

PD-AAY-296

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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D. C. 20523

DOMINICAN REPUBLIC

PROJECT PAPER

COMMERCIAL FARMING SYSTEMS
and AMENDMENT NO. 1

AID/LAC/P-403

Project Number: 517-0214

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add
 C = Change
 D = Delete

Amendment Number

1

DOCUMENT CODE

3

COUNTRY/ENTITY
Dominican Republic

3. PROJECT NUMBER
517-0214

4. BUREAU/OFFICE
Latin America and the Caribbean

5. PROJECT TITLE (maximum 40 characters)
Commercial Farming Systems

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
MM DD YY
06/30/92

7. ESTIMATED DATE OF OBLIGATION
(Under "B" below, enter 1, 2, 3, or 4)
A. Initial FY 87 B. Quarter 3 C. Final FY 89

8. COSTS (\$000 OR EQUIVALENT \$1 = 3.5 pesos)

A. FUNDING SOURCE	FIRST FY 87			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	1,500	3,275	4,775	3,931	10,819	14,750
(Grant)	(1,500)	(275)	(1,775)	(3,931)	(819)	(4,750)
(Loan)	()	(3,000)	(3,000)	()	(10,000)	(10,000)
Other						
U.S.						
Host Country		3,294	3,294		11,975	11,975
Other Donors)						
TOTALS	1,500	6,569	8,069	3,931	22,794	26,725

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	244-B	2,100	10,000	-	-	1,775	3,000	4,750	10,000
(2)	124	2,600							
(3)									
(4)									
TOTALS						1,775	3,000	4,750	10,000

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

041 | 042 | 043 | 075 | 080 | 150

11. SECONDARY PURPOSE CODE

124

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

A. Code | BR | BF | R/AG | TNG
B. Amount | 2,100 | 2,300 | 100 | 250

13. PROJECT PURPOSE (maximum 480 characters)

To increase production of non traditional crops through expanded farmer linkages with agribusinesses and direct access to credit and improved technology.

14. SCHEDULED EVALUATIONS

Interim | MM YY | MM YY | Final | MM YY
06/90

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)
Approval of methods of implementation/financing. *Tom G. Bebout* 9/11/87

TOM G. BEBOUT, CONTROLLER

This Project Data Sheet replaces the one signed on May 29, 1987 by former Director Henry H. Bassford. This now covers the PP and Addendum that discusses a change in implementation mechanism under the bridge credit component of the project, and revises the counterpart calculation in accordance with changed exchange rates and guidance on calculations of peso equivalents.

17. APPROVED BY

Signature

Thomas W. Stukel
Director
USAID/Dominican Republic

Date Signed

MM DD YY

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

MM DD YY

AUTHORIZATION AMENDMENT

NAME OF COUNTRY	:	Dominican Republic
NAME OF PROJECT	:	Commercial Farming Systems
NUMBER OF PROJECT	:	517-0214
NUMBER OF LOAN	:	517-T-066

Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, the Commercial Farming Systems Project for the Dominican Republic was authorized on June 1, 1987. That authorization is hereby amended as follows:

1. In paragraph 2, the second sentence is amended to read as follows:

"The Rural Financial Services component will be implemented under a grant agreement with the Central Bank of the Dominican Republic; the agribusiness credit component ("bridge credit") will be implemented through a loan agreement with the Technical Secretariat of the Presidency ("TSP"); and the Agricultural Technology Development component will be implemented under a grant to the non-profit Agricultural Development Foundation (ADF)."

2. In paragraph 3.d., Conditions Precedent to Disbursement, First Disbursement (Loan), subsections (iii) and (iv) are to be replaced, and new subsections (v), (vi), and (vii) shall be added, to read as follows:

"(iii) A description of the mechanism within the Technical Secretariat of the Presidency by which the TSP shall perform its functions under this Agreement and under its contract with the Depository Bank.

"(iv) Evidence that the Depository Bank has the administrative and financial management capabilities required to comply satisfactorily with its responsibilities under the contract with the Technical Secretariat of the Presidency;

"(v) A copy of the contract between the Technical Secretariat of the Presidency and the Depository Bank, which fully describes the responsibilities of the Depository Bank; the systems, criteria, procedures and reports to be employed; the fee arrangements; and the structure of rates of interest to be used at all levels in the program.

"(vi) A copy of the model contract to be utilized between the Depository Bank and the Participating Financial Institutions (PFIs) which describes the terms, conditions and procedures by which the PFIs will gain access to project funds for their lines of credit as well as the standard provisions to be contained in agreements between the PFIs and their agribusiness borrowers.

"(vii) A project reporting plan that specifies the content and frequency of reports that will be provided by the PFIs to the Depository Bank, by the Depository Bank to the Technical Secretariat, and by the Technical Secretariat to A.I.D."

3. In (e.), Special Covenants (Loan), the following language shall be added:

a. At the end of paragraph e.(i) the sentence "The costs of evaluations shall be paid from the Fund, which includes the contributions of A.I.D. and the Borrower and any interest earned thereon, in the manner to be indicated in Annex I to the Loan Agreement" shall be added.

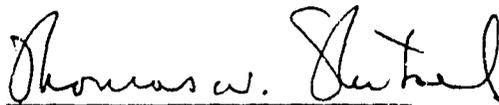
b. An additional paragraph e.(iii) which shall read:

"(iii) Annual Audits: The Parties agree to establish a plan of outside audits for the Project, the cost of which shall be paid from the Fund, which includes the contribution of A.I.D. and the Cooperating Country, and any interest earned on the principal in the manner indicated in Annex I. An independent audit firm will be contracted by the TSP each year to perform a financial and compliance audit in accordance with U.S. Government audit procedures. The Cooperating Country will provide every reasonable assistance to facilitate the performance of these audits and will provide copies of the complete audit reports to A.I.D. on a timely basis. In addition,

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on request, TSP shall direct the auditors to provide any additional reasonable supporting documentation or information requested by A.I.D."

4. The original authorization cited above remains in force except as hereby amended.



Thomas W. Stukel
Thomas W. Stukel
Director
USAID/Dominican Republic

9/14/82
Date

PROJECT AUTHORIZATION

NAME OF COUNTRY/ENTITY: Dominican Republic

NAME OF PROJECT: Commercial Farming Systems

NUMBER OF PROJECT: 517-0214

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Commercial Farming Systems Project for the Dominican Republic involving planned obligations of not to exceed Ten Million United States Dollars (US\$10,000,000) in loan funds and Four Million Seven Hundred Fifty Thousand United States Dollars (US\$4,750,000) in grant funds over three years from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is five years from the date of initial obligation.

2. The Project consists of assistance to (1) improve the functioning of rural financial systems that provide access to savings and credit to farmers and marketers of nontraditional agricultural products, (2) provide additional credit tied to increased agribusiness outgrower contracting and (3) make available improved production technology for producers of such products.

The Rural Financial Services component will be implemented under a loan-grant agreement with the Central Bank of the Dominican Republic, and the Agricultural Technology Development component under a grant to the non-profit Agricultural Development Foundation (ADF).

3. The Project Agreements which may be negotiated and executed by the Officers to whom such authority is delegated in accordance with A.I.D. 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 Repayment

The Cooperating Country shall repay the loan to A.I.D. in U.S. Dollars within twenty-five (25) years from the date of the 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 (a) two percent (2%) per annum for the first five (5) years, (b) three percent (3%) per annum for the next five (5) years, and (c) five percent (5%) 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 Commodities, Nationality of Services -- Loan Funded

Commodities financed by A.I.D. under the Project shall have their source and origin in A.I.D. Geographic Code 941 and the Dominican Republic, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have countries included in A.I.D. Geographic Code 941 and the Dominican Republic as their place of nationality, 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 United States, other countries in Code 941 and the Cooperating Country.

c. Source and Origin of Commodities, Nationality of Services -- Grant Funded

Commodities financed by A.I.D. under the Project shall have their source and origin in the United States (A.I.D. Geographic Code 000) or the Dominican Republic, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the United States or the Dominican Republic as their place of nationality, 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 United States.

d. Conditions Precedent to Disbursement

First Disbursement (Loan). Prior to the disbursement of any funds under the Loan, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Borrower shall, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(i) An opinion of the legal advisor to the Borrower that the Agreement has been duly authorized and executed on behalf of the Borrower, and that it constitutes a valid and legally binding obligation of the Borrower in accordance with all of its terms;

(ii) A statement of the name of the person who will represent the Borrower, and of any additional representatives, together with a specimen signature of each person specified in such statement;

(iii) Written operational guidelines which describe, inter alia, all of the procedures, including sub-loan application forms, approval and disbursement arrangements, use of recuperations, auditing and accounting procedures, and the eligibility criteria which will be applied to the use of A.I.D -furnished loan funds; and

(iv) A copy of the agreement to be utilized between the Fondo para el Desarrollo Económico (FIDE) and the Participating Financial Institutions (PFIs) which describes the terms, conditions, and procedures to be employed by PFIs to access project funds for their lines of credit.

First Disbursement (RFS Grant). Prior to the disbursement of any funds under the Grant for Rural Financial Services, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee shall, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(i) Evidence that the equipment and vehicles that have been funded by AID for the Rural Savings Mobilization Project have been assigned for use by the RFS component.

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(ii) Procedures and financial controls/audit plans for the Administrative Loan Fund and the Stabilization/Reserve Fund; and

(iii) An initial implementation plan for the RFS component.

First Disbursement (Ag. Technology Development Grant)

Prior to the disbursement of any funds under the Grant for Agricultural Technology Development, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee shall, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(i) Evidence that the ADF has been legally incorporated, that the Board of Directors and its operating committees have been named, and that a fulltime Executive Director and financial manager have been appointed.

(ii) Evidence that the Endowment Fund has been established with an agreed contribution by members of the ADF, and arrangements have been made for the GODR counterpart contribution; and

(iii) Plans for management and control/audit of the Endowment Fund, and certification by a CPA acceptable to A.I.D. that it has established an appropriate financial management system for the AID funds.

Disbursement for Research Grants

Prior to the disbursement of any funds to researchers under the Grant for Agricultural Technology Development, or to the issuance by A.I.D. of documentation pursuant to which such disbursement will be made, the Grantee shall, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(i) A draft research program, and

(ii) Operational procedures for making and supervising research grants.

e. Special Covenants (Loan)

The cooperating country shall covenant as follows:

(i) Evaluation Plan. Except as A.I.D. may otherwise agree in writing, the cooperating country will prepare and submit to A.I.D., in form and substance satisfactory to A.I.D., within 12 months of the signing of this Agreement a time-phased plan for project evaluation.

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(ii) Support of Commercial Farming. Except as A.I.D. may otherwise agree in writing, the cooperating country:

(a) Agrees to review with A.I.D. the structure of interest rates proposed under the Project each year from the date of the first disbursement of Loan funds, within the guidelines established by the Monetary Board and recognizing the prevailing conditions in Dominican financial markets;

(b) Agrees, for the repayment period of the loan, to utilize the principal repayments made by the PFIs for lines of credit which meet the original purpose and objectives of the project;

(c) Agrees that loan funds will not be used for projects involving the production or processing for export of sugar, citrus, African palm oil, nor for pesticides and severe chemical treatment such as tanneries or extensive land clearing or road construction in hillside areas, nor for traditional exports as defined under Dominican Law No. 69; and

(d) Agrees to take the necessary steps, consistent with guidance to be furnished by A.I.D., to assure that Project funds are not used to increase agricultural exports to countries other than the United States when those exports would cause substantial injury to U.S. exporters of a similar agricultural commodity.



Henry H. Bassford
Director
USAID/Dominican Republic

6/1/87
Date

PROJECT PAPER ADDENDUM
Commercial Farming Systems: Bridge Credit Component
(Project No. 517-0214)

A. Purpose

The purpose of this addendum to the Project Paper is to describe a change in the Bridge Credit component that has occurred since the PP and Authorization were completed and signed on June 1, 1987, and its implications for project management.

B. Background

At the time when we conducted the analyses for the project paper (Fall/Winter 1986), we expected to continue to use the Central Bank's Fondo de Inversion para el Desarrollo Económico (FIDE) as the most appropriate channel for the loan. FIDE had been the implementer of the loan component of the Agribusiness Promotion Project. Some delays had been experienced in processing credits, and the tendency of FIDE to second-guess the private banks in their feasibility judgements on individual subloans was proving more difficult to alter than expected. We were working with FIDE to improve the situation and believed that FIDE was performing respectably in adhering to the purposes of the project and disbursing credits to the participating Financial Institutions (qualified Private Commercial and Development Banks), known as PFIS. We further believed that, with an additional injection of US\$10 Million for the new program to on-lend to firms using outgrowers, we could continue to influence FIDE to become more agile and responsive in dealing with this key sector. Accordingly, in early June, we intended to sign a combined Loan-Grant Agreement that would finance the Grant to continue and expand the Rural Savings Mobilization Program and the Loan for the so-called Bridge Credit Fund for outgrower-based Agribusiness.

While negotiations on final details were under way, USAID contracted for an external audit of FIDE's stewardship of the Agribusiness Loan Fund, in order to satisfy our financial analysis and payment verification requirements and to confirm a number of indications we had of problems which we had been observing since May of this year. The audit, completed in July 1987, found that FIDE had failed to comply with the terms of the Loan Program in the following significant ways:

- External audit programs of the PFIs and project evaluation plans had not been initiated; FIDE was not monitoring final use of the funds or PFIs' general performance.
- Subloan approvals were taking place over 11 weeks, rather than the two weeks intended; and disbursements after approval were averaging 7 weeks rather than the stipulated 5 days.

- Accounting and procurement records had not been properly maintained, and the audited financial statements for the year ended 12/31/86 had not been completed.

Based on these findings, in July USAID suspended further disbursements under the Agribusiness Loan until these problems could be resolved.

In addition, during the same period the Monetary Board and the Governor of the Central Bank began taking aggressive steps to control the rapid devaluation of the peso. Not only were strict controls imposed on foreign exchange, and an official exchange rate established and set weekly at levels below market exchange rates, but the Bank began to constrict the money supply, partly by control at the monetary board level of all Loan approvals and disbursements of FIDE and other Central Bank windows. We have concluded that these controls have effectively undercut our efforts to improve the FIDE procedures. Although these measures are described by the GODR as temporary, we find that as long as FIDE is subject to being an ad hoc instrument of monetary policy, it cannot also respond adequately or independently to agribusiness financing requirements.

We began to discuss with the Technical Secretariat of the Presidency (TSP) approaches to resolving this issue so as to sign the Agreement. The discussions have focussed on alternatives to the Central Bank/FIDE model. The fund mechanism described below has been accepted in principle as the best alternative. With this approach, we expect to achieve the following:

- (1) A sounder and more responsive Loan Fund;
- (2) A precedent that may allow the separation of the handling of project funds from cumbersome FIDE and other GODR disbursement procedures; and
- (3) Development of a financial mechanism that may be applicable in our local currency credit programs as well as DA projects.

This change affects only the implementation mechanism of the Bridge Credit Fund of the project. The goal, purpose, end of project indicators and inputs of this and other components are not affected by this modification.

C. Description of the Fund Arrangement

This Bridge Credit Fund now will be set up and managed as described below.

1. Objective and General Description

The Fund, or Project funds, as used in this description, includes the contributions of AID and the GODR, and any interest earned on such contributions. USAID will make a loan of US\$10 million to the GODR to help create the Fund which will function as described below. The GODR will provide

in local currency the equivalent of US\$2.5 million in counterpart to initiate the Fund. By the end of the Project, the Fund is expected to increase the incomes and commercial farming experiences for approximately 6,000 farmers.

Loans will be channelled to agribusinesses that draw a significant percentage of their raw materials (measured by value) from these farmer-outgrowers. Utilizing the loans provided under the Fund, the agribusinesses will be able to provide support to the outgrowers (commonly called "bridge credit") in the form of cash, inputs such as feed, fertilizer and pesticides, and services such as land preparation and/or technical advice by trained agronomists or horticulturists. At the end of the cropping period, the agribusinesses will calculate the balance of credit extended to the farmer-outgrowers against the purchase price of the production that was accepted for packing or processing by the firm, and will settle accounts accordingly.

2. Levels of Participation

The Fund will involve the following operational levels: AID and the GODR will make local currency funds available to the Banco de Reservas ("Depository Bank") which will have primary responsibility for implementation of the program. Using such resources, the Depository Bank will extend lines of credit to various participating financial institutions (the "PFIs"). Each of the PFIs, in turn, will make loans available to private Dominican and joint venture agribusiness companies and who use small farmer outgrowers to produce non-traditional agricultural, aquacultural or livestock products primarily produced for export or to substitute for imports.

3. Operation of Fund

Subject to the more specific agreement of the Parties which will be described in Project Implementation Letters, the Fund will be established in accordance with the following general description:

a. Loans for Agribusiness Borrowers

PFIs will make loans to their agribusiness customers for use as bridge credit to farmer-outgrowers as described above. AID and the TSP will agree upon standard contractual terms which will be included in documentation covering such loans, including but not limited to requirements conforming to AID procurement regulations, reporting requirements, and audit rights. The agribusiness borrowers must employ the proceeds of their loans to supply production inputs and cash (for production related expenses) to farmers with whom the borrowers have contracted for raw material supplies.

b. Lines of Credit for Participating Financial Institutions

Each of the PFIs will contract directly with the Depository Bank to open a line of credit under which funds could be drawn for immediate disbursement for the funding requirements of the agribusiness customer loans.

The standard contractual terms governing such lines of credit will be subject to the mutual approval of AID and the TSP. Using analysis and recommendations made initially by the Depository Bank, AID and the TSP shall jointly decide which PFIs are qualified to apply to the Fund, and the limits placed on their lines of credit. The TSP and AID will seek to allow a sufficiently broad number of institutions to participate in order to encourage competition and to learn from the variety of experiences and approaches involved.

c. Contract With Depository Bank

The Banco de Reservas ("Depository Bank"), selected by the TSP, will receive and disburse both AID and GODR funds contributed to the Fund. The TSP will contract directly with the Depository Bank for this purpose. AID shall have approval rights concerning the terms and conditions of this contract. The duties of the Depository Bank will be set forth in such contract and will include, but are not limited to, the following:

- (1) Evaluate and make recommendations to the TSP concerning the banks which wish to become PFIs;
- (2) Make recommendations to the TSP concerning the levels of the various credit lines to be opened for the PFIs and the terms thereof;
- (3) Contract directly with the PFIs to establish the lines of credit available to them, based on a standard contract that has been jointly approved by AID and the TSP; and
- (4) Report periodically to the TSP concerning the status of loans made by the PFIs and the use of loan funds by the agribusiness customers, the frequency and format of such reports to be specified by the TSP.

The compensation of the Depository Bank will be established with the mutual approval of AID and the TSP. It will be reasonable in amount and funded, to the extent possible, by the interest paid by the PFIs.

d. Disbursement of AID and Host Country Resources.

The Bridge Credit Fund will be composed of the local currency equivalent of US\$12,500,000 (US\$10,000,000 from AID and the equivalent of US\$2,500,000 from GODR resources) and any interest earned on such principal. These funds will be disbursed in the following manner:

- (1) The GODR will make an initial contribution of local currency equivalent of US\$2,500,000 to the Fund, which will be retained in an interest bearing account by the Depository Bank, of which the equivalent of US\$300,000 shall be available for audit and evaluation expenses.

(2) The Depository Bank will thereafter solicit initial loan applications from the PFIs.

(3) AID will disburse, through such procedures as shall be mutually agreed upon, local currency in an amount sufficient to fund such loans. AID shall continue to fund all subsequent approved loans to PFIs up to a total of the equivalent of US\$10,000,000; and

(4) The Depository Bank shall be required to utilize not more than the equivalent of US\$2,200,000 of the equivalent of US\$2,500,000 on account to temporarily fund PFI loan requests pending actual receipt of the disbursements of AID funds to be used for permanent funding. Following AID disbursements totalling US\$10,000,000, the Depository Bank shall use the equivalent of US\$2,200,000 and principal and interest payments by PFIs (net of fees and expenses as specified in the Depository Bank's contract with the TSP) for subsequent PFI loan requests.

e. Loan Approval

Once standard contract terms have been agreed upon, neither AID nor the TSP shall become involved in the decisions of the Depository Bank regarding PFI loans for funding, nor in the process by which the PFIs solicit and approve agribusiness borrowers for funding. Monitoring will be provided, and audits will be performed by the Depository Bank and the TSP once operations begin. It is the intent of the TSP and AID to allow funds to flow promptly to the agribusinesses which are the end users and to assure the PFIs and their customers that funds can be immediately drawn to meet disbursement requests under their respective lines of credit, once established. For this reason, the Depository Bank will retain a working capital reserve of US\$2,200,000 equivalent to be invested in such instruments as AID and the TSP may approve, when not otherwise required for temporary loan funding as described above. Interest earned on loans made will be relented in the same manner as principal.

f. Interest Rates

AID and the TSP, using the recommendations of the Depository Bank, will jointly agree upon interest rate provisions applicable to each level of the program. It is the intent of the parties that loans be extended to agribusinesses at interest rates which approximate market rates. This structure of interest rates will be subject to periodic review and adjustment by AID and the TSP.

g. Disposition of Funds at Project End

The funds and/or loan assets held by the Depository Bank at the time the AID loan is fully repaid shall be used for such purposes as the TSP or its successor shall direct.

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4. Audit and Evaluation Requirements

The TSP will establish an audit plan as part of the Bridge Credit program. There will be at least three general audit areas, all financed by the Fund: audits of the Depository Bank; audits of PFI performance, and audits of bridge credits extended by the PFI borrowers. The Depository Bank annually will furnish the TSP with a certified audit of its management of the Fund. (The TSP will also audit the Depository Bank as part of its general audits of its local currency program.) The PFI's utilization of bridge credit loans will also be audited as often as necessary by the Depository Bank, paid by interest earned by the Fund. During the initial 18 months of the Project, audits of PFI's will be more frequent than they will be as the program progresses.

Project evaluations will be carried out by TSP and/or AID, and will include but not be limited to: (a) evaluation of progress toward achievement of the purpose of the Fund (6,000 outgrowers financed); (b) identification and evaluation of problem areas or constraints which may be inhibiting progress; (c) assessment of how problems may be overcome; and (d) evaluation, to the degree feasible, of the overall development impact of the Project.

The Borrower will prepare and submit to AID within 3 months of the signing of this Agreement a time phased plan for the audits and evaluations described above. AID reserves the right, independently from the above, to carry out such additional audits and evaluations as it deems necessary to ensure the successful implementation and impact of this Project.

D. Detailed Provisions

The foregoing description is also contained in Annex I to the Loan Agreement. The following points will be provided in Implementation Letters and/or incorporated into the various contracts at each stage of the program.

The TSP will, in consultation with AID, establish the regulations governing the use of the Fund, including rules governing the contractual relationship between the Depository Bank and PFIs, and incorporate such regulations in its contract with the Depository Bank. The amount of the line of credit established with each qualified PFI will be fixed by the Depository Bank in consultation with TSP and AID as described above. The amount of the line of credit may be increased or decreased according to PFI performance in making eligible subloans.

The TSP will also undertake its own audits of its local currency programs as a whole, which will include audit of the Bridge Credit Fund as appropriate. The TSP agrees to undertake whatever action necessary to remedy any failure by the Depository Bank to manage the Fund as agreed.

Normally, once the Depository Bank disburses funds to a PFI, these funds will remain with the PFI as a line of credit for a specified number of years, during which the PFI will pay interest to the Depository Bank. They will be

maintained in a separate Bridge Credit Fund account established by each PFI. The PFIs will be required to continue relending these funds for bridge credits during the specified period using the eligibility criteria established under this Project. Should a PFI find that it cannot relend all reflows for specified purposes, it will be free to return funds to the Depository Bank. Repayments of these funds by the PFIs to the Depository Bank will begin after a specified grace period. The TSP and AID will establish the period of each PFI's line of credit and its grace period based upon the recommendations of the Depository Bank.

Requests for disbursement will be sent by the Depository Bank to the TSP, and TSP will forward such requests to AID within three work days. The Depository Bank will base disbursement projections on data submitted by each PFI for the subloans made under its line of credit. Depository Bank disbursement requests will be accompanied by lists of the PFIs, and the subloans proposed for financing (their purpose, amount and borrowers' names).

The Depository Bank will verify that PFI accounting is sound and that subloan documentation is in order. In cases where the Depository Bank identifies violations, penalties will be assessed based on the severity of the violation at the discretion of the Depository Bank, TSP, and USAID. Penalties can include suspension from eligibility to participate in the Program (i.e. make more subloans), reimbursement of outstanding credit line balances, and being declared ineligible for this and other AID refinancing lines.

The Depository Bank will analyze the qualifications of PFIs applying to participate in the Program, and recommend to the TSP whether they are eligible. The Depository Bank will assess the financial soundness of PFIs applying for eligibility and their prospects for lending for bridge credits. It will also recommend to the TSP the level of the line of credit to extend to applying PFIs. The Depository Bank will study the financial strength of the PFIs, the scope and soundness of their agribusiness portfolios, the capacity of their staffs to identify, appraise and monitor agribusiness loans, and known demand for subloan financing from their customers. PFIs also will be assessed in terms of their previous performance with the Agribusiness Loan Fund managed by the Central Bank (FIDE), and their standing with the Dominican banking authorities. Based on this analysis, PFIs will be recommended for participation in the Program and allocated a line of credit, following TSP and AID concurrence.

The Depository Bank will oversee use of Fund resources by PFIs in accordance with Depository Bank/PFI contracts by establishing and enforcing PFI reporting requirements and adequate monitoring procedures using its own staff and outside auditors. To aid in evaluations, PFI reporting requirements will include data on the nature of subloans and their socio-economic impact, in addition to accounting for Fund resources.

The Depository Bank will also be responsible for monitoring PFIs' use of the reflows of Fund resources in their lines of credit, and reallocating Fund resources among eligible PFIs as necessary.

For the life of the AID loan, the Depository Bank will utilize the repayments made by the PFIs to the Fund for lines of credit which meet the original purpose and objectives of the Project.

The PFIs will manage Fund resources lent to them in accordance with their contracts with the Depository Bank. They will monitor borrowers' use of subloan proceeds to ensure that funds are being used for intended purposes.

The PFIs will assume full commercial risk for subloans. Thus, the responsibility for review, appraisal and determination of creditworthiness will remain with them. Should PFIs and/or their clients require technical assistance to determine a subloan's viability, this can be made available through JACC/DR (technical feasibility) and the Association of Development Banks Feasibility Study Fund Program (financial feasibility). PFIs will review subloan applications based upon sound commercial and development banking criteria. Their review will determine that subloans are financially and technically viable, that the borrowers can manage payments, that sufficient equity is invested, and that collateral is reasonable. The maximum size subloan will be RD\$6 million. (Loans can be pooled among a group of banks.).

During the life of their loan agreements with the Depository Bank, the PFIs will be required to submit periodic reports on the status of subloans as well as a forecast of future disbursement requirements. PFIs will be obligated to maintain the documentation which was used to appraise each subloan. They will also maintain separate accounts for their credit lines, including initial disbursements and loan recuperations.

Each PFI will furnish the Depository Bank with copies of its certified annual audit and stockholders report.

Market rates of interest will be maintained, within the guidelines established by the Monetary Board and recognizing prevailing conditions in Dominican financial markets. (The structure of interest rates includes end user rates, spreads, maturities, grace periods, percentage of subloans financed, and the like.)

The agribusiness borrowers must employ the proceeds of their loans to supply production inputs and cash (for production related expenses) to farmers with whom the borrowers have contracted for raw material supplies. If it should be determined by either the participating PFI or the Trustee Bank that a subloan borrower is not employing loan proceeds according its subloan contract, and if this condition is not remedied in 30 days, the subloan will be called due and payable by the PFI, and the borrower will be denied future access to the PFI's line of credit.

E. Implications for USAID Implementation

Moving to a Depository Bank arrangement may initially involve additional workload for the Private Enterprise Division and staff offices, in order to (a) assure that the Depository Bank and the TSP understand their roles and

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functions (and the role of the PFIs), (b) set up final disbursement mechanisms, and (c) see that all parties are fully aware and supportive of such matters as the criteria for PFI participation, eligibility criteria, subloans, record-keeping and reporting requirements, and auditing/evaluation responsibilities.

The content of the standard contracts at each level will have to be determined, along with the structure of interest rates and fees, which will require active USAID involvement. Evaluation and audit plans will have to be reviewed and approved.

However, once these initial steps have been taken, we expect that the system will require less persistent attention than has been required in the relationship with FIDE. The trustee will be relatively isolated from government policy and political concerns, and able to perform a professional responsive service with direct accountability established through the trust agreement.

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add
 C = Change
 D = Delete

Amendment Number

DOCUMENT CODE

COUNTRY/ENTITY
 Dominican Republic

3. PROJECT NUMBER
 517-0214

4. BUREAU/OFFICE
 Latin America and the Caribbean 05

5. PROJECT TITLE (maximum 40 characters)
 Commercial Farming Systems

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
 MM DD YY
 09 30 91

7. ESTIMATED DATE OF OBLIGATION
 (Under "B" below enter 1, 2, 3, or 4)
 A. Initial FY 87 B. Quarter C. Final FY 89

8. COSTS (\$000 OR EQUIVALENT \$) = 3.0 pesos

A. FUNDING SOURCE	FIRST FY 87			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	1,500	3,275	4,775	3,931	10,819	14,750
(Grant)	(1,500)	(275)	(1,775)	(3,931)	(819)	(4,750)
(Loan)	()	(3,000)	(3,000)	()	(10,000)	(10,000)
Other						
U.S.						
Host Country		3,294	3,294		13,782	13,782
Other Donor(s)						
TOTALS	1,500	6,569	8,069	3,931	24,601	28,570

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	244-B	2,100	10,000	-	-	1,775	3,000	4,750	10,000
(2)	124	2,600							
(3)									
(4)									
TOTALS						1,775	3,000	4,750	10,000

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)
 041 | 042 | 043 | 075 | 080 | 150

11. SECONDARY PURPOSE CODES
 124

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

A. Code	BR	BF	R/AG	TNG
B. Amount	2,100	2,300	100	250

13. PROJECT PURPOSE (maximum 480 characters)

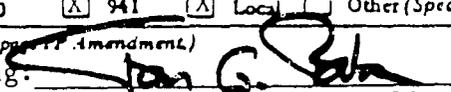
To increase production of non traditional crops through expanded farmer linkages with agribusinesses and direct access to credit and improved technology.

14. SCHEDULED EVALUATIONS

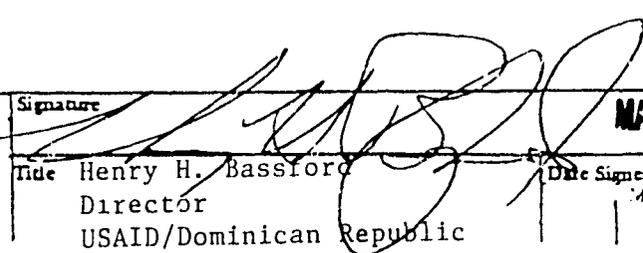
Interim	MM	YY	Final	MM	YY
<input checked="" type="checkbox"/>	01	89	<input type="checkbox"/>		

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 amendment.)
 Approval of methods of Implementation/Financing.


 Tom G. Bebout, Controller

17. APPROVED BY

Signature		DATE RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
Title	Henry H. Bassford Director USAID/Dominican Republic	MM DD YY 11 03 87

MAY 29 1987

Date Signed: MM DD YY

PROJECT PAPER

Commercial Farming Systems

Project No. 517-0214

USAID/Dominican Republic

May 27, 1987

3776F/3506F

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Commercial Farming Systems
517-0214

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 - 3. Agricultural Technology Development
 - Economic Analysis
 - 4. Agricultural Development Foundation - Bylaws
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List of Acronyms

ADF	Agricultural Development Foundation
AID	Agency for International Development
BAGRICOLA	Banco Agrícola, the Dominican Government Agricultural Bank
CNHE	Consejo Nacional de Hombres de Empresa (National Council of Businessmen)
CODOCOOP	Dominican Confederation of Cooperatives
CU	Credit Union
DIA	Departamento de Investigación Agropecuaria (Ag/Livestock Research Department), Secretariat of Agriculture
FEDOCOOP	Federation of Multiple Service and Savings/Loan Cooperatives
FIDE	Fondo para el Desarrollo Económico (Economic Development Fund), Central Bank
IDIA	Instituto Dominicano de Investigación Agropecuaria (Dominican Agricultural Research Institute)
INDRHI	Instituto Nacional de Recursos Hidráulicos (National Water Resources Institute)
ISA	Instituto Superior de Agricultura (Superior Agricultural Institute)
NTC	Non-traditional crops
RFS	Rural Financial Services
RSM	Rural Savings Mobilization - office or project
SEA	Secretariado de Estado de Agricultura (Secretariat of State for Agriculture)
UASD	Universidad Autónoma de Santo Domingo (Autonomous University of Santo Domingo)
UNPHU	Universidad Nacional Pedro Henríquez Ureña
USAID	Mission of the Agency for International Development in the Dominican Republic

Project Development Team

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I. SUMMARY AND RECOMMENDATIONS

A. Summary of the Problem

Commercial agriculture in the Dominican Republic encompasses crops that are grown primarily for export as well as import substitution crops. The traditional export crops are sugar, coffee, cacao and tobacco. Non-traditional export and import substitution crops (which are the focus of this project) include such products as winter fruits and vegetables, corn and sorghum, and industrial tomatoes. The production system for these crops relies heavily on small or medium-scale farmers, many of whom work closely with agribusinesses that store, package, process and market the production of these farmers, and provide the growers with cash and in-kind credit (widely known as "bridge loans"), technical advice, and services such as land preparation.

A number of factors are constraining the continued growth of this production system for non-traditional products. Among them, two key limitations have been identified for treatment by this project:

- Imperfections in the financial markets serving agriculture, including lack of liquidity, lack of access to credit (partly a function of high costs and risks), and inappropriate regulation and policies for the expansion of rural banking; and
- Insufficient technology development to adapt higher yielding varieties to local conditions and to protect crops against pests.

These factors limit the realization of the foreign exchange earning potential of the sector, and limit the benefits to smaller producers of linkages with agribusinesses having market outlets.

B. Project Summary

The Commercial Farming Systems Project will have a total budget of \$28.53 million, of which AID will finance \$10.0 million in loan funds, and \$4.75 million in grant funds. The project is designed to reduce both the financing and the technology problems so as to increase production by small/medium scale farmers of non-traditional crops.

Building on USAID's successful pilot effort in rural savings mobilization, the project will support the extension of rural financial services to smaller clients, concentrating in geographic areas of highest agribusiness activity. This component will involve both technical assistance and financial strengthening for base-level rural banking institutions, concentrating on credit unions (CUs) that can provide financial services to farmer and non-farmer clients. The CUs can channel savings from increased rural incomes (earned from crop production) to borrowers to meet both production and non-farm credit needs in the local areas.

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In addition to the Agricultural Bank (BAGRICOLA -- which currently offers two savings instruments and lends to small rural clients through 31 branches), CUs represent a cost-effective institutional network for providing rural financial services. Besides capturing excess funds from those clients who have them and lending to those who lack them, CUs can become retailers of financial services for other financial intermediaries. However, they must first be placed on a sound financial footing. The project will fund technical assistance and training for credit union/banking specialists and for CU officials; and will also provide continuing assistance to consolidate the reforms occurring in the BAGRICOLA, and to the Central Bank for policy studies and recommendations aimed at improving the operation of the financial system so that credit will flow more easily to the rural areas.

To help alleviate the liquidity problem, the project will provide loan funds through the mechanism in the Central Bank established for the Agribusiness Promotion Project. These funds will be channeled through participating private banks to agribusinesses that rely significantly on small farmer outgrowers.

The project will strengthen private sector capacity to respond rapidly to the short- and medium-term research and development requirements of an expanding non-traditional production system. The project will support the creation of a private research foundation whose purpose will be to provide financing of high quality, user-defined research in such areas as variety testing and pest control, utilizing the talents and facilities in the existing research system of the GODR, as well as the universities, private consulting and agrochemical firms, and the larger agribusinesses. The project will finance the startup costs of the Agricultural Development Foundation, establish an endowment fund (financed with ESF local currency proceeds and matching private sector contributions), and provide intensive training for key members of the research community.

The project's components, taken together, are intended to reduce the costs and risks inherent in a commercial farming system based on small to medium scale farmers. Operational and policy improvements in the financial system, with interventions from the level of the rural CU to the BAGRICOLA and the deliberations of the Monetary Board, along with increased liquidity, should provide better access to credit for farmers, at less cost. Increased use of improved technology should increase yields and rates of return in farming, as well as reduce the risk of crop losses due to unknown or uncontrolled pests. The project will encourage outgrower relationships based on both finance and technology. These relationships also help reduce risk because the agribusinesses know their outgrowers, they provide the grower with technical assistance, and they guarantee a market for the product.

C. Organization and Implementation Arrangements

The project's components will be implemented by Dominican institutions with which AID is currently working. The grant-funded Rural

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Financial Services component will be carried out by the Rural Savings Mobilization (RSM) Office of the Central Bank, which has managed the Rural Savings Mobilization Project, and the loan for bridge credit will be channeled through the Central Bank's Economic Development Fund (FIDE), utilizing the lending mechanism established for the Agribusiness Promotion Fund. As the project matures, the key functions of the RSM Office will be assumed by a credit union association to be organized among the participating CUs, and the Central Bank will phase out the RSM Office as a separate entity.

The technology development component will be implemented by a grant to the foundation now established by the National Council of Businessmen (CNHE). The CNHE is currently implementing a USAID-sponsored Development Training Project. The Agricultural Development Foundation is an independent entity, though members of the CNHE are among the funding members. USAID's Agriculture/Rural Development Division and Private Enterprise Divisions will cooperate to monitor the project. ARD will implement the Agricultural Technology Development component and the Rural Financial Services activities of the RSM Office, while the PED will work with the Central Bank on the bridge credit fund under Rural Financial Services. This approach to project administration builds on established relationships of the Divisions with the above Dominican entities, and on USAID teamwork during project development. These implementation arrangements are shown in Figure 1 on the following page.

D. Findings and Recommendations

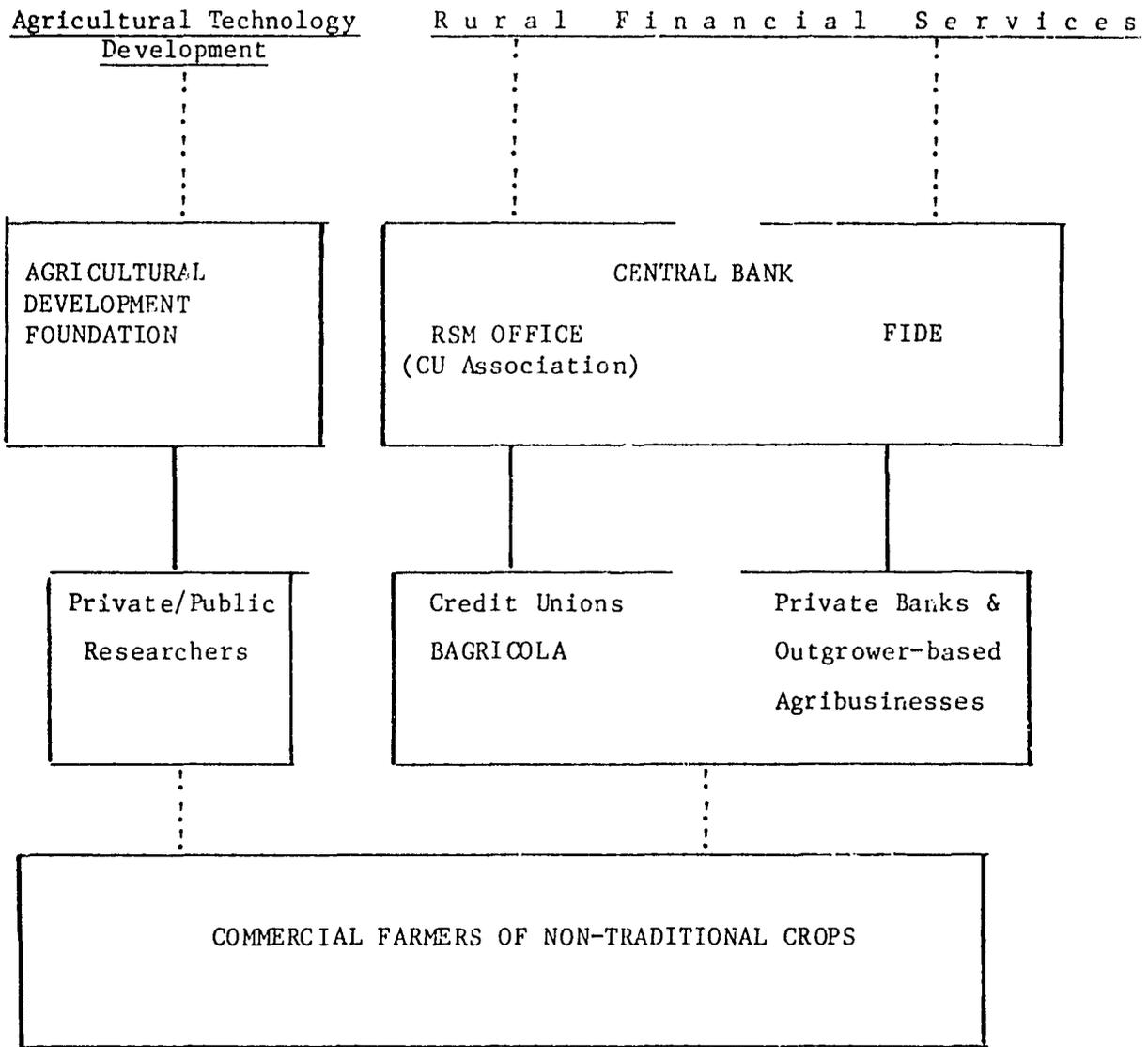
The Project Development Team finds that the Commercial Farming Systems Project is technically, financially, economically, and administratively feasible, and socially sound. There is ample demand for the services and funds that the project will provide, and high probability that the project will produce the intended results. Accordingly, the Team recommends that the Project be authorized as follows:

<u>Component</u>	<u>Borrower/Grantee</u>	<u>AID</u> (US\$000/Equivalent)	<u>Counterpart</u>	<u>Total</u>
Rural Financial Services/Bridge Credit	Central Bank (G)	2,115	2,051	4,166
	Central Bank (L)	10,000	2,500	12,500
Agric. Technology Development	Ag. Dev. Found. (G)	<u>2,635</u>	<u>9,231</u>	<u>11,866</u>
	TOTAL	14,750	13,782	28,532

Figure 1

Commercial Farming Systems Project

PROJECT ORGANIZATION



II. BACKGROUND AND PROJECT RATIONALE

A. Profile of Commercial Farming

The Dominican Republic has potential to increase substantially the production of non-traditional crops, both those grown for export, as well as import substitution products, particularly in irrigated areas of the country. Agribusinesses have targeted these areas for the production of high value fruits and vegetables for the export market. During 1986, non-traditional agricultural exports reached a level of US\$53.5 million, compared to under US\$20 million in 1979. The country also has an opportunity to save foreign exchange through the production of feedgrains such as corn and sorghum. In 1984, the Dominican Republic imported over US\$40 million in feedgrains, compared to US\$29 million in 1982.

Many agribusinesses currently producing for export as well as for domestic markets are utilizing outgrower contracts with small and medium sized producers to supply quality agricultural products. The agribusinesses that use outgrower contracts frequently provide the farmer a complete crop production package, technical assistance, and a market for the non-traditional product. From a developmental viewpoint, the linkages established between agribusinesses and smaller producers are a critical element in the future strengthening and expansion of a viable, market-oriented small/medium commercial farming system that could be the backbone of a dynamic rural sector. These linkages reduce risk from the producer point of view. Agribusinesses tend to deliver technical support and credit more efficiently to farmers than do the public agencies in the agriculture sector.

B. Constraints to the Expansion of Linkages Between Small Farmers and Agribusiness

There are two major constraints that limit private sector realization of agricultural diversification efforts through a system that links smaller producers with agribusinesses having market outlets. These are (1) imperfections and lack of liquidity in the rural financial markets serving agriculture, and (2) lack of adequate technology development.

1. Imperfections in Rural Financial Markets Serving Agriculture

The private banking industry (commercial and development banks) is providing financial services in the rural areas of the D.R. to a limited extent. However, their clients are the relatively large commercial farmers. In 1984, the proportion of the loan portfolios of the private commercial and development banks directed to agricultural production were only 6% and 8% respectively. Financial services for smaller clients have been restricted by higher operating costs, higher risk associated with financing agricultural production, and overly restrictive banking practices and regulations which

have resulted in a variety of institutions, each offering a specific financial service, but few that can meet multiple needs for checking, savings, and various types of loans.

The public sector Agricultural Bank (BAGRICOLA) has a well-distributed branch network, a mandate to serve small farmers and offers a wider range of minimum/maximum limits on lending as well as lower interest rates to borrowers. Unfortunately, it has historically suffered from high loan arrearages, low interest income compared to transaction costs and a dependence on GODR and international donor transfers to capitalize its lending operations. At the same time as inflows of funds from both capital transfers and amortizations have slowed, demand for financing has risen with increased costs of production. A widening supply-demand credit gap has resulted. To balance the supply of funds with demand, BAGRICOLA has relied on credit rationing mechanisms such as lengthy loan processing procedures which effectively dissuade borrowers. Loan applications are frequently approved but rarely disbursed in a timely manner. As a consequence, many individual farmers and agribusinesses try to avoid dealing with BAGRICOLA.

Nevertheless, BAGRICOLA continues to be a major player in the agricultural sector. In an effort to wean the bank from its dependency on GODR and international donor transfers, the USAID recently approved a loan to BAGRICOLA from PL 480 local currency through the Central Bank. This loan carries an interest of nine percent per year which is approximately the cost of mobilizing savings, thus these resources will not undermine the savings program. Making these resources available as a loan to BAGRICOLA will also provide an incentive for the bank to recoup the sub-loans.

Non-regulated informal financial institutions, such as small lending houses and individual money-lenders, provide services in rural areas. However, they require high collateral and/or high rates of interest, often exceeding 60% per annum. Farmers borrow for agricultural purposes from these lenders only as a last resort. Also, these non-regulated financial institutions offer no checking or savings services to rural clients.

These financial market imperfections affect both export and domestic agricultural production by agribusinesses and individual farmers. Agribusinesses, facing the above conditions, have turned to financing contract growers directly, either from their own resources or from private bank loans. Thus far, this approach has been effective in spurring the participation of smaller producers in agricultural diversification. Agribusinesses are now finding that expansion of the outgrower system is limited by the lack of overall liquidity, as well as the restrictive collateral requirements of the private banks. Currently, the private banking sector requires land and other capital assets as collateral for working capital loans. Those agribusinesses who want outgrowers to supply their operations generally have little or no land and thus do not have the required collateral to qualify as borrowers.

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2. Lack of Adequate Technology Development to Support Private Sector Agricultural Diversification Efforts

Increasing production of non-traditional crops over the past four years has heightened the demand for improved technology. The lack of technology support and development to adequately service this sub-sector has resulted in crop losses due to the inability to control diseases and other pests. It has also limited the adoption of improved varieties and cultivation practices by farmers. Some agribusinesses that are currently involved in export crops with expatriate partners have found their own solutions. These firms have introduced crop varieties and technical production packages, with continuing adaptation/refinement of the technology by expatriate crop specialists. However, even well-established firms have technical production needs that range from pest/disease problems, requiring quick diagnosis and treatment, to more lengthy adaptive research. Individual farmers producing import substitution crops through linkages with purely local firms seldom have access to new methods to improve their yields and reduce risks. For example, cucumber production in the Azua valley was ruined by the lack of timely diagnosis and treatment of a mosaic virus. This caused significant financial losses to an agribusiness and its contract outgrowers. Serious and unresolved nematode problems experienced by a small company exporting papayas to the U.S. have forced it to utilize a field rotation production scheme that essentially converts a perennial crop into an annual. Costs of production have increased and it may no longer be able economically to produce for export.

In recent years, the public agricultural research system has demonstrated an inability to carry out and disseminate relevant research in most of the basic food crops.* Relevant and reliable information on non-traditional crop production and variety adaptation is almost non-existent. While a new semi-autonomous Dominican Agricultural Research Institute (IDIA) has been chartered by law, it has not yet been organized, and if it is, will likely concentrate its resources primarily on domestic food and some of the traditional export crops. The universities, private consulting and agrochemical firms as well as agribusinesses in many instances possess the technical skill to carry out this type of applied research, but lack the access to funding, technical information and guidance that would identify real needs of farmers, and get the practical results into their hands. No mechanism currently exists to help agribusiness firms resolve immediate crop production problems or to carry out medium term applied research.

* One of the few notable successes has been in rice research and this was accomplished with significant assistance from the International Research Center, CIAT, and a Taiwanese Mission.

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C. Relationship of Proposed Project to USAID's Development Strategy and Other Projects

The Mission's overall developmental goal, as stated in the FY 1986-91 CDSS, is to assist in developing sustained and equitably distributed economic growth in the Dominican Republic. The target beneficiaries of the Mission's strategy are the urban and rural poor.

The FY-1987/88 Action Plan defines the Mission's involvement in agriculture. The objective is to rapidly diversify the agricultural sector into non-traditional crops with the potential to increase small farmer incomes, rural employment, and earn/save foreign exchange. USAID's program is directed toward the improvement of rural financial market services to smaller clients, the development of cost-effective private sector-led applied and adaptive research that can be disseminated throughout the sector, and rational and sustainable utilization of the country's resource base through efforts to promote sugar diversification, irrigation efficiency at the system and farm level, and watershed management.

The proposed project directly relates to the objectives of the CDSS and the specific activities that will help to achieve the goals and objective of the current Action Plan, expanding the opportunities for small farmers to produce higher-value crops more efficiently. This project is a key element of the USAID's agricultural diversification strategy, and demonstrates our reliance on an expanded role for the private sector to promote agricultural improvements.

This project complements the Agribusiness Promotion Project (517-0186) because it addresses field level technology and credit problems that impede the full expansion of small farmer-agribusiness linkages. This project will also complement the On-Farm Water Management Project (517-0159), which has been refocused to improve the operation/maintenance of irrigation systems by user groups and the utilization of appropriate on-farm water management practices to increase yields. Irrigation-related improvements are a key factor in raising productivity of non-traditional crops, and will be integrated with technology packages used directly by the agribusinesses or extended to contract farmers. The rural financial markets activity of the proposed project also builds on the Mission's pilot Rural Savings Mobilization Project (517-0179).

Under our local currency program, we are supporting a number of the GODR's agricultural loan activities that increase credit to small and medium producers for both basic foods and non-traditional crops. We are currently working with a group of banking specialists to develop a collateral guarantee fund that will reduce one of the constraints frequently encountered by agriculturalists seeking credit, namely the high requirements for fixed assets to secure their financing.

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D. Relationship to AID Agricultural Sector Policy

The activities of this project are in accord with both the A.I.D. Sector Strategy in Agriculture (November 1983) as well as the A.I.D. Policy Paper on Food and Agricultural Development (May 1982, Page 4) which states: "A.I.D. will also encourage: (1) an expanded role where appropriate for private enterprise in the provision of agricultural research and the dissemination of improved technology as well as in the processing, preservation, and marketing of agricultural commodities; (2) research and other institutions that expand access by low-income, small producers to improved technology, productive resources and services..."

E. Other Donor Activities

Other donors have provided few resources to develop small farmer agribusiness linkages, and none to support applied research on non-traditional crops. In the area of rural financial institutions, the Inter-American Development Bank (IDB) has provided a loan to the Federation of Savings and Loan Cooperatives (FEDOCOOP). However, because of FEDOCOOP's severe financial difficulties, disbursements have been stopped. An IDB Agroindustrial loan for US\$90 million was recently approved by the Dominican Congress. This complements and expands on the USAID-supported agribusiness project, but falls short of meeting known demand.

Because of the experience of the IDB loan to the Cooperative Federation, the USAID Rural Savings Mobilization Project has concentrated its activities on base-level credit unions, rather than on the second-level cooperative entities. We conclude that this project builds on current USAID activities to promote agribusiness expansion and rural savings mobilization that do not duplicate or compete with activities of other donors. Our support for applied research on non-traditional crops is an emerging need that other donors may be encouraged to reinforce in the future.

III. PROJECT DESCRIPTION

A. Goal and Purpose

The goal of this project is to contribute to sustained and equitably distributed economic growth in the D.R. by accelerating the movement of the agricultural sector into non-traditional crops, thereby increasing small farmer incomes and rural employment, and earning or saving foreign exchange.

The purpose of this project is to increase production of non-traditional crops through expanded farmer linkages with agribusinesses and direct access to credit and improved technology.

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B. Project Strategy and Rationale

The project will seek to achieve the purpose by:

1. Expanding and strengthening base-level rural financial institutions that can capture savings of farm and non-farm rural clients, on-lend to rural clients, and establish banking relationships with private banks to further increase access to financial services for small rural clients.
2. Expanding linkages between small/medium scale producers and agribusinesses by offering additional credit that is tied to increased agribusiness-outgrower contracting; and
3. Developing a private sector-led institution to more effectively guide and finance the development, adaptation, and dissemination of agricultural production technology.

The project concept has evolved since it was presented in the FY 1987 CP. At that time, we were looking at a number of factors in the commercial farming system, including water delivery and management, farmer associations, farmer relationships with input suppliers and marketing firms, and the network of local collection and storage facilities. USAID's Project Team sponsored several analyses to more clearly define the key constraints to increased non-traditional export and domestic crop production involving small/medium scale producers*. As these analyses were carried out, we found that certain factors were of less importance than originally believed, and that some of the constraints were being treated by other activities. The result was a narrowed project focus. For example, we learned that although many small farmer organizations (SFOs) exist, their role as intermediaries between growers of non-traditional crops and agribusiness is minor. Local development associations and SFOs are presently very weak in organizational and technical skills, and lack a strong business orientation. In another area, USAID is presently working on water delivery and management under the On-Farm Water Management Project, which has recently been redesigned and extended to take more of an action orientation toward involving INDRHI in a partnership with water users in system rehabilitation, operations and maintenance, and on-farm productivity increases. We found that the expansion of storage facilities is occurring through private sector initiative, as farmers and firms draw on the credit programs that USAID supports through the Local Currency Program and Agribusiness Promotion Project.

* National Cooperative Business Association, Linking Small Farmer Organizations to Non-Traditional Agribusiness in the Dominican Republic.
Development Associates, Inc., Preliminary Analyses for the Development of the Commercial Farming Systems Project.
Ohio State University, Concept Paper- Banking Technology Transfer and the Expansion of Rural Banking in the Dominican Republic.

The remaining factors that emerged consistently in the studies were the financial problems that limit access to smaller loans by producers of non-traditional crops, and the unavailability of improved technology.

C. Expected Impact/Achievements

At the conclusion of this five year project, the following key outputs (among others) will be achieved:

- At least 31 credit unions will provide financial services to 19,000 smaller rural clients;
- Policy and procedural changes that promote rural banking institutions will be established and implemented;
- 30 agribusinesses using outgrower contracts will have been financed, involving 6,000 small and medium-scale producers; and will generate approximately US\$12 million of increased value added in agriculture per year beginning in year 4;
- The private sector-financed and directed agricultural research foundation will have assumed increased responsibility for sponsoring technology development and transfer; and
- Over 2000 individuals will have received training in rural financial institution management and non-traditional crop production, mostly in-country.

D. PROJECT COMPONENTS

The project's components, one to improve the financial services available to commercial farmers, including additional credit for outgrower-linked agribusinesses, and a second directed at technology needs, are described below.

1. Rural Financial Services

a. Objectives/Expected Impact

The objectives of this project component are:
(1) to promote the development and expansion of financially viable, base-level rural financial institutions, such as credit unions, to provide cost-effective savings/lending financial services to rural households; (2) to improve the Central Bank's ability to formulate, and implement sound rural banking policies and procedures; (3) to consolidate rural financial services policy and management improvements in the Agricultural Bank (BAGRICOLA) resulting from the Rural Savings Mobilization (RSM) project; and (4) to increase the flow of credit to agribusinesses that rely on outgrowers.

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Achievement of these objectives will be indicated by:

1) 31 viable credit unions (CUs), providing financial services to over 19,000 rural households and mobilizing savings deposits estimated in excess of RD\$18.0 million (approximately US\$6.0 million) from a base of 4 that have mobilized RD\$4.8 million;

2) A self-financing credit union association, comprised of the CUs strengthened under this project, managing a stabilization/reserve fund to provide financial stability, as well as assisting CUs to obtain advice and training;

3) Increased savings mobilization and consolidated institutional reforms in BAGRICOLA, to a point where savings mobilized from the public reach a level of RD\$26 million, compared to RD\$12 million at present;

4) Strengthened capacity in the Central Bank to analyze and establish banking policy and procedures which will result in interest rate policies and banking regulations to foster the development of a sound financial intermediation system, marked by improved volume and quality of financial services in the rural areas; and

5) A Bridge Credit Fund that reaches as many as 6,000 farmers through agribusinesses which use outgrowers.

b. Approach, Activities and Organizations

In order to achieve the above objectives, the project will seek to (1) technically strengthen existing credit unions through field-level training, advisory services, and administrative loans; (2) provide these CUs with financial stability during liquidity problems through a stabilization/reserve fund; (3) assure long-term support through a CU association, (4) improve the policy and interest rate environment for rural banking, and (5) provide the Bridge Credit Fund which will be a new loan to FIDE in the Central Bank, to be managed under the same terms and conditions as the Agribusiness Promotion Loan.

1) Credit Union Strengthening and Expansion/Administrative Loan Fund

This activity will expand the results of the RSM project beyond its pilot effort by providing direct technical assistance and administrative support loans to selected CUs to improve their accounting and financial management systems. These will enable CUs to offer viable savings and lending services, and will promote the adoption of the policies developed by the RSM project. The CUs have been selected because of the potential coverage they can provide. Following the BAGRICOLA (with 31 branch offices), there are 21 CU candidates for this activity identified so far (with

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possibilities of more). They constitute a potentially cost-effective network for providing rural financial services to large numbers of rural clients with relatively small volume transactions (i.e. small value loans and small value savings accounts).

The Central Bank Rural Savings Mobilization staff will select four to six additional CUs per year to participate in the program. Among the criteria to be used to select an existing CU for the program are:

- The economic growth potential of the municipality or town;
- Interest of the credit union membership in participating;
- Status and amount of outstanding debt with second level cooperatives or other organizations (to reduce the risk that savings mobilized would be subject to legal proceedings in a bankrupt credit union); and
- A minimum level of financial health and indications of managerial capacity potential in the institution.

The RSM Office in the Central Bank now employs a phased methodology for strengthening of CUs. This methodology is based on experience with the original four pilot CUs, and is now being applied with two more. The field staff and the Coordinator visit the candidate CU, and meet with the key officers of the CU. The team explains the purposes of and benefits to be derived from savings mobilization, and the kinds of changes that this will require. They analyze the financial and accounting operations and financial status of the CU over the last four to six years, and report their findings to the CU officers, along with recommendations for changes in interest rate policies, financial operations and controls. The team also assesses the size and trends of the community that the CU serves, to determine whether there is a promising financial market for expanded capture of savings, and for production and consumer lending. Recommendations also include matters related to the physical appearance and security of the CU's site, the need for fulltime trained staff with operational authority, and a suggested timetable of changes and advice and training that the RSM unit can provide.

After a couple of weeks, RSM representatives visit the CU again to determine whether the officers have begun to make the suggested changes (some of them, such as raising interest paid and charged, and reducing delinquency can be quite dramatic). The team defines what help the CU needs, and whether there is a receptive attitude to carry the strengthening program forward. If the response has been positive, the advisory and training assistance to the CU is intensified, and the unit provides funds that the CU may need to improve its physical plant, begin to recruit staff, and purchase necessary equipment, such as a safe. During the pilot phase, these funds were granted by the

project; henceforth they will be loaned. This is the basic assistance technique, combined with the training activities for the CUs, that will be employed and improved on by the RSM staff and advisors under this project.

Annex J-2, Table 3 provides a list of surveyed CUs that could participate in the program. Credit unions located in areas of significant non-traditional crop production would be given preference. However, in order to ensure portfolio diversification and reduce geographic and seasonal risk, CUs in different areas of the country will also be selected.

Once assessed and selected under the above criteria, a credit union will receive intensive technical assistance to review and reorient its management, portfolio composition, reserves, accounting practices, collection methods and other policies and procedures in order to ensure successful financial management. The RSM Project found that CUs initiating rural savings deposit mobilization activities need to make minimal infrastructure improvements and hire staff with accounting experience, to encourage existing or potential members to place their savings in a credit union. Because of the pilot nature of that project, these costs were covered by grants for administrative improvements provided by the RSM Project to the CUs. This will be modified under this project. The CUs that show a willingness to adopt reforms will have access to the same facility on a loan basis. The existing fund will be expanded and be known as the Administrative Loan Fund. CUs can borrow for improved facilities and equipment, and some of the operating costs associated with an expansion of financial services.

Administrative loans will be structured to be a positive boost without being a burden to the participating CUs. Based upon projected cash flows of a hypothetical CU, average administrative loan could be repaid within six years. The typical CU would also be expected to reach a breakeven point within 12 to 18 months of joining the program. The RSM office will continue to control this fund until the CU association is ready to take it over, and which time the Central Bank will transfer the portfolio of the administrative loan fund to the association. The reflows would then be used by the association for further expansion of the program. We estimate that this fund would require RD\$1.2 million (US\$400,000) in local currency over the five year life of project.

2) Stabilization/Reserve Fund

The Stabilization/Reserve Fund now being managed by the RSM Office will be expanded. This was established in order to minimize the portfolio diversification and seasonal risks that any financial institution linked to a local rural economy faces (See Section IV-B-1, Technical Analysis). These include unexpected draw-downs on members' deposits in the CU; or declines in loan repayments as a result of a temporary condition (such as drought) that may affect the local economy. This fund will be used solely to provide short-term credit (3-6 month maximum) for CUs experiencing these

temporary liquidity shortfall situations. The CU accessing the fund would borrow from the banking institutions directly for the use of these funds. The interest rate charged the CU should be high enough to discourage its use for routine on-lending to members.

CUs will capitalize the Stabilization/Reserve Fund by depositing a minimum of ten percent of all resources they mobilize from their current accounts, passbook savings accounts, time deposits or other such deposit liabilities. This will be drawn from their existing 20% reserve requirements (held as cash, or deposited elsewhere), and would be simply transferred to this Stabilization Fund. These funds will be reinvested in financial certificates or other similar financial instruments with a high rate of return. A line of credit would be obtained from the bank designated by the RSM Office (or CU association) to hold the Fund, which could be accessed by CUs experiencing temporary cash flow problems.

The interest rate differential or margin between what CUs would receive from deposits into the Fund and the earnings of the Fund's investments will be used to pay the expenses of the credit union association (monthly meetings, promotional activities), and to capitalize the Fund. Each individual CU will earn a rate of interest at least equal to the rate paid on a passbook savings account in a commercial bank. We estimate that CUs will contribute approximately RD\$1.8 million to the Fund during the five years of the project. Annex J-2 shows that such a contribution, combined with a minimum membership fee, can be expected to generate sufficient resources to capitalize the fund, and cover the costs of the credit union association operations.

During the life of project, the Stabilization Fund will be managed by the RSM Office. The Office will approve access to the line of credit upon review of a CU's request to utilize it. If a CU should decide to withdraw from the Fund, its share will be returned to it. Management of the Fund will be turned over to the credit union association by the end of the project, following an assessment of the association's ability to manage it.

Technical assistance will be provided under the project to establish the Fund mechanism, the management procedures for the operation of the Fund, and ultimate transfer of the fund to the credit union association. The plan is that this transfer process would begin in year 4 of the project, after training the CU association staff.

3) Credit Union Association

The Institutional Analysis conducted for this project identified a need for a credit union association to serve as a representative body for the CUs, able to (a) provide a forum for discussion of technical issues among CUs; (b) take over management of the Stabilization/Reserve Fund; and (c) continue to arrange training and advisory services to promote and

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develop additional CUs once AID support terminates. The project will assist the four original RSM CUs to establish the association. Technical assistance will be provided to develop a time-phased organizational plan for the association to gradually evolve into an institution providing cost-recoverable services, such as those mentioned above, and such others as the base-level CUs consider necessary.

This association is not conceived as an institution with a large staff of technicians, building, and high operating costs. At the end of the project, it will have a staff of two or three persons that can manage the administrative loan and stabilization/reserve funds, and contract for training or advisory services. By the end of the project, the association will also be providing guidance through promotional seminars, targeted at specific communities or groups that are interested in developing or strengthening the CUs in their areas. To reduce costs and provide relevant promotional and organizational assistance to these potential CUs, existing CU managers and members would be involved in developing such institutions. The project will provide funds to support the development of the association initially, but through the Stabilization/Reserve Fund's revenue-generating mechanism described above, only cost recoverable services would be provided to existing association members.

4) Central Bank Policy Improvement and Agricultural Bank Management Consolidation

The RSM Project demonstrated the value of providing experienced expatriate banking/monetary policy and banking management technical assistance to the Central Bank and the BAGRICOLA. That project had a significant impact on Central Bank interest rate and other financial policies and regulations. The RSM Project was also responsible for the Agricultural Bank's transformation from a one-sided (lending) institution to a full-service savings/lending financial intermediary which mobilized over US\$4.0 million equivalent in savings between 1984 and 1987.

As indicated in Annex J-1, Technical Analysis, the supply of rural financial services is strongly influenced by the regulatory and policy environment of the financial market. These policies and regulations determine the allocation of funds among sectors of economic activity, and affect the relative profitability of different classes of loans and of deposit mobilization instruments. Important policy reforms are needed to strengthen rural financial markets, but these reforms cannot be undertaken in isolation from general issues of market structure and regulation.

USAID and the Central Bank agree that there is a continuing need to provide such assistance. Specialists can assist the monetary authorities to analyze and develop specific recommendations regarding issues that are important to the GODR and the USAID's policy dialogue. Among some of the issues identified by Central Bank management are: (a) the

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appropriate incentives to promote rural branching and bank decentralization; (b) the feasibility and organization of a deposit insurance mechanism to reduce risk to rural banks; (c) the regulation of various types of financial institutions; (d) the need to revise targeted lending programs and interest rate policies; (e) the structure and application of simplified legal-reserve requirements; and (f) other complex issues of agricultural and general finance.

The above list is illustrative of the types of issues that may be studied during the course of this project. As savings deposits increase, we anticipate that an insurance scheme to protect the depositor will be desirable. The current legal reserve structure is extremely complicated with well over 100 different rates applied, depending on circumstances. This situation reduces the effectiveness of reserve requirements as a policy instrument and complicates the lending policies of the banking sector. Evidence suggests that the current system restricts credit flows to the agricultural sector.

Under the RSM project, some work was initiated on the unregulated financial institutions and their impact on rural financial markets. Work on this topic will be continued. Targeted lending and interest rate policies will need continued monitoring. Another area to be addressed is the establishment of incentives to promote rural branch banking.

Under the guidance of a Central Bank policy committee that has been working with the RSM staff and advisors, the RSM Office will request and monitor the short-term technical assistance to be provided by the project for policy studies. The policy committee will identify relevant policy issues and review the position papers developed under the project.

Similar short-term technical assistance will also be available to the Agricultural Bank in both policy and bank management areas. BAGRICOLA has a significant presence in the rural sector as both a lender and increasingly as a mobilizer of rural savings. USAID also channels significant amounts of local currency resources through the Bank. Areas of short-term technical assistance that will be required for BAGRICOLA are: branch level management/operations training, interest rate policy, and promotion of banking relationships with CUs. These services will be provided under the existing institutional mechanism between the RSM Office and the BAGRICOLA's Programming and Savings Mobilization Departments. We estimate that with this assistance about RD\$15 million (approximately US\$5 million) additional deposits can be mobilized by the BAGRICOLA.

5. Bridge Credit Fund

USAID will make a new loan of US\$10 million to the Central Bank. This will increase the liquidity in the banking system that supports commercial farming, meeting a portion of known credit demand.

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By the end of the project, the Fund will have:

- 1) Provided new or additional financing for at least 30 agribusiness ventures using outgrowers; and
- 2) Increased income and commercial farming experience for 6,000 farmers in irrigated areas producing non-traditional crops.

The bridge loan arrangement, described below, offers strong potential for improving Dominican small-farm agriculture. As Dominicans are identifying increasing possibilities for export of non-traditional products, such as winter fruits and vegetables, bridge loan financing for agribusiness-farmer contracts is considered a viable credit modality in order to encourage production, raise agribusiness and farmer incomes, create more employment, and earn foreign exchange. The arrangement is viewed as having the advantage of permitting firms to undertake highly controlled production, but without having to own land or hire field labor. It is perceived as having the further advantage of involving large numbers of small farmers who typically do not have access to formal market credit, thus alleviating rural poverty and improving rural income distribution.

Loans will be channelled to agribusinesses that draw a significant percentage of their raw materials measured by volume from outgrowers. The Fund is to help meet the demand for the working capital needs of agribusiness utilizing outgrower production, to encourage on-lending to small farmers and to provide credit to assist the expansion or development of agribusiness accessing outgrower production. Utilizing the loans provided under this component, the agribusiness will be able to provide support to the outgrowers (commonly called "bridge credit") in the form of cash, inputs such as feed, fertilizer and pesticides, and services such as land preparation and/or technical advice by trained agronomists or horticulturists. At the end of the cropping period, the agribusiness will calculate the balance of credit extended to the small farmer against the purchase price of the melons or cucumbers that were accepted for packing or processing by the firm, and will settle accounts accordingly.

This Bridge Credit Fund will be set up and managed on the same terms as the loan fund now operating in the Agribusiness Promotion Project (see c - Inputs, below). The Agribusiness Promotion project has disbursed 75 percent of the approximately \$48 million combined resources of the loan and the local currency counterpart. Demand studies conducted by AID and the InterAmerican Development Bank in 1985 and updated for this project show that this amount meets less than 20 percent of the need for financing of fixed assets and working capital for Agribusinesses (See Section V-E).

c. Inputs

1) A.I.D. Resources

Long-term Technical Assistance (US\$890,000): The project will provide grant funds to finance both short and long-term technical assistance to the RSM Office. The long-term technical assistance will be provided by a banking and finance specialist who will be contracted for a 4-1/2 year period. This specialist will assist the coordinator of the Central Bank's RSM Office to plan and implement the credit union strengthening/Administrative Loan Fund program; expand the Stabilization/Reserve Fund; and provide assistance with the transfer of key functions to the CU association. This specialist will also assist in the programming of additional short-term technical assistance for these activities and for the policy studies. This individual will have previous experience in banking and operation of base-level CUs and second-level organizations.

Short-term Technical Assistance (\$921,000): The A.I.D. grant will provide funds for short-term advisors in the areas of banking/finance (particularly portfolio management and margin analysis), accounting, and second-level CU organizations. These individuals will support the long-term advisor by providing intensive training to the accounting and banking/finance technicians working in the RSM Office of the Central Bank. This in-country training will cover (a) the financial evaluation of CUs selected to participate in the program, (b) planning and delivery of technical assistance to the participating CUs, (c) planning and delivery of training programs for CU personnel, and (d) establishing financial performance targets and evaluation of the CUs receiving assistance. The second level organization specialist will assist the CU association to develop a program of services for member CUs as well as assist in the transfer from the Central Bank of the Stabilization/Reserve Fund. A computer/information specialist will also help selected CUs, the credit union association and the RSM Office to improve systems for the operation of their accounts, especially for the Administrative Loan and Stabilization/Reserve Funds, as well as setting up computerized performance tracking systems. Over the LOP, an estimated 44 person months of external short-term technical assistance is planned to assist in the credit union strengthening and expansion activity.

The project will provide 20 person months of short-term services by banking/monetary policy and bank management specialists to assist the Central Bank authorities and the Agricultural Bank in the design and execution of policy studies and management improvements. The Central Bank will participate in the selection of the expatriate specialists.

Annex H provides a scope of work for the long-term advisor and detailed cost estimates for all advisors.

Commodities (US\$52,500): The Project will finance the purchase of three four-wheel drive vehicles to support this component's activities. One will be for the use of the project advisor and two for the RSM Office technicians. The vehicles and computer equipment purchased with existing RSM Project grant and local currency counterpart funds will be transferred to support the expanded Rural Savings Mobilization Office under this Project.

Credit unions will not require specialized computing equipment. The RSM Project has demonstrated that most CUs can best carry out and understand financial management and day-to-day accounting operations when these are performed manually. However, should a credit union experience significant expansion of savings and lending volumes, it could utilize its internal working capital or the Administrative Loan Fund to finance a computer.

2) Training (US\$62,000): Training for credit union managers and the association staff will be conducted by the technical assistance advisors provided under the Project. This type of training has been conducted in-country through two or three-day short courses and has proven to be very effective under the RSM Project. As the project ends, training will be contracted with local institutions by the CU association.

Topics such as development of credit union accounting systems, preparation of balance sheets and profit and loss statements, interest rate margin analysis, loan portfolio management and diversification, liquidity management, and marketing of services will be covered. Staff of all participating CUs will be expected to attend a basic series of practical training sessions covering these topics. We estimate that five individuals from each credit union will receive formal course training -- a total of approximately 160 individuals over the life of project. In addition, the credit union association's staff and board of directors (15 individuals) will be trained in investment policy, interest rate margin analysis, and development/marketing of services to member CUs. Four training seminars per year for BAGRICOLA staff will also be financed, with approximately 50 participants per seminar, for a total of 1000 participants during the five-year life of the project. These seminars would mainly train participants in loan portfolio management and savings mobilization techniques.

In addition to the above in-country training (to be financed by counterpart, as shown below), a total of 15 participants will be financed under the A.I.D. grant to receive a two week course given by INCAE in Miami, Florida. This INCAE course will train bank managers from CUs, BAGRICOLA branch offices, and the CU association in advanced banking and financial management. See Annex G for detailed training plans and costs.

Bridge Credit Fund (\$10,000,000): The AID loan will be for 25 years with a 10-year grace period. Interest will be 2 percent for the first five years of the grace period, 3 percent for the second five years, and 5 percent for the remaining 15-year repayment period. The Central Bank will on-lend through FIDE, its department for channelling long-term (and some short-term export financing) credits to private firms through local commercial and development banks. The participating banks (which in turn finance the agribusinesses) will on-lend at a rate approaching market terms, established by the Monetary Board in consultation with USAID. These will be the same banks that have qualified as Participating Financing Institutions (PFIs) under the Agribusiness Promotion Project. The criteria, procedures, and monitoring mechanisms that are now established and operational under the Agribusiness Promotion Project for the Central Bank, and between FIDE and the PFIs, will be incorporated in this new loan agreement, with the added proviso that restrict subloans to outgrower-based firms. An assessment of this arrangement as it has been operating since 1986 is provided in Section V-C.2.

Audits and Evaluations (\$189,000): These funds will be used for annual outside audits of the Administrative Loan Fund, the Stabilization/Reserve Fund, and the operations of the RSM Office and the CU association, as well as for the conduct of a mid-term evaluation of project effectiveness.

2) GODR Resources

Short-term Technical Assistance (\$333,000): 20 person months of short-term technical assistance in banking/monetary policy and bank management will be financed with local currency counterpart. Studies will be conducted primarily by bank staff with the assistance of Dominican specialist in rural finance and related policies and banking procedures, contracted by the RSM Office. This model has been working effectively under the RSM Project.

Commodities (\$11,000): Commodities such as office furnishings and office equipment for the RSM Office or CU association will be purchased locally, or provided by grants-in-aid. Annex F presents a detailed listing of these commodities.

Training (\$326,000): Local currency programmed through the RSM will be used to pay per diems, rental of space and other logistical costs of the in-country training described above.

Administrative Loan Fund (\$386,000): The Central Bank will add funds to the existing administrative grant fund, converting it to a loan fund. This will be incrementally funded as the CU assistance activity's clientele expands.

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Personnel and Operating Costs of RSM Office (\$898,000):

Local currency counterpart will finance ten professional and support staff in the RSM Office consisting of a project coordinator, five technicians with accounting or banking backgrounds, a computer/data management technician, an administrative assistant, a secretary and messenger/chauffeur. The five technicians will work directly with the CUs and the CU association. Three Peace Corps volunteers will also be working with the local technicians and have their per diems covered by the RSM Office. A summary budget is provided in Section III-E, and a detailed budget in Annex I.

Bridge Credit Fund (\$2,500): The Central Bank will provide counterpart funds to augment the A.I.D. portion of the Bridge Credit Fund. These will be on-lent under the same terms as the A.I.D. contribution.

2. Agricultural Technology Development and Support

a. Objectives/Expected Impact

The objectives of this project component are: 1) in the medium term (one to two years), to improve agricultural production technology for producers/exporters of non-traditional crops (NTCs); and 2) in the long term (three to four years), to develop a private sector organization that provides direction, training, financial and technical assistance for certain kinds of agricultural technology development occurring in both the private and public sectors.

These objectives will be accomplished by the:

1) Promotion of economically justifiable research that will develop some 15 improved production technology packages responsive to the needs of NTC producers;

2) Establishment of a rapid-response capability to assist agribusinesses experiencing major production problems with state-of-the-art technology and technical expertise;

3) Improvement of the quality of locally conducted agricultural research, resulting from intensive skills training of 60 Dominican researchers;

4) Provision of a source of technical information to support present and potential researchers and producers of NTCs as indicated by the establishment of a Foundation Information Center, and the organization of seminars or technical conferences; and

5) Establishment of a private sector supported endowment fund to provide for the long-term financial viability of the Foundation.

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b. Operations, Activities and Organization

1) Operations and Activities

A non-profit, private sector-directed foundation has been established in the Dominican Republic, with the cooperation of the National Council of Businessmen (CNHE). The Agricultural Development Foundation (ADF) was chartered on April 17, 1987, by Presidential decree, as a non-profit, independent entity, eligible to receive financial support for its endowment fund from the GODR, international donors and the private sector. Interest earnings on the endowment will finance agricultural research and operating expenses. The Foundation will also have the right to publish, and the capability to disseminate all research information obtained through its activities.

The Research Program: The ADF will develop a research program that defines the crops and the technical areas of interest that will receive its funding. The research program will establish the ADF's priorities for the research community.

The staff and resident advisor of the Foundation will draft the program, which will be reviewed on an annual basis and approved by the Board of Directors, as one of its overall responsibilities, discussed below. Initially, the program will focus on supporting the development of improved agricultural production technology for producers and exporters of non-traditional crops. Programs developed in later years could and probably will be focused on other technical areas or crops that are important to the country.

Mode of Operation: The ADF will finance work under contracts with researchers in the existing agricultural research community, which consists of government research centers, university research stations, and agribusinesses. In this way, the ADF will not duplicate existing facilities and human resources that are underutilized due to limited budget support for operational costs and materials. The ADF will be able to finance the operational or marginal costs, thereby increasing the utilization of human and physical resources that are already in place.

On-Farm Research: The ADF will emphasize on-farm research involving the ultimate users of the technology, i.e. the agribusinesses and their outgrowers. When ADF contracts research with scientists in either public or private sector organizations, they will be expected to work closely with collaborators that have a stake in the final results. For example, a researcher in a public institution (such as SEA) or a private entity (such as an agribusiness or a university) would receive a research grant to carry out a given field trial to test an agronomic variable that has been identified as economically important for a given production technology needed by a firm or group of outgrowers. The proposed design for

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the trial would be reviewed and if necessary improved upon by a crop specialist-researcher (local or expatriate) who is specialized in the production of that crop. After final review and approval of the design, the Foundation would provide the research grant to finance required material inputs (seed, chemicals, etc.), while the agribusiness or researcher working in the public institution, in collaboration with a grower, would supply all the remaining inputs (land, soil preparation, irrigation, and labor) necessary to set up the trial. In some instances, short-term technical assistance from a local specialist (e.g. a plant pathologist), who is not available in the institution or firm originating the proposal, will be required to ensure the proper management and/or analysis of a given research trial. In those cases, the research grant will also finance this short-term local expertise. The Foundation will also provide limited supervision at key moments to monitor the management of the trial (planting, data collection, etc.) to give technical guidance, ensure the quality of the final results, and guide their dissemination to a broad community of users. Once the Foundation has sufficient experience with and confidence in a given researcher, this initial monitoring will be phased out. The Foundation will support the dissemination of any significant results from the trial, although experience has shown that once the participant grower begins to use the improved technology, it will not take long for others to become aware of the practice.

One advantage of this approach is that expert assistance is provided by the Crop Specialist Researcher during the design of a trial to avoid testing variables that have already been proven to be insignificant, and by the Foundation's staff scientist, to ensure the proper management of the trial. The Foundation would also have firsthand knowledge of the reliability of the information obtained. Finally, the results will be easier to disseminate due to the involvement of the growers.

Although the majority of Foundation research will likely be conducted on growers' farms, some production problems are better solved in the semi-controlled environment of a research station. In those cases as well, the Foundation will ensure the proper design and management of the field trial through the provision of limited monitoring.

During the first year of the project, the Foundation will be focussed on organizational activities, with limited research grant activity that may support the development of two or three technology packages. By years four and five, the Foundation should be supporting six or seven per year.

Sources of Research Proposals: The ADF will obtain research proposals by three different means. Some will be unsolicited, others will be solicited from qualified sources, and others will be developed in-house by the Foundation staff. Except for the latter, the cost of proposal preparation will be borne by the authors. No matter how a proposal is obtained, it will be reviewed by the ADF staff, and a recommendation will be submitted to the Executive Committee of the Board of Directors. The criteria

for judging proposals may vary depending upon the type of research to be funded. General criteria for most areas of research will include:

- Compliance with the Foundation's stated program emphasis;
- Economic justification that stresses near-term returns;
- Participation of a collaborator; and
- Technical soundness.

More specific criteria for selected crops will be prepared by the Foundation and these criteria for selection of research projects will be made known in advance to the research community. The Foundation staff will be expected to support only those proposals which meet the established criteria and priorities. Occasionally, ADF staff may assist researchers to develop sound proposals that would contribute to the attainment of the Foundation's program objectives.

An Executive Committee of members of the Foundation's Board of Directors and invited specialists will review and approve each proposal based on analysis and recommendation of the ADF staff. The committee also might approve technically sound proposals that do not fall within the Foundation's program, if they determine that they were innovative enough to be of interest, or that they deal with a problem of national importance (e.g. the outbreak of a disease affecting an important crop).

Financial Management: The research grants will be made to individuals based on the budget submitted with the proposal. Shorter studies (of less than two months' duration) will be financed by an advance to be liquidated by the researcher when his or her work is complete. Long-range efforts will be financed by partial advances, supported by periodic accounting to the Foundation's financial manager.

Information Services: The ADF will establish an Information Center to collect agricultural technology information (both national and international); to publish and disseminate the results of research that the ADF sponsors; and to sponsor an annual seminar or workshop, as well as other less formal field days at locations where the selected crops are grown. The Information Center will be managed by a locally hired person with knowledge of information management (i.e. computer and library experience) and dissemination. The Center will have a budget to finance the acquisition of essential agricultural periodicals and technical journals. It will also be equipped with a microcomputer for analysis and storage of research data and other technical information obtained as a result of the Foundation's research program and contacts with the international community. The Center will serve as a source of technical information for anyone requiring specific knowledge of production technology for various locally

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grown non-traditional crops and commercial practices utilized in other countries. The Center will also develop a cost effective system to actively disseminate this technical information to users. It is anticipated that the Center will utilize written material (i.e. pamphlets, bulletins, etc.) and limited use of radio and television to carry out its objectives.

2) Organization

The Foundation will have the following main organizational features (See Annex J-4: Agricultural Development Foundation General Bylaws):

The Foundation will have a General Assembly consisting of individuals who have contributed financially to the establishment of the Foundation. To ensure that the Foundation maintains private sector support and conducts relevant research, General Assembly membership will include any interested individual, company, or organization which makes a set minimum financial contribution to the Foundation. Members will represent the broad spectrum of the Dominican agricultural sector, including banking, industry, agribusiness, and producers' associations. An annual membership fee will be charged to active members, the amount of which will be determined by the Board of Directors. The General Assembly will meet at least once a year to elect members to the Board of Directors and be informed of the Foundation's various activities.

The Board of Directors will consist of 7 to 15 members from the General Assembly. Directors will be elected to the Board for two-year terms, with half the Board elected each year. To insure continuity during the initial years of the Foundation, one half of the members of the Board will be elected for three-year terms in the first election.

The main functions of the Board will be to:

- o Establish foundation policy as to the types of research to be financed;
- o Approve the Research Program developed by the foundation staff;
- o Hire and fire the Executive Director;
- o Approve all major contracts for technical assistance or commodities;
- o Give final approval to all research projects;
- o Manage the Endowment Fund; and
- o Select an auditing firm acceptable to AID to conduct an annual audit of the Foundation's operations and endowment.

The full board will meet every three months to approve major operational policies and the overall research strategy. Responsibility for making other decisions will rest in the hands of committees formed from members of the board.

The use of committees will alleviate the problem of making decisions in a large group. The most important committee, the Executive Committee, will be responsible for reviewing and approving all research proposals. An Endowment Committee will make all decisions regarding the financial management of the endowment fund.

The ADF staff will be as small as possible to avoid using excessive amounts of endowment income (not to exceed 25% by year 4) to cover operating and overhead expenses. The main functions of the Foundation staff will be to:

- o Procure technical assistance and locally sourced commodities;
- o Develop and monitor the research program;
- o Review and select appropriate research proposals for decision by Executive Committee;
- o Coordinate technical assistance (short, medium, and long-term) provided through the foundation;
- o Monitor field trials and other research activities;
- o Evaluate research results;
- o Maintain a source of technical information and ensure its distribution to users;
- o Coordinate training activities;
- o Maintain liaison and information exchanges with international agricultural research centers, universities, and other sources of information and technical expertise; and
- o Perform accounting and secretarial duties.

A listing of Foundation personnel and their functions is provided in Figure 2.

Figure 2: Foundation Personnel and Functions

Personnel	Direct Hire or Contract	Functions
<u>Foundation Staff</u>		
Executive Director	DH	Manage Foundation, act as secretary at Board meetings, carry out public relations and fund raising activities, hire personnel, represent Foundation at official functions, oversee program formulation.
Scientist	DH	Supervise/monitor field trials and other research.
Ag. Economist	DH	Analyze proposals for economic/financial soundness, and analyze the economic impact of completed research.
Information Specialist	DH	Develop and administer information management and dissemination.
Financial Manager	DH	Maintain Foundation operating and grant accounts/liquidate advances.
3 Secretaries	DH	Receptionist and secretarial duties.
Driver/Messenger	DH	Chauffeur and messenger.
<u>Expatriate Technical Advisors</u>		
Senior Scientist/ Horticulturist	C	Responsible for developing and monitoring research program, and to review proposals and make recommendations to Executive Director. Provide foundation management expertise as needed by Executive Director. Implement fruit and vegetable program.
Research Methods Trainer	C	Conduct training courses locally for researchers.
Short-Term Specialists	C	Conduct management training program for ADF staff; provide technical expertise to researchers and agribusinesses.

The endowment fund will be capitalized by GODR owned local currency proceeds from PL 480 Title I or ESF, and private sector contributions during the life of the project. The Foundation's Board of Directors will appoint three of its members to an Endowment Committee that will be responsible for managing the fund. Endowment funds will be invested in secure financial instruments, such as mortgage certificates, that will ensure maximum yields without risking the long-term viability of the fund.

We have assumed that a 16% rate of return will be realized on endowment fund investments. With an average annual 8% inflation rate projected for the five-year period of the project, the endowment fund should have an estimated 8% real rate of return. As previously stated, endowment earnings will be used to cover personnel and operating costs, as well as for research grants. A more detailed analysis of Foundation financing is provided in Section V-F-3 of this document.

c. Inputs

1) A.I.D. Resources

Long-Term Technical Assistance (US\$890,000): The project will provide a grant to finance both short- and long-term technical assistance to the Foundation. A total of 54 person-months of long-term technical assistance will be provided by a Senior Scientist specialized in horticultural research. The Senior Scientist will assist the Executive Director in the conceptualization and implementation of the Foundation's research program, and to provide guidance in the operation of a research foundation. This individual will have previous experience in the management and operation of a foundation or similar organization such as an international agricultural research center. The Senior Scientist will also have extensive experience in fruit and vegetable production research and will be responsible for developing and carrying out a program in this area that will enable the Foundation to have an early impact on several crops which are currently experiencing significant export growth. This person will also provide other guidance to the ADF by training staff, assisting in the coordination of training activities for local researchers and producers, and will help organize and participate in Foundation sponsored technical seminars and conferences.

Short-Term Technical Assistance (\$768,000): The AID grant will also provide funds for a total of 53 person-months of short-term advisors. A total of 37 person-months of this short-term technical assistance will be directed toward designing research trials for specific crops and rapidly responding to urgent production problems that present themselves. For example, as agribusinesses encounter serious production or pest problems which cannot be readily resolved, the services of technical experts specialized in those particular problem areas will be available through the Foundation's technical assistance contractor, on a short-term, quick-response basis. It is expected that the majority of these short-term consultancies will last no more

than one or two weeks. Requests for longer term assistance will likely involve more direct participation by specialists in designing or supervising research, rather than short-term trouble shooting. In those cases, the agribusiness would be required to submit a formal research proposal to the Foundation. The ADF will provide the services of a research specialist to help in the design and monitoring of the proposed trial.

A total of 16 person-months of short-term technical assistance will be provided by a specialist in research methods who will conduct two basic research skills courses simultaneously in-country. In the mornings, classes would be offered in research design and controls, and in the evening in computer-based statistical analysis, for example. These courses will last 4 months each and will be given once a year beginning in the second year of the project.

The main sources of this short-term assistance will include local and U.S. universities, international research centers, private companies and consulting firms, as well as knowledgeable individuals. This assistance to the Foundation and its grantees will be provided under the AID Direct Contract method with a task order mechanism as one of its provisions, which will tap into the various institutions to supply the expertise.

Commodities (US\$132,500): A limited amount of commodities will be procured under the project for this component. These commodities will consist mostly of office equipment, furniture and supplies; 4 four-wheel drive vehicles; and micro-computers for word processing, research data analysis, and technical information management.

The Foundation normally will not directly procure the various agricultural inputs and materials that will be used by researchers in foundation-financed field trials. These commodities will instead be purchased locally in small amounts as needed by the researchers, using their grant funds.

The detailed commodities list is provided in Annex F.

Training (US\$498,600): The project will finance short-term technical training for local researchers, and other individuals involved in technology development or utilization (i.e. growers). These training activities will be conducted in-country, in the U.S. and in other LAC countries. A total of 60 participants will receive the two technical courses given locally by the university instructor, described above. The Foundation's contractor will give the courses at one of the universities or research centers. The project will also finance observation/training trips to NTC production areas outside of the country for both local researchers and producers to expose them to the latest technology that is in use. An estimated 90 participants will take part in this training.

The Foundation will also organize, during the life of the project, a total of 4 technical seminars or conferences for researchers and producers to facilitate information exchanges and dissemination. It is expected that more than 120 individuals will take part in these events, and internationally recognized experts on specific production problems or technologies will be invited to inform participants of recent breakthroughs or possible avenues for investigation.

The training plan and cost estimates are provided in Annex G.

Foundation Operating Costs (\$180,000) and Subgrants (\$96,000): The initial operating costs and research subgrants of the Foundation will be financed by AID for a 1-1/2-year period when endowment earnings will be insufficient to cover these costs. The operating expenses to be financed include personnel and field research monitoring costs. A limited number of subgrants for research will be made, to establish the ADF's presence in the research community. After this 1-1/2-year period, these expenses will be entirely funded by earnings from the endowment fund.

Audits and Evaluation (\$79,000): The project will finance annual outside audits of the Foundation's operations and its endowment fund, and a mid-term evaluation of its management effectiveness and outputs.

2) Counterpart Resources

Endowment Fund Capitalization (\$6,233,000): Local currency equivalent of \$6,233,000 from GODR and local private sector contributions will be used to capitalize the Endowment Fund. The GODR will provide a total of \$5.0 million, to be incrementally funded. The private sector contribution will also be provided incrementally during this same period, and will total \$1,233,000. (See Section V-F-2, Foundation Financial Analysis).

Foundation Operating Costs (\$624,000) and Subgrants (\$2,373,000): These amounts, totalling \$2,997,000, are financed by the estimated income from the endowment fund, which will be applied over the life of project to the Foundation's operations and research program.

E. Cost Estimates, Financial Plan, and Financial Capacity

1. Overview

The financial plan for the project is summarized in Tables 1 and 2 on the following pages. Table 1 distributes the AID and counterpart budgets by component and input by year, while Table 2 shows the allocation of AID and counterpart resources against major outputs or objectives. The detailed cost estimates for the various line items are contained in Annexes for the various

Table 1
COMMERCIAL FARMING SYSTEMS
SUMMARY COST ESTIMATE AND FINANCIAL PLAN (US\$000)

Components/ Inputs	YEAR 1			YEAR 2			YEAR 3			YEAR 4			YEAR 5			TOTAL	
	A. I. D.		CP	A. I. D.		CP	A. I. D.		CP	A. I. D.		CP	A. I. D.		CP	AID	Equivalent* Counterpart
	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC	FX	LC	LC		
1. Rural Financial Services																	
A. Long-term T.A.	93			185			194			204			214				890
B. Short-term T.A.	156		56	163		60	172		66	195		72	235		79	921	333
C. Commodities	53		11	-		-	-		-	-		-	-		-	53	11
D. Training	12		64	13		44	12		73	12		54	13		91	62	326
E. Admin Loan Fund Capital			67			78			99			77			64		385
F. Operating Costs			147			162			178			196			215		898
G. Audits		30			32			35			38			41			176
H. Evaluation							13										13
I. Contingencies			17			17			21			20			22		97
J. Bridge Credit Loan		3,333	833		3,333	833		3,334	834							10,000	2,500
	<u>314</u>	<u>3,363</u>	<u>1,195</u>	<u>361</u>	<u>3,365</u>	<u>1,194</u>	<u>391</u>	<u>3,369</u>	<u>1,271</u>	<u>411</u>	<u>38</u>	<u>419</u>	<u>462</u>	<u>41</u>	<u>471</u>	<u>12,115</u>	<u>4,550</u>
2. Ag. Technology Development																	
A. Long-Term T.A.	93			185			194			204			214				890
B. Short-Term T.A.	65			163			172			180			188				768
C. Commodities	105	28															133
D. Training	27			54	64		54	64		54	63		54	64			498
E. Endowment Fund Capital			2,100			2,067			2,066								6,233
F. Operating Costs		103			77	78			168			182			196	180	624
G. Research Grants		49			47	258			498			816			801	96	2,373
H. Audits		10			11						12			13			58
I. Evaluations								12			12						12
Subtotal	<u>290</u>	<u>190</u>	<u>2,100</u>	<u>402</u>	<u>199</u>	<u>2,403</u>	<u>420</u>	<u>88</u>	<u>2,732</u>	<u>438</u>	<u>75</u>	<u>998</u>	<u>456</u>	<u>77</u>	<u>997</u>	<u>2,635</u>	<u>9,230</u>
Total	<u>604</u>	<u>3,352</u>	<u>3,295</u>	<u>763</u>	<u>3,564</u>	<u>3,597</u>	<u>811</u>	<u>3,457</u>	<u>4,003</u>	<u>849</u>	<u>113</u>	<u>1,417</u>	<u>918</u>	<u>119</u>	<u>1,468</u>	<u>14,750</u>	<u>13,780</u>
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

* Exchange Rate US\$1.00=RD\$3.00

Table 2

COMMERCIAL FARMING SYSTEMS FINANCIAL PLAN
PROJECT INPUT/ OUTPUT COSTS (US\$000)

Project Outputs	Inputs						Total
	Technical Assistance	Training	Commodities	Capital	Operating Costs	Misc. Costs	
<u>AID</u>							
<u>Rural Financial Services</u>							
31 Credit Unions Strengthened	1322					189	1511
Self-financed CU Association	203						203
BAGRICOLA Institut. Reforms		62					62
C. Bank Analytical Capacity	286		53				339
Bridge Credit Loan Fund				10,000			10,000
Subtotal	1,811	62	53	10,000	-0-	189	12,115
<u>Ag. Technology Development</u>							
Operating Foundation	222		118		276	70	686
15 Improved Tech. Packages	935						935
Rapid T.A. Capability	267						267
Improved Local Research Cap.	234	498					732
Information Disseminated			15				15
Subtotal	1,658	498	133	-0-	276	70	2,635
TOTAL	3,469	560	186	10,000	276	259	14,750
<u>Counterpart Agencies</u>							
<u>Rural Financial Services</u>							
CUs strengthened	50	200		386	299	97	1,033
Central Bank Analytical Capacity/Reforms	100		11		299		410
Self-Financed CU Association	100	109			200		409
BAGRICOLA Reforms	83	17			99		199
Bridge Credit Fund				2,500			2,500
Subtotal	333	326	11	2,886	897	97	4,551
<u>Ag. Technology Development</u>							
Operating Foundation							
Tech. Packages				6,233	208		6,441
Rapid T.A.					208	2,373	2,581
Improved Local Research							0
Information Disseminated					208		208
Subtotal	0	0	0	6,233	624	2,373	9,230
TOTAL	333	326	11	9,119	1,521	2,470	13,780

components and cost items, and are cited in the summary discussion below. As part of each component there is a discussion of the financial management capability, vulnerability and audit coverage of the implementing agencies.

In Table 2 we find that 73% of the project's grant resources are dedicated to technical assistance, and of that, 73% (or \$2,523,000) is to support credit union strengthening, improved technology packages and rapid TA for production problems. 12% of the grant total is directed at training, with the largest portion for improving local researchers' skills. 15% of the combined grant amount is distributed among commodities, operating costs and miscellaneous costs, with the largest share going to support the new ADF's startup costs.

2. Rural Financial Services

The total cost of this component is estimated at US\$10,000,000 loan, US\$2,114,680 in grant funds and local currency equivalent to US\$4,550,740 in counterpart funding. AID financing will be a government-to-government grant to the Central Bank that will be incrementally funded. The AID Grant will be used to finance the following items for the RSM Office: Short and long-term technical assistance (see Annex H), vehicles (See Annex F), audits, training, and one mid-term evaluation (See Section V). The local currency counterpart budget for the grant is provided in summary in Table 3, below, and in more detail in Annex I.

Table 3: Rural Financial Services Counterpart Budget (US\$000)

Line Item	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
A. Banking Policy S-T T.A.	55.80	60.70	66.07	72.00	78.76	333.33
B. Office Equipment, etc.	10.70					10.70
C. Training	76.67	58.67	89.10	71.89	110.73	407.05
Credit Union Training	46.67	25.67	52.80	29.04	63.89	218.06
CU Association Training				2.92	2.92	5.84
BAGRICOLA Training	16.67	18.33	20.17	22.18	24.40	101.75
Dissemination, Publications	13.33	14.67	16.13	17.75	19.52	81.40
D. Administrative Loan Fund	66.67	78.33	99.33	77.33	63.90	385.57
E. Operating Costs	133.73	147.10	161.81	178.00	195.80	816.44
Personnel	69.98	76.98	84.68	93.15	102.46	427.26
Operations	63.75	70.12	77.13	84.85	93.33	389.18
F. Contingencies	17.18	17.24	20.82	19.96	22.46	97.66
TOTAL	360.74	362.04	437.13	419.18	471.64	2050.75

Exchange Rate US\$1.00 = RD\$3.00

(1)

The financial management capacity of the RSM Office in the Central Bank has been well established under the Rural Savings Mobilization Project, both with respect to maintaining accounts related to operations, as well as for the administrative grants and the Stabilization/Reserve fund. The Office has personnel who are already trained and experienced in accounting, financial management, financial analysis, banking and business administration.

The loan to the Central Bank for the Bridge Credit Fund will be at standard terms, incorporating the conditions incorporated in the Agribusiness Promotion Fund. FIDE is audited regularly by the local affiliate of Peat, Marwick, Mitchell and Co., international CPA firm. The most recent audit report shows that FIDE's financial statements fairly represent FIDE's financial condition and that the system of internal control, in general, is adequate.

3. Agricultural Technology Development and Support

The total cost of this component is estimated at US\$2,635,320 grant and local currency equivalent to \$US9,230,667 in counterpart funding. AID financing will be in the form of a nongovernmental organizations grant to the ADF that will be obligated incrementally. The GODR (or AID under PL 480 Title I Section 108) will provide a total of US\$5.0 million equivalent in local currency that will be disbursed over a three-year period, subject to private sector counterpart support for the Foundation that will be equivalent in local currency to US\$1,233,000. An additional LC equivalent of US\$2,997,000 will be generated in the endowment fund during LOP and contributed to the project. The AID Grant will be used for foundation overhead and operating costs during the first 1-1/2 years of the project, to fund initial grant and operating expenses, commodity procurement, short and long-term technical assistance, training activities, and evaluations and audits.

Detailed analysis of the ADF's costs and finances are provided in Section V-F-3, and in Annex J-3. AID technical assistance is detailed in Annex H, commodities in Annex F, and training in Annex G.

As the ADF is a newly organizing institution, we cannot assess its financial management capacity, vulnerability and audit coverage at this time. USAID will require that its systems for managing the endowment, operational budget, and grants program be evaluated by an acceptable CPA firm before making the initial grant disbursement. The ADF's founding statute calls for an annual outside audit, and we will assure that this is conducted by a reputable firm.

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F. Methods of Implementation and Financing

Table 4 provides the summary of methods of implementation and financing, and is presented on the following page. Arrangements for each component are discussed below.

1. Rural Financial Services Grant and Loan

Technical assistance will be arranged through an AID Direct contract with a personal services contractor, and by buying into the S&T project entitled Experimental Approaches to Rural Savings (936-5315), which has been a useful vehicle for technical assistance under the RSM project, and will be the preferred source for both short-term technical assistance to this component. The S&T project manager has confirmed by cable the possibility of buying into this project, which will continue until December, 1988 (State 110901, 4/14/87). A follow-on project is anticipated, that will offer similar opportunities for ordering agreements with universities and firms in the same technical areas. Since the project vehicles will be grant financed, procurement will be restricted to U.S. source and origin. The preferred means of acquisition will be through direct A.I.D. procurement, due to the lack of experience of the RSM with A.I.D. procurement regulations. A.I.D. procured the vehicles under the RSM Project. The vehicle procurement will be carried out by obtaining bids from U.S. and local dealers of U.S. cars.

AID will provide direct advance disbursements to the Central Bank for the Bridge Credit Fund. Technical liaison and monitoring will be provided by the agribusiness promotion staff of the Private Enterprise Division at no cost to the Commercial Farming Project.

3. Agricultural Technology Development and Support

Technical assistance will be contracted by USAID under a competitive bid procedure, for one organization, whether firm or university, to provide both the long-term advisors, and rapid-response access to short-term specialists from a variety of sources. The Regional Contracting Officer will work with the Project Team to prepare a solicitation that will encompass an IQC mechanism. The Foundation's Executive Director will actively participate in the selection of the contractor. Since the commodities (especially vehicles and micro-computers) will be grant financed, procurement will be restricted to U.S. source and origin. The preferred means of acquisition for those commodities will therefore be direct AID procurement due to the limited amount involved and the probable lack of experience with AID procurement regulations of the Foundation staff to be hired. Locally available furniture, office equipment, and materials will be procured by USAID, or provided as grants in aid.

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Table 4
METHODS OF IMPLEMENTATION AND FINANCING
(AID Inputs)

Type of Assistance	Implementation Method	Financing Method	Cost (US\$000)
1. Rural Financial Services			
A. Long-Term TA	AID Direct PSC	Direct Pay	890.00
B. Short-Term TA	AID Direct Buy-In S&T/RD	Direct Pay	921.00
C. Vehicles	AID Direct P.O.	Direct Pay	53.00
D. Training	Direct Placement/USAID	Direct Pay	62.00
E. Audits	AID Direct Contract/Profit	Direct Pay	176.00
F. Evaluation	AID Direct Contract/Profit	Direct Pay	13.00
G. Bridge Credit Loan	ICI	Direct Pay	<u>10,000.00</u>
SUBTOTAL			12,115.00
2. Ag. Tech. Devl. & Support			
A. Technical Assistance	AID Direct Contract*	Direct Reimbursement	1,658.00
B. Commodities			133.00
Vehicles	AID Direct P.O.	Direct Pay	70.00
Computers	AID Direct P.O. - GSA Sched.	Direct Pay	25.00
Off. Equipment	AID Direct P.O. - GSA Sched.	Direct Pay	10.00
Off./Furniture	Grant in aid or H.C. Proc.	N/A or Direct Reimb.	28.00
D. Training			498.00
In-Country	H.C. Contract	Direct Reimbursement	249.00
Overseas	Direct Placement/USAID	Direct Pay	243.00
Conferences	H.C. Contract	Direct Reimbursement	6.00
E. Operating Costs	H.C. Contract	Direct Reimbursement	180.00
F. Research Grants	H.C. Contract	Direct Reimbursement	96.00
H. Audits	AID Direct Contract/Profit	Direct Pay	58.00
I. Evaluation	AID Direct Contract/Profit	Direct Pay	<u>12.00</u>
SUBTOTAL			2,635.00
TOTAL			14,750.00

* May be profit or non-profit

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IV IMPLEMENTATION PLANS

A. USAID and Counterpart Management

Management of the grant for the RSF component will be the responsibility of the Rural Savings Mobilization Office in the Central Bank, headed by a National Coordinator. This office will maintain its current status, which has demonstrated its strong technical and administrative skills and flexibility. Staff continuity is also desirable, in order to take advantage of skills, contacts, and experience accumulated during implementation of the RSM project. The office will expand its staff, to allow it to provide direct technical assistance to a growing number of CUs.

The Agriculture and Rural Development Division, with support from Sector Team members, will carry out the implementation responsibilities within USAID.

The Bridge Credit Fund will be managed by FIDE, in collaboration with the PFIs. Within USAID, implementation and monitoring responsibility will be in the Private Enterprise Division, which has a working relationship with the Central Bank for the Agribusiness Promotion Project.

The Agricultural Technology Component will be managed by the Agricultural Development Foundation's Executive Director, who will be selected by the Board of Directors and charged with overseeing the daily operations of the Foundation and the various project activities to be carried out by the staff and contract technical advisors. He or she will coordinate these activities closely with the USAID project officer.

The Agriculture and Rural Development Division will carry out the implementation responsibilities within USAID. Additional Mission support will be provided by other USAID offices as appropriate (e.g. Capital Resources Development Office, Management Office, and Office of the Controller).

B. Implementation Targets

Figure 3 on the following pages presents an overall implementation and expenditure plan, which shows when principal outputs will be achieved and when the major inputs will be in place. The plan will be the basis for further detailed annual plans to be prepared jointly with the implementing agencies, technical advisors, and USAID staff.

C. Reporting, Monitoring and Evaluation

Each component will have a separate reporting system. In the case of the RFS and the Bridge Loan, the existing reporting systems used for Rural Savings and Agribusiness will be reviewed before Implementation Letters are issued, to assure that those systems meet AID's requirements under the Commercial Farming Systems project.

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Figure 3

COMMERCIAL FARMING SYSTEMS - Summary Implementation Plan

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
<u>Rural Financial Services</u>					
<u>PURPOSE/OUTPUTS</u>					
Credit Unions					
Mobilizing savings/lending (No.)	8	15	19	25	31
Joining CU Assn.	4	5	6	6	6
Bagrícola Management					
Consolidated			X		
Credit Union Assn.					
Organized			X		
Trained/managing funds				X	
RSM Unit Phased out					X
Bridge Credit Lines disbursed to PFIs					
(\$ million value)	2.0	5.0	3.0		
<u>KEY INPUTS-RFS</u>					
Long-term advisor					
Start Selection (month)	<u>7</u>				
Sign Contract (month)	<u>9</u>				
At post (month)	<u>11</u>				
Commitment (\$000)	400	490			
Expenditure level (\$000)	93	185	194	204	214

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COMMERCIAL FARMING SYSTEMS - Summary Implementation Plan

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Short-term services					
Amend Coop Agreement (month)	<u>7</u>				
Policy Advisor (number visits)	8	8	8	8	
Banking/finance Advisor/ trainers (number visits)	4	4	4	4	
Expend. Level (\$000)	156	163	172	195	236
Procure Vehicles					
Start PIO/C (month)	<u>6</u>				
Receive vehicles	<u>9</u>				
Commitment (\$000)	53				
Expenditure (\$000)	53				
Disburse Bridge Fund (\$ million)	5.0	5.0			
Conduct Audits (number entities)		3	3	3	4
Expend. (\$000)		42	45	45	44
Conduct mid-term evaluation			X		
Expend. (\$000)			13		
TOTAL EXPENDITURES RFS					
<u>Agricultural Technology</u>					
<u>Development</u>					
<u>PURPOSE/OUTPUTS</u>					
Organize Foundation					
Board/Committees (month)	<u>7</u>				
Staff in place	<u>9</u>				
Financial/Grant System in place	<u>10</u>				

COMMERCIAL FARMING SYSTEMS - Summary Implementation Plan

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Information Center operating (mo.)		<u>3</u>			
Research Program Approved (month)	<u>10</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>
Research Grants Approved (\$000 value)	49	305	498	816	801
Quick Response system operating		X - - - - -	- - - - -	- - - - -	- - - - -
Technology packages disseminated			X - - - - -	- - - - -	- - - - -
Persons trained					
In-country (No.)		15	15	15	15
Participants leave (No.)	10	20	20	20	20
<u>KEY INPUTS - ATD</u>					
Technical Assistance					
Start Selection (month)	<u>6</u>				
Sign Contract	<u>10</u>				
At post	<u>11</u>				
Commitment (\$000)	700	1,000			
Start ST services (month)		<u>1</u>			
Expend. level (\$000)	158	348	366	384	402
Endowment Fund					
Tranche amount (\$000)	(2100)	(2067)	(2066)		

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COMMERCIAL FARMING SYSTEM - Summary Implementation Plan

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
raining Events (number)					
In-country	1	4	4	4	4
Participants		1	1	1	1
Commit. (\$000)	243				
Expend. (\$000)		27	118	118	118
ommodities					
Vehicle - start (month)	<u>7</u>				
Vehicle - Arrive (month)	<u>11</u>				
Computer - Start (month)	<u>7</u>				
Computer - Arrive (month)	<u>11</u>				
Office Eqt/Furn start (month)	<u>7</u>				
Office Eqt/Furn deliver (month)	<u>9</u>				
Commit. (\$000)	105				
Expend. (\$000)	105				
onduct Audit	1	1	1	1	1
onduct mid-term evaluation			X		
Expend. (\$000))	10	11	24	13	14
TOTAL EXPENDITURES ATD	300	447	508	515	534
TOTAL PROJECT EXPENDITURES	5,602	5,867	932	959	928

The Agricultural Technology reporting will be geared to the ADF's work plan, to be updated annually, with reports submitted on a quarterly basis once full operations have commenced.

These reports, along with field visits to the target areas, to research centers and CUs, will be the basis for monitoring.

We expect to do a midterm evaluation of each component, to look at management and organizational issues. An impact evaluation may be carried out as part of a broader sectoral analysis of USAID's efforts in a number of related projects aimed at improving the quality and quantity of non-traditional exports and strengthening the commercial farming/agribusiness system to raise rural incomes.

D. Negotiation Status, Conditions, and Covenants

1. Summary

Negotiations with the various institutions that will carry out the project are well advanced. The Central Bank is already working closely with USAID on the RSM and Agribusiness Promotion projects, and key Bank staff understand the linkages between this project and ongoing efforts. The CNHE's representatives have been working closely with us on approaches to meeting the need for agricultural technology for more than two years, and have completed the process of chartering the ADF. The founding firms are committed to providing both policy and financial support.

Annex K, The Draft Project Authorization, specifies the conditions and covenants in more detail. In addition to the standard provisions and conditions precedent, the following project-specific conditions and covenants will be incorporated in agreements.

2. Rural Financial Services

- Conditions Precedent to First Disbursement (RFS Grant)

The Central Bank will provide evidence that the equipment and vehicles that have been funded by AID for the Rural Savings Mobilization Project have been assigned for use by the RFS component. Any balance of local currency funds will also be included.

The Central Bank will submit for AID's approval its procedures and financial controls/audit plans for the Administrative Loan Fund, the Stabilization/Reserve Fund, and its procedures for overseeing the Bridge Credit Fund.

The Central Bank will submit for AID's approval its first annual implementation plan for the RFS component, including identified CUs to be trained and advised; plans for working with the BAGRICOLA, policy studies to be carried out, and initial steps to organize a credit union association.

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- Conditions Precedent to First Disbursement (Loan)

The Central Bank will submit for AID's approval its operational guidelines and contracts with the PFIs to be applied to the use of AID funds for the Bridge Credit Fund, essentially a reaffirmation of those established for the Agribusiness Loan Fund, with the added proviso that these funds will be on-lent only for agribusiness ventures that use small/medium-scale outgrowers for significant portions of their production.

Covenants (Loan)

These will be the same as those established for the Agribusiness Promotion Project, i.e. consultations regarding interest rates to be charged, and periodic meetings with other participating institutions to review project progress.

3. Agricultural Technology Development

- Conditions Precedent to First Disbursement (Grant)

The ADF will provide evidence that it has been legally incorporated, that the Board of Directors and its operating committees have been named, and that a fulltime Executive Director and financial manager have been appointed.

The ADF will provide evidence that the Endowment Fund has been established with an agreed contribution by members of the Foundation, and that arrangements satisfactory to AID have been made with the Technical Secretariat of the Presidency for the counterpart contribution.

The ADF will submit for AID's approval its plans for management and control/audit of the Endowment Fund, and certification by a CPA acceptable to AID that it has established an appropriate financial management system for the AID funds.

- Conditions Precedent to Disbursement for Research Grants

The ADF will submit for AID's approval its first research program.

The ADF will submit for AID's approval its operational procedures for making and supervising research grants.

V. PROJECT ANALYSES AND SUMMARIES

A. Introduction

This section provides the summary analyses. These are generally summaries of more lengthy studies prepared during project development. Annex J provides more detailed discussion of economic and financial assessments. In most instances the analyses are component-specific, as each was the subject of one or more studies.

B. Technical Analyses

1. Rural Financial Services

a. Provision of Rural Financial Services

Despite sustained growth of financial intermediation, the country's rural population has enjoyed very limited access to financial services. Fewer than 10 percent of all farmers have been reached, sporadically, by the Agricultural Bank, while the proportion of farm and non-farm rural households with access to permanent and reliable bank credit lines or to deposit services has been smaller still. This situation reflects: (1) the high transaction costs for banking institutions of providing these services to a disperse clientele of small borrowers and depositors; (2) the high risks associated with financing agriculture, in general, and of lending to a heterogeneous population of small farmers, in particular; and (3) banking policies, regulations, and practices which have reduced the operating margins of financial institutions. These factors also while impose additional transaction costs on them, and restricte the types of ioans and deposit instruments allowed to each class of institution.

Rigid intervention has included interest-rate controls, high and cumbersome reserve requirements, selective credit controls, and restrictions on entry to and competition in financial markets under Central Bank regulation. Extreme specialization has further segmented markets in non-economic ways. The resulting credit rationing and loan fragmentation, coupled with complex procedures, expensive for both lenders and borrowers, have made operations in the rural areas unattractive. The break-even point for a commercial bank branch of RD\$1.3 million (US\$430,000) in deposits makes servicing many rural areas unprofitable.

One result has been a major concentration in Santo Domingo and Santiago of the banking infrastructure, deposits mobilized, and credit flows. While almost 50 percent of all commercial bank branches are scattered throughout the rest of the country, only 18 percent of all commercial bank deposits (checking, savings and term accounts) have been mobilized and only 10 percent of all credit has been granted outside the two major cities. The dynamic non-regulated market, which represents 30 percent of all financial activity, is highly concentrated in these two major urban centers as well.

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Rural informal credit sources (money lenders), on the other hand, charge 10-20 percent per month (120-240 percent per year) on loans and provide no savings deposit services, to capture local resources for on-lending to small rural borrowers.

The pilot Rural Savings Mobilization Project has demonstrated that the factors constraining the provision of financial services to the rural population can be effectively addressed, particularly in the most remote rural areas where no banking services have been available. With regard to the high transaction costs associated with providing financial services to a dispersed clientele, the RSM Project has shown that these costs can be and were lowered for the BAGRICOLA by spreading overhead costs from its lending activities to also include savings mobilization activities. In addition, the four credit unions that were strengthened under the RSM Project demonstrated the feasibility of raising interest rates to their borrowers to help offset the higher transaction costs associated with delivering financial services in the rural areas while at the same time still attracting substantial numbers of borrowers. While market interest rates were charged to borrowers, the BAGRICOLA and the credit unions attracted over 40,000 and 6,000 rural depositors respectively, despite the relatively low interest rate paid to depositors. The RSM project therefore demonstrated that through a combination of spreading overhead costs to more than one financial service and adjusting interest rates to reflect actual costs, high transaction costs in the rural areas can be managed effectively.

The RSM project also demonstrated that, by being closer to and knowing better the rural clientele it serves, rural financial institutions can reduce the higher risks involved in financing agricultural activities and in lending to a heterogeneous population. While lending activities increased at the BAGRICOLA and the credit unions, due primarily to increased availability from savings mobilization activities, loan delinquency ratios were dramatically reduced. This strongly suggests that the model developed by the RSM project reduces the risks associated with rural lending activities.

With regard to the limitations caused by banking policies and regulations, which have negatively affected the provision of rural financial services, the RSM project was able to obtain some reforms that alleviated the restrictions on the operating margins and types of loans and deposit instruments allowed in rural areas. These changes demonstrate that policy and regulation reforms can be obtained, that additional reforms are possible, and that the financial institutions involved in the project could effectively operate within the modified banking policy and regulatory environment.

The RSM model, which will be employed in the proposed Project, effectively addressed the problem of high transaction costs, reduced the risk of providing financial services to a rural population, and improved the policy environment within which the rural financial institutions must

work. Based on the positive results and experience gained in the RSM project, the project development team believes that the Rural Financial Services component of the proposed project is technically feasible.

b. Banking Technologies for Credit Unions

Despite the fragility of CUs in most developing countries, the RSM project developed a technical assistance package that resulted in the successful turnaround of 4 CUs. This package includes: (1) a better understanding of the role of a credit union as an intermediary between savers and borrowers and the implications for interest-rate and surplus policies; (2) proficiency in basic accounting and allocation of accountability; (3) financial management skills, including asset and liquidity management, loan risk analysis, portfolio diversification, loan recovery, liability management and banking relationships, and pricing of financial products; (4) skills in information management, interpretation of economic and financial data, strategic planning and decision-making; and (5) marketing skills for the expansion of financial services.

In order to upgrade their physical installations and to cover the initial costs of new staff (manager, accountant, cashier), CUs need additional cash flow while activity expansion generates sufficient revenues to cover these startup costs. To meet this need, the administrative grant activity started under the RSM Project will be expanded, and converted to an Administrative Loan Fund.

Despite limited portfolio diversification, geographic concentration and seasonal cash-flow patterns increase lending and liquidity risks for CUs. Sudden and frequent deposit withdrawals in the early stages of the mobilization effort sometimes reflect the desire of new depositors to test the ability of the credit union to return the funds deposited, given the absence of formal deposit insurance. To assist CUs to face temporary liquidity problems, the RSM Project team devised the Stabilization/Reserve Fund, which has been an important resource to the pilot CUs, and will be expanded as well.

c. Bridge Credit Fund

This summary covers both the demand for and technical and financial aspects of the Bridge Credit Fund component.

Demand Assessment

A demand analysis for the ongoing Agribusiness Promotion Project (517-0186) was conducted in 1985 by surveying a substantial number of existing non-traditional agribusinesses. The analysis concluded that by mid-1988 the demand for long-term capital would be at least US\$126 million. More recently, the Inter-American Development Bank's loan appraisal for their Agroindustrial Credit Project (DR-0114) established the demand for all types

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of credits to the agroindustrial sector to be US\$200 million. This demand estimate, together with the demand of US\$50 million which has already been met under the AID Agribusiness Promotion Project, indicates a total demand of US\$250 million for long, short and medium-term credit in the sector. The new IDB loan to the agribusiness sector will be US\$120 million while the ongoing AID agribusiness loan totals approximately US\$50 million, including counterpart monies, for a total of US\$170 million. Using the demand figure of US\$250 million cited above, this leaves a deficit in all types of credit available to the agribusiness sector of approximately US\$80 million.

Experience with the existing AID Agribusiness Loan indicates that disbursements of this loan are running well ahead of projections, indicating continuing strong demand. As stated above, the experience gained thus far from the ongoing Agribusiness loan fund indicates that the demand for Bridge Credits has been approximately 18% of total loans approved under that project. However, the project team believes that a Bridge Credit demand factor of 18% is conservative because the Agribusiness loan fund's principal goal was to provide long-term credits while short-term bridge credit loans were held down. The team therefore estimates the real demand for Bridge Credit to be between 24% and 30% of the projected deficit of US\$80 million. This provides a range in demand of between US\$19.2 million and US\$24 million for this type of credit. Therefore, the team concludes that there should be a strong demand for the \$10 million to be provided by the Bridge Credit Fund.

Technical Aspects of FIDE Bridge Credit Loan Fund

The terms and conditions under which the Bridge Credit fund will function will be nearly the same as those for the existing Agribusiness Loan fund. As with that fund, the bridge fund will be created by a loan from AID for US\$10 million for a term of 25 years. The Central Bank will manage this loan through FIDE, an internal division of the bank. FIDE in turn will on-lend the fund to participating financial institutions (PFIs). All commercial risk will be borne by the PFIs themselves. The terms, conditions and covenants for this loan will, with the minor exception of the end-user target, be the same as the successful agribusiness loan fund model. On the basis of prior experience with that model, the team believes that the Bridge Credit Fund will be successfully administered by FIDE.

The following materials describe the major characteristics of the bridge fund's technical and financial structure:

Interest rate policy: Because of the uncertainties related to inflation in the D.R., we have agreed that interest rates in this program should be adjusted periodically to reflect upward or downward pressures. This adjustment will be based upon Monetary Board resolutions, keeping in mind that the end user should pay a positive real interest rate.

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Currently, effective interest rates charged to end borrowers range from about 14% to 24% in the regulated banking system. These rates include the interest itself plus fees, commissions and closing costs. The low end represents loans from FIDE funds to firms located in the Haitian border area. At the upper end are rates charged to borrowers from the PFIs' own resources. In the middle, clients are borrowing from FIDE at 15% (FIDE makes loans to PFIs at 10%, which when combined with a spread of 5%, equals 15%). The five percentage point spread has proven sufficiently attractive to motivate and sustain bank participation in their type of program, while it is not so high as to provide the banks with excessive profits.

We have structured the interest rate policy for this loan to be consistent with Agency policy and to be reflective of country conditions, including a variety of factors such as the currently high versus historical low rates of inflation in the D.R., the risk of agribusiness projects and their normally low to moderate returns on investment, a business and banking community that is inexperienced in non-traditional export projects, the heretofore low cost of FIDE funds, and the competitive disadvantage of development banks -- which are the principal source of this type of financing. The team believes that the proposed interest rate structure is both realistic and fair and, therefore, proposes a 15 percent end-user rate, a 5 percent margin and a cost of funds of 10 percent for the PFIs.

Subloan Term: The original Agribusiness Loan fund model of a 12-year line of credit from FIDE to the PFIs will be employed. This term is equal to the maximum term available to the PFIs' clients. Unlike other FIDE credit mechanisms, under the Bridge Credit fund (as in the case of the Agribusiness loan fund), the PFIs will be allowed to retain recuperations for relending for similar purposes to qualified sub-project borrowers, thus establishing a new specialized line of credit facility within the PFI's.

Risk/Reward on Bridge Credit Loans: The bridge credit mechanism is used by agribusinesses and outgrowers for both high-risk export crops, such as melons, and to produce foods for the Dominican market, including rice and tomatoes. The Agribusiness Loan allocated approximately 18 percent of its resources for short-term working capital credits, although a number of firms have taken medium-term (three year) loans, and used them for crop-cycle credits to their farmer-suppliers. In this situation, the agroenterprise (which might be a fruit packer or a rice mill) takes the risk with the farmers, administers the credit activity, and relieves the banking community of this risk and high transaction costs. This spreading of risk seems to be working to the satisfaction of all parties involved. As the Agribusiness loan had a built-in preference for long-term, capital investment loans, the Bridge Credit Fund will meet an apparent need, with positive benefits for the sector.

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In conclusion, the Bridge Credit Fund will be meeting a real demand. It will be administered through an existing system that has proven effective, and the balance of risk and reward is apparently positive, suggesting that this Fund will have a life that extends well past the termination of the Project.

2. Agricultural Technology Development and Support

a. Demand for Improved Technology

While a precise determination of the local demand for improved NTC production technology has not been made, several factors suggest that this demand will grow in the near term.

The variety and amount of non-traditional agricultural products presently being exported from the DR exceed 150 different products and range from miniscule amounts to large volumes. Exports of these commodities are increasing as indicated by the fact that during the last five years the total volumes increased 20 percent, while the dollar values of NTC exports have increased over 30 percent. The opportunity for research and technology development in an atmosphere where so many commodities are being increasingly exported is great. Many of these commodities have not yet reached their potential in terms of the U.S. market.

Secondly, public sector researchers, who constitute the major portion of the Dominican research system, have concentrated their efforts on basic grains, domestic food crops, and traditional crops. Very little research is being conducted on export-oriented NTCs.

Lastly, a comparison between actual yields in the U.S. and the D.R. for several NTCs, suggests that considerable increases in yields can be obtained if the required research were conducted. For example the yield data for four selected NTCs, presented in the following table, averages 50% lower than "good" U.S. yields:

<u>CROP</u>	<u>DR</u>	<u>US</u>	<u>%DIF</u>
Cantaloupe	14,820	49,400	70.0
Eggplant	48,100	61,800	22.2
Dry Onion	24,050	98,800	75.7
<u>Peppers</u>	<u>32,000</u>	<u>49,400</u>	<u>35.2</u>
AVERAGE	29,742	64,850	50.8

On the basis of these figures, significant increases in production for many of the NTCs already being produced in the DR should be

attainable over the short and medium term. Most of the research that will be required will probably be focused on adaptive work, such as variety trials, soil nutrition studies, and the testing of improved pest control measures.

The unrealized market potential of many NTC's, the relatively limited availability of locally generated and adapted NTC production technology, and the high potential for NTC yield increases are factors which suggest that considerable demand exists for the NTC technology that the foundation will assist in developing.

b. Availability of NTC Technology

Only a limited amount of NTC production technology is being developed in the DR. As a rule, agribusinesses utilize production technology developed in other countries without subjecting it to much modification. Problems arising from inadequate adaptation of this technology, because it was developed under different growing conditions, is one of the principal reasons for poor yields.

Many NTC producers and exporters are too small to be able to afford the services of an expatriate technician specialized in their particular production problem or crop. This means that many local producers either have to learn to live with the problem and its subsequent low yields by planting increased acreage, or they must shift production to other crops.

Producers and exporters of non-traditional products in the DR need an organization that is a reliable source of technical information and assistance responsive to their specialized needs. The Foundation will not only support the generation of NTC technology adapted to these specialized needs, but will also make use of both local and international technical resources to provide timely information and assistance.

c. Institutional Analyses

1. Overview

USAID's analysis of factors affecting the commercial farming system sought to identify those that had the potential to be rapidly and effectively improved so as to increase production. No one institution in the Dominican Republic touches on all of the factors. Therefore, we tapped into the experience and knowledge of several public and private entities, and as we narrowed the focus to a short list of constraints appropriate for us to work on, our institutional analysis was developed by component, which is how it is presented below.

2. Rural Financial Services

A number of institutional alternatives were considered for the promotion of base-level rural financial services: (a) expansion of commercial

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and development bank branches into the rural areas; (b) promotion of existing, "Casas de Prestamo de Menor Cuantía" (small loan houses) or the creation of small independent rural banks; (c) utilization of existing second-level cooperative federations as institutional channels to develop and strengthen base-level CUs; and (d) utilization of the current Central Bank institutional arrangements, to promote based-level financial retail organizations, preferentially CUs.

a) Commercial/Development Bank Expansion

Gustavo Gómez' report found that despite reduced capital and reserve requirements for commercial/development bank branches, these institutions still target clients base who are relatively large depositors and borrowers. In the case of development banks, restrictions on their instruments for funds mobilization and concentration on medium and long-term lending limit their ability to act as base-level financial institutions. Commercial banks do provide bridge-loan financing for agricultural production and have extended lines of credit to some RSM project CUs. They offer deposit facilities in larger towns and are excellent conduits for agribusiness loans directly to companies. However, the lack of profitability of providing base-level rural financial services is difficult to overcome for these urban-based, centralized intermediaries.

b) Casas de Préstamos de Menor Cuantía

The Project Team also explored the alternative of utilizing existing lending institutions such as pawnshop-type operations (casas de préstamos de menor cuantía and informal moneylenders) as possible candidates to develop into full-service rural savings and lending institutions. This alternative was rejected for the following reasons: (1) legal restrictions and sole ownership considerations made their selection less desirable than other alternatives already identified (CUs); (2) given the present efforts on the part of the Central Bank to regulate these entities, their inclusion in this project was made more difficult; and (3) by offering savings services they too would require assistance in developing accounting systems and financial management techniques. They would need just as much training and advisory help as the CUs.

c) Working with Existing Second-Level Cooperative Institutions

This alternative was carefully analyzed by the Project team in three separate reports carried out by financial and credit union experts. The Dominican Confederation of Cooperatives (CODOCOOP) and the Federation of Multiple Service and Savings/Loan Cooperatives (FEDOCOOP) seemed likely candidates. The Mission had provided local-currency financing to the former and the latter had received assistance from the IDB through COLAC. Unfortunately, in-depth financial analyses of these institutions revealed them to be near bankruptcy due to past lending policies and now unrecoverable loans and to a poor management record. If project resources were channeled to these

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institutions, they could easily be immobilized by legal proceedings by creditors of these institutions. Project funds may then be lost in bailing them out or in satisfying pre-existing creditors or wasted in supporting an overstaffed operation vulnerable to political intrusions. In addition, cooperatives no longer contribute to these organizations, because they did not provide the technical assistance or liquidity management services that cooperatives need. Our analysis showed a lack of a strong business mentality within the second-level organizations, coupled with largely unrecoverable loan portfolios. Moreover, their leadership has resisted the policies of the RSM project pilot effort. We concluded that a program to expand base level financial institutions would have to utilize most of its resources to resuscitate moribund organizations before focusing on the base-level organizations. The team decided that the bottom-up strategy utilized in the RSM project was still advisable.

This is not to imply that other second-level organizations could not be valuable and necessary conduits for technical assistance and as liquidity management entities. Rather, we concluded that a different strategy and approach is needed to provide the services that base-level institutions would require from a second-level organization, and be even more cost effective.

d) The Central Bank

The selection of the Central Bank as the major implementing entity for the CU activities under the rural financial markets component has several advantages, for the following reasons:

- 1) It is a known entity which has provided leadership and effective management of the pilot RSM project activities with the CUs and the Agricultural Bank.
- 2) The Bank recommends banking policy and procedural changes to the Monetary Board. The RSM project has helped to open the way for USAID's policy dialogue agendas on interest-rate policy and the liberalization of savings instruments to promote savings mobilization in the Agricultural Bank. Policy assistance and related studies continue to be critical elements in improving the operation of rural financial markets.
- 3) The Bank can channel local currency resources through its credit window to CUs and commercial banks, and can expand the operation of its liquidity management (reserve fund), which currently operates under the RSM project.
- 4) The RSM office has been an effective mechanism for integrating the diverse and complex components of the RSM project. Its expertise and experience may be usefully employed by the new project.

The Rural Savings Mobilization office is attached to the Finance Department of the Central Bank, which is responsible for carrying out financial and feasibility analyses of financial institutions, and research on monetary policy and audits of financial institutions.

The principal disadvantage of using the Central Bank as an implementing agency is that it is not normally a technical assistance entity for promoting either CUs or other financial institutions. The RSM project, however, showed that the office was capable of implementing this program successfully and to the advantage of all parties involved.

e. Central Bank/FIDE

USAID's Project Development Team considered a number of options to meet the evident immediate need for increased liquidity in the agriculture-oriented banking system, and a number of institutional channels through which to provide it. These included channelling additional funds to the BAGRICOLA, or through the credit union or cooperative structure. While these may remain options for a future project, or an expansion of this one, for reasons discussed above, we concluded that new credit would not reach the small to medium scale farming segment fast enough to have notable impact. We concluded that adding funds to the Agribusiness Promotion Project mechanism in FIDE would be the best choice, and that this should be done via a new loan restricted to outgrower-based firms.

The FIDE mechanism has proven effective to date, although FIDE continues to conduct duplicative analysis and reviews of work done by the PFIs, which have the full commercial risk. The automatic disbursement system has not worked as smoothly as desired, particularly when it appears to conflict with other aspects of the Central Bank/Monetary Board policies regarding control of the exchange rate, money in circulation, and servicing of debt. Nevertheless, the PFIs are showing increased ability to assess the feasibility of projects presented to them, skills which are being strengthened by training programs financed by the Agribusiness Promotion Grant. USAID expects that as this skill is demonstrated to FIDE, and through continuous efforts by our project advisors with the Bank, that the rate of approvals and disbursements that regulate the flow of funds to the PFIs for sound project will accelerate. This is a continuing matter for both staff activity and policy dialogue with the Bank and the Board.

USAID currently supports other projects with the Central Bank, including the Small Industry Program, Rural Savings and Mobilizations and the Agribusiness Promotion Project. In addition, the World Bank and the IDB currently have industrial/agricultural programs with the Central Bank. The Central Bank has many years of experience with donor agencies in managing specific credits directed through the country's private commercial and development banks. Although their procedures at times have been cumbersome, the Central Bank has always proven itself as one of the country's most

responsible administrators. Thus, except for emphasizing changes required under the Agribusiness Promotion Project, we do not believe the Bank will need to employ additional staff to manage the bridge credit fund. The experience under the Agribusiness Promotion Project suggests that FIDE is capable of managing the credit component to AID's satisfaction.

f. Sub-Lending Institutions

Interviews were conducted with 18 development banks, 2 commercial banks and 2 government institutions as part of the demand and institutional analysis conducted by LAAD for the Agribusiness Promotion Project. The findings of that study remained valid.

Commercial Banks: The Latin American Agribusiness Development Corporation (LAAD) recommended that the commercial banks be eligible for several reasons. Among these were that several commercial banks have agribusiness loans outstanding, all of which originated with FIDE funds. Several banks also own development banks. Thus, short- and the long-term financing needs can be combined and provided from two sources. Finally, some banks have branches in rural areas not currently reached by the development banks; thus, these banks have clients which can be served and supervised through commercial networks. Some 14 commercial banks are participating.

Development Banks: All of the 18 development banks will be eligible to participate. Of these, there are 15 currently participating. The analysis and determination as to which banks should participate was based on the bank's financial strength (ability to borrow, degree of leverage, quality of portfolio, arrearages, etc.); capacity of staff to appraise and monitor agribusiness projects; size and type of current agribusiness portfolio; branch office network; and existing demand for new project funds. The 15 eligible banks constitute those banks best able to successfully accomplish the project's objectives (based on above factors). This analysis also facilitates a Central Bank/FIDE transition to a "line of credit" program rather than a sub-project disbursement approach. Since these banks are the strongest and most capable of carrying out the program, as proved under the Agribusiness Promotion and because they have the greatest number of sub-projects meeting the criteria of this credit component, USAID and the Central Bank can be better assured that this new AID loan will be implemented effectively and rapidly.

3. Agricultural Technology Development

a. Alternative Organizations

The International Service for National Agricultural Research (ISNAR) conducted an in-depth evaluation of the Dominican agricultural research system in 1983. Based on that evaluation and more recent studies on the subject, the Mission considered several alternative

local organizations as possible entities in which to promote research to improve production technology for growers and exporters of non-traditional crops. The following organizations were among those considered:

GODR Secretariate of Agriculture (SEA) The Department of Research for Agriculture and Livestock (DIA) is the SEA organization responsible for conducting most of the public sector's agricultural research. DIA is composed of a central directorate and 6 regional centers located throughout the country with a total of 20 experiment stations.

Although DIA has considerable human and physical resources at its disposal, it has been characterized as being relatively ineffectual at conducting meaningful agricultural research. The causes of this institutional weakness have been contributed to several factors including: politicization of the system; absence of a research program with clearly defined plans and goals; chronic lack of budget support for research materials and equipment; low salaries that fail to attract or retain qualified professionals and consequently causes a rapid turnover of staff; poorly trained employees that have limited experience and insufficient supervision, and a lack of continuity between research activities from one year to the next.

Dominican Institute of Agriculture and Livestock Research (IDIA): Based on the ISNAR evaluation, the GODR, during the last administration, proposed to separate DIA personnel and facilities from SEA and form a new autonomous organization (IDIA) modeled after the U.S. Land Grant College system. Although a Law creating IDIA was passed by the Dominican Congress, the original concept of a quasi-private sector directed research system was somehow lost. It now appears that IDIA, if made operational, would remain under the direct control of SEA due to a heavy public sector representation on its board. IDIA will, therefore, probably retain all the institutional weaknesses of DIA and will have merely undergone a name change.

Universities: Dominican universities conduct a limited amount of agricultural research, most of which is associated with thesis requirements for obtaining an Ingeniero Agrónomo degree. The university which is most active in this research is the Universidad Autónoma de Santo Domingo (UASD). UASD maintains an experiment station near Santo Domingo where approximately 50 students at any one time are conducting research activities in conjunction with their thesis studies.

UASD suffers from some but not all of the same afflictions as DIA, such as: low salaries for faculty; virtually no research budget; and facilities oriented toward teaching and production rather than research. The types of research activities that are performed are not directed toward solving current problems, but are intended for teaching purposes and often cover topics that have already been extensively researched.

The Instituto Superior de Agricultura (ISA) is a local university in Santiago that has had an active role in agricultural research. However, a large portion of ISA's research has been directed toward agribusiness administration, farm management, and agricultural policy areas. As with UASD, most of the research is concentrated in the thesis preparation at the undergraduate level. Although ISA established a production research organization and facilities near Santiago in the early 1960s, this center is now operated by and is part of DIA.

Agribusiness Research Activities: Agribusinesses have also been actively conducting research in the DR. For example, the Gulf and Western company has done extensive research primarily in sugar cane variety trials and agronomic practices, as well as the development of their own breed of Brahman cattle referred to as "Romana Red". This company has also conducted some diversification work on citrus, avocados, beans, and various vegetables crops. The locally owned fertilizer company FERQUIDO has also carried out an intensive program of soil analysis and fertilizer trials and finances some student thesis work in soil science. And the local tomato processing industry, although mostly not directly involved in conducting research, has financed some variety trials conducted by DIA personnel.

In general, the private sector's capability to conduct NTC research is affected by the limited availability of technicians, equipment, and facilities dedicated to research activities. Instead, these resources are utilized for production purposes. When improved technology is required or a solution to a production problem is needed, the private sector usually looks first to outside sources for assistance instead of developing the technology or finding the solution itself. This is because the primary role of agribusiness is production and marketing and not agricultural research.

b. Agricultural Research Foundation

From a brief overview of the present research system in the D.R., it is readily apparent that a considerable amount of human and physical resources is being underutilized. Also, the research that is being conducted is not supporting the diversification into non-traditional agricultural products, nor the improvement of production technology for those non-traditional crops that are already being produced locally.

An alternative to providing support to an institution from the existing research community is the establishment of a new organization that would be free of the constraints associated with the present system. One possibility considered was the purchase of an existing research station or the construction of a new facility and conduct field research outside of the present system. However, the initial investment cost of establishing the facility and the recurrent costs for operation and maintenance were considered too high to economically justify the research that would eventually be carried out, especially compared to using the present system in which the investments for facilities and personnel had already been made. It was thought that this

investment in human and physical resources should somehow be utilized. Also, since the majority of the research to be financed would be conducted on growers' fields, a research facility would probably be underutilized as are existing facilities.

The proposed organization, however, will need to address the weaknesses of the present system if useful technology, responsive to the needs of NTC producers and exporters, is to be a result of its activities. This will require training and supervision of local researchers in order to obtain reliable technical information and establish the capacity within the present system to conduct research with limited foundation supervision. Technical assistance will also be required to bring NTC yields up to acceptable levels, and to provide an early impact that will ensure continuing private sector support for the foundation. The situation does not require an extensive investment in equipment or facilities, but it will require technical and managerial assistance and training to set up the foundation, and for it to influence the present condition.

Therefore, the establishment of a private sector directed agricultural research foundation that would use the DR's existing system to conduct research activities has been selected as the most appropriate institutional alternative. It will be an effective solution provided that USAID and the Foundation's leaders can work together to deliver appropriate kinds and amounts of advisory services and training within a clearly defined research program, and that its financial viability can be assured, as discussed below.

c. Agricultural Development Foundation: Financial Viability

The ADF's financial viability assumes that private sector and GODR ESF local currency contributions will be forthcoming as expected. The operating budget of the Foundation is presented in Table 8 on the following page.

Although estimates are not included in Table 8, it is expected that the Foundation could levy charges and receive fee income for some of the goods (e.g, books and pamphlets) and services (e.g., seminars and technical assistance) it is to provide.

In addition to contributing funds to the endowment, it is anticipated that the private sector will provide in kind resources (e.g., land, labor, and inputs) to assist in carrying out specific technical activities.

Table 9 contains the self-financing analysis for the foundation over the five year period of the project.

Table 8: Research Foundation Operating Budget
(US\$ 000)

	Rate	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Personnel Costs							
Executive Director	25.0/year	25.00	27.00	29.16	31.49	34.01	146.67
Ag. Scientist	17.0/year	8.50	18.36	19.83	21.42	23.13	91.23
Ag. Economist	17.0/year	8.50	18.36	19.83	21.42	23.13	91.23
Inform. Specialist	13.0/year	6.50	14.04	15.16	16.38	17.69	69.77
Accountant	13.0/year	13.00	14.04	15.16	16.38	17.69	76.27
Ex. Secretary	6.0/year	6.00	6.48	7.00	7.56	8.16	35.20
Secretaries (2)	5.0/year	5.00	10.80	11.66	12.60	13.60	53.67
Driver/Messenger	2.4/year	1.20	2.59	2.80	3.02	3.27	12.88
Subtotal		<u>73.70</u>	<u>111.67</u>	<u>120.61</u>	<u>130.25</u>	<u>140.67</u>	<u>576.91</u>
Operations Costs							
Office Rental	12.0/year	12.00	12.96	14.00	15.12	16.33	70.40
Utilities	3.6/year	3.60	3.89	4.20	4.53	4.90	21.12
Supplies	2.4/year	1.20	2.59	2.80	3.02	3.27	12.88
Inform. Center	3.6/year	1.80	3.89	4.20	4.53	4.90	19.32
Vehicle Fuel	8.0/year	4.00	8.64	9.33	10.08	10.88	42.93
Vehicle Maint.	10.0/year	5.00	10.80	11.66	12.60	13.60	53.67
Miscellaneous	1.2/year	0.60	1.30	1.40	1.51	1.63	6.44
Subtotal		28.20	44.06	47.59	51.40	55.51	226.76
Technical Assistance		157.50	348.20	365.80	383.90	402.50	1657.90
Training Costs		27.00	117.90	117.90	117.90	117.90	498.60
Research Grants		<u>49.00</u>	<u>304.98</u>	<u>498.46</u>	<u>815.68</u>	<u>801.15</u>	<u>2469.27</u>
Total Costs		335.40	926.82	1150.35	1499.13	1517.73	5429.43

Note: An annual rate of inflation of 8% built into local costs.

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Table 9: Research Foundation Self-Financing Analysis
(US\$ 000)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Sources of Funds						
1. AID Grant	478.00	602.00	507.00	514.00	534.00	2635.00
2. GODR Endow. Cap.	1666.00	1667.00	1666.00			5000.00
3. PS Endow. Capital	433.00	400.00	400.00			1233.00
4. Endowment Income		336.00	667.00	997.00	997.00	2997.00
Total Sources	<u>2578.00</u>	<u>3004.00</u>	<u>3240.00</u>	<u>1512.00</u>	<u>1531.00</u>	<u>11866.00</u>
Uses of Funds						
5. Personnel Costs	74.00	112.00	121.00	130.00	141.00	577.00
6. Operating Costs	28.00	44.00	48.00	51.00	56.00	227.00
7. Tech. Assistance	158.00	348.00	366.00	384.00	403.00	1658.00
8. Commodities	133.00					133.00
9. Training	27.00	118.00	118.00	118.00	118.00	499.00
10. Research Grants	49.00	305.00	498.00	816.00	801.00	2469.00
11. Audits (5)	10.00	11.00	12.00	13.00	14.00	59.00
12. Evaluation (1)			12.00			12.00
13. Endowment Capital	2100.00	2067.00	2067.00			6233.00
Total Uses	<u>2578.00</u>	<u>3005.00</u>	<u>3242.00</u>	<u>1512.00</u>	<u>1531.00</u>	<u>11866.00</u>
Accum. Endow. Capital	2100.00	4166.67	6233.33			6233.33

Note: Endowment income calculated at 16% annual rate of return.

Exchange Rate: US\$1.00 = RD\$3.00

On the basis of the assumptions for the budget given in Table 8, we conclude that the Foundation is financially feasible in that revenues cover costs during the initial five years. After the fourth year of operation the level of funding available for research grants begins to decline at an annual rate of less than 2% due to inflationary effects on overhead costs. However, the effects on the financial base of accumulated interest earnings was not taken into account in this analysis and should more than offset this 2% decline in available funding for research grants. Continuation of the foundation's activities at the same or higher levels beyond five years will still depend upon a number of factors, including the level of interest income on the endowment, the level of fee income for goods and services provided, and the extent of local contributions. However, endowment earnings will more than cover the recurring costs associated with the operation of the foundation after the end of the project and will also provide adequate levels of funding for research grants.

D. Social Soundness

Based on our investigations, we believe that this project is socially and culturally feasible. Traditionally, the society of the Dominican Republic was rural and agrarian, and even today, the majority of the workforce finds employment in the agricultural sector. The project model of producers contracting with outgrowers for their raw material needs is a socially accepted method of production here, and currently employed by agribusiness producing and/or packing pineapples, okra, cantaloupes, tomatoes, peppers, and cucumbers, as well as feed companies and rice mills.

The project will directly benefit the owners and operators of agribusinesses, the workers who will be provided jobs in the expanding agribusiness sector, and the suppliers who will provide the necessary input materials needed by the agribusinesses to operate.

Farmers who sign outgrowing contracts will generally realize higher incomes compared to farmers who do not grow for contract. Providing jobs to the currently unemployed and under-employed will result in higher income levels for agribusiness labor.

Agribusiness ventures of the sort proposed tend to be labor intensive. Accordingly, they will involve direct impact on the lives and labor of (a) contract outgrower farmers, their mates, children, and hired laborers, as well as (b) processing plant laborers and (c) agribusiness owners and managers.

The past development and present structure of financial markets in the Dominican Republic severely penalize middle- and low-income rural farm households, further limiting their access to financial services. The relatively inefficient and unreliable service offered by the public sector financial institutions, and the limited service offered to those income groups by private financial intermediaries in the rural areas, has hampered the growth of rural incomes.

The beneficiaries of this project are mostly middle- and lower-income rural farm-households. To that extent, one can consider the analysis below to be applicable to the general target group of the Commercial Farming Systems Project. A survey conducted among the client-members of the four rural CUs participating in the RSM project found that the major occupational groups were farmers (23%), followed by public and private sector employees (19.8%), housewives (15.1%), small businessmen (13.7%), and teachers (8.3%). Women made up approximately 40% of the membership, and the educational levels break down as follows:

No Schooling	9.0%
Primary education	48.9%
Secondary education	23.4%
Technical level	12.9%
University level	5.8%

When credit union members were questioned as to their access to credit from alternative sources, approximately 72 percent of the respondents said that they were limited to self-finance, 16.5 percent stated they had access to regulated banking institutions, 1.4 percent borrowed from non-regulated financial institutions, 8.6 percent from local moneylenders, and 1.4 percent from other cooperatives. When the clients of these four CUs were questioned about where they kept their money before depositing it in the CU, 68 percent stated that they kept it in their houses or that they did not save before; and 32 percent stated that they transferred the funds from another institution.

These survey results show that the CUs are functioning as true financial intermediaries, capturing local resources which heretofore would have been consumed and channeling them back to the rural areas. These resources otherwise would have been on-lent in other geographic areas by formal institutions. They are providing financial services to rural clients who were largely untouched by formal financial intermediaries.

Similarly, a survey of BAGRICOLA depositors showed that 27% are women, 51% are farmers, 9% are employees, 7% housewives. Only in 2% of the cases were the funds withdrawn from another bank. About 57% indicated that if those funds would not have been deposited, they would have been used for consumption. Thus, the deposit represented true savings. About 33% keep their deposit as a precautionary reserve against illness and unexpected events. During 1983, only one-third had received loans from BAGRICOLA and only 10% got loans from other sources.

Since these base-level financial institutions (CUs) have traditionally served this target population, it is expected that this will continue to be the case. Moreover, no subsidized loans will be offered and strict loan collection will be practiced. The borrowers of these intermediaries will benefit by access to greater volumes of credit, and by lower rates of interest, compared to the alternatives (moneylenders) faced by this segment of the population. The team expects that the weighted average rate of interest in these markets will decline, as a greater number of beneficiaries receive loans from the CUs, and no longer must rely solely on local moneylenders. This reduction in interest rates would reflect information and scale advantages of CUs, their professional management and portfolio diversification, but no artificial subsidies. In addition, savers will benefit from access to secure and convenient means of managing liquidity and precautionary reserves and by a significant increase in the real return on their savings, as a result of (a) the lowering of transaction costs (travel time, transportation costs, etc.), and (b) an increased nominal rate of interest over that which they are currently receiving.

E. Environmental

The IEE was approved with the submission of the PID; it called for a negative determination, finding that environmental impacts from this project

will be minimal (See Annex B). As per Section 216.2(c)(2) categorical exclusions, AID's environmental regulations are generally not required for projects with intermediate credit institutions when AID does not review and approve individual subloans. In the case of the Rural Financial Services component, AID will not be involved in approvals for subloans made by the various funds to or by CUs. Under the Bridge Credit Fund, standing agreements with FIDE will be reconfirmed. This includes agreement on a negative list of subprojects which will not be eligible for financing, including projects involving pesticides, severe chemical treatments such as tanneries, or extensive land clearing or road construction in hillside areas. In the Agricultural Technology component, USAID will provide assistance by experienced U.S. crop production specialists and promote technology packages which are acceptable under U.S. environmental regulations. The testing and use of chemical inputs will therefore be under careful supervision and in demonstration conditions.

F. Economic Analysis

The purpose of this section is to indicate the magnitude of the economic impact of the project, particularly on employment generation, foreign exchange earnings, and income. As discussed in detail elsewhere, the project consists of two components, involving three major activities. Each activity will generate benefits to the economy including, among others:

- o from the Rural Financial Services rural banking activity, as a result of increased savings mobilized, 19,000 new rural clients will have access to credit and the key financial entities will adopt measures leading to a sound financial intermediation system through monetary and bank regulation policy implementation;
- o from the Bridge Credit activity, investments will be made by at least 30 private firms in promising agribusiness projects;
- o by the Agricultural Technology Development component, resulting in improved yields and total agricultural output by means of new technology adoption.

1. Rural Financial Services

Overview -- A cost/benefit analysis of the financial markets component is difficult to make since the potential opportunities for productive investment to be carried out as a result of the improved access to credit on the part of the middle and lower income rural population are difficult to identify. However, the macro-economic impact of implementing this project activity can be estimated in terms of additional value added and likely impact on employment.

Economic Assessment -- The expansion of financial services into the rural areas can be expected to have a direct and positive impact on the

incomes of both borrowers and savers of the base-level institutions supported by the project. By improving the access to depository services, the supply of "transferable" savings will grow as rural households substitute financial deposits for cash reserves and unproductive investments in inflation hedges. Depositors will earn a higher rate of return on their savings, through a combination of reduced transactions costs and a higher rate of interest than that obtained from other financial institutions.

The savings resulting from the proposed project of RD\$18 million, together with rollovers from RSM investments (totaling about RD\$15.8 million) will expand credit availability and reduce the demand for loans from local moneylenders. Borrowers will pay a lower rate of interest than they otherwise would in the informal credit market. These savings and rollovers are expected to be on-lent for investments, which will generate an annual flow of value added of the order of RD\$1.3 to RD\$2.6 million, representing a return on the order of 14.3% - 28.6%. The expected increase in new permanent jobs is on the order of 1,000.

It is expected that the financial policies promoted under this project will create incentives to transfer resources from farm households with limited opportunities for productive investments, to those farm households with better opportunities for earning a higher rate of return. As this process of financial intermediation proceeds, the rate of growth of rural incomes, while difficult to estimate at this point, will increase.

In an economy with perfectly integrated financial markets, one would conclude that the flow of resources out of the rural areas (commercial bank branches as net exporters) reflects only the greater underlying profitability of the urban activities vis-a-vis the rural economy. However, under the present fragmented financial markets in the Dominican Republic, the net export of resources via the existing financial intermediaries largely reflects deficiencies in the financial markets (poor information flows, high transactions costs, and risks) rather than the underlying risk adjusted rates of return. A reversal in such a flow, which is expected to take place as a result of the project, will help improve the growth of national aggregate income, and equity in the rural population access to productive resources.

The project team believes that this reversal in the flow of financial resources will take place because of factors built into the project. In addition to the technical assistance input, financial linkages have been incorporated to support this process. The administrative loan fund will provide the necessary financial support to the participating credit unions, bridging their operating deficit until their volume of operations make them self-sufficient. The Stabilization/Reserve Fund will be capitalized through a fixed percentage of funds mobilized, and will serve to ameliorate the risks of geographic and sectoral concentration inherent in their lending activities.

2. Bridge Credit Fund

As described under the Technical analysis, both the credit survey as well as actual requests under existing Agribusiness Promotion Project indicate that potential demand for credit is very high.

To estimate the impact of the Bridge Credit Fund, average financial returns on investment are assumed to be 44%. Even if this estimate is revised downwards, a solidly favorable return for new ventures would result. If the same assumptions are valid for the Bridge Credit as those for the Agribusiness project, such as giving priority to projects having low capital investment per job ratio (1 job for every US\$3,400), the Bridge Fund will stimulate the creation of employment for 2,940 persons and create a value added of US\$12 million and generate around \$17 million annually in foreign exchange once businesses are fully operating. These results clearly indicate that the bridge credit activity is economically viable.

3. Agricultural Technology Development

The economic considerations that are relevant to a research activity include both intangible as well as quantifiable benefits, including increased acceptance of new technology by farmers, broader support for domestic research activities, and greater returns to farmers depending on each crop, soil conditions and climate. However, a rigorous economic analysis of the benefits from the ADF's operations is not feasible at this time because the individual crops that will be researched to develop improved technology packages are not yet identified nor are the added benefits which will accrue from improved production packages available. Nonetheless, a preliminary examination of the benefits of the Foundation's activities has been made which suggests that the project will provide an adequate economic return to the country.

The results of the preliminary examination of the costs and the benefits of the ADF research activity is presented below:

Costs

Total cost of the Foundation's research activity is expected to be \$5.4 million during the 5-year life of project and \$6.2 million over a 10 year period. (Yearly operational costs after year 5 are estimated at about \$158,000 or \$790,000 from year 6 through 10.) Costs incurred during the 5-year LOP include \$3.7 million in operating expenses and \$1.7 million in long and short-term technical assistance. The \$6.2 million for the Endowment Fund will be capitalized and is considered an investment rather than a cost. (For a more detailed breakdown of the Foundation's costs and financial viability, see Tables 8 and 9, pages 59 and 60).

Benefits

The case of a cantaloupe investment, described in detail in Annex J-3, has been used to develop the benefits that would result from the implementation of the research activities under the project. That case describes the impact of improved technology on the production of cantaloupes on farms of 1,500 and 3,000 has., respectively. While it may not be ideal to take this sole case as a basis for calculating the economic impact of the research activities under the project, since a variety of crops will actually be researched which will result in varying rates of returns, it has been used as a reasonable surrogate for the economic results expected. In addition, in calculating the results, it was assumed that, while the ADF was expected to complete 3 research projects annually, only 1 research project per year would obtain benefits on the order of the cantaloupe project. Thus, it is believed that the benefits derived are fairly conservative.

On the basis of cantaloupe research results being successfully implemented by farmers, total benefits will amount to \$8.3 million for the 5 year life-of-project and \$24.3 million over the 10 year period. These returns reflect results from Alternative A, shown in Table 4 of Annex J-3, which contains fairly conservative assumptions.

Results

The comparison of costs and benefits resulting from the operation of the ADF's research activity and the utilization of its findings by farmers are:

Table 14

	5 year	10 year
Cost of Operating Res. Center	5.4	6.2
Benefits of 1 Successful Project	<u>8.3</u>	<u>24.3</u>
Benefit to Project	2.9	18.1

On the basis of the preliminary economic assessment outlined above, it is believed that the research activity contemplated in the project will generate solid returns to the economy. Return on investment during the first 5 years is \$2.9 million which provides a rate of return of approximately 35% and over the 10 year period a return of \$18.1 and a rate of return of over 290%. In addition to the returns to investment indicated above, the project is expected to generate added foreign exchange for the country, generate increased employment, and expand private investment in the agriculture sector. Thus the research activity appears to be economically feasible.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project : FY1987-1992
PACD : June 1992
Date Prepared : April 22, 1987

Project Title & Number: Commercial Farming Systems (517-0214)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p><u>Program or Sector Goal:</u> To contribute to sustained and equitably distributed economic growth in the D.R. by accelerating the movement of the agricultural sector into non-traditional crops, thereby increasing small farmers' incomes and rural employment, and earning or saving foreign exchange.</p>	<p><u>Measure of goal achievement:</u> :-Production of Non-traditional agricultural crops for exports and import substitution increase as measured by growth of value added in non-traditional ag. (3-5% by 1989) :-Employment of outgrowers and day laborers increases by 600 and 4,800 respectively in 1988 and 89. :-Incomes of 9,000 rural farm and non-farm residents increase by 90% with non-traditional crops.</p>	<p>-Central Bank reports and other export data analyses; Secretarial of Agriculture crop reports. :-Surveys of outgrowers and agribusinesses. :-Regional Employment Statistics :-GDP accounts and other National/Regional Economic data.</p>	<p>-Market opportunities for agricultural exports continue to be available and effectively exploited. :-The sector can produce non-traditional commodities at competitive prices. :-Increased total agricultural production, rural employment and incomes will result in increased effective rural demand for food and non-food products.</p>
<p><u>Project Purpose:</u> To increase production of non-traditional crops through improved farmer linkages with agribusinesses and direct access to credit and improved technology.</p>	<p><u>End of Project Status (EGPS)</u> :-Increased production of non-traditional crops by 6,000 outgrowers with financing through for 30 agribusinesses. :-Expanded rural banking system serving at least 19,000 clients. :-Private foundation providing funding, quality control and dissemination of agricultural technology.</p>	<p>-Project records, case analyses and surveys of agribusinesses and financial institutions.</p>	<p>-Domestic economic conditions remain sufficiently favorable to attract private investment. :-Agribusinesses firms willing to utilize outgrower contracts. :-GODR willing to permit active private sector participation and control of non-traditional crop technology development.</p>

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Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Outputs	Outputs Indicators		
-Changed policies and procedures in Central Bank affecting rural financial institutions.	-Central Bank has policies that support rural banking in such areas as, deposit insurance, liberalized regulations and interest rates, and simplified legal reserve requirements.	-Project records and reports, case analyses, surveys of participating agribusinesses, Monetary Board resolutions.	-Central Bank willing to enact policy changes affecting rural financial institutions.
-Credit Unions and other base-level financial institutions providing effective efficient services to smaller rural clients and have established banking relationship with larger banks.	-At least 30 credit unions offering savings and lending services to rural clients, and borrowing from private banks to meet excess demand.		-Larger private banks willing to develop relationships with base-level rural financial services institutions.
-Bridge Credit Fund operating in Central Bank.	-Loans to 30 enterprises that rely on outgrowers.	-Central Bank/FIDE reports.	
-Private sector directing in-country technology development efforts in non-traditional crops.	-Private Foundation providing direction and funding of in-country non-traditional crop technology development and transfer.		
	-Approximately 15 technology packages developed/disseminated.		
	-Rapid response system operating to support growers with special problems.		
	-Improved skills of sixty researchers.		
	-Technical information Center offering materials to researchers and farmers.		

Narrative Summary Inputs	Objectively Verifiable Indicators (\$ millions)					Means of Verification	Important Assumptions
	LOAN LC	A.I.D. GRANT FX	GRANT LC	COUNTERPART LC	TOTAL		
						-Controller Records -Central Bank Reports -Foundation's annual audited Financial Statements.	-AID Funds will be available -Private contributions will be made as planned to Foundation endowment.
1. RURAL FINANCIAL INSTITUTIONS DEVELOPMENT							
a. Technical Assistance		1.8		.3	2.1		
b. Training, Commodities, Operating Costs		.1		1.3	1.4		
c. Admin. Loan Fund				.4	.4		
d. Bridge Credit Fund	10.0			2.5	12.5		
e. Audits, evaluations, contingency			.2	.1	.3		
2. AGRICULTURAL TECHNOLOGY DEVELOPMENT							
a. Technical Assistance		1.7			1.7		
b. Commodities		.1	.03		.13		
c. Training		.2	.2		.4		
d. Endowment				6.2	6.2		
e. Op. Costs		.2	.6	.6	.8		
f. Research Grants		.1		2.4	2.5		
g. Audits/Evaluations			.07		.07		
PROJECT TOTALS:	10.0	3.9	.8	13.8	28.5		

Doc.:3530F

(15) ACTION AID-3 INFO AMB DCM ATATT ECON FCS CHRON

VZC7CDG0692
 RP RUEHDG
 DE RUEHC #1204/01 1260126
 ZNR UUUUU ZZH
 R 062126Z MAY 86
 FM SFCSTATE WASHDC
 TC AMEMBASSY SANTO DOMINGO 1290
 BT
 UNCLAS SECTION 01 OF 03 STATE 141224

LOC: 259 133
 25 MAY 86 0130
 CN: 11810
 CHR3: AID
 DIST: AIDP

AIDAC

CHRON COPY

F.O. 12356: N/A

TAGS:

SUBJECT: REVIEW OF THE USAID/DOMINICAN REPUBLIC FY 87/88 ACTION PLAN

ACTION: PRG	
DATE DUE	
DIR	
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PDO	
PRG	
CON	
MGT	
HRD	
HPO	
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RF	

1. THE REVIEW OF THE USAID/DOMINICAN REPUBLIC FY 87/88 ACTION PLAN WAS CHAIRED BY DAA/LAC MALCOLM BUTLER ON APRIL 22-23. MISSION DIRECTOR HENRY BASSFORD REPRESENTED THE MISSION. THE REVIEW CONGRATULATED THE MISSION FOR ITS THOUGHTFUL AND WELL WRITTEN ACTION PLAN. GIVEN BUDGET STRINGENCIES, FUTURE FUNDING LEVELS ARE VERY UNCERTAIN. HOWEVER, IT WAS AGREED THAT THE MISSION WOULD BE GUIDED, IN PREPARING THE FY 88 ABS, BY THE FOLLOWING PLANNING LEVELS FOR FY 87 AND FY 88.

(DOIS 000)	FY 87	FY 88
DA	28,658	34,000
FSF	40,000	30,000
PL 480 TITLE I	30,000	30,000
PL 480 TITLE II	1,602	1,000

THESE ARE CURRENT LAC BUREAU PLANNING NUMBERS, AND DO NOT HAVE PPC OR INTERAGENCY AGREEMENT. ISSUES DISCUSSED AND DECISIONS REACHED WERE AS FOLLOWS.

2. STABILIZATION AND ECONOMIC GROWTH - THE MISSION DIRECTOR REVIEWED ACCOMPLISHMENTS UNDER THE STABILIZATION PROGRAM. THE DOMINICAN REPUBLIC COMPLETED ITS IMF STANDBY AGREEMENT, MEETING OR EXCEEDING ALL TARGETS. INFLATION HAS FALLEN SHARPLY, AND THE VALUE OF THE PESO HAS APPRECIATED. A MULTIYEAR RESCHEDULING AGREEMENT WITH COMMERCIAL BANKS HAS BEEN SIGNED AND NO DIFFICULTY IS ANTICIPATED WITH APPROVAL BY THE DOMINICAN CONGRESS. THE MISSION'S BALANCE OF PAYMENTS PROJECTIONS INDICATE THE DOMINICAN REPUBLIC'S NEED FOR BALANCE OF PAYMENTS SUPPORT WILL DECLINE OVER THE ACTION PLAN PERIOD. IT WAS AGREED THAT A CONCEPT PAPER WOULD NOT BE REQUIRED BEFORE THE FY 87 ESF PAAD IS SUBMITTED. IT WAS ALSO AGREED THAT THE PAAD SHOULD CONTAIN A FULL DESCRIPTION OF PROPOSED USES OF LOCAL CURRENCY FROM BOTH FSF AND PL 480.

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3. IMPACT OF THE MISSION STRATEGY ON THE POOR - THE MISSION DIRECTOR STATED THAT THE MISSION'S BASIC STRATEGY WAS TO ADDRESS THE NEEDS OF THE POOR THROUGH OVERALL GROWTH AND EMPLOYMENT. THE REVIEW QUESTIONED WHETHER ENOUGH JOBS COULD BE CREATED TO SATISFY THE NEEDS OF THE POOR. THE REVIEW ALSO QUESTIONED WHETHER THE JOBS WOULD BE FILLED PRIMARILY BY THE POOR AND WHETHER THE QUALITY OF LIFE OF THE POOR WOULD BE SIGNIFICANTLY IMPROVED. THE MISSION DIRECTOR REPORTED THAT EMPLOYMENT OPPORTUNITIES CREATED UNDER AID AND OTHER DONOR ACTIVITIES WOULD SOON EXCEED THE NUMBER OF JOBS NEEDED BY NEW ENTRANTS INTO THE LABOR MARKET, AND REDUCE THE UNEMPLOYMENT RATE BY FY 87. AN FY 87 EVALUATION WILL MEASURE PROJECT IMPACT ON EMPLOYMENT AND INCOME. IT WAS DECIDED THAT THE EVALUATION SHOULD TEST THE ASSUMPTIONS THAT JOBS CREATED ARE BEING FILLED BY THE POOR AND THAT THEIR QUALITY OF LIFE IS IMPROVED. THE MISSION'S BASIC STRATEGY APPROACH WAS ENDORSED.

4. PRIVATE SECTOR - IT WAS NOTED IN THE REVIEW THAT THE MISSION'S PROJECTIONS OF INCREASED PRIVATE SECTOR INVESTMENT AND JOB CREATION OVER THE NEXT TWO YEARS APPEARED OPTIMISTIC. THE MISSION DIRECTOR DEFENDED THE PROJECTIONS, REPORTING THAT THE SUCCESS OF STABILIZATION MEASURES, POLITICAL STABILITY, RESOLUTION OF THE PROBLEM WITH OPIC, AND THE DOMINICAN REPUBLIC'S COMPARATIVE ADVANTAGES OF SIZE, LOCATION AND CLIMATE, COMBINE TO MAKE THE COUNTRY ATTRACTIVE TO INVESTORS. ALSO, THE DOMINICAN REPUBLIC IS MAKING VERY GOOD USE OF OPPORTUNITIES UNDER THE CBI. FY 87 FSP WILL BE USED TO ENCOURAGE A GOOD POLICY DECISION WITH RESPECT TO THE

PRIVATIZATION OF THE STATE ENTERPRISES HELD BY CORDE. BASED ON THIS POLICY COMMITMENT, THE MISSION PLANS TO FINANCE A STUDY TO IDENTIFY PRIVATIZATION ALTERNATIVES FOR EACH OF CORDE'S 36 COMPANIES. THE PROPOSED FY 88 PRIVATIZATION OF STATE ENTERPRISES PROJECT WOULD SUBSEQUENTLY PROVIDE TA AND FSP ASSOCIATED LOCAL CURRENCY CREDIT TO ASSIST ENTREPRENEURS TO BUY BUSINESSES BEING DIVESTED. THE MISSION DIRECTOR CLARIFIED THAT THE PROPOSED DOLLAR CREDIT COMPONENT OF THE PROJECT IS INTENDED TO HELP PRIVATE SECTOR BUYERS OF PUBLIC ENTERPRISES IMPROVE THOSE ENTERPRISES AFTER PURCHASE, NOT TO FINANCE THE PURCHASE ITSELF. IT WAS SUGGESTED IN THE REVIEW THAT THE MISSION START WITH GRANT TA, THAT A PRE/IGC BUY-IN MIGHT BE ADVISABLE, AND THAT A SIMILAR PROJECT IN HONDURAS SHOULD BE STUDIED IN PROJECT DESIGN. IF THERE ARE CUTS IN DA, THE MISSION DIRECTOR STATED THE PROJECT MIGHT STILL PROCEED WITH LOCAL CURRENCY.

5. PL 430 - IN ADDITION TO DOLS 30 MILLION IN PL 430

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TITLE I IN FY 86, THE MISSION IS PROPOSING DOLS 25 MILLION UNDER SECTION 416 TO HELP OFFSET THE REDUCTION IN THE U.S. SUGAR IMPORT QUOTA. THE SECTION 416 COMMODITIES WOULD BE SOLD AND THE LOCAL CURRENCIES WOULD BE USED TO ASSIST DIVERSIFICATION FROM SUGAR. CONCERN WAS EXPRESSED IN THE REVIEW ON WHETHER THESE IMPORTS POSED DISINCENTIVES TO LOCAL PRODUCTION. THE MISSION DIRECTOR STATED THAT THERE WERE CURRENTLY DOLS 100 MILLION IN IMPORTS OF THE FOUR COMMODITIES TO BE IMPORTED UNDER THESE PROGRAMS (WHEAT, CORN, VEGETABLE OIL, AND RICE). ALSO, OF THESE COMMODITIES, RICE WAS THE ONLY ONE LOCALLY PRODUCED IN SIGNIFICANT QUANTITY AND WHICH COULD THEREFORE REPRESENT A POTENTIAL DISINCENTIVE. THE MISSION DIRECTOR EXPLAINED THAT THROUGH PL 480 TITLE I CONDITIONALITY, PRICE CONTROLS AND SUBSIDIES, WHICH ARE A DISINCENTIVE TO LOCAL PRODUCTION, WILL BE REVISED. WITH RESPECT TO THE PROPOSED DOLLAR LOAN FUNDED DIVERSIFICATION PROJECT, IT WAS AGREED THAT THIS ACTIVITY MIGHT BE RECONSIDERED IF THE PROPOSED SECTION 416 SUGAR QUOTA OFFSET PROGRAM IS APPROVED.

6. HEALTH - IN DISCUSSION OF THE NUTRITION PROBLEM IN THE DOMINICAN REPUBLIC, THE MISSION DIRECTOR STATED THAT STATISTICS ON THE PROBLEM WERE TOO INACCURATE TO HAVE MUCH CREDIBILITY. THE MISSION IS DOING A SURVEY TO GET A BETTER HANDLE ON THE EXTENT OF MALNUTRITION, AND WILL

EXCHANGE CABLES WITH THE BUREAU TO REFINE BENCHMARKS AFTER THE SURVEY IS COMPLETED.

THE MISSION DIRECTOR ADDED THAT SUBSTANTIAL SUPPORT TO SOCIAL SERVICES IS BEING PROVIDED THROUGH DA AND LOCAL CURRENCY, BUT LOCAL CURRENCY ASSISTANCE IS NOT PART OF THE NORMAL INFORMATION FLOW TO TECHNICAL OFFICES IN THE BUFEAU. IT WAS AGREED THAT MUTUAL EFFORTS WOULD BE MADE TO IMPROVE COMMUNICATION BETWEEN THE IAC TECHNICAL OFFICERS AND USAID/DR COUNTERPARTS. THE MISSION AGREED TO REVIEW IN MORE DEPTH THE STATUS OF THE REQUIREMENTS FOR IMMUNIZATION IN THE DOMINICAN REPUBLIC. IF MORE NEEDS TO BE DONE, THE MISSION DIRECTOR EXPRESSED WILLINGNESS TO FIND WAYS TO SUPPORT SUCH EFFORTS THROUGH AID/W OR USAID ASSISTANCE TO PAHO OR OTHER DONOR AGENCIES, AS LONG AS NO ADDITIONAL MANAGEMENT UNIT IS ADDED TO THE MISSION'S PORTFOLIO, NOR ADDITIONAL FINANCIAL AND PERSONNEL BURDENS PLACED ON THE MINISTRY OF HEALTH.

THE MISSION DIRECTOR CLARIFIED THAT UNDER THE PROPOSED SELF-FINANCING HEALTH SERVICES PROJECT, ASSISTANCE TO A U.S. HEALTH MAINTENANCE ORGANIZATION (HMO) WOULD BE LIMITED TO FUNDING FOR A FEASIBILITY STUDY OF ESTABLISHING A U.S. STYLE HMO IN THE DOMINICAN REPUBLIC. THE REVIEW CHAIRMAN POINTED OUT THAT THE PROPOSED PROJECT IS A MAJOR INNOVATION FOR THIS BUREAU, AND WILL BE FOLLOWED WITH GREAT INTEREST AS A POSSIBLE MODEL. THE REVIEW ALSO NOTED THAT THE MISSION HAD SHIFTED ITS PORTFOLIO AND LOCAL CURRENCY PROGRAMMING TO

MEET CHILD SURVIVAL CONCERNS. IT WAS AGREED THAT USAID/DR WILL FINANCE A TDY FOR THE CHIEF, LAC/DR/HN, TO REVIEW THE MISSION'S HEALTH SECTOR ACTIVITIES, AND TO HELP IDENTIFY ANY AREAS THAT MIGHT NEED GREATER ATTENTION OR IMPROVED TARGETING.

7. EDUCATION - THE MISSION DIRECTOR EXPLAINED THAT LOCAL CURRENCY SUPPORT WOULD BE PROVIDED TO THE IDB PRIMARY EDUCATION PROGRAM IF THE IDB AND THE GODR AGREED TO INCLUDE QUALITY AND MANAGEMENT IMPROVEMENTS, IN ADDITION TO THE INCREASED ACCESS COMPONENT NOW INCLUDED IN THE PROGRAM. ASSUMING TRAVEL FUNDS ARE AVAILABLE, LAC/DR WILL FINANCE A TDY FOR A LAC/DR/EST OFFICER TO UPDATE IAC BUREAU INFORMATION ON THE MISSION'S HUMAN RESOURCES DEVELOPMENT PROGRAM.

8. DELEGATIONS - THE MISSION DIRECTOR IS AUTHORIZED TO APPROVE THE FOLLOWING FY 87 PIDS AND PPS:

(1) COMMERCIAL FARMING SYSTEMS; (2) SELF-FINANCING HEALTH SERVICES; AND (3) SUGAR DIVERSIFICATION. HOWEVER, THIS AUTHORIZATION IS CONTINGENT UPON THE FOLLOWING: (1) CREDIT ACTIVITIES ARE ADMINISTERED THROUGH THE CENTRAL BANK REDISCOUNT MECHANISM; AND (2) FINANCIAL ARRANGEMENTS ARE CONSISTENT WITH THE GUIDELINES ON TERMS OF AID. THE FY 88 NEW STARTS WILL BE INCLUDED IN THE CP FOR BUDGETARY PURPOSES, AND DELEGATION OF PIDS WILL BE CONSIDERED AT NEXT YEAR'S REVIEW.

9. PIPELINE - THE REVIEW DISCUSSED THE SLOW RATE OF PORTFOLIO LIQUIDATION IN FYS 84-85, AND QUESTIONED WHETHER THE ACTION PLAN TARGETS FOR SUBSTANTIAL DISBURSEMENTS WERE REALISTIC. THE TARGET FOR FY 86 IS DISBURSEMENT OF DOLS 34 MILLION. THE MISSION DIRECTOR STATED THAT ALTHOUGH ONLY DOLS 9 MILLION HAD BEEN DISBURSED IN THE FIRST HALF OF FY 86, HE WAS CONFIDENT THAT DOLS 25 MILLION WOULD DISBURSE BEFORE THE END OF FY

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86 TO MEET THE TARGET. HE ALSO EXPLAINED THAT THE FY 87-88 TARGETS, WHILE AMBITIOUS, COULD BE REACHED.

10. STAFFING - THE REVIEW STRESSED THAT, WHILE USDB CEILINGS FOR THE ACTION PLAN PERIOD ARE UNCERTAIN, IT IS VERY UNLIKELY THAT THE REQUESTED ADDITIONAL POSITION FOR FY 88 CAN BE ALLOWED.

11. OPERATING EXPENSES - IN VIEW OF EXPECTED AGENCY-WIDE OF CONSTRAINTS DURING THE ACTION PLAN PERIOD, IT IS UNLIKELY THAT THE MISSION WILL RECEIVE THE OF DOLLAR FUNDED LEVELS IT IS REQUESTING. THE MISSION SHOULD PLAN AGAINST LEVELS SIMILAR TO THE FY 86 OF DOLLAR FUNDED BUDGET. WHITEHEAD

BT
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AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D C 20523

LAC/DR-IEE-87-04

ENVIRONMENTAL THRESHOLD DECISION

Project Location : Dominican Republic

Project Title : Commercial Farming Systems
and Number : 517-0214

Funding : \$4 million grant
: \$10 million grant

Life of Project : 5 years

IEE Prepared by : Erhardt Rupprecht
USAID/Dominican Republic

Recommended Threshold Decision : Negative determination

Bureau Threshold Decision : Concur with Recommendation

Comments : None

Copy to : Henry Bassford, Director, Director
USAID/Dominican Republic

Copy to : LAC/DR/CAR, Eric Zallman

Copy to : LAC/DR/CAR, Tony Velasquez

Copy to : USAID, Port-au-Prince, Jim Talbot

Copy to : IEE File

James S. Hester Date DEC 19 1986

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

ANNEX II

COMMERCIAL FARMING SYSTEMS PID

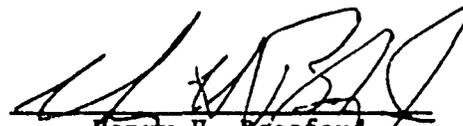
Initial Environmental Examination

Project Location : Dominican Republic
Project Title : Commercial Farming Systems
Funding : \$4 million grant
\$10 million loan
Life of Project : 5 years
IEE prepared by : Erhardt Rupprecht,
USAID/DR
Agricultural and Rural
Development Division
Date :
Environmental Action Recommendation : Negative Determination



William Smith
Chief Engineer, USAID/DR and
Mission Environmental Officer

Concurrence:



Henry H. Bassford
Director

I. EXAMINATION OF NATURE, SCOPE, AND MAGNITUDE OF ENVIRONMENTAL IMPACTS

Environmental Impacts from this project would be minimal. The Project proposes to support rural financial service activities which will expand agribusiness/outgrower relationships for the production of non-traditional export and rotation crops. As per Section 216.2(c)(2) categorical exclusions, AID's environmental regulations are generally not required for projects with intermediate credit institutions when AID does not review and approve individual subloans. The experience thus far under the Agribusiness Loan is that agribusinesses exporting to the U. S. are extremely careful to comply with U. S. pesticide use and application requirements because of the potential closure of export markets. In addition, because the collateral fund mechanism will involve the same institutions involved in our Agribusiness Promotion Loan, FIDE and approved private commercial and development banks, we will use the same procedure to insure that adverse environmental impacts do not occur. That procedure, which is operating effectively, involves a negative list of subprojects which will not be eligible for financing under the program. Thus, unless USAID otherwise approves in writing and an environmental examination is conducted by qualified personnel, the borrower will covenant that AID loan funds will not be used for sub-projects involving pesticides, severe chemical treatments such as tanneries, or extensive land clearing or road construction in hillside areas. AID loan funds will also not be used for financing of rotation crop inputs through the base-level rural financial institutions.

With respect to the technology support services and development activities, these would utilize the services of experienced U. S. crop production specialists and technology packages which are acceptable under U. S. environmental regulations. The testing and use of chemical inputs would therefore be under careful supervision and in demonstration conditions.

II. RECOMMENDATIONS FOR ENVIRONMENTAL ACTION

Based on the above examination of the project activities and the little or no environmental negative impact expected, in conformance with 22CFR Part 216, AID Environmental Procedures, it is recommended that a NEGATIVE DETERMINATION be approved for this Project.

IMPACT IDENTIFICATION AND EVALUATION FORM

Impact
Identification
and 1/
Evaluation

Impact Areas and Sub-areas

A. LAND USE

- 1. Changing the character of the land through:
 - a. Increasing the Population..... N
 - b. Extracting Natural Resources..... N
 - c. Land Clearing..... N
 - d. Changing Soil Productive Capacity..... N
- 2. Altering Natural Defenses..... N
- 3. Foreclosing Important Uses..... N
- 4. Jeopardizing Man or His Works..... N

B. WATER QUALITY

- 1. Physical State of Water..... N
- 2. Chemical and Biological States..... N
- 3. Ecological Balance..... N

C. ATMOSPHERIC

- 1. Air Additives..... N
- 2. Air Pollution..... N
- 3. Noise Pollution..... N

D. NATURAL RESOURCES

- 1. Diversion, Altered Use of Water..... N
- 2. Irreversible, Inefficient Commitments..... N

E. CULTURAL

- 1. Altering Physical Symbols..... N
- 2. Change of Cultural Traditions..... N

1/ N - No environmental impact.
 L - Little environmental impact.
 M - Moderate environmental impact.
 H - High environmental impact.
 U - Unknown environmental impact.

F. HEALTH

- 1. Changing a Natural Environment..... N
- 2. Eliminating an Ecosystem Element..... N

G. GENERAL

- 1. International Impacts..... N
- 2. Controversial Impacts..... N
- 3. Larger Program Impacts..... N

ANNEX C-1

861700
Recd. A RD
5/12/87
Recd CRD
5/21/87
970 Encls.
CRD

FUNDACION DE DESARROLLO AGROPECUARIO

Mayo 5, 1987

Señor
Henry Bassford
Director USAID
Embajada de los Estados Unidos
Ciudad

FUNDACION	
RD	
TR. DE	
5-21-87	
DIR	—
DD	—
PDO	—
PRG	—
CON	—
MGT	—
HRO	—
HPO	—
PSO	—
ARD	—
CHRON	—

Estimado señor Bassford:

Nos complace comunicarle que en fecha 16 de marzo de este año un grupo de empresarios privados ligados al sector agropecuario constituimos la Fundación de Desarrollo Agropecuario, la cual fue incorporada mediante Decreto No. 205-87 del Poder Ejecutivo de fecha 17 de abril de 1987. La Fundación tendrá como función principal el financiamiento de proyectos de investigación y de transferencia de tecnología que contribuyan al desarrollo de productos agropecuarios de exportación y/o de sustitución de importaciones. Los esfuerzos de la Fundación complementarían las actividades científicas de los sectores público y privado.

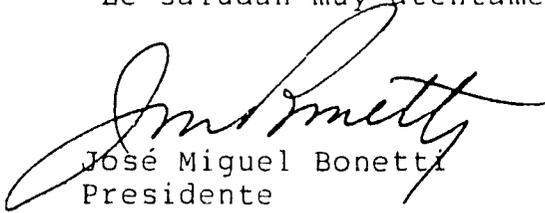
Sabemos que la USAID está consciente de la necesidad que tiene el país de completar su sistema de investigación agropecuaria, sobre todo en las universidades y el sector privado y, en tal sentido, solicitamos el respaldo financiero de USAID a los propósitos de esta Fundación.

Creemos que la mejor forma de asegurar el financiamiento necesario a largo plazo para cubrir los costos operacionales de la Fundación y el financiamiento de los proyectos de investigación a terceros sería con el producido de inversiones de un fondo patrimonial (endowment) de la Fundación. Para la constitución de ese fondo, deseamos solicitar, por su intermedio, a la USAID una donación de RD\$15,000,000.00. Como contrapartida la Fundación se propone lograr aportes hasta la suma de RD\$3,700,000.00 en tres años. En vista de que en los primeros dos años de la Fundación los intereses generados por el fondo patrimonial no serían suficientes para cubrir los gastos operativos y el inicio de trabajos científicos, le solicitamos, igualmente, una donación suplementaria de US\$2,600,000.00, que nos permitiría comenzar a operar en breve tiempo.

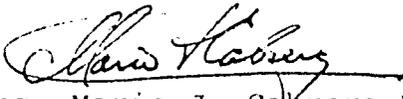
JMB
CRD

Agradecidos por su amable atención, quedamos a su disposición para ampliar con cualquier explicación adicional que ustedes pudieran necesitar.

Le saludan muy atentamente



José Miguel Bonetti
Presidente



Ing. Mario J. Cabrera M.
Secretario

Anexo: Copia Estatutos de la Fundación

U. S. AID MISSION TO DOMINICAN REPUBLIC

ANNEX C/2

AMERICAN EMBASSY, P. O. Box 22201
SANTO DOMINGO, DOMINICAN REPUBLIC

12 JUN. 1987

FOR U. S. CORRESPONDENTS:
U. S. AID MISSION
APO MIAMI 34041-0008

Estimado Ing. Caram:

El propósito de la presente es de expresar nuestro acuerdo sobre el financiamiento de la contrapartida para el Proyecto de Sistemas Agrícolas Comerciales (517-0214).

Coincidimos en la necesidad de apoyar la agricultura comercial del país, que abarca cultivos para la exportación y otros de sustitución de importaciones, especialmente los cultivos no tradicionales. Este proyecto va a tratar dos factores claves que están limitando el continuo crecimiento del sistema de producción de productos no tradicionales, que son las imperfecciones de los mercados financieros que sirven a la agricultura, y el insuficiente desarrollo tecnológico que adapte variedades de mayor rendimiento a las condiciones locales y para proteger los cultivos contra las plagas. Estos factores limitan la realización del potencial de captación de divisas del sector, y limitan los beneficios de los productores más pequeños ligados a la agroindustria con mercados fijos.

El Proyecto de Sistemas Agrícolas Comerciales tendrá dos componentes o programas para tratar estos factores. El componente Servicios Financieros Rurales continuará y ampliará las actividades desarrolladas por el Banco Central bajo el Proyecto Movilización de Ahorros Rurales.

Además de continuar la asistencia técnica al BAGRICOLA en las áreas de movilización de ahorros y políticas bancarias, se pretende fortalecer un total de 31 cooperativas de crédito. El mismo componente proporcionará fondos de préstamos mediante el mecanismo del Banco Central establecido para el Proyecto de Fomento de la Agroempresa. Estos fondos serán canalizados a través de los bancos privados participantes para sub-préstamos dirigidos a las agroindustrias que obtienen una porción significativa de su producto a través de contratos con agricultores de pequeña y mediana escala.

El segundo componente, Desarrollo y Apoyo para la Tecnología Agrícola, fortalecerá la capacidad del sector privado de responder rápidamente a los requerimientos de investigación y desarrollo a corto y mediano plazo del sistema de producción no tradicional. El proyecto apoyará la

Ing. Guillermo Caram
Secretario Técnico de la Presidencia
Palacio Nacional
Santo Domingo, D.N.

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creación de una base de investigación privada cuyo propósito es de financiar investigaciones de alta calidad a especificación del usuario en tales áreas como pruebas de variedad y control de plagas, de manera que utilice efectivamente los talentos e instalaciones existentes en el sistema de investigación del GORD, las universidades, firmas de consultoría privadas y agroquímicas, y las agroindustrias mayores. El proyecto financiará parte de los costos iniciales de la Fundación de Desarrollo Agropecuario, fomentará un fondo patrimonial y proporcionará adiestramiento para investigadores claves.

Los componentes del proyecto se llevarán a cabo por las siguientes instituciones dominicanas que han participado en la elaboración del plan del proyecto. El componente de los Servicios Financieros Rurales financiado por una donación será llevado a cabo por la Oficina de Movilización de Ahorros Rurales (MAR) del Banco Central, la cual está ejecutando el Proyecto de Movilización de Ahorros Rurales, y el préstamo de crédito agroindustrial será canalizado a través del Fondo de Desarrollo Económico (FIDE) del Banco Central, utilizando el mecanismo establecido para el Fondo de Fomento de la Agroempresa. El componente de desarrollo tecnológico será ejecutado por una donación a la fundación arriba mencionada, que ha sido establecida por miembros del Consejo Nacional de Hombres de Empresa (CNHE).

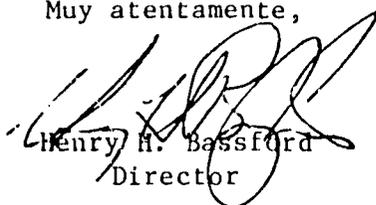
El Proyecto de Sistema Agrícolas Comerciales tendrá un presupuesto total de US\$28.53 millones, de los cuales la A.I.D. está dispuesta a financiar US\$10,000,000 en fondos de préstamo, y US\$4,750,000 en fondos de donación (US\$2,115,000 destinados a los Servicios Financieros Rurales, y US\$2,635,000 destinados a la Fundación de Desarrollo Agropecuario).

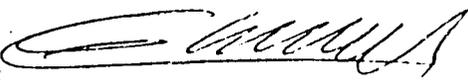
Por otro lado, se solicita que el Gobierno de la República Dominicana se comprometa a apoyar este proyecto con fondos de contrapartida provenientes del Programa de PL 480 Título I que consistiría en RD\$6,153,000 para la Oficina de Movilización de Ahorros Rurales (aparte de contribuciones en especie del Banco, como oficinas, etc.), la suma de RD\$7,500,000 de contrapartida al préstamo al FIDE, y del Programa para la Expansión del Sector Privado Empresarial (ICC) el monto de RD\$15,000,000 para establecer un fondo patrimonial para la Fundación de Desarrollo Agrícola. Tenemos entendido que las empresas e individuos miembros de dicha Fundación se han comprometido a contribuir al fondo patrimonial la suma de RD\$3,690,000, y que los ingresos del fondo apoyarán los costos operacionales y de las investigaciones por un monto estimado de RD\$9,000,000.

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Para formalizar nuestro acuerdo sobre esta forma de financiamiento de la contrapartida, sírvase firmar los dos originales de esta carta y devolver un original a la AID.

Muy atentamente,


Henry H. Bassford
Director

Acordado: 

Ing. Guillermo Caram
Secretario Técnico de la Presidencia

Fecha

12/6/87

5C(2) - PROJECT CHECKLIST
COMMERCIAL FARMING SYSTEMS

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A includes criteria applicable to all projects. Part B applies to projects funded from specific sources only: B(1) applies to all projects funded with Development Assistance; B(2) applies to projects funded from Development Assistance loans; and B(3) applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT

- | | |
|--|---|
| <p>1. <u>FY 1987 Continuing Resolution Sec. 523; FAA Sec. 634A.</u> Describe how authorization and appropriations committees of Senate and House have been or will be notified concerning the project.</p> | <p>A congressional notification on the project was sent to the Hill on May 27, 1987 by AID.</p> |
| <p>2. <u>FAA Sec. 611(a)(1).</u> Prior to obligation in excess of \$500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance, and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?</p> | <p>Yes, such plans have been developed.</p> |
| <p>3. <u>FAA Sec. 611(a)(2).</u> If 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?</p> | <p>No new legislation is required</p> |
| <p>4. <u>FAA Sec. 611(b); FY 1987 Continuing Resolution Sec. 501.</u> If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, <u>et seq.</u>)? (See A.I.D. Handbook 3 for guidelines.)</p> | <p>N.A.</p> |

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total 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? N.A.
6. FAA Sec. 209. Is project susceptible to 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. No, project is not susceptible to execution as part of a regional regional or multilateral project.
7. FAA Sec. 601(a). Information and conclusions on whether projects 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. The project will (a) assist to expand trade in ag. products with the U.S., (b) foster private initiative in the agrobusiness and farming sectors as well as in the financial system of the country, (c) support such organizations especially credit unions as part of project, and (e) improve such efficiencies, especially in agroindustry and agriculture sectors.
8. FAA Sec. 601(b). Information and conclusions 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). Project will support the production of non-traditional crops in the DR much of which will be exported to the US using private trade channels in both the DR and US. Project will also finance services provided by US private enterprise.
9. FAA Secs. 612(b), 636(h). 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. Local currency resulting from ESF PL-480 Title I programs have been programmed by the Country in support of the project.
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? No.

11. FY 1987 Continuing Resolution Sec. 521.
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?

It is not expected that the agricultural commodities to be produced as a result of the project will be in surplus at the time of production nor are these commodities likely to cause substantial injury to U.S. producers.

12. FY 1987 Continuing Resolution Sec. 558
(as interpreted by conference report).
If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities (a) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (b) in support of research that is intended primarily to benefit U.S. producers?

The agricultural development activities supported under the project are expected to result in exports primarily to the U.S. and these are not expected to compete with U.S. producers.

13. FY 1987 Continuing Resolution Sec. 559.
Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?

No.

14. FAA Sec. 110(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (a) stress the importance of conserving and sustainably managing forest resources; (b) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (c) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (d) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (e) help conserve forests which have not yet been degraded, by helping to increase production on lands already cleared or degraded; (f) conserve forested watersheds and rehabilitate those which have been deforested; (g) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (h) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (i) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (j) seek to increase the awareness of

Yes, the project, however, is not designed to provide assistance in the area of conservation and sustainable management of tropical forests.

U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (k) utilize the resources and abilities of all relevant U.S. government agencies?

15. FAA Sec. 119(q)(4)-(6). Will the assistance (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

The project is not designed to provide assistance in any of these areas.

16. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (either dollars or local currency generated therefrom)?

N.A.

17. FY 1987 Continuing Resolution Sec. 532. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution?

No.

FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FAA Secs. 102(b), 111, 113, 281(a). Describe 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, dispersing investment from cities to small towns and rural areas, and

The project is designed to assist rural farmers to employ appropriate production technology as well as capture savings and make loans in the rural areas of the country thereby dispersing investment to smaller towns and rural areas.

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insuring wide participation of the poor in the benefits of development on a sustained basis, using 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 Secs. 103, 103A, 104, 105, 106, 120-21. Does the project fit the criteria for the source of funds (functional account) being used? Yes.
- c. FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)? Yes.
- d. FAA Secs. 110, 124(d). Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)? Yes, this country is providing approximately 48% of total project costs.
- e. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority? 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 is designed to address the agricultural credit and technology needs of the people of the country as well as their financial services needs. It will also utilize local intellectual resources to develop an agricultural research foundation and to carry out agricultural research activities.
- g. FY 1987 Continuing Resolution Sec. 540. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions? No.
- Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations? No.
- Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning? No.
- h. FY 1987 Continuing Resolution. Is the assistance being made available to any organization or program which has been determined to support or participate in the management of a program of coercive abortion or involuntary sterilization? No.
- If assistance is from the population functional account, are any of the funds to be made available to voluntary family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services? N.A.
- i. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? Yes.

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- j. FY 1987 Continuing Resolution. How much of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?
- Competitive selection procedures will be followed for all procurement actions under the project. Economically and socially disadvantaged enterprises including those controlled by black, hispanic and native Americans will be encouraged to compete as prime or sub contractors.
- k. FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including projects involving the planting of exotic plant species), will the program or project (a) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (b) take full account of the environmental impacts of the proposed activities on biological diversity?
- N.A.
- l. FAA Sec. 118(c)(14). Will assistance be used for (a) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (b) actions which significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas?
- The project is not designed to do either of these things.
- m. FAA Sec. 118(c)(15). Will assistance be used for (a) activities which would result in the conversion of forest lands to the rearing of livestock; (b) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (c) the colonization of forest lands; or (d) the construction of dams or other water
- The project is not designed to do any of these things.

control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

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.
- 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 percent of the enterprise's annual production during the life of the loan, or has the requirement to enter into such an agreement been waived by the President because of a national security interest?
- c. FY 1987 Continuing Resolution. If for a loan to a private sector institution from funds made available to carry out the provisions of FAA Sections 103 through 106, will loan be provided, to the maximum extent practicable, at or near the prevailing interest rate paid on Treasury obligations of similar maturity at the time of obligating such funds?
- d. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities?

The GODR is current on all loan repayments to the USC. There is no reason to believe that this loan will not be repaid.

N.A. Loans not for construction or operation of a productive enterprise.

N.A. Loan is not being made to a private sector institution.

Yes.

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3. Economic Support Fund Project Criteria

- a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA? N.A.

- b. FAA Sec. 531(e). Will this assistance be used for military or paramilitary purposes? N.A.

- c. ISDCA of 1985 Sec. 207. Will ESF funds be used to finance the construction, operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such country is a party to the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (the "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States? N.A.

- d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N.A.

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ANNEX E

CERTIFICATION PURSUANT TO
Section 611 (e) of the
FOREIGN ASSISTANCE ACT
As amended

I, Henry H. Bassford, the principal officer of the Agency for International Development in the Dominican Republic, do hereby certify that in my judgement, 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 Commercial Farming Systems.

This judgement is based upon the record of implementation of A.I.D. financed projects in the Dominican Republic and the results of the consultations undertaken during intensive review of this project.



Henry H. Bassford
Director
USAID/Dominican Republic

5/29/85
Date

ANNEX F

LIST OF COMMODITIES

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
A. <u>Rural Fin. Inst. Development</u>			
1. 4WD Vehicles	3	17,500	52,500
B. <u>Ag. Tech. Dev. and Support</u>			
1. 4WD Vehicles	4	17,500	70,000
2. Microcomputers ¹	5	5,000	25,000
3. Misc. Office Equip. ²		10,000	10,000
4. Office Furniture ³	11 sets	27,500	<u>27,500</u>
	TOTAL		185,000

NOTES:

1. 512K memory, 20Mb hard disk, printer: based on GSA Schedule

2. Photocopier, typewriters, calculators: based on MGT Office estimate

3. Desks, chairs, file cabinets: based on MGT Office estimate

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ANNEX G

Commercial Farming Systems Project - Illustrative Training Plan

COMPONENT: Rural Financial Services

TRAINING OBJECTIVES:

Admin/Management:

- To improve the administration and management of credit unions.
- To improve the administration and management of BAGRICOLA branch offices.
- To establish the administration and management of the Credit Union Association.
- To assure the proper management of the Stabilization/Reserve Fund.

Technical:

- To improve the technical expertise of BAGRICOLA and credit union bank managers.
- To establish a training capacity within the Credit Union Association that will assume the responsibility for training credit union managers and staff after the project ends.

<u>Course Content</u>	<u>Course Length</u>	<u>Course Location</u>	<u>Nominating Institution</u>	<u>Type of Trainee</u>	<u>Number of Trainees</u>	<u>Cost per * Trainee (US\$)</u>	<u>Total Cost Estim. (US\$)</u>
Credit union accounting systems	2 1/2 days	local	credit unions	CU staff	160	195	31,200
Preparation of balance sheets	" "	"	" "	" "	160	195	31,200
Profit and loss statements	" "	"	" "	" "	160	195	31,200
Interest rate margin analysis	" "	"	" "	" "	160	195	31,200
Loan portfolio mgt. and diversif.	" "	"	" "	" "	160	195	31,200
Liquidity management	" "	"	" "	" "	160	195	31,200
Marketing of services	" "	"	" "	" "	160	195	31,200
Investment policy	5 days	"	CU Association	CUA staff	15	195	2,920
Devel/Marketing services to CU's	" "	"	" "	" "	15	195	2,920
Loan portfolio management and savings mobilization	" "	"	BAGRICOLA	BA staff	1000	100	100,000
Advanced banking and financial management	2 weeks	INCAE Miami	BAGRICOLA	Managers	15	4,125	61,875
Subtotal					2165		386,115

* BAGRICOLA trainee costs exclude local per diem and all others include 10% annual inflation rate.

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ANNEX G.2
Commercial Farming Systems Project - Illustrative Training Plan

COMPONENT: Agricultural Technology Development and Support

TRAINING OBJECTIVES:

Admin/Management:

-To improve the management of agricultural research on non-traditional crops.

-To improve the production management of non-traditional crops.

Technical:

-To increase the technical expertise of agricultural researchers.

-To increase the technical knowledge of producers of non-traditional crops.

<u>Course Content</u>	<u>Course Length</u>	<u>Course Location</u>	<u>Nominating Institution</u>	<u>Type of Trainee</u>	<u>Number of Trainees</u>	<u>Cost per Trainee (US\$)</u>	<u>Total Cost Estim. (US\$)</u>
Basic statistical and experimental design/analysis for field crops	4 months	local	Universities SEA, Agribus.	Researchers	60	2,080	124,800
Basic management techniques for field trials	" "	"	" " "	"	60	2,080	124,800
Observation/Training trips to NTC production areas	3 weeks	U.S.A., third countries	" " "	Researchers, Producers	90	2,700	243,000
Crop production technology seminar	1 week	local	" " "	Researchers	120	50	6,000
Subtotal					330		498,600
PROJECT TOTAL					2495		884,715 *

* US\$560,475 grant and US\$324,240 counterpart equivalent in local currency.

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ANNEX G.3
Commercial Farming Systems Project - Illustrative Training Plan
 Projected Number of Training Courses Per Year

<u>COMPONENT</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>TOTAL COURSES</u>	<u>NO. TRAINEES PER COURSE</u>	<u>TOTAL NO. TRAINEES</u>
<u>Rural Financial Services</u>								
Credit union accounting systems	2	1	2	1	2	8	20	160
Preparation of balance sheets	2	1	2	1	2	8	20	160
Profit and loss statements	2	1	2	1	2	8	20	160
Interest rate margin analysis	2	1	2	1	2	8	20	160
Loan portfolio mgt. and diversif.	2	1	2	1	2	8	20	160
Liquidity management	2	1	2	1	2	8	20	160
Marketing of services	2	1	2	1	2	8	20	160
Investment policy				1		1	15	15
Devel/Marketing services to CU's					1	1	15	15
Loan portfolio management and savings mobilization	4	4	4	4	4	20	50	1000
Advanced banking and financial management	1	1	1	1	1	5	3	15
Subtotal	19	12	19	13	20	83		2165
<u>Ag. Tech. Devlp. and Support</u>								
Basic statistical and experimental design/analysis for field crops		1	1	1	1	4	15	60
Basic management techniques for field trials		1	1	1	1	4	15	60
Observation/Training trips to NTC production areas	1	2	2	2	2	9	10	90
Crop production technology seminar		1	1	1	1	4	30	120
Subtotal	1	5	5	5	5	21		330
TOTAL	20	17	24	18	25	104		2495

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ANNEX H
COMMERCIAL FARMING SYSTEMS

Illustrative Scopes of Work and Costs for Technical Assistance

1. Rural Financial Services

Long-Term Banking/Financial Advisor (54 person-months)

A. Objective:

To oversee the implementation of all activities developed under the Rural Financial Services component of the project, and to advise/assist the Central Bank's implementation unit in carrying out these activities.

B. Scope of Work:

The Banking/Financial Advisor will work in the Rural Savings Mobilization (RSM) Office located in the Central Bank. This individual will be responsible for the implementation of all project activities carried out by that Office. The advisor will work directly with the head of RSM office or the designated counterpart project coordinator and will advise and assist that office to carry out the following specific duties and responsibilities:

C. Duties and Responsibilities:

- Advise the Project Coordinator in the operation of the credit union program.
- Assist in the development of an operational plan for strengthening the credit unions.
- Determine specific technical assistance requirements to the BAGRICOLA and help coordinate the provision/delivery of that project assistance.
- Assist in the determination of policy studies at the Central Bank and develop a plan for conducting the studies.
- Advise the RSM and Credit Union Association staffs in the management of the Administrative and Stabilization/Reserve funds.
- Coordinate all short-term technical assistance to the RFS component of the project.

D. Qualifications:

The individual should possess an MBA with a concentration in banking and/or finance or graduate degree in Economics with experience in working with banking or credit union institutions. At least five years' experience working with credit unions and second-level cooperative organizations in Latin America is preferred. Knowledge of financial markets/banking and finance, and experience in the operation of stabilization/reserve funds is highly desirable. The individual should have an FSI R/S 3 level in Spanish.

E. Required Reports:

The advisor will submit to the USAID project office an annual workplan due within one month of beginning work, and yearly thereafter. This work plan will outline the objectives and goals of the coming year's work, and specific indicators that will demonstrate whether these objectives are being achieved. The advisor will update this work statement semiannually to reflect changes in project management, or unforeseen problems or opportunities that arise that alter the work needs. At the end of each year's work, the advisor will submit to USAID a personal progress report that outlines the year's achievements in relation to the stated objectives and the specific indicators, plus any other additional accomplishments achieved during the reporting period.

The advisor will also be responsible for providing a draft semester report that describes the project status in terms of achievements towards overall project outputs by activity, problems encountered, strategies for overcoming problems, and actions to be taken in the coming semester.

All reports submitted by the advisor to USAID must be in English.

F. Assignment Period:

The work will commence on/about October 1, 1987, and will be for a period of 54 months.

2. Agricultural Technology Development and Support

A. Objective:

The objective of this contract is to provide both long and short-term technical assistance to the Agricultural Development Foundation in the form of a Senior Scientist Advisor and a number of short-term technical advisors respectively.

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B. Scope of Work:

The long-term technical assistance (54 person-months) is to advise and assist the Foundation's Executive Director in the establishment and operation of an agricultural research foundation, and develop and implement a fruit and vegetable research program. The short-term technical assistance (53 person-months) is directed toward designing and monitoring research projects for specific crops; solving urgent crop production problems in a short period of time; and organization of local training courses for agricultural researchers.

C. Duties and Responsibilities:

1. Senior Scientist Advisor

This long-term advisor will have the following specific tasks:

- Advise the Foundation Executive Director in the operation of the Agricultural Development Foundation.
- Assist the Executive Director and Foundation staff to develop an initial research program and annual revisions.
- Develop and implement a long-term (4 years) fruit and vegetable research program.
- Provide technical critique of research proposals submitted to the Foundation for funding.
- Assist in the preparation of specific guidelines or criteria for Foundation approval of research proposals.
- Coordinate all short-term technical assistance provided to or through the Foundation.
- Help set up observation/training trips to overseas crop production areas for researchers and growers.

2. Short-Term Technical Advisors

- Provide ready solutions to specific crop production problems on a quick turnaround basis.
- Assist and advise as to sound technical design of research trials of specific crops.

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- Assist in the analysis of research results and suggest follow-on research based on those results.
- Advise as to the proper management of field trials.
- Organize and conduct two local training courses (given four times during LOP) for researchers in experimental design and analysis, and management of field research.

D. Qualifications:

The Senior Scientist Advisor will have a PhD in agricultural research with a specialization in horticulture. At least five years experience in the management of an agricultural research foundation or other research financing and support institution is required. Agricultural research related work experience in Latin America is desirable. The individual should have an FSIR/S 3 level in Spanish.

The qualifications of the short-term advisors will be determined by the Foundation staff and USAID project officer as needed during the implementation of the project.

E. Required Reports:

The Senior Scientist advisor will submit to the USAID project office an annual workplan due within one month of beginning work, and then yearly thereafter. This work plan will outline the objectives and goals of the coming year's work, and specific indicators that will demonstrate whether these objectives are being achieved. The advisor will update this work statement semiannually to reflect changes in project management, or unforeseen problems or opportunities that arise that alter the work needs. At the end of each year's work, the advisor will submit to USAID a personal progress report that outlines the year's achievements in relation to the stated objectives and the specific indicators, plus any other additional accomplishments achieved during the reporting period.

The Senior Scientist advisor will also be responsible for providing a draft semester report that describes the project status in terms of achievements towards overall project outputs by activity, problems encountered, strategies for overcoming problems, and actions to be taken in the coming semester.

All reports submitted by the advisor to the USAID must be in English.

All short-term advisors will provide a written report in English to the Foundation and the USAID as to the results of their work prior to departing the Dominican Republic.

F. Assignment Period:

The work will commence on/about October 1, 1987, and will be for a period of 54 months.

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H.5

AID FUNDED SHORT AND LONG-TERM T.A. COSTS

A. RURAL FINANCIAL SERVICES

<u>L.T. T.A.</u>	<u>YR1</u>	<u>YR2</u>	<u>YR3</u>	<u>YR4</u>	<u>YR5</u>	<u>TOTAL</u>
Banking/Finance Advisor (54 PM)	92.5	185	194.2	203.9	214.1	889.70

S.T. T.A.

Banking/Finance (64 PM)	(4) 52	(4) 54.4	(4) 57.2	(4) 60	(4) 62.8	286.4
2nd Level Organization	(3) 39	(2) 27.2	(2) 28.6	(3) 45	(4) 62.8	202.6
Computing/Information	(1) 13	(2) 27.2	(2) 28.6	(2) 30	(3) 47.1	145.9

Banking Policy

Specialist	(4) 52	(4) 54.4	(4) 57.2	(4) 60	(4) 62.8	286.4
Sub-Total	248.5	348.2	365.8	398.9	449.6	1811.0

B. AG. TECHNOLOGY DEVELOPMENT AND SUPPORT

<u>L.T. T.A.</u>	<u>YR1</u>	<u>YR2</u>	<u>YR3</u>	<u>YR4</u>	<u>YR5</u>	<u>TOTAL</u>
Senior Scientist (54 PM)	92.5	185.0	194.2	203.9	214.1	889.7

S.T. T.A.

Technical Advisors (37 PM)	(5) 65.0	(8) 108.8	(8) 114.4	(8) 120.0	(8) 125.6	533.8
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Course instructors (16 PM)	(4) 54.4	(4) 57.2	(4) 60.0	(4) 62.8		234.4
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<u>SUB-TOTAL</u>	<u>157.5</u>	<u>348.2</u>	<u>365.8</u>	<u>383.9</u>	<u>402.5</u>	<u>1657.9</u>
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<u>TOTAL</u>	406.0	696.4	731.6	782.8	852.1	3468.9
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ANNEX I
Rural Financial Services
Counterpart Budget (RD\$)

LINE ITEMS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
PERSONNEL						
Project Coordinator	36000	39600	43560	47916	52708	219784
Administrative Assistant	21600	23760	26136	28750	31625	131871
Bilingual Secretary	9600	10560	11616	12778	14055	59609
Messenger/Chauffeur	5640	6204	6825	7507	8258	34434
Computer Technician	10800	11880	13068	14375	15812	65935
Accounting/Finance Technician	19200	21120	23232	25555	28111	117218
Accounting/Finance Technician	19200	21120	23232	25555	28111	117218
Accounting/Finance Technician	19200	21120	23232	25555	28111	117218
Accounting/Finance Technician	19200	21120	23232	25555	28111	117218
Accounting/Finance Technician	19200	21120	23232	25555	28111	117218
Subtotal	<u>179640</u>	<u>197604</u>	<u>217365</u>	<u>239101</u>	<u>263013</u>	<u>1096723</u>
OTHER PERSONNEL COSTS						
Thirteenth month (10% An. Salary)	17964	19760	21736	23910	26301	109671
Vacation (Annual Salary/52 weeks)	3455	3800	4180	4598	5058	21091
Health/Life Insur. (4.95% Salary)	8893	9782	10760	11836	13020	54291
Subtotal	<u>30312</u>	<u>33342</u>	<u>36676</u>	<u>40344</u>	<u>44379</u>	<u>185053</u>
TOTAL PERSONNEL	209952	230946	254041	279445	307392	1281776
OPERATING COSTS						
In-country Per diem	65280	71808	78989	86888	95577	398542
Per diem for 3 Peace Corps Vol.	34560	38016	41818	45999	50599	210992
Vehicle Operation/Maintenance	70000	77000	84700	93170	102487	427357
Photocopier Maintenance	4800	5280	5808	6389	7028	29305
Office Materials	10000	11000	12100	13310	14641	61051
Off. Equipment Maintenance/Repair	6600	7260	7986	8785	9663	40294
Subtotal	<u>191240</u>	<u>210364</u>	<u>231401</u>	<u>254541</u>	<u>279995</u>	<u>1167541</u>
RESEARCH ACTIVITIES	167400	182100	198220	216000	236280	1000000
ADMINISTRATIVE LOAN FUND	200000	235000	298000	232000	191700	1156700
TRAINING SERVICES & DISSEMINATION						
Credit Union Training	140000	77000	158400	87120	191664	654184
CU Association Training				8760	8760	17520
BAGRICOLA Training	50000	55000	60500	66550	73205	305255
Dissemination, Publications	40000	44000	48390	53250	58560	244200
Subtotal	<u>230000</u>	<u>176000</u>	<u>267290</u>	<u>215680</u>	<u>332189</u>	<u>1221159</u>

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I.2

EQUIPMENT

One (1) Typewriter	2875					2875
One (1) Photocopier	23000					23000
Two (2) Files	1035					1035
One (1) Executive Chair	400					400
Two (2) Secretarial Chairs	420					420
Six (6) Desk Calculators	2300					2300
Three (3) Desks	2070					2070
Subtotal	32100					32100

CONTINGENCY (5%) 51535 51721 62448 59883 67378 292964

RD\$ TOTAL 1082227 1086131 1311400 1257549 1414934 6152240

US\$ TOTAL 360742 362044 437133 419193 471645 2050747

Exchange Rate: US\$1.00 = RD\$ 3.00

Rural Financial Services - Technical AnalysisA. Demand and Supply for Financial Services in Rural Areas1. Demand

Comprehensive data on the level of demand for financial services in rural areas are not presently available. However, the Gómez study^{1/} estimated the gap between potential agricultural production credit demand and supply at more than RD\$1.6 billion. The commercial and development banks financed agriculture in the amount of approximately RD\$600 million in 1985. The results of the Rural Savings Mobilization Project confirm that there is a large unsatisfied demand for financial services on the part of the rural population. With technical assistance provided by the RSM Project, a group of four credit unions and the Banco Agrícola have been able to mobilize approximately RD\$15.8 million (US\$5.3 million) in savings deposits in the rural areas from mid-1984 to december, 1986.

Of this total, Banco Agrícola accounts for 68.8 percent and the four credit unions, the remaining 31.2 percent. This pilot project has uncovered a significant potential for deposit mobilization, largely untapped as a result of a combination of very high transactions costs and negative real rates of interest facing potential rural depositors. Table 1 shows the amount of savings on deposit as of December 1986. On the lending side the pilot CUs have been able to place loans in a ratio of approximately RD\$.75 in loans to every RD\$1.00 in savings mobilized. Each of the cooperatives has demonstrated a dramatic increase in savings and loan activity. Some experienced increases of over ten-fold, accompanied by dramatic reductions in loan delinquency rates. (See Tables 2-9 at the end of this analysis.) According to projections developed by the RSM Project, a typical credit union could be expected to mobilize savings in the amount of RD\$400,000 and loan out RD\$300,000 by the end of the first twelve to eighteen months of operation (see Annex J-2 Financial Analysis).

2. Supply

The rural population of the Dominican Republic has had minimal access to financial services, both deposit facilities and loans. This limited supply of financial services for small farmers and for other rural residents has reflected: (1) the relatively high transaction costs for banking institutions providing these services and for the clients to gain access to them; (2) the high risks associated with financing agricultural production, in general, and small farmers, in particular; and (3) banking policies, practices, and regulations which limit the operating margins and excessively

1. Gustavo Gómez, Dominican Republic Rural Financial Markets.

TABLE 1

SAVINGS MOBILIZATIONCredit Unions

	Dec. 86	Dec. 86	Dec. 86	Dec. 86	
	<u>La Vega</u>	<u>Santa Lucía</u>	<u>San José</u>	<u>Vallejuelo</u>	
Passbook					
Savings	93,934	303,381	1,110,514	70,802	1,578,631
Time					
Deposits	70,124	82,209	1,239,297	46,370	1,438,000
Member					
Contributions	183,573	210,677	1,438,080	20,544	1,902,874
	347,631	596,267	3,837,891	137,716	4,919,505
Sub-Total					RD\$4,919,505

Dec.
Banco Agrícola

Passbook Savings	7,992,075	
Time Deposits	2,611,954	
Financial Certificates	250,000	
	-	
Sub-Total		10,854,029
Total		RD\$15,773,534

Converted to US Dollars at RD\$3.00/US\$1.00:

Banco Agrícola	US\$3,618,010
4 CU's	<u>US\$1,639,835</u>
	US\$5,257,845

specialize the operations of different banking institutions, restricting the types of loans and depository instruments that can be offered. The Dominican Republic has a fairly wide distribution of regulated and non-regulated financial institutions in secondary rural cities and towns, but Santo Domingo and Santiago have the greatest concentration of banking offices (Table 1). The concentration in these two cities of financial activity flows is even greater. Over 80% of all commercial bank deposits and 90% of all loans are mobilized or granted there.

As a result of this urban concentration, and because the client base and types of financial services offered by institutions located in rural areas are highly segmented, most rural residents simply do not obtain access to these financial services. For example, a recent World Bank agricultural sector study found that less than 10 percent of the country's small farmers were reached by the Agricultural Bank despite its wide branch office network, on a sporadic basis. Those with access to permanent and reliable credit lines and to deposit facilities are even less.

Excessive and inflexible regulation of the commercial banking industry in the form of interest rate controls, minimum capital requirements, high and cumbersome reserve requirements, and selective credit controls, motivated by loan-targeting and economic stabilization considerations, have led to the concentration of banking services primarily in the urban centers, and to an extreme degree of credit rationing. In addition, the specialization of development banking institutions has segmented financial markets, reducing competition, and limiting their ability to diversify their liability and asset structures. Commercial and development banks lending criteria include a minimum amount of loan, which effectively bars smaller clients. Location of the institutions and complex loan application procedures raise transactions costs to clients, further inhibiting effective demand by small borrowers and savers. A recent study by a banking specialist found that to reach the break-even point, given the present regulatory structure, a commercial bank branch would require a minimum of RD\$1.3 million (US\$430,000) in deposits.

Over the past several years, a highly dynamic parallel financial market (financieras) has emerged. Until recently, this system was completely unregulated by the Central Bank. A study financed by the Rural Savings Mobilization Project estimated that this market is composed of approximately 800 different institutions and represents about 30 percent of the total portfolio of the financial market. Since these financial institutions have concentrated their lending operations in the personal loan market, or in providing short term working capital to small- and medium-size businesses, their operations are also concentrated in the urban centers.

The high risk inherent in lending to agriculture, and to smaller borrowers in particular, further reduces the incentive for commercial and development banks to lend directly to farmers.^{2/} As a result, middle- and low-income households depend primarily on self-financing, moneylenders, pawnshops and marketing intermediaries for lending services. Although these alternatives provide the most stable source of funding and quick service (low transactions costs), the real interest rates charged are significantly above what could be expected from a more competitive financial services environment (typically nominal interest rates charged are 10-20 percent per month). They also provide no savings deposit services to capture local resources for on-lending to small rural borrowers. As a result, indirect financial intermediation in the rural markets is almost non-existent, limiting the economic growth in rural areas.

B. Technical/Policy Constraints

The Rural Savings Mobilization Project has demonstrated that banking regulations and policies play a key role in determining the overall efficiency of the banking system and the level of financial services available to the rural firm-household. To a large extent, the success of the credit unions within the RSM project is due to the fact that they operate in an unregulated financial environment, much as the financieras have been able to do in the recent past.

Resolving the severe liquidity problems facing the agricultural sector has been one of the current government's most critical problems. Recently, Central Bank officials have sought to promote the expansion of regulated financial intermediaries into rural areas. Some efforts have been made to modify banking regulations, to provide greater incentives for banks to operate branches in rural areas. These changes have involved exempting the branches from the reserve requirement for two years, setting lower initial capital requirements, and allowing greater intermediation margins for FIDE loans targetted to certain areas of the country. For the most part, the Central Bank and Monetary Board have relied on selective credit controls in an attempt to direct a greater flow of credit to the agricultural sector.

In spite of these various efforts, the success of policies designed to promote the decentralization of financial markets has been fairly limited, and

2. Banks do lend to agribusinesses which in turn finance the operations of farmers under contract to them. The firm bears the risk in this case, but at the same time reduces this risk through the linking of the credit transaction to other input and output marketing and technical-assistance contracts. This also reduces transaction costs for the borrower. See Jerry Ladman, "Bridge Loans".

the regulatory structure continues to heavily tax the financial system, reducing liquidity, raising the real costs of financial intermediation, and providing continued incentives for the fragmentation of these markets.

Although the commercial banks have been more aggressive in their effort to expand operations in the rural areas than have been the development banks, these institutions have very strict client selection criteria, causing them to be net exporters of resources out of the rural areas. Because of this, their expansion into the rural areas has not significantly improved the majority of the population's access to credit services, although it may have reduced their transaction costs in obtaining depository services.

The private development banks have not physically expanded operations into the rural markets, despite the fact that 42.5% of their portfolio were in agricultural loans in 1985. This lack of physical expansion is the result of their traditional dependence upon external credit (Central Bank funds), and of regulatory restrictions. These banks are severely hampered in their ability to mobilize domestic savings because of legal restrictions which limit their liabilities to financial certificates and bonds. Minimum size and term restrictions on both instruments make rural deposit mobilization by these banks a virtual impossibility.

In addition, differential reserve requirements between the development banks, savings and loan associations, and mortgage banks place the former at a competitive disadvantage. Restrictions imposed on the development banks' portfolios, which concentrate 80% of their lending to medium- and long-term credit, not only augments the financial risks borne by these intermediaries, but impose significant transaction costs on the clients, as they cannot obtain short term production credit from the same institution from which they get their long-term financing.

This unnecessary fragmentation of the financial market, which is the result of specialization, increases the volume of real resources which must be devoted to financial intermediation and imposes significant inefficiencies on the financial market. In conclusion, until there are significant changes in the regulatory structure, reducing the degree of specialization in the banking industry and the degree of implicit taxation (interest rate controls, reserve requirements, etc.), the opportunities for significant expansion of the private banking institutions into the rural areas, effectively reaching the middle- and low-income population, are quite limited. All these issues are worthy of policy analysis and research, with recommendations directed at monetary policy makers.

The RSM Project has shown the importance of a continuing involvement with the principal financial policymaking institutions of the GODR --the Central Bank and the Monetary Board-- and the BAGRICOLA to assist their efforts to rationalize the regulatory structure. However, in the short-run this will not

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improve the efficiency of base-level financial institutions, and at this time, credit unions provide perhaps the most attractive alternative. The results of the RSM project suggest that rural credit unions can develop into cost-effective financial intermediaries, reaching the middle- and low-income firm-households with a wide range of financial services -- particularly credit services, that are currently unavailable.

C. Banking Concepts and Technologies Needed

1. Base Level Credit Unions

Although the CUs face very few regulatory restrictions which could hamper their operations, they are extremely weak institutions, and in order to develop into viable intermediaries, they will require intensive technical assistance and training in banking technology. Fortunately, under the pilot Rural Savings Mobilization Project, a technical assistance package was developed which resulted in the successful turnaround of four CUs.

The banking concepts and technologies required are not unknown or untested. Most rural credit unions require 2-3 full time individuals with an understanding of:

1. The theory of the credit union as a financial intermediary - Its role in financial markets and its comparative advantage, i.e., its information on potential savers and borrowers;
2. Basic Accounting - Including the preparation of monthly balance sheets and income statements, income/expenditure budgeting and cashflow analysis;
3. Financial Management - With specific focus on asset management (liquidity, reserves and loans -- Particular emphasis is required in loan risk analysis, diversification and loan recovery, as well as liability management, involving term structures of interest rates, pricing of deposit services and banking relationships, and spread management, including general interest rate strategies and control of overhead);
4. Information Management/Decision-Making - Requiring analysis and interpretation of financial and economic data, and strategic planning; and
5. Marketing of Financial Services - How to educate savers and borrowers in the advantages of CU membership, and the range of services available.

Credit union management receiving this technical assistance and training in banking technologies would also need to access to funds enabling them to upgrade infrastructure and cover the initial costs of hiring staff

with some accounting/bookkeeping experience. This is an indispensable condition if the technical assistance is to be effective and also if the credit union is to expand membership and deposits. Under the pilot RSM Project credit unions were given small grants for these purposes. However, an administrative loan fund whereby credit unions would be loaned the funds necessary to improve their infrastructure and hire staff in more appropriate. As indicated in Annex J-2, Financial Analysis a typical credit union could borrow approximately RD\$50,000 and be able to repay this loan with little difficulty.

D. Probability that Desired Results will Be Achieved

Given the lack of competition for financial services in the rural areas, the demand on the part of the potential clientele is relatively price inelastic. This implies that these institutions could fairly rapidly reach the break-even point, given the ability to maintain an adequate margin on financial intermediation. Annex J-2 Financial Analysis illustrates the break-even point for a typical credit union, using the basic data from the CUs that participated in the RSMP. This analysis reveals that the typical credit union could reach its break-even point with a deposit base of between RD\$220,000 and RD\$250,000, which represents one-fifth the deposit base required for a branch of a commercial bank.

Given the experience under the RSM Project, the fact that the banking technologies and concepts required are not new, and the financial analysis is based on conservative assumptions, the probability that an expansion of base level credit unions will be successful are excellent.

TABLA 2: BALANCES COMPARATIVOS
COOPERATIVA DE AHORRO Y CREDITO "LA VEGA REAL"

	JUL 83	JUL 84	JUL 85	JUL 86
CAJA Y BANCOS	6,683	6,838	17,634	37,844
CARTERA DE PRESTAMOS	91,731	110,590	174,646	265,287
CUENTAS POR COBRAR	1,884	2,121	2,135	2,690
INVENTARIO	2,543	3,759	11,645	2,077
ACCIONES EN FEDOCOOP	4,184	4,184	4,234	4,234
FONDO PRO SEGURO	101	101	101	101
ACTIVO FIJO NETO	5,289	5,289	8,472	14,740
OTROS ACTIVOS	518	297	498	674
ACTIVO TOTAL	112,933	133,179	219,365	327,647
DEPOSITOS A LA VISTA	4,148	5,828	35,250	47,068
DEPOSITOS A PLAZO	0	0	0	0
OBLIGACIONES	100	341	9,960	56,224
PRESTAMOS A PAGAR	22,433	22,413	22,413	22,412
INT. COB. POR ADELANTADO	0	0	6,802	1,679
OTROS PASIVOS	0	46	20	96
APORTACIONES	79,888	93,048	133,369	170,316
RESERVA GENERAL	4,082	4,201	4,244	4,456
RESERVA EDUCATIVA	954	1,245	1,107	1,176
CAPITAL DONADO	180	175	1,980	12,675
EXCEDENTES RET.	617	902	319	819
EXCEDENTES Y PERDIDAS	531	80	-2,436	3,519
EXCEDENTES DEL PERIODO	0	0	0	4,371
TOTAL PASIVO Y CAPITAL	112,933	133,179	219,365	327,647

TABLA 3: BALANCES COMPARATIVOS
COOPERATIVA DE SERVICIOS MULTIPLES "SAN JOSE"

	ENE 84	ENE 85	ENE 86	JUL 86
CAJA Y BANCOS	301,551	6,838	403,596	354,100
INVERSIONES (CP)	15,000	110,590	75,000	125,000
CARTERA DE PRESTAMOS	1,264,075	1,876,190	2,624,073	2,833,676
PLAN SIERRA	5,090	6,438	9,436	8,308
INTERES POR COBRAR	826	2,552	5	5,225
INVERSIONES (LP)	75,902	106,746	75,902	109,674
OTRAS CUENTAS	3,252	0	0	0
INVENTARIOS	0	0	0	0
GASTOS POR ANTICIPADO	673	594	104	2,226
ED, MUEBLES, EQ. (NETO)	19,631	16,945	86,710	394,411
OTROS ACTIVOS	56	56	56	56
ACTIVO TOTAL	1,686,056	2,436,166	3,274,882	3,832,676
AHORROS RETIRABLES	305,541	510,584	718,756	803,765
DOC Y CUENTAS POR PAGAR	8,706	8,339	18,497	59,465
INTERESES POR PAGAR	13,412	23,036	40,703	44,906
OTROS GASTOS POR PAGAR	3,780	4,465	250	2,070
DEPOSITOS A PLAZO FIJO	418,278	654,699	879,934	1,077,600
OTROS PASIVOS	7,989	18,360	3,004	59,569
APORTACIONES	783,869	1,006,397	1,245,225	1,375,857
CAPITAL DONADO	0	7,063	13,463	13,463
RESERVA EDUCATIVA	10,494	11,550	9,452	16,546
RESERVA GENERAL	23,884	35,840	35,840	60,002
OTRAS RESERVAS	7,508	7,523	7,523	7,523
EXCEDENTES REPENIDOS	71,425	100,486	146,975	242,291
EXCEDENTES DEL PERIODO	31,170	47,824	127,417	69,619
FONDO EN SUSPENSO	0	0	800	0
TOTAL PASIVO Y CAPITAL	1,686,056	2,436,166	3,274,882	3,832,676

TABLA 4: BALANCES COMPARATIVOS
 COOPERATIVA DE SERVICIOS MULTIPLES "VALLEJUELO"

	MAR 84	MAR 85	MAR 86	AGO 86
CAJA Y BANCOS	774	12,281	20,989	34,168
CARTERA DE PRESTAMOS	8,008	31,984	86,751	91,327
CUENTAS POR COBRAR	28,028	28,804	31,050	31,498
INVENTARIO	0	3,887	5,768	10,911
OTROS ACTIVOS CORR.	500	669	71	938
TERRENOS	3,500	4,175	5,052	6,801
EDIFICIO	31,800	36,742	39,190	39,266
MUEBLES Y ENSERES	1,995	5,593	6,501	8,558
EQUIPOS	4,362	6,130	11,336	11,336
DEPRECIACION	-1,803	-2,404	-2,404	-3,809
OTROS	792	792	862	862
ACTIVO TOTAL	77,926	128,653	205,166	231,856
CUOTAS POR COBRAR	0	385	3560	0
AHORROS RETIRABLES	3554	21053	59253	49987
DEPOSITOS A PLAZO				
SEIS MESES	0	0	20600	30000
DOCE MESES	0	14900	11270	11270
PRESTAMOS POR COBRAR	5000	14597	23847	50001
CUENTAS POR PAGAR	29873	29602	29369	29369
APORTACIONES	9030	9431	12464	17494
EXCEDENTES RETENIDOS	464	1265	1047	0
RESERVA GENERAL	908	1301	1263	1420
DONACIONES	27556	36608	40600	40600
RESERVA EDUCATIVA	355	473	473	473
EXCEDENTES DEL PERIODO	1186	38	0	1242
TOTAL PASIVO Y CAPITAL	77926	128653	203746	231856

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TABLA 5: BALANCES COMPARATIVOS
 COOPERATIVA DE AHORRO Y CREDITO "SANTA LUCIA"

	DIC 83	DIC 85	DIC 85	AGO 86
CAJA Y BANCOS	2993	28516	92046	74555
INVERSIONES	3000	1000	1000	21000
CARTERA DE PRESTAMO	35709	45299	170147	390501
GASTOS POR ADELANTADO			1421	956
OTROS	648	742	372	372
ACCIONES EN FEDOCOOP	100	100	100	100
TERRENOS	0	3200	3200	3200
EDIFICIO NETO	1815	6670	6563	24371
MUEBLES NETOS	189	4385	4088	8252
TOTAL ACTIVO	44454	89912	278937	523307
AHORROS RETIRABLES	0	25538	145902	259500
DEPOSITOS A PLAZO	0	0	4819	42685
PRESTAMOS POR PAGAR	0	0	0	0
FONDO EDUCATIVO	11-1	1220	2000	2000
APORTACIONES	39499	49552	100252	178316
RESERVA GENERAL	2444	2749	6300	7395
RESERVA PARA EDIFICIO	327	1046	3826	3826
CAPITAL DONADO	0	7501	7500	7501
EXCEDENTES RETENIDOS	103	103	0	0
EXCEDENTES DEL PERIODO	980	2158	8338	22084
TOTAL PASIVO Y CAPITAL	44454	89912	278937	523307

TABLA 6: DISTRIBUCION DE PRESTAMOS OTORGADOS ANUALMENTE
COOPERATIVA DE AHORRO Y CREDITO "LA VEGA REAL"

	1984		1985		1986	
AGROPECUARIA	44356	38.7%	44208	23.9%	32441	11.4%
COMERCIAL	27722	24.2%	58354	31.5%	97323	34.2%
INDUSTRIAL	5545	4.8	31830	17.2%	86509	30.4%
CONSTRUCCION	11089	9.7%	21220	11.5%	18924	6.6%
CONSUMO	25793	22.5%	29666	16.0%	49674	17.4%
TOTAL	113404	199.0%	185278	100.0%	284871	100.0%

TABLA 7: COOPERATIVA DE AHORRO Y CREDITO "LA VEGA REAL"

	DIC 83	DIC 84	DIC 85	DIC 86
MOROSIDAD	NA	36.0%	25.0	22.0%
PALANQUEO	1.5	10.0	10.0	10.0
SOCIOS	412	565	630	846
DEPOSITANTES	0	11	228	344
TOTAL	412	576	858	1190
EMPLEADOS	1	2	3	4

TABLA 8: COOPERATIVA DE AHORRO Y CREDITO "SANTA LUCIA"

	DIC 83	DIC 84	DIC 85	DIC 86
MOROSIDAD	48.8%	17.0%	10.0%	9.0%
PALANQUEO	1.5	10.0	10.0	10.0
SOCIOS	250	298	395	494
DEPOSITANTES	0	44	287	583
TOTAL	250	342	682	1077
EMPLEADOS	0	2	3	4

TABLA 9: DISTRIBUCION DE PRESTAMOS OTORGADOS ANUALMENTE
COOPERATIVA DE AHORRO Y CREDITO "SANTA LUCIA"

	No.	1983	No.	1984	No.	1985	No.	1986
AGROPECUARIA	38	10,970	52	19,100	125	110,530	75	107,455
INDUSTRIAL					14	18,960	8	31,000
COMERCIAL	14	3,460	10	11,500	21	20,845	50	164,645
CONSUMO	58	19,244	98	30,650	110	110,237	95	87,401
TOTAL	124	39,459	160	61,250	270	260,572	228	390,501

Rural Financial Services - Analysis of Economic and Financial ViabilityA. Overview

The Mission carried out financial analysis for a typical credit union to determine: (1) the level of financial resources required to strengthen a typical credit union; (2) projections of savings mobilized, loans made and break-even point; and (3) analysis of the revenues, expenditures and ability to service its administrative loan. These analyses were based on conservative assumptions which are supported by the experience of deposit growth and earnings potential with the four pilot credit unions.

Further analysis was done on the Stabilization/Reserve Fund mechanism and its income generating potential to provide resources for the credit union association.

B. Typical Individual Credit Union Analysis

Table 1 illustrates the break-even point for a typical credit union, using the basic data from the CUs that participated in the RSM Project, on yearly administrative expenses reserve requirements and interest rate margins. The analysis reveals that the typical credit union could reach its break-even point with a deposit base of between RD\$220,000 and RD\$250,000, which represents one-fifth the deposit base required for a branch of a commercial bank (RD\$1.3 million). The analysis takes into consideration that the credit union charges 36% on its loan portfolio, but effectively earns 33% - losing 3% per year to delinquency. It should be pointed out that this bad debt reserve is six times the reserve assumed in the study performed by Gustavo Gómez under the RSM Project..

Given the lack of competition for financial services in the rural areas the demand on the part of the potential clientele is relatively price inelastic. This implies that these institutions could fairly rapidly reach the break-even point, given the ability to maintain an adequate margin on financial intermediation (i.e. difference between interest paid out to depositors and interest earned on loans). Experience with the pilot credit unions shows that this interest rate differential can be maintained between 15-20 percent which indicates the potential profitability of providing financial services through a low overhead operation such as a credit union.

Table 2 presents the potential growth of a typical rural CU under the RSM project. With the assumptions presented in the footnotes this institution reaches its break-even point in the 17th month of operation with a deposit base of RD\$218,500 (shares, time deposits and savings accounts). Accumulated losses during the first 16 months of operation reach RD\$22,675 which is projected to be covered with the operating expense component of the

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TABLE 1

Break-Even Analysis for a Typical
Rural Credit Union
(Case: Santa Lucia)

- r: Average interest earned on CU portfolio.^I
 I_p : Average interest paid deposit paid on deposits and external debt.
d: Average Net Worth/Average Total Assets.
A: Total yearly administrative expenses (\$).
r: Yearly provision for bad debt, as % of portfolio.
V: Average volume (portfolio).
RR: Voluntary reserve requirements.
S: Other income from investments (reserves).
TT: Operating Surplus (profits).
DD: Volume of Deposits.

$$TT = (I_r - I_{pd})V - rV - (A - S)$$

- I_R : .2630
 I_p : .0852
D: .4275
A: RD\$36,000
r: .03
RR: .20
S: RD\$1,450

$$TT = (.2630 - .0852(.4275))V - .03V - (36,000 - 1,450)$$

$$.2266V - .03V = 34,550$$

$$V = \text{RD}\$175,738$$

$$D = V/(1-RR)$$

$$D = \text{RD}\$219,672$$

ILLUSTRATIVE BALANCE SHEET AND INCOME STATEMENT
OF FIRST TWO YEARS OF OPERATION OF A RURAL CREDIT UNION

(Loans/Total Deposits)	JAN 0.45	FEB 0.50	MAR 0.5	APR 0.55	MAY 0.55	JUN 0.57	JUL 0.75	AGO 0.72	SEP 0.75	OCT 0.77	NOV 0.78	DIC 0.82	JAN2 0.80	FEB2 0.78	MAR2 0.79	APR2 0.81	MAY2 0.80	JUN2 0.80	JUL2 0.80	AGO2 0.80	SEP2 0.80
CASH:	45,415.5	43,120.6	43,005.4	42,842.8	42,522.2	42,703.7	34,705.5	33,216.9	42,438.2	42,298.2	42,194.6	36,874.5	41,346.0	45,306.4	43,311.3	39,651.8	41,963.2	42,177.7	45,975.1	49,432.8	51,374.4
LOAN PORTFOLIO: (a)	19,125.0	23,750.0	26,250.0	34,925.0	40,975.0	51,870.0	81,000.0	95,000.0	122,175.0	127,666.0	137,280.0	134,160.0	157,600.0	157,560.0	163,530.0	173,310.0	174,800.0	178,400.0	195,600.0	210,400.0	218,460.0
FIXED ASSETS:	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0	25,000.0
TOTAL ASSETS:	69,540.5	91,870.6	94,255.4	102,737.6	111,344.9	119,573.7	140,705.5	163,256.9	179,563.2	194,964.2	204,474.6	216,034.5	223,949.0	227,866.4	231,841.3	237,991.8	241,763.2	245,577.7	266,575.1	284,832.8	294,774.4
SAVINGS ACCOUNTS: (b)	1,000.0	2,500.0	5,000.0	12,000.0	18,000.0	30,000.0	39,000.0	51,000.0	63,000.0	72,000.0	75,000.0	82,000.0	85,000.0	87,000.0	90,000.0	93,000.0	95,000.0	97,000.0	115,000.0	125,000.0	131,000.0
TIME DEPOSITS: (c)	1,500.0	4,000.0	5,500.0	6,500.0	9,000.0	12,000.0	18,000.0	25,000.0	29,000.0	31,000.0	42,000.0	46,000.0	50,000.0	50,000.0	51,000.0	53,000.0	53,500.0	55,000.0	57,000.0	65,000.0	67,000.0
EXTERNAL LOANS: (d)	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	49,166.7	48,333.3	47,500.0	46,666.7	45,833.3	45,000.0	44,166.7	43,333.4	42,500.0
ACCUMULATED PROFITS (LOSSES):	(2,959.5)	(5,629.4)	(8,244.6)	(10,762.4)	(13,155.1)	(15,471.3)	(17,294.6)	(18,743.1)	(19,931.6)	(20,825.8)	(21,525.4)	(21,965.5)	(22,217.6)	(22,466.9)	(22,658.7)	(22,674.9)	(22,570.2)	(22,422.3)	(22,091.6)	(21,500.6)	(20,725.0)
SHARES:	40,000.0	41,000.0	42,000.0	43,000.0	43,500.0	44,000.0	45,000.0	46,000.0	47,000.0	48,000.0	49,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0	50,000.0
SHARES AND LIABILITIES:	69,540.5	91,870.6	94,255.4	102,737.6	111,344.9	119,573.7	140,705.5	163,256.9	179,563.2	194,964.2	204,474.6	216,034.5	223,949.0	227,866.4	231,841.3	237,991.8	241,763.2	245,577.7	266,575.1	284,832.8	294,774.4
INTEREST INCOME:	263.0	585.5	687.5	841.2	1,043.6	1,271.6	1,827.0	2,420.6	2,848.5	3,297.1	3,643.0	4,067.3	4,186.7	4,333.1	4,415.0	4,632.0	4,788.9	4,856.5	5,142.5	5,582.5	5,896.0
ADMINISTRATIVE EXPENSES:	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0	3,000.0
INTEREST PAID: (e)																					
PASSBOOK ACCOUNTS:	4.2	14.6	31.2	70.8	125.0	199.9	267.4	374.9	474.8	562.3	612.3	653.9	695.6	716.4	737.2	762.2	783.0	799.7	883.0	999.6	1,066.2
TIME DEPOSITS:	10.0	36.6	43.2	79.8	103.1	139.7	199.5	281.0	356.1	425.6	517.1	585.2	638.4	665.0	671.7	691.6	708.2	721.5	744.8	811.3	877.8
ADMIN LOAN:	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	208.3	197.9	194.4	190.9	187.5	184.0	177.1
MONTHLY PROFITS (LOSSES):	(2,959.5)	(5,669.9)	(7,615.0)	(10,517.7)	(13,392.7)	(16,271.3)	(18,868.2)	(21,448.6)	(23,193.7)	(24,699.0)	(26,094.4)	(27,440.1)	(28,521.2)	(29,495.5)	(30,318.8)	(31,000.0)	(31,570.2)	(32,040.0)	(32,410.0)	(32,680.0)	(32,850.0)

a: Interest on loans is 33% per annum on outstanding balance. It is assumed the CU charges 36%, but effectively earns 33%, as 3% is lost to loan frequency.

b: Interest on savings accounts is 10% per annum on minimum monthly balance.

c: Interest on time deposits is 16% per annum.

d: Interest on external administrative loan 5% per annum on outstanding balance.

e: Actual interest expense is overestimated since it will be paid on the minimum monthly balance. Administrative loan: 25,000 operating expense subsidy \$21,666.66 per month 25,000 fixed assets.

Repayment of principle begins on the 13th month of operations, with term of loan six years, interest only paid first year.

TABLE 3
 Partial Listing of Existing CUs with
 Potential for Participation in the Project

COOP	MUNICIPALITY
1. Palo Hincado	El Seibo
2. Sectores Unidos	Miches
3. Nuestra señora de la Candelaria	Sabana Grande de Boyá
4. Los Procaídos	Paraiso, Barahona
5. Santa Ana del Jaya	San Fransisco de Macorís
6. Sagrada Familia	Fantino, Cotui
7. Corazón de Jesus	Moca
8. Las Lagunas	Moca
9. Unión y Progreso	Guananico, Puerto Plata
10. Sabaneta Novillo	Santiago Rodríguez
11. Progreso Fronterizo	Loma de Cabrera, Dajabón
12. Castañuelas	Castañuelas, Montecristi
13. Momoncito	Monción, Mao
14. Santa cruz	Mao
15. Fraternidad Fronteriza	Pepillo Salcedo, Montecrisiti
16. Libertad de los Pobres	Montecristi
17. San Fermin	La Romana
18. Medina	Medina, San Cristobal
19. La Vega Real	La Vega
20. Vallejuelo	Vallejuelo
21. Santa Lucia	San José de las Matas
22. San José	San José de las Matas

administrative loan (RD\$25,000). As can be observed in this table the CU pays interest on the administrative loan throughout the first 12 months (RD\$208.3) and begins the amortization of this loan on the 13th month. It has been assumed that this CU mobilizes RD\$188,000 by the end of the first year and reaches a deposit base of RD\$307,000 by the end of the second year. This compares with the actual experience of the CU Santa Lucía which reached a deposit base of RD\$170,772 in the first 12 months and RD\$511,591 at the end of the second.

C. Growth in CU Membership and Deposits

Table 3 presents a partial listing of the existing CUs with a potential to participate in the project. During project implementation additional cooperatives and credit unions will be contacted to initiate the financial review and organizational steps for them to receive technical assistance in developing a financial services capability. To estimate the level of savings generated profitably and other technical assistance requirements of the project, it was assumed that an average membership level of 300 individuals per credit union would be reached after the first year of operation and a ten percent yearly growth rate during the five year LOP. Table 4 shows that by the end of year five almost 19,000 individuals will be members of credit unions.

TABLE 4

PROJECTED GROWTH IN CU MEMBERSHIP ¹

YR:	87	88	89	90	91	92
Number of CUs	4	8	13	19	25	31
MEMB	5,500	6,050 1,200 ²	6,655 1,320 1,500 ²	7,321 1,452 1,650 1,800 ²	8,053 1,597 1,815 1,980 1,800 ²	8,858 1,757 1,997 2,178 1,980 1,800 ²
MEMB	5,500	7,250	9,475	12,223	15,245	18,570

¹ The projections assume an average membership level of 300 after the first year of operation, and a ten percent yearly growth rate.

² Last number in yearly column is membership of new credit unions joining the program that year.

D. Growth in Deposits: Stabilization/Reserve Fund

Table 5 presents the growth in deposits mobilized from the public and potential growth of the Stabilization/Reserve Fund assuming 10% of deposits mobilized would be placed in the Fund. The growth in deposits is a conservative estimate given the experience with the four pilot CUs which have seen their deposits increase in some cases by over 200 percent. Amounts deposited into the Stabilization Fund would of course depend on the growth of deposits. It is estimated that by the end of the project a total of over RD\$18 million will be on deposit of which RD\$13.0 million will be new deposits and member contributions. The Stabilization/Reserve Fund will have principal in the amount of RD\$1.3 million by the LOP.

The Stabilization/Reserve fund will be managed first by the RSM Office and ultimately (end of project) by the CU association. The fund will be capitalized by participating CUs with an amount no less than 10 percent of resources mobilized through their different liability instruments (shares, savings accounts, and time deposits). This represents one half of their normal reserve requirement, and thus this would be a simple transfer or deposit of existing funds. These funds will be deposited in the highest yielding financial instrument in a commercial bank and arrangements will be made with this institution to obtain a line of credit up to 100% of the value of this fund. The CUs will earn at least the going rate paid on passbook savings accounts in the Banking System.

If a CU were to experience liquidity problems due to temporary or seasonal imbalance in its cash flow, the CU will request a line of credit to the Project office that in turn will authorize this line of credit from the commercial bank and the commercial bank will disburse directly to the Credit Union in question. Subsequently the project coordinating office will carry out a short evaluation of the reasons which originated the liquidity shortfall, and recommend corrective actions. This line of credit must be repaid in no more than six months and will cost the CU significantly more than its alternative sources of funds for on-lending to members. The personnel in the RSM office will monitor the deposits made by the individual CUs in this fund to insure that the 10% minimum is respected. Interest paid on CU funds will be capitalized as a mechanism to protect the integrity of the fund.

Table 5
 PROJECTED GROWTH IN PASSBOOK ACCOUNTS, TIME DEPOSITS, AND SHARE
 ACCOUNTS AND DEPOSITS INTO STABILIZATION/RESERVE FUND
 RD\$(000)

YR:	87	88	89	90	91	92	93
Number of CUs (cumulative)	4	8	13	19	25	31	32
	4,919	5,903 600 ^{2/}	7,083 720 750 ^{2/}	8,500 864 900 900 ^{2/}	10,200 1,037 1,080 1,080 900 ^{2/}	12,240 1,245 1,296 1,296 1,080 900 ^{2/}	14,688 1,494 1,555 1,555 1,296 1,080
TOTAL DEPOSITS	4,919	6,503	8,553	11,164	14,297	18,056	21,668
TOTAL ASSETS ^{3/}	6,001	7,934	10,435	13,620	17,442	22,028	26,435
STABILIZATION/RESERVE FUND ^{4/} RD\$(000)							
		491	650	855	1,116	1,429	1

1. These estimates assume an average deposit of 300 pesos per member per CU, after a year of operations, and a twenty percent rate of growth in deposits.

2. Deposits from new CUs participating in project.

3. Total Assets = 1.22 X

4. Assumes 10 percent of deposits mobilized from the public will be placed in the Stabilization/Reserve Fund.

Table 6 presents an analysis of the earnings potential of the Stabilization/Reserve Fund. By year five the association would receive RD\$108,000 to support a professional to run the Stabilization/Reserve Fund and a secretary. Should credit union members desire additional services they would have to increase the amount of interest earnings going to support the credit union association, or incorporate a yearly fee to support CU association activities (See F. below, and Table 8 for overall C.U. association budget and income analysis).

Table 6
EARNINGS CAPACITY OF THE STABILIZATION/RESERVE FUND
RD\$(000)

<u>Year</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Capital or Principal in Fund ¹	491	650	355	1,116	1,429	1,805	2,166	2,600
Certificates of Deposit 16%/ Interest Earned	79	104	137	179	229	289	347	416
Return paid to CU (10% of 16% return)	49	65	86	112	143	181	217	260
Amount available for the operation of the Credit Union Association	29	39	51	67	86	108	130	156

E. Administrative Loan Program

The purpose of the Administrative loan program is to provide the necessary seed money to begin the rehabilitation process of participating CUs. As CUs enter the program, they will need an initial capital investment and additional cash flow since expenses will outpace income in the first few months of operation. This fund now exists as a grant program within the local currency budget of the RSM office and will be managed henceforth as a loan fund by this office until the CU association is able to assume control of it. Access to this administrative loan fund is not automatic, but will depend on well-defined need and uses.

Table 7 presents the estimated resources required for the administrative loan program. In order to begin operations it is expected that a typical CU would require an administrative loan of approximately RD\$50,000 (based on the RSM Project experience) of which, for example, RD\$30,000 could be used for improvement of physical infrastructure, equipment and the remaining RD\$20,000 would be used to cover salaries and operational costs until deposits and loan activity increased. The projections presented assume that the CU receives an administrative loan for a six year period, at 5 percent a year, with amortization of the principal beginning after the first 12 months of operation.

The 10 percent annual inflation rate incorporated into these estimates will ensure that sufficient funds are available to meet the requirements of the 27 credit unions during LOP, and the 5 percent interest rate will prevent decapitalization of the fund due to any bad loans. At the end of the project more than sufficient funds will be available from loan repayments to meet the administrative loan requirements of the 1 or 2 new credit unions that will be assisted by the CU association each year hereafter.

TABLE 7
REQUIREMENTS FOR ADMINISTRATIVE LOAN PROGRAM
RD\$(000)

YR:	88	89	90	91	92	
CUs:	4	5	6	6	6	Total 27
AD. Loan ^{1/} Per CU:	50	55	60.5	66.6	73.2	
Total Disb:	200	275	363	399.6	439.2	
Loan Repay:	0	40	95	167.6	247.5	
Net Req:	200	235	298	232.0	191.7	1,156.7

^{1/} These requirements are projected based upon a 10% annual inflation rate.

F. Credit Union Association

The credit union association that is contemplated under the project will have two basic functions in support of continued strengthening of rural financial services through credit unions. One will be management of the Stabilization/Reserve Fund, and the other will be management of the Administrative Loan Fund, both to be turned over by the RSM office to the Association following a suitable program of training, organization, and establishment of financial controls and audit coverage. In addition, the association can become a supplier (under contract) of training and advisory services for member CUs, and hold promotional events to encourage the growth of the network of improved CUs. Table 8 below contains an illustrative budget for the association. It is likely that as the RSM office in the Central Bank is phased out at the end of the project, staff from that unit will be available to the CU association to manage the funds and provide services.

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Table 8
Credit Union Association Illustrative Budget (RD\$000)

<u>Line Items</u> ^{1/}	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>Total</u>
<u>Personnel Costs</u>						
Administrator	48.00	52.80	58.08	63.89	70.28	293.04
Admin. Secretary	10.80	11.88	13.07	14.37	15.81	65.94
Accountant	30.00	33.00	36.30	39.93	43.92	183.15
Messenger	4.80	5.28	5.81	6.39	7.03	29.30
Fringe Benefits	15.20	16.72	18.39	20.23	22.25	92.80
Subtotal	108.80	109.68	131.65	144.81	159.29	664.23
Office Supplies	8.00	8.80	9.68	10.65	11.71	48.84
Off. Equip. & Furn.	26.20					26.20
Office Rental	18.00	19.80	21.78	23.96	26.35	109.89
Vehicle Fuel Maint.	10.00	11.00	12.10	13.31	14.64	61.05
<u>Total</u>	<u>171.00</u>	<u>159.28</u>	<u>175.21</u>	<u>192.73</u>	<u>212.00</u>	<u>910.22</u>

^{1/} Annual 10% inflation rate incorporated in cost estimates.

Table 9 below shows the sources and uses of funds of the association during the last two years of the project, and for three years thereafter, based on certain assumptions about the level of services that will be provided beyond the basic functions of fund management. The cost of annual seminars to be organized by the CU association will be borne by the participating credit unions.

Table 9
Credit Union Association Self-Financing Analysis

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>Total</u>
<u>Sources of Funds</u>						
Stabil./Res. Fund	67	86	108	130	156	547
CUA Membership Fee ¹	31	41	52	66	79	269
Prev. Year Balance	<u>133</u>	<u>60</u>	<u>28</u>	<u>13</u>	<u>16</u>	<u>250</u>
Total	231	187	188	209	251	1,066
<u>Uses of Funds</u>						
Personnel Costs	109	120	132	145	159	665
Operating Costs	62	39	43	48	53	245
Total	<u>171</u>	<u>159</u>	<u>175</u>	<u>193</u>	<u>212</u>	<u>910</u>
<u>Balance</u>	60	28	13	16	39	

1. Annual membership fee calculated at 0.30% of total assets of credit unions.

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Agricultural Technology Development - Economic Analysis

This section examines economic feasibility by projecting the yield impacts and income benefits of cantaloupe research activities. The benefits are compared with the corresponding foundation and private sector costs to be incurred to determine net benefits. Constant 1986 price levels are used in this analysis and a 10 year period is used for discounting purposes.

a. Estimated Yield and Income Increases

Improved technology will increase yields and output. The use of economic criteria by the Foundation in the selection of the technologies to be developed should ensure that the project's provision of technology both increases yields and decreases cost per unit of output.

The increased profits of those agribusinesses and growers using the new technologies and the project's wide dissemination of its technologies will lead over time to increases in hectares planted, and further increases in production, income, and rural employment. Lower costs per unit may permit the Dominican Republic to substitute local production for imports or to compete more effectively in export markets.

In Tables 4 through 7 attached, data are presented to illustrate the effect of increasing yields on net income, using cantaloupe production as an example. Table 4 gives hectares cultivated, yields, costs, income, and net income for a Base Case and four alternatives, A through D.

The Base Case reflects the actual yields, output, costs, and income of cantaloupe farmer Edlandy Fernandez of Azua in the September 1985 to February 1986 growing season, which is included in "year 0" in the analysis. He grew cantaloupes on 11 tareas (.69 hectares), working under contract from Domex (as a colono). He produced a total of 393 40 lb. boxes: 303 boxes which sold for 8 pesos per box and 90 at 6 pesos. The average effective price per box of 7.8 pesos reflects these figures and the sale of 100 bags of rejects (i.e. rejected for the export market) which sold for 1 peso a bag in the domestic market. His yield on a full hectare would have been 568 40 lb. boxes which corresponds to 46 % of a good United States yield. His net income was 300 pesos, which was approximately 11 % of his costs and 10 % of his income. This net income may be regarded as a return to the land and to the management provided by Sr. Fernandez.

The Base Case projections for years 1 through 10 assume no changes in yields, hectares cultivated, or costs of production per hectare, as shown in

Table 5. In Alternative A, yield is projected to increase to 80 % of a good U.S. level in five years. In Alternative B, the 80 % level is reached in three years. Alternatives C and D assume that 70 % and 90 % levels, respectively, are reached in five years. From these increases the annual increase in yield per hectare figures are derived. After the target share of the good U.S. level is attained, a 5 % growth rate in yield is assumed for all alternatives for the years remaining in the 10 year period. The slower growth in later years is consistent with the pattern of costs to be incurred. All the alternatives assume no increase in hectares cultivated and assume that the annual increase in costs of production are one-tenth of the increase in yield per hectare.

Net income over the 10 year period for each case and the excess of the net income of each alternative over the Base Case are presented in Table 6. The assumptions on yields and increases in costs of production per ha. cited in Table 5 result in sizable increases in the net income above the Base Case level of 300 pesos. By year 10, net income in Alternative C exceeds 2,900 pesos; Alternative A, exceeds 3,700; and Alternatives B and D, more than 4,400.

The present value of these net increases over the 10 year period reflects the assumptions built into Table 5 and the rate of discounting used, as shown in Table 7. Using a 10 % rate, the net present value for the four alternatives ranges from 8,241 to 14,988 pesos. If it is assumed, for example, that the project's provision of technology would achieve the results given in Alternative A, the net income benefit (measured in today's pesos) would be 11,549. That is, it would be worth spending up to this amount today in order to realize this benefit on Sr. Fernandez's .69 hectare.

Using the 10 % rate of discount, net present values are given in Table 8 attached for a varying number of hectares. For Alternative A, for example, the net benefit of 11,549 pesos corresponds to 16,693 for a full hectare and 16,693,011 pesos for 1,000 hectares. This 16 million pesos may be considered the additional return to land, management, and ownership should the assumed increases in yields and reductions in cost per hectare be extended to 1,000 hectares.

b. Net Benefit

It is important to note that the benefit of increased yields resulting from the new technologies would not accrue solely to the growers. In practice agribusinesses and growers would share in the increase in income according to their contracts; consumers could benefit if competition leads to declines in the domestic price of the crop (say, for traditional staples, or for import substitution crops).

The figures in Table 8 illustrate the importance of considering both yield increases and the hectares cultivated when assessing the benefits of improved technology. As noted above, research expenditures would benefit 2 crops fully and 3 partially. In this context, 'fully' may be interpreted as

attaining 80 % of the good U.S. yields in five years, which corresponds to Alternative A.

It is reasonable to assume that at least 1,500 hectares of currently cultivated land could benefit. As indicated in Tables 9 and 10 attached, 1,000 hectares (roughly) corresponds to the Dominican land devoted to the cultivation of cantaloupes in recent years. About 2,000 hectares are thought to be devoted to cantaloupe production at present.

Because of the small volume of Dominican exports relative to the present levels of U.S. imports, there exists a strong demand for non-traditional crops which the Dominican Republic could meet as it lowers its unit costs through improved yields.

In the present analysis two levels of hectares cultivated were used. Case 1 conservatively assumes 1,500 hectares are affected. Case 2 projects 3,000 hectares affected, anticipating increases in production and exports as the country becomes more competitive internationally. Net incomes for Cases 1 and 2 of Alternative A are estimated in Table 13 attached.

It should be recognized that there will be some lag between the improved technology first being developed and its adoption by agribusinesses and growers. As shown in Table 13, it is assumed that the improvement in yield initially affects only 2.5 % of the applicable land; half the balance of land benefits the next year, and the remainder the following year. Lags in income are accordingly built into the net income estimates, as indicated in the table. The bottom two rows of data in Table 13 may be regarded as the benefit of the technology package at two levels of affected hectares. The present value of these benefits are given in the first section of Table 3 attached.

Using present values, costs are subtracted from benefits in Table 3 to attain the net benefits of the Foundation's technology packages. At 10%, 20 %, and 30 % rates of discounting, net benefits are positive. At 20 % the technology packages provide net benefits of approximately 6 million pesos on 1,500 hectares; and more than 16 million on 3,000 hectares.

Should the impact of the Foundation's activities correspond to Alternatives B, C, or D, the net benefit would also be positive, as shown in Table 14. The most conservative alternative, C, at the lower number of hectares, still has a positive net benefit of more than 2.9 million pesos at a 20% discount rate.

Expected Foundation activity effects on foreign exchange and rural employment are expected to be favorable.

Overall it is concluded that the provision of technology packages by the contemplated Research Foundation should provide net benefits to the economy in the form of increased production, income, foreign exchange, and rural employment.

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TABLE 3
ANALYSIS OF TECHNOLOGICAL BENEFITS AND COSTS

PRESENT VALUES AT INDICATED ANNUAL RATES OF DISCOUNTING		CASE 1	CASE 2
		1,500 HECTARES	3,000 HECTARES
in thousands of pesos			
BENEFITS (NET INCOME)			
	10%	18,152	36,314
	20%	16,274	20,353
	30%	8,107	12,614
COSTS			
	10%	5,271	5,271
	20%	4,201	4,201
	30%	3,475	3,475
NET BENEFITS			
	10%	12,880	31,043
	20%	6,973	16,152
	30%	4,632	9,139

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TABLE 4
FINANCIAL AND ECONOMIC ANALYSIS OF THE IMPACT OF IMPROVED TECHNOLOGY
ON THE PRODUCTION OF CANTALOUPE
ALTERNATIVE CASES

	YEARS										
	0	1	2	3	4	5	6	7	8	9	10
BASE CASE											
Hectares cultivated	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
40 lb. boxes produced	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0	393.0
Yield in 40 lb. boxes per ha.	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1	568.1
Costs of Production:											
Total	2,764	2,764	2,764	2,764	2,764	2,764	2,764	2,764	2,764	2,764	2,764
Per 40 lb. box	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03
Average effect. price per box	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80
Income	3,064	3,064	3,064	3,064	3,064	3,064	3,064	3,064	3,064	3,064	3,064
Net income (loss)	300	300	300	300	300	300	300	300	300	300	300
ALTERNATIVE A											
Hectares cultivated	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
40 lb. boxes produced	393.0	461.4	529.7	597.5	640.8	683.5	717.7	753.6	791.3	830.8	872.4
Yield in 40 lb. boxes per ha.	568.1	666.9	765.7	852.2	926.3	988.0	1,037.4	1,089.3	1,143.7	1,200.9	1,261.0
Costs of Production:											
Total	2,764	2,813	2,854	2,886	2,912	2,931	2,946	2,960	2,975	2,990	3,005
Per 40 lb. box	7.03	6.10	5.39	4.80	4.54	4.29	4.10	3.93	3.76	3.60	3.44
Average effect. price per box	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80
Income	3,064	3,597	4,130	4,596	4,996	5,329	5,595	5,875	6,169	6,477	6,801
Net income (loss)	300	785	1,276	1,710	2,084	2,393	2,650	2,915	3,194	3,487	3,796
ALTERNATIVE B											
Hectares cultivated	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
40 lb. boxes produced	393.0	512.6	615.2	693.5	717.7	753.6	791.3	830.8	872.4	916.0	961.8
Yield in 40 lb. boxes per ha.	568.1	741.0	892.2	988.0	1,037.4	1,089.3	1,143.7	1,200.9	1,261.0	1,324.0	1,390.2
Costs of Production:											
Total	2,764	2,849	2,906	2,936	2,953	2,957	2,982	2,997	3,012	3,027	3,042
Per 40 lb. box	7.03	5.56	4.72	4.30	4.11	3.94	3.77	3.61	3.45	3.30	3.16
Average effect. price per box	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80
Income	3,064	3,997	4,796	5,329	5,595	5,875	6,169	6,477	6,901	7,141	7,498
Net income (loss)	300	1,148	1,891	2,391	2,643	2,908	3,187	3,480	3,789	4,114	4,456

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Table 4

ALTERNATIVE D												
Hectares cultivated	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
40 lb. boxes produced	393.0	435.7	478.5	521.2	563.9	598.1	628.0	659.4	692.4	727.0	763.3	
Yield in 40 lb. boxes per ha.	568.1	629.9	691.6	753.4	815.1	864.5	907.7	953.1	1,000.8	1,050.8	1,103.3	
Costs of Production:												
Total	2,764	2,795	2,822	2,847	2,870	2,888	2,902	2,917	2,931	2,946	2,961	
Per 40 lb. box	7.03	6.41	5.90	5.46	5.09	4.83	4.62	4.42	4.23	4.05	3.88	
Average effect. price per box	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	
Income	3,064	3,397	3,730	4,063	4,396	4,653	4,896	5,141	5,398	5,668	5,951	
Net income (loss)	300	603	908	1,216	1,526	1,775	1,994	2,224	2,466	2,722	2,990	
ALTERNATIVE D												
Hectares cultivated	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
40 lb. boxes produced	393.0	487.0	581.0	657.9	717.7	769.0	807.4	847.8	890.2	934.7	981.4	
Yield in 40 lb. boxes per ha.	568.1	704.0	839.8	951.0	1,037.4	1,111.5	1,167.1	1,225.4	1,286.7	1,351.0	1,418.6	
Costs of Production:												
Total	2,764	2,831	2,885	2,923	2,950	2,971	2,986	3,001	3,016	3,031	3,046	
Per 40 lb. box	7.03	5.81	4.97	4.44	4.11	3.86	3.70	3.54	3.39	3.24	3.10	
Average effect. price per box	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	7.80	
Income	3,064	3,797	4,530	5,124	5,595	5,995	6,295	6,610	6,940	7,287	7,652	
Net income (loss)	300	966	1,644	2,201	2,645	3,024	3,309	3,609	3,924	4,256	4,605	

TABLE 5
ASSUMPTIONS

	YEARS											
	0	1	2	3	4	5	6	7	8	9	10	
GOOD U.S. YIELD	1,235	1,235	1,235	1,235	1,235	1,235	1,235	1,235	1,235	1,235	1,235	1,235
YIELD: DR AS % OF GOOD U.S.												
BASE CASE	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%
ALTERNATIVE A	45.00%	54.00%	62.00%	67.00%	75.00%	80.00%	84.00%	88.20%	92.61%	97.21%	102.10%	107.19%
ALTERNATIVE B	45.00%	60.00%	72.00%	80.00%	84.00%	88.20%	92.61%	97.21%	102.10%	107.21%	112.57%	118.07%
ALTERNATIVE C	45.00%	51.00%	55.00%	51.00%	56.00%	70.00%	73.50%	77.18%	81.07%	85.07%	89.34%	93.87%
ALTERNATIVE D	45.00%	57.00%	59.00%	77.00%	84.00%	90.00%	94.50%	99.23%	104.19%	109.40%	114.87%	120.59%
ANNUAL INCR. IN YIELD PER HA.												
BASE CASE		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ALTERNATIVE A		17.40%	14.81%	11.29%	8.70%	6.67%	5.00%	3.60%	2.40%	1.40%	0.60%	0.00%
ALTERNATIVE B		30.44%	20.00%	11.11%	5.00%	3.00%	3.00%	5.00%	5.00%	5.00%	5.00%	5.00%
ALTERNATIVE C		10.68%	9.80%	8.93%	8.20%	8.05%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
ALTERNATIVE D		23.92%	19.50%	13.24%	9.09%	7.11%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
ANNUAL INCR. IN HA. CULTIVATED												
BASE CASE		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ALTERNATIVE A		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ALTERNATIVE B		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ALTERNATIVE C		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ALTERNATIVE D		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ANNUAL INCR. IN COSTS OF PRGD.												
BASE CASE		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ALTERNATIVE A		1.74%	1.43%	1.13%	0.87%	0.67%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
ALTERNATIVE B		3.04%	2.00%	1.11%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
ALTERNATIVE C		1.99%	0.98%	0.99%	0.82%	0.61%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
ALTERNATIVE D		2.39%	1.93%	1.32%	0.91%	0.71%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%

NOTES:

BASE CASE. The yield in boxes per hectare was calculated using the 303 boxes harvested (8 pesos per box) and the 90 boxes of lower quality (6 pesos). In addition there were 100 bags (sacos) of rejects, which were sold at 1 peso per bag. The average effective price per box was computed by dividing the income (including the 100 pesos from the rejects) by the 393 boxes. This information applies to year 0.

NOTES:

1 hectare equals the following number of acres:
1 hectare equals the following number of TAREAS:

2.471
15.9

TABLE 3
COMPARISON OF ALTERNATIVES
TO THE BASE CASE

	YEARS										
	0	1	2	3	4	5	6	7	8	9	10
<hr/>											
NET INCOME (LOSS)											
Base Case	300	300	300	300	300	300	300	300	300	300	300
Alternative A	300	735	1,276	1,710	2,034	2,398	2,650	2,915	3,194	3,487	3,795
Alternative B	300	1,148	1,591	2,351	2,643	2,908	3,187	3,480	3,788	4,114	4,458
Alternative C	300	607	916	1,216	1,526	1,775	1,994	2,224	2,465	2,722	2,990
Alternative D	300	966	1,644	2,205	2,645	3,024	3,309	3,509	3,724	3,957	4,205
<hr/>											
NET INCOME (LOSS) OF THE ALTERNATIVES MINUS THE NET INCOME (LOSS) OF THE BASE CASE											
Alternative A	0	435	976	1,410	1,735	2,098	2,350	2,615	2,894	3,188	3,497
Alternative B	0	848	1,591	2,051	2,343	2,608	2,887	3,180	3,490	3,815	4,158
Alternative C	0	307	616	917	1,226	1,475	1,694	1,925	2,167	2,422	2,691
Alternative D	0	666	1,344	1,906	2,346	2,725	3,009	3,209	3,425	3,657	3,906

TABLE 7
 PRESENT VALUE OF INCREASE IN
 NET INCOME ABOVE THE BASE CASE

ANNUAL RATE OF DISCOUNTING

	5.00%	10.00%	15.00%	20.00%
Alternative A	15,452	11,049	8,857	8,915
Alternative B	19,818	14,988	11,650	9,278
Alternative C	11,110	8,241	6,280	4,903
Alternative D	19,811	14,870	11,465	9,056

TABLE 8
 PRESENT VALUE OF NET INCOME ABOVE THE BASE CASE
 AT 10% INTEREST RATE BY HECTARES OF CARIBBOONES CULTIVATED

HECTARES OF CARIBBOONES CULTIVATED	PRESENT VALUE OF INCREASE IN NET INCOME ABOVE THE BASE CASE IN DOMINICAN REPUBLIC PESOS AT A 10% ANNUAL RATE OF DISCOUNTING			
	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
.57	11,549	14,988	8,241	14,870
1	13,693	21,665	11,912	21,494
10	166,930	216,652	119,119	214,940
50	834,651	1,083,259	595,596	1,074,700
100	1,669,301	2,166,518	1,191,193	2,149,401
250	4,173,253	5,416,295	2,977,981	5,373,502
500	8,346,506	10,832,591	5,955,963	10,747,003
1,000	16,693,011	21,665,182	11,911,925	21,494,006
2,000	33,386,022	43,330,363	23,823,851	42,988,012
3,000	50,079,033	64,995,545	35,735,776	64,482,019

TABLE 9
 CANTALOUPE
 EXPORTS AND HECTARES CULTIVATED
 IN THE DOMINICAN REPUBLIC
 1983 TO 1985

ITEMS	1983	1984	1985
EXPORTS			
In Metric Tons	5,003	11,924	10,276
In 40 lb. Boxes	275,743	657,197	565,367
BASE CASE YIELD IN 40 LB. BOXES PER HECTARE	568	568	568
IMPLIED HECTARES CULTIVATED	485	1,157	997

TABLE 10
 CANTALOUPE PRODUCTION IN AJOA, THE DOMINICAN REPUBLIC
 PRODUCTION, YIELDS, AND INCOME IN DW PESOS
 1983-84

Hectares Cultivated	1,079
Boxes Produced	686,244
Yield in Boxes per Hectare	636
Grower Price per Box	4.00
Grower Income	2,744,976
Total Income	3,100,000
Implied Export Price per Box	4.55

Source: Incidencias de las Variables Aleatorias en la Provocación de Perdidas en Caca-Cacao-Melon-Ajo, y en Maria Trinidad Sanchez El Ajoz, Aseguradora Dominicana Agropecuaria, C. por A., Agrícola, Diciembre 1985, p. 18.

TABLE 13
IMPACT OF IMPROVED TECHNOLOGY ON THE PRODUCTION OF CANTALOUPE

ITEMS ALTERNATIVE CASES	YEARS										
	0	1	2	3	4	5	6	7	8	9	10
<hr/>											
ALTERNATIVE A: NET INCOME ABOVE BASE CASE IN PESOS PER HECTARE		701	1,411	2,039	2,560	3,033	3,397	3,780	4,184	4,608	5,055
<hr/>											
UNCHANGED HECTARES:											
Incremental % affected by Foundation's Technology Package:											
Initial hectare(s)		2,500									
First extension to growers			48.75%								
Last extension to growers				48.75%							
<hr/>											
INCREMENTAL INCOME GENERATED ON UNCHANGED HECTARES WITH LAGS, PESOS PER HA.:											
Initial hectare(s)		18	35	51	64	76	85	95	105	115	126
First extension to growers			342	688	974	1,258	1,479	1,658	1,843	2,040	2,246
Last extension to growers				342	688	974	1,258	1,479	1,658	1,843	2,040
Total		18	377	1,081	1,746	2,327	2,821	3,229	3,604	3,998	4,412
<hr/>											
CASE 1: 1,500 HECTARES AFFECTED Net income in thousands of pesos		25	566	1,621	2,619	3,491	4,251	4,841	5,408	5,997	6,618
CASE 2: 3,000 HECTARES AFFECTED Net income in thousands of pesos		50	1,131	3,242	5,239	6,982	8,464	9,688	10,811	11,990	13,237
<hr/>											
<hr/>											
ITEMS ALTERNATIVE CASES	YEARS										
	0	1	2	3	4	5	6	7	8	9	10
<hr/>											
ALTERNATIVE B: NET INCOME ABOVE BASE CASE IN PESOS PER HECTARE		1,227	2,309	3,023	3,387	3,770	4,173	4,598	5,044	5,514	6,008
<hr/>											
UNCHANGED HECTARES:											
Incremental % affected by Foundation's Technology Package:											
Initial hectare(s)		2,500									
First extension to growers			48.75%								
Last extension to growers				48.75%							
<hr/>											
INCREMENTAL INCOME GENERATED ON UNCHANGED HECTARES WITH LAGS, PESOS PER HA.:											
Initial hectare(s)		31	57	76	85	94	104	115	126	138	150
First extension to growers			598	1,121	1,474	1,851	1,858	2,075	2,241	2,459	2,688
Last extension to growers				598	1,121	1,474	1,851	1,858	2,075	2,241	2,459
Total		31	655	1,795	2,650	3,219	3,594	3,988	4,402	4,838	5,297
<hr/>											
CASE 1: 1,500 HECTARES AFFECTED Net income in thousands of pesos		46	583	2,592	4,020	4,829	5,390	5,921	6,603	7,258	7,946
CASE 2: 3,000 HECTARES AFFECTED Net income in thousands of pesos		92	1,966	5,364	8,039	9,658	10,781	11,953	13,206	14,515	15,892
<hr/>											

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Table 13
ALTERNATIVE CASES

	YEARS										
	0	1	2	3	4	5	6	7	8	9	10
ALTERNATIVE C: NET INCOME ABOVE BASE CASE IN PESOS PER HECTARE		438	650	1,325	1,773	2,133	2,449	2,782	3,132	3,501	3,890
UNCHANGED HECTARES:											
Incremental % affected by Foundation's Technology Package:											
Initial hectare(s)		2.50%									
First extension to growers			48.75%								
Last extension to growers				48.75%							
INCREMENTAL INCOME GENERATED ON UNCHANGED HECTARES WITH LAGS, PESOS PER HA.:											
Initial hectare(s)		11	22	33	44	55	66	77	88	99	
First extension to growers			214	429	646	864	1,084	1,194	1,356	1,527	1,707
Last extension to growers				214	429	646	864	1,084	1,194	1,356	1,527
Total		11	236	676	1,119	1,564	1,965	2,303	2,628	2,971	3,331
C											
CASE 1: 1,500 HECTARES AFFECTED Net Income in thousands of pesos		16	353	1,014	1,679	2,345	2,945	3,455	3,942	4,456	4,997
CASE 2: 3,000 HECTARES AFFECTED Net Income in thousands of pesos		33	707	2,027	3,358	4,691	6,026	6,909	7,885	8,912	9,993

	YEARS										
	0	1	2	3	4	5	6	7	8	9	10
ALTERNATIVE D: NET INCOME ABOVE BASE CASE IN PESOS PER HECTARE		964	1,944	2,755	3,391	3,936	4,350	4,783	5,239	5,719	6,224
UNCHANGED HECTARES:											
Incremental % affected by Foundation's Technology Package:											
Initial hectare(s)		2.50%									
First extension to growers			48.75%								
Last extension to growers				48.75%							
INCREMENTAL INCOME GENERATED ON UNCHANGED HECTARES WITH LAGS, PESOS PER HA.:											
Initial hectare(s)		24	49	69	85	98	109	120	131	143	156
First extension to growers			470	948	1,343	1,653	1,920	2,121	2,332	2,554	2,788
Last extension to growers				470	948	1,343	1,653	1,920	2,121	2,332	2,554
Total		24	518	1,486	2,376	3,095	3,682	4,160	4,584	5,029	5,498
D											
CASE 1: 1,500 HECTARES AFFECTED Net Income in thousands of pesos		36	778	2,230	3,564	4,642	5,523	6,240	6,875	7,544	8,247
CASE 2: 3,000 HECTARES AFFECTED Net Income in thousands of pesos		72	1,555	4,459	7,127	9,284	11,045	12,420	13,751	15,067	16,494

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TABLE 14

NET BENEFITS OF TECHNOLOGY ALTERNATIVES

PRESENT VALUE OF NET BENEFITS DISCOUNTED AT 20 % ANNUALLY	CASE 1 1,560 HECTARES	CASE 2 3,600 HECTARES
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in thousands of pesos

ALTERNATIVE A	6,072	16,349
ALTERNATIVE B	9,654	23,513
ALTERNATIVE C	2,933	10,070
ALTERNATIVE D	9,225	22,653

INCREMENTAL INCOME ON 1 HECTARE
AT ANNUAL RATES OF DISCOUNT:

	1 HA.	.69 HA.
5%	16,678	11,538
10%	12,105	8,374
15%	9,005	6,230
20%	6,851	4,740

PRESENT VALUE OF UNLAGGED
INCREMENTAL INCOME ON 1 HECTARE
AT ANNUAL RATES OF DISCOUNT:

	1 HA.	.69 HA.
5%	22,335	15,452
10%	16,693	11,549
15%	12,817	8,867
20%	10,082	6,975

ANNEX J-4
AGRICULTURAL DEVELOPMENT FOUNDATION
GENERAL BYLAWS

NAME, OBJECTIVE, DOMICILE AND DURATION

Article 1. An association named Fundación para el Desarrollo Agropecuario (Agricultural Development Foundation) is incorporated with the objective of promoting agricultural development in the Dominican Republic. With these objectives the association shall seek:

- a. To establish a financing system for projects generating, adapting and transferring technology, carried out by private enterprises, universities and technical schools, research centers and others.
- b. To create and/or strengthen mechanisms allowing diagnosis of situations, recommending and sponsoring research, transfer of technology and agricultural development projects in general.
- c. The generation and adaptation of agricultural, forestry, agroindustrial and related technologies suitable to the country's conditions and requirements.
- d. To compile and publish agricultural research findings carried out in the public and private sectors.
- e. To sponsor events tending to improve the capabilities of agricultural producers and professionals of the country.
- f. Transference of available agricultural technologies by holding workshops, field days, practical courses, radio and television programs, pamphlets, and other events.
- g. To hold events that allow the study and recommendation of policies and measures promoting agricultural development of the country.
- h. To carry out activities associated with the principal objectives of the Foundation.

Article 2. This will be a non-profit association incorporated in compliance with Law No. 520, dated July 26, 1920, or law that substitutes therefore, on non-profit associations. It shall have an oval seal bearing name, year of foundation, and any other detail which the Board of Directors may determine.

Article 3. The Association shall have an indefinite duration and may only be dissolved in the manner provided in Art. 56 of the Bylaws, in compliance to Law No. 520 mentioned above.

Article 4. The Association shall not pursue political nor religious partisan objectives, nor profit for its associates.

Article 5. The Association may carry out its projects through its own management, or jointly with other private or public entities.

Article 6. The Association shall not assume financial responsibility to carry out its projects if it does not possess the necessary resources to carry them out, or if it is not certain of collecting them in a timely manner.

Article 7. The Association, by virtue of incorporation, shall acquire legal corporate status in the Dominican Republic and in virtue of which will be able to:

- a) Appear in court as plaintiff or defendant before any court;
- b) Enter into contracts and consequently rent, possess, acquire all types of goods and real estate; sell, transfer and in any other way alienate or mortgage, give in security, antichresis or in any other way tax his(her) furniture and real estate.
- c) Take loans for purposes of the association, issue bonds to that effect and guarantee the bonds with mortgages, securities or otherwise issue shares and dividend coupons and guarantee them;
- d) Raise funds among the private sector and in general accept contributions in the form of money, material goods, services or trained personnel to carry out the purposes of this association;
- e) Practice as a corporate entity any authority necessary to carry out the above mentioned acts.

Article 8. The Association establishes its domicile in the city of Santo Domingo, Dominican Republic, in the locale arranged by the Board of Directors, but may be transferred to any other place in the Dominican Republic by resolution of the General Assembly of Associates.

ON CAPITAL STOCK

Article 9. The Association's capital stock varies and shall be made up of contributions made by associates or person outside the association to be invested in the projects shown in the social objective and to create a patrimonial fund as provided by the regulations.

Article 10. The shares issued shall be valued at RD\$100.00 each.

Article 11. The General Assembly of Associates shall determine the minimum amount of shares required for each associate to purchase.

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Article 12. No type of action or association certificate issued to members of the Association shall grant the recipient rights to the benefits or patrimony of the Association.

ON THE ASSOCIATES

Article 13. Persons with a moral reputation for honesty and good manners and who adhere to the clauses of these bylaws may be members of this Association. The General Assembly of Associates shall set the quotas to be paid by the associates.

Article 14. Requests for membership shall be done in writing and addressed to the Board of Directors. Fifty percent plus one of the votes of the members attending the Board of Director's meeting is required for approval of membership.

Article 15. Members of the Association shall enjoy all rights generally accruing to such status, in harmony with the clauses of these bylaws and in particular with the following:

- a) To participate in the election of the directors of the Association.
- b) To be elected for the same duty.
- c) To participate in all acts, meetings, assemblies, conventions, congresses, courses, programs, debates, studies and other activities being held by the Association or in which it participates, except when attendance is limited for justified reasons.
- d) To benefit from all services and facilities established or provided by the Association.

Article 16. The Association shall have the following types of associates:

- a) Founders: Individuals who at the moment of constitution of the present association sign the incorporation agreement.
- b) Active: Individuals who incorporate themselves as active members of the association, shall enjoy the rights and assume the responsibilities established in these bylaws or in the resolutions of the General Assembly of Associates.
- c) Affiliated: Individuals who do not intervene in the management or control of the Association, but who show desire to collaborate with its objectives in the committees established in these bylaws or in those commissions which may be created by the Board of Directors.

d) **Honorary:** Those individuals who are worthy of this distinction for deserving the esteem, consideration and respect of the association. The designation of this type of member shall be made by the Board of Directors before two thirds of its members and by secret vote. At this time, the rights and prerogatives conferred on the individuals honored with this distinction shall be determined.

Article 17. The members of the Association are subject to all the duties which in the generally admitted concept are derived from this designation, and especially to the following:

a) Contribute with enthusiasm and activity to the accomplishment of the objectives, progress and prestige of the Association.

b) Comply with the provisions of these bylaws and the resolutions validly adopted by the instruments and officials of the Association.

c) Strictly observe the rules of professional ethics adopted by the Association.

d) Submit themselves to those sanctions validly pronounced against them for justified cause.

e) Punctually and diligently comply with all the functions and commissions for which they were elected or designated.

f) Punctually comply with regularly established fees and contributions.

Article 18. The rights and duties of the members may be totally or partially suspended:

a) Upon request of the interested parties, when they are out of the country for a period of at least six months.

b) For disciplinary sanctions validly pronounced.

Article 19. Loss of membership status. Membership status is lost:

a) By absence

b) By death

c) By penal or disciplinary conviction.

d) If validly expelled by the Board of Directors.

e) For having failed to pay one year's fees, with 15 days' prior notice by the Treasurer of required payment .

In all cases foreseen in this Article the Board of Directors will provide for the distribution of the Association's membership list.

ON MANAGEMENT BODIES

Article 20. The association shall be governed by the General Assembly and the Board of Directors.

ON GENERAL ASSEMBLIES

Article 21. The General Assembly shall be made up of the founding members and of those active members who have acquired such right, in compliance to requirements established by the General Assembly.

Article 22. The General Assembly shall meet ordinarily each year, within the three months following the closing date of the fiscal year, following 15 days' notice by the Board of Directors, to hear the report of the previous year's activities of the Board and to elect the new Board for the subsequent year; the Ordinary Assembly will also hear any other issue submitted by any group of associates representing one fifth of those present.

Article 23. In order that the Assembly may deliberate, fifty percent plus one of the associates must be present. If this number is not present, the Board of Directors shall summon a new meeting one hour later, the same day; the Board shall deliberate and will validly decide whatsoever be the number of the attending associates. In the assembly sessions, ordinary as well as extraordinary, agreements shall be reached by decision approved by fifty percent plus one of the associates present.

Article 24. The annual report presented before the Ordinary Assembly shall include a detailed report of the Board's work and be accompanied by a descriptive general balance and of the income and outflow of expenditures during the year.

Article 25. The General Assembly shall meet extraordinarily each time the case merits, following a summons by the president, or by five or more members of the Board of Directors, or by one fifth of the active members. The quorum shall be the same as for the ordinary assemblies, established in Article 23.

Article 26. The attributions of the General Assembly are:

- a) Elect the Board of Directors;
- b) Elect a Commissary and an alternate Commissary;
- c) Reform the bylaws;
- d) Set extraordinary fees when required by the needs of the Association.

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f) Determine the dissolution of the Association, for which three quarters (3/4) of the active members, whose dues are paid, must be present at the session.

Article 27. The Commissary shall render an annual report adjusted to the norms of the Commercial Code.

ON THE BOARD OF DIRECTORS

Article 28. The Foundation shall be governed by a Board of Directors made up as follows:

one President
one Vice-President
one Secretary
one Treasurer
the members elected each year by the General Assembly

Article 29. The General Assembly shall determine the number of members of the Board of Directors, which may be no less than seven nor more than fifteen.

Article 30. The first Board of Directors shall be named by Constitutive General Assembly and the subsequent by the Annual General Assembly.

Article 31. The Board shall elect from its members a President, Vicepresident, Secretary and Treasurer. The same Board may also elect if it deems it necessary, a Vice Secretary and a Vice Treasurer. The other members will act as members.

Article 32. The members of the Board of Directors, with the exception of the first, shall serve for two years, with the understanding that they will continue in the performance of their functions until the election and assumption of duties of their elected successors.

Article 33. In order that there be continuity in the Foundation's management, the half of the members of the Board shall be renewed each year. To this effect, the first members shall be elected by the Constitutive General Assembly in the following manner: half of the members for three years and the other half for two years.

Article 34. Only individuals may act as members of the Board of Directors.

Article 35. Upon completing the term for which they were elected, the members of the Board of Directors may be reelected for succeeding terms.

Article 36. The Board of Directors shall meet in ordinary session at least every 3 months and extraordinarily as many times as the President may summon on his(her) own initiative or request half of the members of the Board. The meetings may be substituted by those of the Executive Committee, notwithstanding the Board of Directors shall meet at least every three months.

Article 37. The Board of Directors is validly appointed with the presence of fifty percent plus one of its members, as long as the President is among them or his representative. In the case of a tie vote, the President's vote shall be determining.

Article 38. The Board of Directors shall have the broadest faculties to freely manage the Association's business affairs with general power of attorney to manage its assets and to exercise all types of judicial or extrajudicial acts, with no limitation whatsoever, in accordance with law. The Board shall therefore be able to:

- a) Name and dismiss the Foundation's Executive Director, the other officials and employees, as well as set their attributions and remuneration;
- b) Represent the Assembly before third parties and before courts of justice;
- c) Comply with and enforce the provisions of these Bylaws, the regulations and resolutions dictated by it and by the General Assembly;
- d) Elect among the members of the Board the substitute for the Vice-President when such position is vacant;
- e) Decide the admission of new members, accept their resignation and grant them temporary leave;
- f) Enter into all types of contracts related to the development and performance of the objectives of the Association;
- g) Register mortgages and privileges and grant cancellation of same when pertinent;
- h) Name lawyers, agree with these on their fees, execute sentences, practice all types of embargoes, agree, disagree and stipulate on all matters of an administrative nature;
- i) Approve the budget of income and expenditures;
- j) Regulate the use of the Association's patrimonial fund, invest operational funds in compliance with the commitments for financing research projects, transfer of technology and others bearing upon the country's agricultural development. In the purchase of real estate and conservation of same, on employee salaries; in the celebration of acts, meetings, assemblies, conventions, congresses, courses, programs, debates, studies and other activities held by or in which the Association participates, as well as in any other expenditures with which it agrees;
- k) Authorize the sale, exchange, or encumbrance of the Association's assets;

l) Authorize the purchase of real estate, the receipt of donations and contracting of loans;

m) Dictate the internal operational regulations which it may consider necessary for the good performance of the Association, as long as these do not go against these Bylaws;

n) Open bank accounts against which only the President and Treasurer may draw or such others to whom the Board of Directors may delegate this operation.

ñ) Summon the General Assemblies and set the order of the day.

Article 39. The Board of Directors may delegate, under its responsibility, all or part of its attributions to an Executive Committee made up of the President and two members, to the President or to the Executive Director.

ON COMMITTEES

Article 40. The Board of Directors shall name the members of the Committees on Program, Finance and Budget, Nominations and Development. It may also name other permanent or transitory commissions, to whose charge the specified activities of the Associations are entrusted.

Article 41. The Board of Directors shall set the attributions and the number of members of each of the committees and commissions and shall designate these persons.

Article 42. The committees and the commissions shall name the Coordinator or President of same and shall draft their own regulations, which shall be approved by the Board of Directors and shall render to the Board reports on what is agreed or resolved in the sessions held.

Article 43. No committee or commission shall implement an agreement or resolution adopted within the limit of its attributions, without prior authorization of the Board of Directors.

ON THE PRESIDENT

Article 44. The President's attributions are:

a) Submit to the Board the applications of new associates.

b) Sign, together with the Secretary, the summons for meetings of the Board of Directors, and preside over same;

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- c) Represent the Association in justice and before third parties and sign in its name all types of contracts;
- d) Represent the General Assembly, the Board of Directors and the Association, and carry out all the actions not entrusted by these Bylaws to other organisms or persons dependent on same;
- e) Ensure that incorporation of the Association is in compliance to Law, and likewise request the approval of the modifications which may be introduced in the Bylaws and the regulations;
- f) Ensure that ongoing activities are carried out in compliance with the provisions of the Bylaws and regulations.
- g) Ensure the accurate compliance of the agreements of the General Assembly and the Board of Directors;
- h) Sign, together with the Treasurer, the checks issued by the Association;
- i) Sign, together with the Secretary, the invitations and public notices and documents representing the Association;
- j) Prepare the order of the day of the General Assembly and of the sessions of the Board of Directors;
- k) Authorize all disbursements made by the Association.

ON THE VICE-PRESIDENT

Article 45. The Vice-President will replace the President in the event of absence, sickness, incapacity or for any other reason that the latter is absent.

ON THE SECRETARY

Article 46. Attributions of the Secretary:

- a) Read the correspondence in meetings when pertinent;
- b) Draft correspondence agreed by the Board of Directors or the President;
- c) Maintain in the Association's office copies of correspondence issued or received and keep it always at the disposal of the Board of Directors;
- d) Sign, together with the President, the invitations and public notices and have summons circulated;

e) Draft the General Assembly's acts and those of the board of Directors' sessions and read them when pertinent;

f) Maintain the minutes, a membership register, control of absences, justified or not, of the members of the Board of Directors.

ON THE TREASURER

Article 47. Attributions of the Treasurer:

a) Oversee the general accounting of the Association and certify with the President the balance and statement of accounts to be submitted to the General Assembly and to the Board of Directors, as well as those presented to third parties;

b) Render in the meetings of the Board of Directors or the Executive Committee and in the Ordinary General Assembly, a report on the Association's accounts.

c) Receive and deposit in the banks indicated by the Board of Directors all the amounts of money that for any reason correspond to the Association;

d) Sign, together with the President, all the checks issued by the Association;

e) Affix copies of the detailed statement of accounts and operations of the Association which the Board may present, in a visible place in the office of the Association;

f) Sign the receipts for the collection of membership fees;

g) Maintain a register of the financial standing of the members which shall be kept to date and presented to the Board of Directors or to the General Assembly, when so requested, and

h) Keep an inventory of the assets of the Association, both real estate and furniture.

ON THE OTHER MEMBERS OF THE BOARD OF DIRECTORS

Article 48. The other members of the Board of Directors shall have the attributions assigned them by the General Assembly, the Board or the President.

EXECUTIVE MANAGEMENT

Article 49. Executive Management is charged with helping the President and the Executive Committee in all its operations. It shall be made up of the Executive Director and by the necessary auxiliary personnel.

Article 50. The Executive Director shall be the Foundation's principal technical and administrative official, responsible to the Board of Directors

and the President. The Board of Directors develops the requirements for the performance of this position.

Article 51. The Executive Director shall have the following responsibilities:

- a) Maintain a permanent relationship with the President and/or the Executive Committee and carry out their instructions;
- b) Direct the bureaucratic management and bureaucratic services of the Association;
- c) Carry out liaison functions between the decision-making organisms and the work committees and commissions established.
- d) Prepare the annual work programs and submit them to the consideration of the Board of Directors;
- e) Propose to the Board of Directors the designation of the Association's technical and administrative personnel;
- f) Promote and coordinate fund raising activities with national and international organisms, public relations, and other activities ordered by the directive body;
- g) Ensure the efficient execution of the projects and activities contracted or executed by the Association;
- h) Prepare and remit the reports which the Board of Directors, Executive Committee or the President may require and with the regularity established by these;
- i) Ensure with the Treasurer the good operation of the Association's finances including the implementation of the Budget and the income and disbursement of funds;
- j) Approve justification documents for checks to be issued;
- k) Any other matter that within the institutional framework of the Association is entrusted by the management bodies or the President.

ON THE ORDER OF THE DAY AT THE SESSIONS OF THE BOARD OF DIRECTORS

Article 52. Besides the matters included by the President in the order of the day in the ordinary sessions of the Board of Directors the following, at least should be included:

- a) Reading of the minutes of the prior meeting
- b) The Treasurer's financial report

ON SANCTIONS

Article 53. The officials of the Association or of the Board of Directors who would carry out any act or contract commitments for the Association without following the norms of the Bylaws nor authorized by the Bylaws, shall be personally responsible, not only for the act itself, but for the damage and prejudice caused. The members of the Board of Directors who vote against such acts are not held responsible.

ASSOCIATION BOOKS

Article 54. The Association shall maintain the following books, in compliance to Article 7 of Law No. 520 dated July 26, 1920, on Non-profit Associations:

a) a register where the names and surnames, occupation and domicile of the associates are noted;

b) an inventory where all furniture and real estate belonging to the Association shall be noted;

c) the books judged appropriate for the Association to keep orderly accounts, showing all income and disbursements with an exact indication of the origin of the former and the investment of the latter.

Paragraph. The books required by Article 7 of Law 520 of 1920, shall be numbered and stamped on the first and last pages by the Justice of the Peace of the judicial district of the National District, in which the Association's office is located.

ON THE DISSOLUTION OF THE ASSOCIATION

Article 55. Dissolution of the Association by the will of the associates, may only be resolved by a General Extraordinary Assembly convoked for this purpose, made of not less than three quarters (3/4) part of the members of the Association, by resolution taken by the majority of the 3/4 part of the members present.

Article 56. In case of dissolution, the procedure established in Article 12 of Law No. 520 dated July 26, 1920 will be followed and the amounts obtained from the sale of the goods shall be distributed among societies or associations pursuing similar objectives to those of this association or shall be returned to the Dominican State, in the case that the former would have had their origin in donations from the latter.

Article 57. The fiscal years shall have a duration of one year ending on June 30th of each year.

Article 58. A balance will be drawn each year and the necessary financial statements shall be presented to clearly show the Association's financial status, which should be accompanied by an external auditor's opinion prepared by an Authorized Public Accountant.

TRANSITORY PROVISIONS

Article 59. The General Organization Meeting shall designate among its members one or several who will be in charge of requesting before the Executive Power the incorporation of this Association and comply with the other publicity procedures indicated by Law.

These Bylaws done and drawn in four (4) originals, one for deposit in the Association's safe; another to be delivered to the Attorney General of the Republic so he can request the Incorporation Decree from the Executive Power; and the other two to be deposited in the Secretariat of the Civil and Commercial Chamber of the Judicial District and in the Secretariat of the Justice of the Peace of the Judicial District, both in the National District.

In Santo Domingo, National District, Dominican Republic, on the _____ day of the month of March of the year nineteen hundred and eighty-seven (1987).

NAMES AND SIGNATURES

José Miguel Bonetti	Sociedad Industrial Dominicana (Manicera)
Luis Crouch	Industrias Asociadas
Fernando Villeya	FERSAN
Mario Cabrera	Industrias Lavador
José del Carmen Ariza	Cartonera Dominicana
Ramón Mendoza	Central Romana
Miguel Barceló	Barceló Agroindustrial

1987