	1000	500	0	500	1000
Salary:							
5 months * $600 (English)	3000		3000				
28 months * $600‡	7200	9600	16800				
36 months * $750				9000	9000	9000	27000
Thesis Costs ($500 * 50%)		250	250			250	250
Thesis Per Diem ($500 per month * 50%) 4 or 6 mo		1000	1000			1500	1500
Total Counterpart	10700	11350	22050	9500	9000	11250	29750
TOTAL - ALL COSTS	31125	32160	63285	27675	24850	28300	80825

‡For illustrative purposes, 5 months of English language training and 12 months of salary and maintenance are budgeted in Year 1 and 16 months in Year 2.

ANNEX H

Table 1 of 2

AGRICULTURE SECTOR TRAINING PROJECT

M.S. Scholarship at Domestic University

	Year 1	Year 2	Total Cost
Tuition	2,000	2,000	4,000
Books	300	300	600
Typing	200	200	400
Computer Sew	150	150	300
Equipment	200	200	400
Thesis	-	300	300
Prof. Travel	200	300	500
Contingency	-	500	500
	3,050	3,950	7,000

ANNEX I
ECONOMIC ANALYSIS

The Agricultural Sector Training Project represents an attempt to infuse highly trained individuals into the existing institutional structure for agricultural research, extension, program implementation and university teaching. The institutional structure is composed of agricultural agencies with annual operating and investment budgets in the neighborhood of RD$700 million (1982) plus four university agricultural faculties with combined budgets exceeding RD$2 million annually. The improved performance of these institutions is in a large measure directly attributable to the skills of their staffs. Furthermore it is expected that, with additional training, they will bring about an increase in the overall output of the agricultural sector, even without increased expenditures on operating and investment budgets. This project will shift upward the production function for the agricultural sector, thereby achieving greater agricultural output with the same level of resources that would otherwise be available, except for the level of staff training in priority skills.

A major premise of this project is that productivity increases are an indispensable condition for the improved performance of Dominican agriculture. Productivity increase in agriculture is principally associated with the application of technological innovation and research to the requirements of agriculture. The success of technological innovation rests upon the capabilities of research, teaching, and extension personnel in the assessment of agronomic and livestock problems, conduct of research on constraints and application of knowledge to improve systems of production.

Within the existing agricultural institutions, there is an extreme shortage of highly trained staff. It is estimated that the deficiency approaches 425 persons at the graduate level of training. (See Annex F). Supplying that number of trained individuals would constitute the ideal situation, whereas this project can supply only approximately 130 of the high priority needs. It is postulated, however, that the incorporation of 130 highly trained professionals into agricultural sector institutions will promote a substantial increase in output of the agricultural system as a whole.

The benefits to Dominican society that will accrue as a result of the project are: (1) greater productivity, i.e. increased yields of crop and livestock products for all major commodities; (2) reduced losses in the production system; and (3) an increased level of wellbeing for farmers and the population as a whole. Estimates of the benefits resulting from these three sources are subject to a wide margin of error and for the purpose of this analysis are categorized as unmeasured benefits. Nonetheless these benefits are tangible. For example, analysis of the results of investments made in agricultural research in dozens of countries, show high rates of return, averaging around 50 percent.1/

1/ R.E. Evanson, et al, "Economic Benefits from Research: An Example from Agriculture", Science, Vol. 205, September 1979.

These returns come about because of large yield increases in crops subject to research. Because this project will focus on training of agricultural researchers, it will also bring about yield increases. Even though a delay is involved between conducting research and achieving positive results on farms, the net benefits of research can be extremely positive, as is evident by the following calculation: a one percent increment in the value of Dominican agricultural output (excluding sugar) achieved annually as of the eighth year of project implementation, would represent benefits, discounted at 10 percent of approximately $20 million. Hence over the long run, it appears that investing in training for agricultural research has the potential for a high payoff, if the research is transformed into productivity gains.

Also there are substantial benefits to be achieved through reducing the extent of losses from diseases such as African Swine Fever, Blue Mold in tobacco, the Panamá Disease in plantain, Cane Rust or Tomato Blight. These are all examples of losses incurred by Dominican agriculture in recent years that have amounted to millions of dollars in damages. Because of the difficulty in estimating how much of the losses could have been averted if the nation had a greater stock of highly trained professionals working within agricultural sector institutions, potential project benefits of this nature will be left unmeasured. Similarly, improved farmer and consumer welfare, which results from greater income, greater consumption of food, health improvements, etc., will not be subject to estimation in this analysis.

The method of analysis utilizes on the concept of the value of trained human resources in a theoretical free market for services. The value of services, i.e. salaries of agricultural scientists working in the international market, is postulated to represent the value to society of the output that they produce. The analysis adopts a shadow price for wages using salary levels prevailing outside the Dominican Republic. In this shadow wage, the value of increased yields, averted losses and society's welfare are all implicitly included. The shadow wage must be adopted because actual wages in the Dominican market do not reflect the world market value of professional services. This analysis rests on the theory of market prices as the measure of the value to society of a good or service. Although this method of estimation of benefits cannot be considered perfect, because markets are not entirely free, i.e. returned participants are not free to work outside their country, it has the advantage of offering a quantifiable stream of benefits attributable to the project. That stream is the aggregate salary differential which could be earned by participants over their working years. The differential is calculated by deducting the salaries that would be earned without participant training from the salaries that could be earned if project-trained participants were allowed to work in the international market for agricultural scientists.

The basic assumptions implicit in this analysis are:

- The market for an <u>ingeniero agrónomo</u> is represented by the prevailing wage scale in the Dominican Republic;

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- the market for an M.S. level scientist is represented by salaries of staff of international research institutions or U.S. Government agencies;

- the market for Ph.D. level scientist is represented by salaries of staff of international research and donor agencies or U.S. Government agencies;

- The typical participant of this project is an individual with an ingeniero agrónomo degree and three to five years of work experience;

- the second representative participant of this project is an individual with an M.S. degree and five years of work experience;

- returned participants will work for 25 years.

The analysis includes all project costs including salaries. Peso costs are valued at an exchange rate of US$1 = RD$1.4, to account for a free market rate of exchange.

The Salary differentials are calculated as follows:1/

Educational Level	Without Project 2/	With Project 3/	Differential 4/
Ingeniero Agrónomo	$ 7,000 - 13,000 Avg: $10,000	$ 7,000 - 13,000 Avg: $10,000	-
Master of Science	$10,250 - $17,250 Avg: $13,750	$16,000 - $25,000 Avg: $20,500	$ 9,000 - $12,000 Avg: $10,500
Ph.D.	$13,000 - $21,500 Avg: $17,250	$21,000 - $32,000 Avg: $26,500	$ 5,000 - $ 7,000 Avg: $ 6,000

1/ Salary ranges reflect differences in starting salaries for individuals with little experience versus five years of experience. Salary ranges encompass USDA, IICA and U.S. private sector wage scales.

2/ Dollar equivalent (at RD$1.4 = US$1) of RD$800 to RD$1,500 monthly for I.A.; RD$1,200 - RD$2,000 for M.S. level, and RD$1,500 - RD$2,500 for Ph.D. These salaries are relevant for the analysis of the private benefits accruing to participants trained by the project.

3/ Under this project, ingeniero agrónomo will be trained to the M.S. level, and only M.S. level staff will be trained to the Ph.D. level, i.e., no ingeniero agrónomo will be trained through the Ph.D. level.

4/ Given 3/ this differential corresponds to the salary increment associated with going from an ingeniero agrónomo without project to an M.S. with project, and an M.S. with project to a Ph.D. with project. The possibility of a salary going from the lowest end of a range to the highest was ruled out.

The total project cost is then deducted from the stream of aggregated salary differentials to obtain the net project benefits, which are discounted at two interest rates to show a range of net benefit to society for undertaking an agricultural sector training project.

The analysis shows that net project benefits vary from $.1 million to $3.6 million depending on the salary differential and interest rate utilized for the calculation. The results are summarized as follows:

Salary Differential	Net Benefits $000 10%	Net Benefits $000 15%	IRR %
M.S. at $12,000 - Ph.D. at $ 6,000	3,559	972	18.6
M.S. at $10,000 - Ph.D. at $ 5,000	2,138	102	15.4

These results show a beneficial return on investment for the project. The internal rate of return is between 15 and 20 percent. After allowing for a drop-out rate of ten percent among participants sent for training, the rate of return is 13 percent at salary differentials of $10,000 and 5,000 for M.S. and Ph.D., respectively. In other words, the value to society is positive even if salaries increase somewhat less than $10,500 for M.S. and $6,000 for Ph.D. These differentials correspond to the average increments earned by individuals working in the international market for agricultural scientists.

An analysis of the private benefits accruing to returned participants would also show a positive payoff in terms of increased income. In comparison with the level of without project salaries, participants can expect to earn between $3,000 and $4,000 in additional annual income as a result of their advanced degree training. These salary differentials are supported by data collected as part of Social Soundness Analysis. It is believed that they will persist for the indefinite future, hence, there appears to be an incentive for individuals to pursue advance degree study.

The results of the economic analysis indicate that the Agricultural Sector Training Project will provide a highly beneficial return to the Dominican Republic, regardless of whether the method of estimation is based on increased productivity or on the economic value of services performed by returned participants.

ANNEX J
EXHIBIT I

SCOPE OF WORK
FOR
PLACEMENT OF DOMINICAN STUDENTS IN GRADUATE AGRICULTURAL PROGRAMS OF U.S. UNIVERSITIES
TECHNICAL ASSISTANCE IN AGRICULTURAL STUDIES PROGRAM ASSESSMENT AND DEVELOPMENT

I. DESCRIPTION.

The contractor will be responsible for assisting the Office of International Technical Cooperation (DITC) of the Technical Secretariat of the Presidency (TSP) in the following areas:

A. Selecting and placing approximately 100 Dominican students in graduate agruicultural programs of U.S. universities over a five year period.

B. Conducting an annual assessment of the human resource requirements of the agricultural sector agencies and university faculties of agronomy and to assist in the development of a follow-up system for returned participants.

C. Formulating an overall plan for strengthening the four faculties of agronomy in Dominican universities.

II. DUTIES:

A. PARTICIPANT PLACEMENTS.

1. SELECTION

The contractor will:

a. Advise the DITC of language and academic tests and academic credentials required to be considered in the selection process.

b. Assist the DITC in reviewing the transcripts and tests scores of the prospective scholarship recipients and advise as to their suitability for graduate level academic study.

c. Assist the DITC with the selection of the candidates and help compile for delivery to the contractor's offices in the U.S. all of the transcripts, biographic data, test results, medical examination records and any other documents and/or information required for review by university admissions officers.

d. Assist the DITC define the specific training desired in sufficient detail to enable effective university placement.

2. LANGUAGE TRAINING.

The contractor will ensure that each candidate who has met the minimum language requirements for selection attends a project funded intensive English language program in the Dominican Republic of sufficient duration to raise his TOEFL score, before departure, to the minimum required by his training institution.

The contractor will advise the DITC as early as possible of the name of each candidate's university and the minimum TOEFL or other English test score required by the university.

3. ORIENTATION.

The contractor will conduct a two to three day orientation in the Dominican Republic immediately prior to the departure of each group of participants. The orientation will cover such topics as:

- the contractor's responsibilities for the participants support and training supervision,
- the participants responsibilities,
- communications between the contractor and the participants,
- maintenance of academic standards,
- campus life,
- personal financial management, and
- living the U.S.

4. PLACEMENT AND TRAINING.

The contractor will ensure that the participants are enrolled in accredited universities. Schoools recommended by the selection commitee will be used, where possible. The contractor will administer the funds required for the participants training costs, health and accident insurance, travel and maintenance allowances using the rates authorized in AID Handbook 10.

The contractor will make arrangements to assume the responsibility for any project participants in the U.S. at the time the contract is signed.

The contractor will satisfy AID's requirements for reporting Contract Participant Arrivals and Departures.

5. HOME COUNTRY RESEARCH REQUIREMENT.

The contractor will enroll participants whenever possible only in those universities which agree in advance to assist the participant conduct his thesis or dissertation research in the Dominican Republic. The contractor will ensure that the university understands that the salary of the participant's major professor, during that time the professor is assisting the participant in the Dominican Republic, can not be charged to the project. The university may be reimbursed for the cost of one round trip excursion fare and per diem for the participant's advisor. The contractor will arrange and pay for participants travel out of project funds.

The above requirement will remain in effect throughout the contract unless the contractor an USAID are notified to the contrary by TSP.

B. HUMAN RESOURCES AND TRAINING REQUIREMENTS ASSESSMENT.

The contractor will assist DITC conduct an annual assessment of the human resource needs and graduate training requirements of the agricultural sector agencies and the university faculties of agronomy. Two person months of technical assistance will be provided for this purpose.

C. STRENGTHENING AGRONOMY FACULTIES.

The contractor will provide four person-months of technical assistance by an academic planning expert during the second and third years of project implementation to assist the DITC in the formulation of an overall plan for strenghtening the four faculties of agronomy involved in the project. The plan will identify the M.S. level academic specializations that each faculty will pursue; the number and academic disciplines of the professors necessary to establish an M.S. program and the institutional/administrative arrangements which must be made to initiate the program.

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D.C. 20523

LAC/DR-IEE-82-35

ENVIRONMENTAL THRESHOLD DECISION

Project Location	:	Dominican Republic
Project Title and Number	:	Agricultural Sector Training 517-0160
Funding	:	$5.0 million - Loan
Life of Project	:	Seven years, FY 1983 -FY 1989
IEE Prepared by	:	Joseph Kwaitkowski Agricultural Economist
Recommended Threshold Decision	:	Negative Determination
Bureau Threshold Decision	:	Concurrence with recommendation
Action	:	Copy to Philip R. Schwab Director, USAID/Dominican Republic
	:	Copy to Joseph Kwaitkowski
	:	Copy to Barry Burnett, LAC/DR/CAR
	:	Copy to IEE file

James S. Hester Date 27 Aug 82

James S. Hester
Environmental Officer
Bureau for Latin America
and the Caribbean