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

ROCAP

PROJECT PAPER

EXPORT INDUSTRY TECHNOLOGY SUPPORT
(EXITOS)

AID/LAC/P-700

PROJECT NUMBER: 596-0165

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT DATA SHEET	1. TRANSACTION CODE <input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete <input checked="" type="checkbox"/> A	Amendment Number _____	DOCUMENT CODE 3
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2. COUNTRY/ENTITY ROCAP/Guatemala	3. PROJECT NUMBER 596-0165
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4. BUREAU/OFFICE Latin American, Caribbean 05	5. PROJECT TITLE (maximum 40 characters) Export Industry Technology Support (EXITOS)
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6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 09 30 95	7. ESTIMATED DATE OF OBLIGATION (Under 'B' below, enter 1, 2, 3, or 4) A. Initial FY <u>91</u> B. Quarter <u>4</u> C. Final FY <u>95</u>
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8. COSTS (\$000 OR EQUIVALENT \$1 =)						
A. FUNDING SOURCE	FIRST FY <u>91</u>			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total				8,500		8,500
(Grant)	(5,500)	()	(5,500)	(8,500)	()	(8,500)
(Loan)	()	()	()	()	()	()
Other U.S.						
1.						
2.						
Host Country						
Other Donor(s) (USAIDs)	-		-	5,000		5,000
TOTALS	5,500		5,500	13,500		13,500

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) ARDN	233					5,000		5,000	
(2) PSEE	233					2,500		2,500	
(3) EHR	233					1,000		1,000	
(4)									
TOTALS						8,500		8,500	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) 840 874	11. SECONDARY PURPOSE CODE
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12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each) A. Code BL TECH TNG	B. Amount
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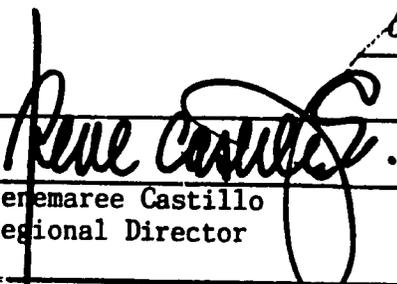
13. PROJECT PURPOSE (maximum 480 characters)

To increase the sales and/or volumes of Central American non-traditional exports.

14. SCHEDULED EVALUATIONS Interim MM YY MM YY Final MM YY 07 93 05 95	15. SOURCE/ORIGIN OF GOODS AND SERVICES <input checked="" type="checkbox"/> 000 <input type="checkbox"/> 941 <input type="checkbox"/> Local <input checked="" type="checkbox"/> Other (Specify) <u>CA/P</u>
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16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)

The Controller hereby certifies that the methods of financing implementation and audit have been reviewed and hereby approves pertinent sections.

17. APPROVED BY	Signature:  Title: Irene Castille Regional Director	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION Date Signed: MM DD YY 08 29 91
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PROJECT AUTHORIZATION

Name of Country: Central America Regional (Guatemala, Panama, Honduras, Costa Rica, Belize, El Salvador, Nicaragua).

Name of Project: Export Industry Technology Support Project (EXITOS).

Project Number: 596-0165.

1. Pursuant to Sections 103, 105 and 106 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Export Industry Technology Support Project (EXITOS) for Guatemala, Panama, Honduras, Costa Rica, Belize, El Salvador, and Nicaragua, involving planned obligations not to exceed Eight Million Five Hundred Thousand United States Dollars (US\$ 8,500,000) in development assistance grant funds over a four year period from 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 costs for the Project. An additional US\$ 5.0 million is expected to accrue to the Project from Central American USAIDs over the life of the Project. The planned life of the Project is four years from the date of initial obligation.
2. EXITOS will contribute to broad-based, sustainable economic growth in Central America by increasing the sales and/or volumes of non-traditional agricultural (NTA) exports from Central America. Continuing the types of activities implemented under ROCAP's Non-Traditional Agricultural Export Support Project (PROEXAG), EXITOS will provide assistance at all stages of the export chain and will focus on five key constraints to increasing NTA exports. Through funding of technical assistance (TA), training, limited commodities, applied research, special studies, and support to the U.S. Department of Agriculture's Agricultural Marketing Service, the Project will support: (1) institutional development of counterpart export federations and commodity and trade groups; (2) agricultural production; (3) post harvest crop management and quality control; (4) crop marketing; and (5) information dissemination and technology transfer.
3. The contracts 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. Source and Origin of Commodities, Nationality of Services

All commodities, services and their supplier's financed by A.I.D. under the Project shall have their source and origin in the United States, except as A.I.D. may otherwise agree in writing. Under A.I.D.'s Buy America guidance, no local procurements are authorized except as A.I.D. may otherwise agree in writing with the following exceptions: (1) Commodities of U.S. origin, which are otherwise eligible for financing, if the value of the transactions is estimated not to exceed \$100,000 exclusive of transportation costs; (2) Commodities of Geographic Code 935 origin, if the value of the transaction does not exceed \$5,000; (3) Commodities and services which are available only locally, including utilities; communications; rental costs; petroleum, oils and lubricants; newspapers, periodicals and books published locally; and other commodities, services and related expenses that, by their nature or as a practical matter, can only be acquired, performed, or incurred locally; and (4) Technical services when the value of the transactions is estimated not to exceed \$250,000. Ocean shipping financed by A.I.D. under the Grant shall be financed only on flag vessels of the United States, except as A.I.D. may otherwise agree in writing.



Irenemaree Castillo
Director
Regional Office for Central American Programs

8.29.91

(Date)

Clearances:

As shown on Action Memorandum

(5842j)

Project Paper

**EXPORT INDUSTRY TECHNOLOGY SUPPORT PROJECT
(EXITOS)
(596-0165)**

UNCLASSIFIED

**United States Agency for International Development
Regional Office for Central American Programs
(ROCAP)**

July 1991

**Authorized: US\$ 8,500,000
(Additional Estimated Buy-Ins: US\$ 5,000,000)**

Date: August 1991

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Project Paper

Export Industry Technology Support Project
(EXITOS: 596-0165)

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Acronyms and Abbreviations

ABS	Annual Budget Submission (AID).
A.I.D.	United States Agency for International Development.
AID/W	Agency for International Development/Washington.
AMS	USDA Agricultural Marketing Service/Miami.
APENN	Nicaraguan Association of Producers and Exporters of Non-Traditional Products.
ARDN	Agriculture, Rural Development and Nutrition Appropriation (AID).
AWP	Annual Work Plan.
BABCO	Belize Agri-Business Company.
BEO	Bureau Environmental Officer (AID).
CA	Central America.
CACM	Central American Common Market.
CATIE	Tropical Agriculture Research and Training Center.
CBD	Commerce Business Daily.
CBI	Caribbean Basin Initiative.
CINDE	Costa Rican Coalition for Development Initiatives.
COP	Chief of Party.
CP	Congressional Presentation (AID).
DIVAG	The Costa Rican Export Federation.
EA	Environmental Assessment.
EAI	Enterprise for the Americas Initiative.
EEC	European Economic Community.
EOP	End of Project (AID).
EOPS	End of Project Status (AID).
EPA	U.S. Environmental Protection Agency.
EPZ	Export Processing Zone.
EXITOS	Export Industry Technology Support Project.
FAR	Federal Acquisition Regulations (USG).
FDA	U.S. Food and Drug Administration.
FFX	Honduran Federation of Associations of Agricultural and Agroindustrial Products and Exporters.
FTZ	Free Trade Zone.
FUSADES	Salvadoran Foundation for Economic and Social Development.
FX	Foreign Exchange.
FY	Fiscal Year.
GEXPRONT	Guild of Exporters of Non-Traditional Products of Guatemala.
GEXSPAN	Guild of Exporters of Non-Traditional Crops of Panama.
IDB	Inter-American Development Bank.
IEE	Initial Environmental Examination (AID).
IQC	Indefinite Quantity Contract (AID).
LAAD	Latin American Development Bank.
LAC	Latin America/Caribbean Bureau (AID).
LC	Local Currency.

Acronyms and Abbreviations

(con't.)

LOP Life of Project.
NT Non-traditional.
NTA Non-traditional Agriculture(al).
NTAE Non-traditional Agricultural Exports.
NTE Non-traditional Exports.
OYB Operating Year Budget (AID).
PACD Project Activity Completion Date (AID).
PIL Project Implementation Letter (AID).
PIO Project Implementation Order (AID).
PIO/T Project Implementation Order/Technical (AID)
PP Project Paper (AID).
PROEXAG Non-Traditional Agricultural Export Support Project (USAID/ROCAP).
PSC Personal Services Contract (AID).
RCMO Regional Commodity Management Officer (AID).
RCO Regional Contracts Officer (AID).
RDSS Regional Development Strategy Statement (ROCAP).
RENAEM Regional Environmental and Natural Resources Management Project.
RFP Request for Proposal.
RLA Regional Legal Advisor (AID).
ROCAP Regional Office for Central America and Panama (AID).
SAR Semi-Annual Report (AID).
TA Technical Assistance.
TI Trade and Investment
U.S. United States.
USDA United States Department of Agriculture (United States).
USDH United States Direct Hire Employee (AID).
USAID United States Agency for International Development.
ZAMORANO The Pan American Agricultural School (Yeguaré Valley, Honduras).

Project Paper

Export Industry Technology Support Project (596-0165)

1.0 PROJECT SUMMARY AND RECOMMENDATION

The Project. The Export Industry Technology Support Project (EXITOS) is a four year, US\$ 8.5 million activity (plus buy-ins) that will contribute to broad-based, sustainable economic growth in Central America by increasing the sales of non-traditional (NT) exports from Central America. Continuing the types of activities implemented under ROCAP's successful Non-Traditional Agricultural Export Support Project (PROEXAG), EXITOS will provide assistance at all stages of the export chain: production, transport, packaging, shipping and marketing.

Background. The NTE trickle which began two decades ago in Central America (CA) has accelerated sharply in recent years. New market opportunities have been discovered, the products to meet them have developed at a rapid pace, and local producers can now respond with increasing effectiveness to the problems of meeting the quality and quantity requirements of international buyers. The successes of the past ten years, however, belie the fragility of the ever changing NTE subsector: the industry is now larger, the problems are more complex, and they require greater attention if CA is to compete effectively in an increasingly open global marketplace. The principle cause of failure among NTE businesses remains a lack of "know how". Whether the specific problem is the product, the market, technical ability, the managerial skills to operate in a changing environment, or simply an unwillingness to accept that the environment is constantly changing, producers and exporters continue to want and need the technical assistance (TA) and training required to help them successfully compete internationally.

PROEXAG, by offering assistance at all points along the NT export chain, filled a niche in the expansion of CA's foreign exchange (FX) earning capacity, which is in turn critical to the prospects for long-term economic growth in the region. Through a skillful, energetic and well targeted campaign of promotion and technical assistance, PROEXAG introduced new crops, new production and processing methods, new buyers, new growers, new exporters and new markets. There is a clear consensus that PROEXAG--by improving agribusiness technology, improving trade linkages with world markets, increasing the availability of trade opportunities, providing business training, and introducing new production technology--contributed directly and significantly to major growth in CA NT exports over the life of project (LOP).

Project Approach. EXITOS will build on PROEXAG's success. The Project purpose is to increase the sales of Central American non-traditional exports, and it will do this by improving the institutions, corporations, commodities and businessmen that are the backbone of the NTE subsector. The Project has five key foci: (1) institutional development of counterpart export federations and commodity and trade groups; (2) agricultural production; (3) post harvest crop management and quality control; (4) marketing; and (5) information dissemination and technology transfer. Objectives in these five areas will be met through funding of long- and short-term TA, training, commodities, applied research and special studies, and through support of the USDA Agricultural Marketing Service in Miami. EXITOS will also help Central America's NTE businesses develop the institutional linkages required to obtain quality export support services indefinitely.

The Regional Approach. Many USAIDs in Central America are developing their own NTE promotion projects, working through national export federations and host government entities. These projects will contribute significantly to an increase in both NT exports and entrepreneurial profitability in CA over the coming years. Many NTE needs in Central America, however, either cannot be met bilaterally or can more efficiently and cost-effectively be met by a high quality TA team with a regional mandate. The nature of these needs, and the proven ability of a world-class TA team to meet them, provide a compelling rationale for continuing the types of services provided under PROEXAG.

Project Achievements. At the end of the Project, export sales of EXITOS client businesses will have increased by 15% per year and export volumes will have increased by 12% per year over the LOP. In the aggregate, NT export sales for CA will have increased by US\$ 60 million and export volumes will have increased by 40%. NTE businesses will be increasingly aware of and knowledgeable about export market opportunities, they will increasingly exploit those markets, and they will increasingly use improved technology. There will be an increased indigenous NTE technical services capacity, better NTAE product quality, new products, and about 7500 newly trained businessmen from 500 CA corporations.

Beneficiaries. The ultimate benefits to derive from EXITOS are increased foreign exchange earnings and improved employment security in all sectors of the CA economies. The proximal benefits will be improved managerial skills, better operational efficiencies, lower per unit production costs, improved knowledge of international markets, and greater market competitiveness by CA export entrepreneurs and businessmen operating all along the export chain. The proximal beneficiaries will therefore be the export businessmen and their work forces, which constitute a significant proportion of Central America's working population. These benefits will be in the form of more income for workers as production expands, and more profits for owners through improved operational efficiency. Women will be major workforce beneficiaries, especially in food processing and agriculturally related assembly operations.

Recommendation. EXITOS activities have been carefully analyzed, and are consistent with Central American, AIL/W, bilateral USAID and ROCAP priorities and strategies. Technical, economic, financial, social, institutional and environmental analyses indicate that the Project purpose is attainable in four years with the resources allotted; that the Project will have significant

positive impact on export promotion and the national economies of the region; and that significant adverse social or environmental impact will not result from Project implementation. It is therefore recommended that EXITOS be authorized and obligated in FY 1991.

2.0 PROJECT RATIONALE

To the novice, international export markets are both intimidating and frightening. The quality requirements of buyers seem unreasonably demanding; minimum volumes are impossibly high; and the risks and costs of shipment, entry, acceptance and payment appear daunting. Nevertheless, the requisite factors are in place in Central America for a strong export market: productive land, good weather, a strong labor force, capital availability, improving policies, and--most importantly--an entrepreneurial core in each country that is ready, willing, and able to take the plunge.

The non-traditional export trickle which began about two decades ago--flowers from Costa Rica, roses from Guatemala, melons from El Salvador--accelerated sharply in recent years. The industry is now larger, however, the problems are more complex, and they require more attention. The successes of the past ten years belie the fragility of the ever changing produce industry: consumer likes and dislikes, new pest problems, climatic and economic fluctuations, and market shifts. The client group also is expanding as new countries (e.g., Nicaragua, Belize), new crops (e.g., mangoes, rambutan, exotic flowers) and new producers continue to enter the arena.

Among NTE businesses, the principal cause of failure remains a lack of "know how". Whether the specific problem is the product, the market, technical ability, the managerial skills to operate in a changing environment, or simply an unwillingness to accept that the environment is constantly changing, producers and exporters continue to need the TA and training required to help them successfully compete in the international marketplace. The primary problem for non-traditional exporters is keeping abreast of both market changes and the technological, informational and managerial practices needed to compete profitably in those changing markets.

PROEXAG successfully addressed this problem by concentrating on the produce "deal"--the chain of export transactions that lead from product to shipper to import market to consumer. This provided both optimum intervention points and a vehicle by which to focus the TA required to address the problem. In short, the most important lesson learned from PROEXAG was that by identifying weak links in the export chain, providing the "know how" to overcome those weaknesses using available information and technology, and applying this knowledge to fix those weaknesses, NT exports could increase dramatically. PROEXAG also proved that while many CA firms operate inefficiently, outputs can increase with little or no increase in production costs given management training and production improvements.

Many USAIDs in Central America are developing their own NTE promotion projects, working through national export federations and host government entities. These projects will contribute significantly to an increase in both NT exports and entrepreneurial profitability in CA over the coming years. Many NTE needs, however, either cannot be met bilaterally or can more efficiently and cost-effectively be met by a high quality TA team with a regional mandate. These needs include: (1) assistance with export deals involving transnational actions; (2) maintenance of international marketing linkages; (3) mitigation of regional crop/pest problems; and (4) assistance

with applied NTA research for regional application that is consistent with the agile and demand-driven NTA research approach of the private sector. In addition: (1) there exist very few of the top quality, highly specialized NTA experts required to meet regional NTE needs; (2) regional demand is--but bilateral demand is not--sufficient to keep these specialists occupied full time; (3) regional coordination on common exports offers significant economies of scale; (4) commodity price data base information sharing cannot efficiently be conducted bilaterally; and (5) the US Environmental Protection Agency (EPA) requires a multinational approach in Central America for reregistration of pesticides for new uses. The ability to meet these needs--and the efficiency and cost-effectiveness with which they can be met by a world-class TA team with a regional mandate--provide a compelling rationale for continuing the types of services provided under PROEXAG.

2.1 RELATIONSHIP TO CENTRAL AMERICAN PRIORITIES AND STRATEGIES

In June 1990, the Central American and Panamanian Presidents adopted an Action Plan for Central America in which they instructed their Ministers to "encourage the increase of non-traditional agricultural exports". This presidential mandate underscores an already widespread trend towards support of non-traditional exports in CA. All countries in the region, for example, have either officially or unofficially made NTE a major part of their economic strategies, and subsidized support for locally produced traditional crops and a focus on import substitutions have gradually been replaced by programs to generate FX earnings. The countries have realized that diversifying into non-traditional agriculture not only provides foreign exchange, but also a means of increasing income and employment among less advantaged portions of the populace.

CA countries have also begun providing concrete incentives to promote NT exports. These include one stop windows for export permits, tax incentives for foreign investors, formation of national agencies for the promotion of NTE, allocation of public resources for increased extension services, and improvements in research and laboratory facilities. In Guatemala, for example, the NTE guild formed in the early 1980's has received official support through exchange rate concessions and a one stop export window at the Central Bank. In El Salvador, the Government (and USAID/ES) support the Salvadorean Foundation for Economic and Social Development (FUSADES), a private sector business-oriented organization. And in Costa Rica, the Government has been responsive to NTE needs while the private Costa Rican Coalition for Export Development Initiatives (CINDE) acts as a channel for external support to the export industry. After a decade of isolation, moreover, Nicaraguan private growers and exporters sold their first melon shipment after receiving assistance from PROEXAG.

Although not all countries are able to implement all of the necessary actions required for a smooth transition into NTE, most have the political will to do so--what they lack are the economic resources required to fully develop the NTE subsector. The private sector has increasingly filled the gap, however, by taking greater responsibility for their own operations in every country of the region. While becoming more active in lobbying their governments to

provide new incentives for increased NTA exports, for example, the private sector has also formed export groups to promote their products outside of the region. Although the policies in place are not perfect, the position of NTE has been elevated among CA governments as leaders no longer just pay lip service to these industries. And as long as there is political stability, adequate energy resources, no decline in export market openness, no unusual weather calamities, and the export policy does not deteriorate, NT exports should continue to grow rapidly over the near- to mid-term.

2.2 RELATIONSHIP TO A.I.D. PRIORITIES AND STRATEGIES

2.2.1 Agency Priorities and Strategies

EXITOS is fully consistent with all major and applicable Agency-related legislation, programs and strategies. Under the Enterprise for the Americas Initiative (EAI), for example, an Interamerican Development Bank (IDB)-administered EAI Fund will finance business infrastructure, market-oriented training and education, and other investment-related projects including those related to improving understanding of financial and investment markets. In addition, under a debt for equity initiative, the EAI calls for establishing a local currency (LC) fund to support trade and investment. While the administrative details for this LC Fund have yet to be worked out, EXITOS, through assistance to export businesses, should improve the ability of client businesses to compete for EAI LC funds potentially available to them.

On a different scale, the Caribbean Basin Initiative (CBI) may be the broadest U.S. economic development policy for the CA region. Non-traditional exports to the U.S. from the CBI region have sharply increased since initiation of the CBI, and now represent 57% of total exports to the U.S. from CBI countries compared to 28% in 1983. EXITOS will not only reinforce AID's continued support for the CBI, but may serve as a useful precedent in setting up similar efforts elsewhere in the CBI region.

More specific to A.I.D. regional programs, EXITOS will contribute directly to achievement of broad-based, sustainable economic growth--Objective II under the Latin America/Caribbean (LAC) Bureau's new Economic Assistance Strategy for Central America 1991-2000 (the "LAC 2000 Strategy"). Designed as a central component of ROCAP's new Trade and Investment (TI) Program, EXITOS will (1) strengthen private sector organizations promoting trade and investment; (2) promote agribusiness development and trade linkages with U.S. and neighboring markets; and (3) increase investment in market information systems and technology development and dissemination.

2.2.2 Bilateral USAID Priorities and Strategies

PROEXAG was one of the first projects in Central America to focus strictly on non-traditional exports. As a result of the CBI, however, and mostly notably the first CBI conference held in Miami in 1983, most bilateral USAIDs began incorporating NTE activities into existing projects or designing new NTE-specific activities. These projects were reviewed during EXITOS design in light of changing Bureau priorities and bilateral Mission needs in the region.

USAID/Honduras has provided assistance to agricultural export cooperatives that began exporting melons and cucumbers in 1984, and helped establish a Federation of NTA export associations--The Honduran Federation of Associations of Agricultural and Agroindustrial Products and Exporters (formerly FEPROEXAAH and now FPX) in 1984. The Mission also helped establish and develop FHIA, a foundation for agricultural research. Most of the research efforts of this organization have been directly geared towards agricultural exports, including traditional (e.g. bananas), established (e.g. cucumbers, pineapple, mangoes) and new crops (e.g. calla lilies, pepper, hearts of palm). Both organizations continue to receive USAID support, and have played a major role in developing an agricultural export strategy for Honduras. In 1991, USAID/Honduras also developed a strategy for export development with both organizations playing a role in assuring quality control over produce exported from Honduras.

USAID/Guatemala began providing support in 1984 to an already established guild of NT exporters in Guatemala--the Guild of Exporters of Non-traditional Products of Guatemala (the GREMIAL). This Guild was formed in 1982 in response to the CBI. Its primary functions were originally political and policy oriented, and the organization was successful in negotiating a one stop export window as well as a more favorable exchange rate. With USAID support, the GREMIAL became increasingly involved in all aspects of NTA exports. This included organizing trade fairs, establishing commodity commissions, training, providing market information, and establishing a research foundation. The GREMIAL has become the cornerstone for much of USAID/Guatemala agricultural strategy, and will continue to receive bilateral support.

USAID/El Salvador began providing support to the agricultural diversification division of FUSADES in the early 1980s, and increased funding as the need for increased agricultural development became apparent. In the early years, much of this support was directed towards import substitution programs, but there was a shift towards NTE as the benefits became more apparent. This assistance included demonstration trials and research involving export crops, and FUSADES opened offices in the US and Europe to support NT exports. USAID/ES continues to support these organizations, and has recently developed a program for constructing a laboratory that will be used to help improve the quality of El Salvadorean crops.

USAID/Costa Rica has provided support to the Costa Rican export federation (DIVAG), and recently DIVAG was placed directly under the managerial authority of the Costa Rican Coalition for Development Initiatives project (CINDE). During the early years of the CBI, DIVAG (under the name CAAP) was active in providing TA to a select group of producers growing such crops as ornamental plants, cut flowers and strawberries. CINDE has also opened offices in the US and Europe, has recently received additional support from USAID, and is installing a laboratory to enable them to provide quality controls on exported produce.

USAID/Panama lent support to an early generation Panamanian export federation (CONDEPRO) to help with NTE, but due to political problems support was withdrawn and the organization ceased to have any real purpose. Recently, however, the Mission began designing a new project that will include as a principal counterpart the newly formed Guild of Exporters of Non-traditional Crops of Panama (GREXPAN). Similarly, the newly formed NTE Nicaraguan

Association of Producers and Exporters of Non-traditional Products (APENN) will be the principle recipient of USAID/Nicaragua support for NTE, and the Belize Agri-Business Company (BABCO) is receiving limited support from USAID/Belize.

NTE projects have been a key component of the agricultural portfolios of almost all bilateral Missions in Central America. With the success of these programs, and with increasing emphasis on North American trade and investment at the U.S. Congressional level, NTE programs should receive increasing support for the foreseeable future. Cognizant of this, ROCAP has designed EXITOS to continue the provision of NTE support that has proven of such demonstrable utility and value to bilateral programs under PROEXAG.

2.2.3 ROCAP Priorities and Strategies

EXITOS is fully consistent with ROCAP strategies and priorities for the 1990's. While ROCAP does not currently have an approved Regional Development Strategy Statement (RDSS), ROCAP's Trade and Investment (TI) Program is expanding rapidly and will be a central component of the Mission's portfolio for the 1990s. ROCAP's TI Program will directly contribute to attainment of five LAC Bureau sub-objectives related to broad-based, sustainable economic growth in Central America:

- (1) Further liberalization of external and intraregional trade in goods and services;
- (2) Strengthened private sector organizations promoting trade and investment, and strengthened cooperation with other U.S. Government TI promotion efforts;
- (3) Strengthened ability of the financial sector to mobilize domestic resources and channel them efficiently to the most productive sectors of the economy; and promotion of access to outside sources of long-term investment capital;
- (4) Stimulated agricultural production and trade through removal of macroeconomic and sectoral policy constraints; promotion of technology improvements; reduction in tenure insecurity; and promotion of agribusiness development and trade linkages with U.S. and neighboring markets; and
- (5) Increased investment in infrastructure, market information systems and networks, education and training, and technology development and dissemination.

All ROCAP projects whose principal intent is to contribute to these LAC objectives will collectively constitute ROCAP's TI Program, managed by ROCAP's proposed new Office of Regional Economic Analysis and Trade Development (OREAT). In addition to select projects in ROCAP's existing portfolio, EXITOS will be a cornerstone of the TI Program responsible for attainment of four ROCAP strategic objectives: (1) increased sales of non-traditional exports;

(2) improved agribusiness technology; (3) improved trade linkages to world markets; and (4) increased availability of trade opportunities, business training, and new production technology.

2.3 RELATIONSHIP TO PREVIOUS PROJECTS

PROEXAG, EXITOS' five-year, US\$ 9.0 million predecessor, was authorized in December 1985 and became operational in 1986 with the execution of a consulting services contract. The contract team includes an experienced group of technicians providing a wide range of support to private export federations, producer associations, companies, individuals, and bilateral programs in Guatemala, El Salvador, Honduras and Costa Rica (PROEXAG was amended in 1990 to incorporate Nicaragua and Panama). The general consensus is that PROEXAG provided substantial impetus to the impressive growth in Central American NTE exports over this period.

Despite the chaotic conditions which characterized the region's economies throughout much of the 1980s, and the political buffeting all regional efforts have taken, production and export of NTE crops have risen in PROEXAG's original four participating countries (Guatemala, Honduras, Costa Rica and El Salvador). After more than four years, production and export sales are steadily higher in these countries and future prospects appear promising. The longer PROEXAG has run, the greater seem to have been its contributions to this trend. EXITOS will continue this support by building on PROEXAG's success, and will help Central America's NTE businesses more effectively compete in the international marketplace. The PACD for PROEXAG is September 30, 1991, which should allow for a relatively smooth transition to EXITOS.

The Latin American Development Bank (LAAD) has been active in providing loans to NTE enterprises in Central America for more than twenty years, and ROCAP has provided over US\$ 20 million to LAAD in support of these development loans. All current loans are for NTE projects, but are not strictly devoted to production--the majority in fact have been for infrastructure, capital improvements or working capital. What sets LAAD apart from traditional banks is that their loans are based more on the ability of the entrepreneur rather than the project itself: most loans tend to be provided to "risk takers". Early loans tended to focus on more established products such as sesame, macadamia, and flowers, but they have recently branched out into a wider range of products including instant coffee, goose pate and broom handles. While operationally separate, the success of the LAAD program adds weight to the assessments of future growth from this new industry.

3.0 PROJECT DESCRIPTION

3.1 PROJECT OBJECTIVES: GOAL, PURPOSE AND OUTPUTS

Goal. Non-traditional exports contribute significantly to broad-based sustainable economic growth in three major ways: (1) they expand and diversify employment opportunities; (2) they result in an increase in personal and corporate incomes; and (3) they increase foreign exchange earnings. Increased FX earnings are especially important for developing countries, and FX earnings from non-traditional exports alone in Central America have risen by about 20% per year in the past five years. Much of this is due to the success of NT export promotion activities such as those occurring under PROEXAG.

The goal to which EXITOS will significantly contribute is Strategic Objective II of the LAC 2000 Strategy for Central America, i.e., "broad-based, sustainable economic growth in Central America" EXITOS will specifically and directly contribute to this goal by (1) stimulating agricultural production and trade; (2) strengthening private sector organizations promoting trade and investment; and (3) increasing investment in market information systems and technology development and dissemination.

Purpose. The specific Purpose of EXITOS, and a key strategic objective of ROCAP's TI Program, is "to increase the sales and/or volumes of Central American non-traditional exports". EXITOS will effect this through targeted interventions that will improve NTE promotional institutions, CA corporations involved in NT exports, NTE commodities, and the businessmen who are the backbone of the NTE subsector in Central America.

Outputs. EXITOS outputs fall into four corresponding categories. Institutional achievements will include increased indigenous NTE technical services capacity. Corporate achievements will include improved NTE businesses that will: (1) be increasingly aware of and knowledgeable about export market opportunities; (2) increasingly exploit those markets; and (3) increasingly using improved improved technology. Commodity achievements will include better product quality and new products, and human achievements will include trained businessmen.

3.2 DESCRIPTION OF PROJECT ACTIVITIES

3.2.1 Key Project Foci

The Agricultural Component of EXITOS is a four year, US\$ 8.5 million activity (plus buy-ins) that will produce the Project outputs and achieve the Project purpose by focussing on five key constraints to increasing the sales and volumes of NTA exports. These five foci are identical to those upon which PROEXAG concentrated: (1) Institutional Development of Counterpart Export Federations and Commodity and Trade Groups; (2) Agricultural Production; (3) Post Harvest Crop Management and Quality Control; (4) Marketing; and (5) Information Dissemination and Technology Transfer.

Institutional Development of Export Organizations. Each country in Central America has an agricultural export federation. Some are more developed than others, yet all--as is the industry--are fragile institutions. Part of their fragility stems from the reality that there are few organized, "legitimate" producer- or commodity-specific groups belonging to these organizations or providing support to them. Most commodity groups form to confront an immediate problem or emergency, and then dissolve or disband only to be reformed during the next crisis.

Most of these organizations therefore have no strong member base. Still in the early stages of development, they continue to require financial support from bilateral missions and other donors and all will continue to need help to solve specific planning, organizational, administrative and operational problems. EXITOS will provide assistance to: (1) identify organization-specific weaknesses and anticipate the problems of the industry; (2) recommend appropriate solutions; and (3) identify opportunities for the further development of producer associations and individual firms. The Federations must have access to both past and current information on U.S. trade associations, and on other marketing institutions and networks regarding roles, activities and memberships. Special emphasis is required vis-a-vis U.S. marketing orders or commodity commissions as examples of strengthening national crop-specific groups.

EXITOS will continue to work with counterpart export federations and their affiliates designated by bilateral USAIDs, but assistance will not be targeted solely to those organizations. Rather, upon request, assistance will be directly channeled to their affiliated clients and other entities such as marketing associations, user groups, local agricultural consulting firms, and shipping and transport associations.

Agricultural Production. The NTA export industry is undergoing constant change. New countries are entering the arena, new producers are shifting from traditional to non-traditional crops, and experienced producers are diversifying the portfolio of crops grown. This in turn is resulting in rapid production changes: new varieties of old crops, introduction of new crops, and new cultural practices to obtain better yields. Yet there is limited experience in Central America with growing "new" crops and varieties. Asparagus grown in California, for example, is not the same as asparagus grown in Central America. There is a continuing need to identify the potential agronomic problems in the region, and locate the experts and establish the programs required to resolve them. There is also a demand to carry out and supervise in-house research, and to coordinate applied research efforts with counterpart institutions to promote data sharing and non-duplication of effort.

Post Harvest Management and Quality Control. As the NTE industry matures, local growers have proven that it is possible to export a large variety of products from Central America. It has also become apparent, however, that once the initial trial shipments are made and consumers are willing to pay higher prices for winter produce, the real long-term market is for near perfect fruits and vegetables. As consumer demand for quality produce increases, regulatory agencies are concurrently being pressured to assure that imported crops are disease-free, pesticide residues are within established

limits, and no new pests are introduced. These factors combine to make it increasingly difficult for novice producers to export successfully, and put added pressure on established growers to maintain rigid controls during the series of NTA export steps from planting to packing to shipping.

Quality control includes the recognition, diagnosis, and prevention of pests and diseases as well as the establishment of and compliance with export grades and standards. It is necessary to be able to diagnose common insects and diseases at the field or packing shed level, and for employees to recognize pests and diseases in order to prevent shipment of tainted produce. Quality controls are needed to handle perishables at the produce-receiving facilities, and during produce cleaning, disinfecting, classifying and packing. The producer organizations and export federations need to establish quality controls that (1) conform to export grades and standards; (2) conform to plant and animal inspections and meet recipient countries' plant and animal health inspection regulations; and (3) guarantee consistent quality at the consumer's table.

It is also of utmost importance that all entities engaged in NT exports--from the grower to the shipper, exporter and buyer--are aware of regulations and restrictions involving pesticide use. Pesticide registrations are not only being cancelled or made stricter in the United States, but in many other major import markets as well. Consumer awareness of pesticide use, and the fear--often unwarranted--of pesticide misuse, make it prohibitive for anyone in the business to use any pesticide that is not registered. It will be necessary to monitor import pesticide regulations and assure that the NTAE industry is made aware of appropriate pesticide use.

Marketing. Just as changing NT exports affect production functions, they have a dramatic effect on the role of marketing. As potential new crops are identified, there is an invaluable need for overall crop-specific marketing strategies related to market size, buyers, potential customers, transport routes, ports of entry, seasonal demand, anticipated prices, etc.--all hopefully before investments are made in commercial scale production. Once new markets are identified, the "deal making" process of identifying the weak points in the export chain (from grower to shipper to market to seller) once again becomes important as do the solutions to overcome these problems.

As the European market becomes more promising and the Japanese market begins to open, it will be necessary to increasingly focus on these areas. In handling new deals it will be necessary to conduct export market surveys and identify "windows of opportunity" for both the development of current export products and those with good export potential. Equally important is developing a way to better use data on foreign competition, market demand, quality of export agricultural products, product price and product cost.

Information Dissemination and Technology Transfer. CA counterpart export federations still lack the in-house capability to gather, interpret, translate, package and distribute marketing and technical information efficiently. It is not yet apparent whether this service can ever be self-sustaining; the degree of real demand for it, i.e., someone willing to pay what the information is worth, remains unclear. At the same time,

computer and database management systems are being constantly upgraded and made more user-friendly. EXITOS will, on an experimental basis, work with export federations in the installation and training of new software programs, CD-ROM systems, modems, scanners, and other new innovations required to fill the needs of the federations. There is also a need to upgrade federation libraries, and determine what information systems are necessary, in demand, and can be self-sustaining. To a limited extent, there also remains a need to provide backstopping and training in computer procurement, installation and basic training.

These five Project foci are not separate, specific activities, but will require close coordination for increasingly successful produce deals to take place. A market has to be identified for a crop, market information supplied on price history, proper production practices put in place, and a quality product exported. All of this requires the support of a strong Contract Team. EXITOS therefore stresses the "team" concept employed so successfully under PROEXAG; interdisciplinary skills, as well as a general knowledge of the industry and the region by all members of the team, is a necessity for Project success.

3.2.2 Overview of Project Activities

Because of the success and widespread adoption of the PROEXAG model in Central America, EXITOS will fund six major types of activities that are consistent with this model: (1) long- and short-term technical assistance; (2) training; (3) limited commodities; (4) applied research; (5) special studies; and (6) support for the USDA Agricultural Marketing Service in Miami. The first four of these categories of inputs will be implemented by a technical assistance Contractor to be funded under the Project, and the last two will be implemented directly by ROCAP. ROCAP will, however, be ultimately responsible for all Project activities. A "buy-in" component has also been designed into EXITOS to facilitate access to the EXITOS Contract Team by CA bilateral USAIDs.

While EXITOS will be implemented by one or more U.S. contractors, successful execution of the Project will involve at least ten groups of players: (1) AID, including ROCAP and the seven bilateral USAID Missions in the region; (2) the prime Contractor and any subcontractors; (3) assistance recipients, including CA export associations, federations, firms and individuals; (4) suppliers, including U.S. contract staff, local firms, individuals and organizations; (5) government offices, including those with responsibility for agricultural extension, customs, infrastructure, national policies and legal affairs; (6) shipping companies and agents; (7) U.S. and other buyers; (8) U.S., state and local government agencies, including USEPA, USDA, the U.S. Food and Drug Administration (FDA), and U.S. Port Authorities; (9) U.S. distribution systems and consumers; and (10) banking and insurance services, which will play an informational role.

3.2.3 Technical Assistance

EXITOS will be implemented by a contract U.S. firm or firms that, working through local private export organizations, will offer TA, training and limited commodities to individuals, business firms, and other local exporters in the seven CA countries from Belize to Panama. These goods and services will help recipients identify export opportunities; improve production and processing of export products in compliance with the quality and quantity demands of buyers; improve port clearance and shipping procedures; and improve buyer acceptance of NTA products.

The Contractor will provide NT export services through four main types of technical assistance advisors: (1) Resident Long-term Advisors; (2) Recurrent Short-term Advisors; (3) Theme-specific Advisors; and (4) Indigenous Technical Assistants. Senior Long-term Advisors will fill the five key functions described in Section 3.2.1; Recurrent Short-term Advisors will provide recurrent expertise in specific NTE areas of recurrent priority; Theme-specific Advisors will work primarily on production activities; and Indigenous Technical Assistants will work directly with the Long-term Advisors. Additional short-term TA, training services and NTE-related commodity procurement, paid for by bilateral USAIDs during Project implementation under the buy-in mechanism, will be provided by the Contractor under a separate contract.

Given the promising groundwork already laid by PROEXAG, advisors will concentrate their efforts downstream--i.e., nearer to final products and markets. As under PROEXAG, Project advisors will use local agricultural and business groups as their primary locators of demand for services, and will work in collaboration with USAID Missions through designated export federations and organizations. The principal office of the Contract Team will be located in Guatemala City, but since most of the work is on-site in the fields and factories of Central America extensive travel will be required.

Long-Term Technical Assistance. The EXITOS Request for Proposals (RFP) calls for Senior Long-term Technical Advisors to fill the five basic functions essential for Project success: Institutional Development, Agricultural Production, Post Harvest Management and Quality Control, Marketing, and Information Dissemination and Technology Transfer. The deal-making concept remains the cornerstone of the Project, even though the players will vary as products, shippers and markets change. It will therefore be necessary for Long-term Advisors to assist in development of new crops and themes in order to sustain the growth resulting from PROEXAG. These Advisors will be responsible for providing the "know how", through direct provision of TA, procurement of short-term TA and training, provision of market information, and oversight of applied NTA research activities.

The delivery methods for providing this "know how" to the recipients is the focus of EXITOS. Long-term Advisors will be responsible for coordinating with, complementing and supporting the efforts of the bilateral USAIDs to increase exports of diversified NTA products by providing TA to select

export-oriented organizations and firms concentrating on common regional problems. The capacity of these organizations to carry out certain types of Project-funded activities after the end of the Project (EOP) will be strengthened, including the ability to: 1) locate and contract technical advisors; 2) gather, translate and distribute technical information; 3) conduct some types of applied research trials; and 4) provide assistance on general questions concerning the NTA industry.

The Contractor's Long-term Advisors will also be expected during Project implementation to devise a system--perhaps simply through working with local firms and individuals--to strengthen to the extent practicable indigenous expertise which is prepared to offer PROEXAG- and EXITOS-type services on a commercial basis. Because of current uncertainty as to the best mechanisms to ensure ultimate sustainability of Project activities without further A.I.D. support (see Section 8.0), the Contract Team will also be responsible for evaluating alternative means of developing the indigenous capability to sustainably provide this type of specialized expertise. It is not expected that this capability can be fully developed over the four year LOP. The Contractor, however, will be responsible for fully assessing alternative means of developing that capability during EXITOS implementation, and for preparing a plan for post-EOP development of the capability.

One of the Contractor's Long-term Advisors will be designated as the Team Leader/Chief of Party (COP), and Recurrent Short-term Technical Advisors will be employed to supplement any shortfall occurring in provision of full time services by the designated COP in his/her technical field.

Recurrent Short-Term Advisors. No one individual can handle all of the requests for new crop introduction, improved production techniques, integrated pest management practices, varietal trials, etc. It has also been clearly demonstrated that short-term experts that provide very specific assistance during a one-week visit with no follow-up visits are of little practical and lasting value. A lesson learned from PROEXAG, however, is that advisors who provide assistance two or three times a year for a period of several years are both needed and valuable.

These Recurrent Short-term Advisors will be the mainstay of specific production TA, working in direct coordination with the Production Advisor and counterpart institutions. Assistance will be directed towards grower associations, producer groups and other export entities to assess the needs for export production assistance and production objectives, and to determine the types of short-term advisors needed for each specific export crop and the most appropriate time for contracting their assistance. Although recurrent advisors will be expected to work in other areas, given the diversity of crops grown and complexities of tropical agriculture, it is expected that most TA effort will occur be in the area of agricultural production.

Principal areas for provision of recurrent short-term advisor expertise will be asparagus, berries, traditional cut flowers (e.g., roses, carnations), exotic flowers (e.g., calla lilies, anthuriums, heliconias), mangoes, frozen foods, tropical fruits (e.g., rambutan, lychee), nuts, spices, European and

Japanese markets, hot water treatment, crop-specific integrated pest management, virology, plant pathology, maritime transportation, and organic farming. The entire mix will not be pre-determined, but rather will be decided in negotiations and coordination with ROCAP, the bilateral USAID missions and local counterpart organizations.

Although these specific areas of expertise are examples, responses to the RFP will require that bidders list specific consultants and include resumes and work experience of a cross section of advisors that are committed to work for at least three months a year for a period of at least three years in those cases where the tasks so warrant. Spanish and English language capabilities and experience in Latin America are desired, as are strong oral and written communication skills, but it is more important for the Contractor to have leading expertise in specific fields--the raspberry expert or the leading authority in melon virus identification for example--rather than someone who speaks Spanish and has a partial knowledge of asparagus production in Peru.

Short-Term Theme-Specific Advisors. Even though Recurrent Short-term Advisors will be expected to have in-depth knowledge of their particular field, it will be necessary at times to support them with very specific, well-defined expertise. Areas could, for example, include an expert on a particular viral strain in melons, the correct way to package roses, controlled atmosphere packages for strawberries, PACA laws, or production practices for pithaya. These activities will generally be pursued as a follow-on to newly introduced technologies that require a greater level of concentrated effort than can be provided by either the Long-term or Recurrent Short-term advisors.

Theme-specific Advisors will work in direct coordination with the Long-term and Recurrent Short-term advisors, who will be responsible for quality control, backstopping and follow-up. As with Recurrent Short-term Advisors, the mix of expertise required will not be pre-determined in the RFP but rather decided in negotiation and coordination with ROCAP, bilateral USAIDs, local counterpart organizations and the Contract Team during implementation.

Indigenous Technical Assistants. Financial constraints and/or the organizational structure of the CA counterpart organizations have made it virtually impossible for export federations to have on their staffs specialized national personnel to complement the efforts of long-term contract advisors to the federations. To provide a partial solution to this problem, an assistant with limited experience or an academic background in the field of specialty may be hired to work with each senior Long-term Advisor. These assistants will complement the Long-term Advisors, substitute in their absence, provide logistical assistance, monitor field trials, and at some future point may be hired directly by export federations or producer groups.

3.2.4 Training

In-country training will be directly linked to the activities of the Core Contract and the work of the Long-term and Recurrent Advisors in their specific fields. Crop- or market-specific tours to visit producer groups, farms, and institutions in areas outside of CA will also be provided.

The EXITOS buy-in mechanism will permit USAIDs to follow up on these training exercises, and to include additional participants and/or develop specialized training tours.

3.2.5 Commodities

Only limited commodities will be funded under EXITOS. In addition to basic office supplies and equipment required by the Contractor, EXITOS will provide funding to purchase basic applied research inputs for work to be carried out and supervised by the Long-term Advisors (e.g., planting materials); commodities related to production, packaging and shipping; and limited commodities for the counterpart export federations.

3.2.6 Applied Research

There is a clear need to continue limited funding for NT crop research in Central America. The research to be carried out under EXITOS will be strictly applied, crop-specific in nature, and developed, designed and coordinated by the Long-term and/or Recurrent Short-term advisors. Most of the effort will concentrate on introduction of new varieties of crops already being grown (e.g., fall-bearing raspberries), introduction of new exotic species (e.g., colored calla lilies), trials of long-term fruit crops (e.g., mangosteen), introduction of new cultural practice techniques (e.g., pruning of blackberries), and new post harvest technologies (e.g., shrink wrap for melons). Counterpart organizations, including export federations, commodity groups and academic institutions, will be encouraged to the maximum extent practicable to collaborate with this research.

3.2.7 Special Studies

Limited EXITOS funding (US\$ 275,000) has been allocated for ROCAP-managed special studies directly related to attainment of Project objectives during implementation. The purpose of these special studies will be to: (1) develop reliable sources of information and introduce operational rigor in tracking project performance; (2) better understand how the Project directly affects participants and/or beneficiaries; (3) obtain information to improve policy and management decisions; and/or (4) provide the information required to improve programming decisions. It is anticipated that about five such studies will be undertaken during the LOP in three specific categories: Special Environmental Studies, Participant/Beneficiary Studies, and Sustainability Studies.

Environmental. A special environmental study will be undertaken to conduct a preliminary analysis of the best means of designing a research activity to analyze the long-term environmental impact implications of continued NT exports on the environment. This issue, analogous to assessment of the social impact of structural adjustment programs, is described in detail in the Environmental Assessment (Annex I).

Participant/beneficiary. Participant/beneficiary studies will be designed to address Project-specific issues related to the effect of increased NT exports on participants and beneficiaries in Central America. Three specific studies which may be funded include:

- (1) A study of the impact of NT exports on employment levels;
- (2) A study of the distribution of benefits resulting from NTE expansion, (e.g., owners vs. workers, impact on overall underemployment/ unemployment issues, per capita income levels); and
- (3) A study of the role of women in NTE operations, their influence in entrepreneurial management, and the equity of financial rewards and meaningful job tasks.

Sustainability. Studies related to the sustainability of the Project and related activities may also be undertaken during implementation. Three specific studies which may be funded are:

- (1) A study of indigenous competence in Central America--vis-a-vis the ability to provide the type of services provided by PROEXAG and EXITOS--and means of developing and maintaining an indigenous NTE service capacity after the EOP;
- (2) A review and assessment of the NTE-related policy environment, including specific regulations and/or incentives regarding investment, foreign exchange, exports, imports and related constraints to NTA exports; and
- (3) A study of donor effectiveness in providing NTE-related development assistance, and means of fine-tuning future NTE-related support.

Where feasible, preference for contracting these studies will be given to national and regional research institutions to reinforce and strengthen the confidence and diagnostic performance of local institutions in environmental, socioeconomic and policy investigations.

3.2.8 USDA Agricultural Marketing Service Support

Under EXITOS, USDA's Agricultural Marketing Service (AMS) in Miami will continue to provide daily marketing reports on designated priority NTE crops for the CA region in the same manner that this material was provided under PROEXAG. Market reports for Caribbean Basin crops will be provided by FAX to the EXITOS Contractor, who will send similar information to the counterpart export institutions. This will continue to permit growers, shippers and exporters to keep track of market trends before and during the export season, and provide them with a benchmark against which to measure specific prices obtained from individual receivers. Over time, this information--compiled in a commodity price data base managed by the Contractor--will help NTE businessmen all along the export chain to assess the potential profitability of a given crop or crops.

3.2.9 Buy-Ins

One of the intents of PROEXAG--and of EXITOS--is to introduce innovative technologies with a regional focus. As the NTE industry matures and as new technologies are adapted, it may be impossible for EXITOS to provide the intensive (i.e., very focused, site specific, very detailed) or the extensive (i.e., long duration) assistance that bilateral missions and counterpart export organizations require. EXITOS will continue to follow the PROEXAG approach and concentrate on technologies of regional application. Once specific technologies are adapted, however, the focus will shift to other areas or activities. A "buy-in" mechanism is therefore built into the Project to provide for short-term TA, specific training, and procurement of NTE-related commodities. This mechanism will supplement and complement activities undertaken by the Contract Team and provide follow-up assistance to those efforts. All the activities will be supervised, backstopped and have quality control provided by the long-term advisory staff.

Three types of services will be made available to CA bilateral Missions under the EXITOS buy-in mechanism. First, TA will be available to assist with: (1) institutional development of Counterpart Export Federations and commodity and trade groups; (2) agricultural production; (3) post harvest crop management and quality control; (4) marketing; and (5) information dissemination and technology transfer. Second, Missions will be able to use the buy-in mechanism to procure NTE-related commodities, including research inputs and database management systems. Finally, the buy-in mechanism will be available to procure training services. Details on the procedures used to access EXITOS through the buy-in mechanism are found in Section 5.3.

3.3 END OF PROJECT STATUS

At the end of the Project, export sales of EXITOS client NTE businesses will have increased by 15% per year and client NTE export volumes will have increased by 12% per year over the LOP. In the aggregate, NTE export sales for CA will have increased by US\$ 60 million and NTE export volumes for CA will have increased by 40% (excluding bananas, pineapples and citrus products).

At the output level of the logframe (Annex B), specific institutional achievements by the EOP will include: (1) export federation memberships increased by 30%; (2) revenue generation by export federations related to member services increased by 30%; and (3) 20 new Crop Associations established and still in operation. Specific corporate achievements will include: (1) 250 NTE businesses receiving Project assistance; (2) 200 new export market opportunities conveyed to NTE businesses; (3) 60 NTE deals made; and (4) 50 adoptions of key production/marketing technologies by NTE businesses. Specific commodity achievements will include: (1) a 50% decrease in shipment rejection rates for designated NTAE clients; (2) a weighted reduction of 10% of NTE shipments rejected due to phytosanitary problems; and (3) 20 new NTE crops and/or crop product-country combinations exported for more than one season. Specific human achievements will include 7500 NTE businessmen from 500 companies trained.

3.4 BENEFICIARIES

The proximal benefits of EXITOS will be improved managerial skills, better operational efficiencies, lower per unit production costs, improved knowledge of international markets, and greater market competitiveness by CA export entrepreneurs and businessmen operating all along the export chain. The proximal beneficiaries will therefore be the export businessmen and their work forces, which constitute a significant proportion of the Central American working population. These benefits will be in the form of more income for workers as production expands, and more profits for owners through improved operating efficiencies. Women will be major workforce beneficiaries, especially in food processing and agriculturally related assembly operations. The ultimate benefits to derive from EXITOS will be increased foreign exchange earnings and increased employment opportunities in all sectors of the CA economies.

EXITOS is an equal opportunity, demand-driven activity that will benefit without discrimination those who request Project services through export promotion institutions. While no criteria will therefore be employed under the Project to include or exclude specific groups vis-a-vis the technical services provided, the Contractor will nonetheless be especially sensitive to requests for assistance from women and others who may be disproportionately underrepresented as recipients of assistance. The Contractor will also keep careful records of beneficiaries for monitoring purposes; the specific beneficiary data to be collected by the Contractor will be determined in the first month of implementation.

4.0 COST ESTIMATES AND FINANCIAL PLAN

4.1 PROJECT COST ESTIMATES

EXITOS is a four year, US\$ 8.5 million activity in addition to which US\$ 5.0 million is anticipated in Mission buy-ins over the LOP. Detailed Project Cost Estimates and a Financial Plan are attached as Annex E. Summary Project cost estimates are presented in Table 4-1; summary cost estimates and a financial plan in Table 4-2; and a projection of expenditures by fiscal year in Table 4-3. Buy-in estimates are not included in these tables.

Additional detail on how Project cost estimates were derived is found in Annex E. Of the total Project budget, an estimated US\$ 6.935 million or 81.6% will be expended on the principal contract; US\$ 275,000 or 3.2% on special studies; US\$ 110,000 or 1.3% to support AMS/Miami; US\$ 675,000 or 7.9% for a PSC Project Manager; US\$ 100,000 or 1.2% for evaluations; US\$ 110,000 or 1.3% for audits; and US\$ 295,000 or 3.5% for contingencies and inflation. Total estimated Project expenditures by Project year exhibit significant front loading (Table 4-3), declining progressively from 30.9% in Year 1 to 19.7% in Year 4 of the Project. With the exception of US\$ 110,000 for audits which will be paid in local currency, all expenditures will be paid in US dollars (Table 4-2).

4.2 METHODS OF IMPLEMENTATION AND FINANCING

Methods of implementation and financing are summarized in Table 4-4. The method of financing for A.I.D. funds expended on the core contract, the buy-in contract, the PSC Project Manager contract, special studies, support to AMS Miami and evaluations and audits will be direct payment.

4.3 RECIPIENT CONTRIBUTION

The Project has no "recipients" in the classical Agency use of the term, and therefore requires no recipient contribution per se. Local export federations, however, will play a major role as both conduit and screen for private sector requests for EXITOS assistance, and they will therefore indirectly contribute substantial LC costs to the Project. Although inestimable at this time, these contributions will include, but not be restricted to, staff, office space, communications, travel, other operational costs, and overhead.

4.4 OBLIGATION SCHEDULE

EXITOS was included in ROCAP's FY'91-92 Action Plan at an estimated LOP funding level of US\$ 8.5 million; in ROCAP's FY'92 Congressional Presentation at estimated FY'91 and FY'92 obligation levels of US\$ 1.0 million and US\$ 655,000, respectively; and in ROCAP's FY'93 Annual Budget Submission (ABS) at an authorized level of US\$ 8.5 million and a planned level (including a light industrial activity) of US\$ 14.0 million.

An illustrative Project obligation schedule is presented in Table 4-5. At the time of Project design, ROCAP anticipated obligating US\$ 5.5 million for the Project in FY'91 and US\$ 3.0 million in FY'92. Under this scenario, no FY'93 or FY'94 obligations would be incurred. Of total Project obligations, US\$ 5.0 million will be from the ARDN appropriation, US\$ 2.5 million from the PSEE appropriation, and US\$ 1.0 million from the EHR appropriation.

Table 4-1

Summary Project Cost Estimates
(US Dollars)

<u>Element</u>	<u>Total Cost</u> <u>(US\$)</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
<u>Principal Contract</u>	\$6,935,000	\$2,182,200	\$1,926,400	\$1,536,700	\$1,262,700
<u>Special Studies</u>	275,000	87,000	77,000	61,000	50,000
<u>AMS/Miami</u>	110,000	27,500	27,500	27,500	27,500
<u>PSC Project Manager</u>	675,000	220,000	140,000	140,000	175,000
<u>Evaluations</u>	100,000		40,000		60,000
<u>Audits</u>	110,000	25,000	25,000	25,000	35,000
<u>Contingencies/Inflation</u>	295,000	84,000	95,000	53,000	63,000
GRAND TOTAL:	8,500,000	2,625,700	2,330,900	1,870,200	1,673,200

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Table 4-2

Summary Cost Estimates and Financial Plan

(US Dollars)

Element	A.I.D.		TOTAL
	FX	LC	
Principal Contract	\$6,935,000		\$6,935,000
Special Studies	275,000		275,000
AMS/Miami	110,000		110,000
PSC Project Manager	675,000		675,000
Evaluations	100,000		100,000
Audits		\$110,000	110,000
Contingencies/Inflation	295,000		295,000
GRAND TOTAL:	\$8,390,000	\$110,000	\$8,500,000

Table 4-3

Projection of Expenditures by Fiscal Year

(US Dollars)

Fiscal Year	Project Expenditures
1991	0
1992	2,625,700
1993	2,330,900
1994	1,870,200
1995	1,673,200
TOTAL	\$8,500,000

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Table 4-4

Methods of Implementation and Financing
(000's US\$)

<u>Project Activity</u>	<u>Implementation Method</u>	<u>Financing Method</u>	<u>Amount</u>
Technical Services	Direct Contract with Selected Firm	Direct Payment/ Reimbursement	6,935
Special Studies	ROCAP Direct Contract	Direct Payment	275
ANS/Miami	PASA Agreement	Direct Payment	110
Project Manager	ROCAP Direct Contract/PSC	Direct Payment	675
Evaluation/Audits	ROCAP Direct Contract	Direct Payment	210
Inflation/Contingencies	-	-	295
TOTAL			8,500
Mission Buy-Ins	PIO/T	Fund Transfer	5,000

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Table 4-5

Illustrative Obligation Schedule

(000's US\$)

<u>Fiscal Year</u>	<u>Total</u>	<u>Cumulative</u>
1991	5500	5500
1992	3000	8500
1993	0	8500
1994	0	8500

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5.0 IMPLEMENTATION PLAN

Implementation of EXITOS will impose no unusual burden on ROCAP. The Mission will contract for the services of a PSC Project Manager who will be responsible for day-to-day management of EXITOS under the oversight of ROCAP's U.S. Direct Hire (USDH) Supervisory Program Economics Officer. While support from other technical, project and program officers will be needed to assist with implementation and track progress towards achievement of Project objectives, all appropriate personnel are available either from within ROCAP or from A.I.D. officers with CA regional responsibilities.

5.1 AUTHORIZATION AND OBLIGATION

After final approval by the ROCAP Project Committee, EXITOS will be authorized in the field with the signing of core and buy-in contracts between ROCAP, on behalf of A.I.D., and the successful contract bidder. Funds will be obligated annually, 1991-1994. The first, an estimated US\$5.5 million, will be obligated upon signature of the core, buy-in and PSC Project Manager contracts in FY'91. The second and final obligation, to occur in or about the third quarter of FY'92, is currently planned at a level of US\$ 3.0 million. These figures may increase or decrease subject to availability of funds. A Project implementation schedule is presented in Table 5-1.

5.2 PROJECT MANAGEMENT

EXITOS will be implemented on behalf of A.I.D. by ROCAP. The USDH Foreign Service Officer who will serve as Project Officer responsible for EXITOS will be ROCAP's Supervisory Program Economics Officer (SPEO). The Project Officer will supervise the PSC Project Manager, who will in turn be responsible for day-to-day Project implementation. The PSC Project Manager for EXITOS will be responsible for oversight and quality control of all implementation actions. Key responsibilities of the Project Manager will include: (1) reviewing and obtaining ROCAP approval of Annual Work Plans (AWPs); (2) liaison with USAID bilateral missions on issues related to EXITOS implementation; (3) expediting clearance of USAID requests for assistance through the Project's buy-in mechanism; (4) ensuring that procurement is consistent with achievement of Project objectives and conducted in accordance with A.I.D. regulations; (5) oversight of external evaluations; (6) overall Project monitoring and quality control; and (7) preparation and presentation of ROCAP's Semi-Annual Reports (SARs) on the Project in the months of April and October of each year of implementation. In addition to the USDH Project Officer, ROCAP will be able to draw on the services of the USDH Regional Legal Advisor (RLA) in Tegucigalpa, and on the services of the USDH contracting and commodity procurement officers in Guatemala City as needed during implementation.

5.3 BILATERAL USAID BUY-INS

Purpose of the Buy-in Mechanism. In response to Mission demand, EXITOS includes a buy-in mechanism permitting bilateral USAIDs to easily access EXITOS during implementation. This mechanism is consistent with ROCAP's desire to (1) complement bilateral USAID programs; (2) facilitate access to ROCAP projects; and (3) maximize the benefit of ROCAP activities to Agency programs in Central America. The EXITOS buy-in mechanism has two specific purposes: (1) to permit bilateral USAIDs to easily access the Contract Team for activities that are consistent with the Purpose of the Project; and (2) to contribute to attainment of Project objectives.

The buy-in contract under EXITOS will give bilateral USAIDs in Central America a mechanism to buy in to the Project to obtain TA, training, commodity procurement and NTAE-related research services from the Contractor. The mechanism is, in effect, a joint venture between ROCAP, bilateral USAIDs and the Contractor, and the successful bidder on EXITOS will be required to execute both the Core and Buy-In Contracts. These services, directly relevant to attainment of Project objectives, will generally be "follow-on" services, i.e., provided subsequent to assistance given to CA counterpart export promotion organizations by advisors under the Core Contract.

Programmatic Acceptability of Buy-in Activities. The purpose of EXITOS is "to increase the sales and/or volumes of Central American non-traditional exports". Activities proposed for implementation under the EXITOS buy-in mechanism shall therefore be considered by ROCAP to be programmatically consistent with the Purpose of EXITOS, and thus eligible for execution under the buy-in mechanism, so long as they: (1) are consistent with attainment of Project objectives; (2) occur in one or more of the same five major TA areas covered under the Core Contract; and (3) are completed by the EXITOS project activity completion date (PACD). The ROCAP Director will be responsible for ensuring that individual buy-ins have been subjected to an acceptable programmatic analysis, i.e., are consistent with these criteria.

Buy-ins for all types of field actions consistent with attainment of Project objectives--including the purchase of inputs to be used in research projects that are either additional to or complement activities occurring under the Core Contract--will be programmatically acceptable. Research-related buy-ins may fund such inputs as planting materials, packaging materials, post harvest technologies, and subsidized freight rates for experimental shipments. Buy-in funds may also be used to purchase additional technical equipment such as that required to supplement database systems, software programs, add-on computer equipment, or diagnostic equipment such as refractometers and microscopes. Buy-ins should generally be for a minimum of US\$50,000.

Buy-in Procedures. The procedures to be employed by USAIDs wishing to access EXITOS through the buy-in mechanism are as follows for activities that are part of an already authorized project. First, counterpart organizations, in coordination with the applicable bilateral USAID, will develop a scope of work for a specific level of effort consistent with the Statement of Work in the Core Contract. The USAID will then submit to ROCAP a PIO/T including

scope of work, an illustrative budget and funding data. Upon receipt, ROCAP will determine whether the proposed activity is programmatically acceptable. Subsequent to a finding of acceptability, the EXITOS Project Manager will present the request to the Contractor. Assuming approval, the Regional Contracts Officer (RCO) will add funds to the Buy-in Contract. Each separate and identifiable activity will be subject to separate and identifiable billing. The Contractor will then assume responsibility for delivery of the requested goods and services.

The Contractor will present separate financial invoices for each separate buy-in activity to the Controller's Office of the Mission buying in at a frequency consistent with the length of time required to complete the requested activities. For relatively short-term activities, e.g., one to three months, a single invoice may be submitted after activity completion. For longer activities, invoices may be submitted monthly. Information on Contractor performance in implementing buy-in activities will be requested of Missions that buy in for inclusion in ROCAP's semi-annual reports.

For operating year budget (OYB) transfers, USAIDs wishing to buy in to the mainstream EXITOS activities described in this PP will simply cable to ROCAP OYB transfer authority and other standard OYB transfer information.

Management of Buy-in Activities. Buy-in activities under EXITOS will be conducted under the technical oversight and management of the originating USAID. This is necessary for two reasons. First, while USAIDs have specified that they need the buy-in mechanism to facilitate access to EXITOS, they have also specified that in order to use the mechanism they will require direct technical control and management oversight over the activities they will fund from their own OYBs. This will permit them to both ensure quality control over and maximize responsiveness to the specific needs of the projects from which funding will derive. An exception to this is for OYB transfers, where direct management control would be relinquished. The second reason is that ROCAP will not have the staff capacity on-line to carefully manage a diverse array of buy-in activities in addition to management of the core interventions described herein.

For these reasons, and unless otherwise agreed to by ROCAP and the originating Mission, ROCAP responsibility with respect to buy-in activities will generally be restricted to (1) ensuring that buy-in activities are programmatically acceptable; (2) negotiating requests for assistance with the Contractor on behalf of the client USAIDs; and (3) preparing and executing Contract amendments for the activities. Where appropriate, however, and requested by the client organization, ROCAP is willing to consider assumption of technical and managerial oversight of buy-in activities on a case-by-case basis.

Estimation of the Buy-in Budget. Buy-in levels are always exceedingly difficult to estimate because of the nature of changing circumstances in the field over the life of a project. The US\$ 5.0 million budgeted for EXITOS buy-ins over the LOP reflects recurrent discussions with USAIDs likely to access EXITOS in the next four years, the nature of those Mission needs, and a specific estimated buy-in level of approximately US\$ 1.25 million in the first year of implementation.

5.4 SUMMARY OF IMPLEMENTATION RESPONSIBILITIES

5.4.1 ROCAP

ROCAP, through its USDH Project Officer, will have responsibility for Project implementation on behalf of A.I.D. Specifically, ROCAP will be responsible for: (1) authorizing the Project (ROCAP/PD and ROCAP/OD); (2) preparing and signing the core and buy-in contracts that constitute the Project's obligating documents (RCO and ROCAP/OD); (3) determining the programmatic acceptability of buy-in requests and adding money to the Buy-in Contract (Project Manager, OD, RCO); (4) reviewing and approving Annual Work Plans (Project Manager, key USDH Officers, ROCAP/PD, ROCAP/OD); (5) keeping bilateral USAIDs informed about the scope and nature of assistance the Contractor is providing (Project Officer and Project Manager); (6) maintaining frequent contact with the Contract team (Project Manager); (7) tracking Project activities for A.I.D. (Project Manager and Project Officer); (8) preparing relevant project implementation documents such as personnel and contract approvals and payment certifications (Project Manager and Project Officer); (9) preparing SARs (Project Manager); (10) Project quality control (Project Manager, ROCAP/PD); (11) conducting special studies (Project Officer and Project Manager); and (12) contracting for and overseeing audits and evaluations (Project Manager, Project Officer, ROCAP/PD, Controller, RCO).

5.4.2 Prime Contractor

The Prime Contractor will be responsible for day-to-day implementation of EXITOS. This includes, but is not restricted to, responsibility for: (1) signing the core and buy-in contracts; (2) preparing Annual Work Plans and all other reports called for by the contract; (3) providing the services agreed upon under the terms of the core contract; (4) providing services requested by bilateral USAIDs through the buy-in mechanism, insofar as those requests are consistent with the contract mandate and the Contractor's technical and managerial capabilities; (5) managing and ensuring quality control over all TA, commodities, training and applied research activities funded by the Project; (6) cooperating with audit and evaluation teams; and (9) collecting the data required to track Project performance and impact.

5.4.3 CA Counterpart Export Organizations

The CA counterpart export organizations that will be involved in EXITOS currently include APENN, CINDE, FPX, FUSADES, GREXPAN, GEXPRONT and BABCO. Additional organizations may be added to this list during Project implementation. These organizations will serve as both conduits of and screens for requests for EXITOS assistance. Members will request EXITOS services on an ad hoc basis, and the export organizations will be responsible for reviewing the requests, prioritizing them, discussing priority items with the Contract Team, and coming to agreement on which activities will receive

assistance. The organizations will also be responsible for obtaining and providing to A.I.D. basic information that the Project may require of members receiving assistance, such as number of employees and/or other basic data that may be needed for Project monitoring and evaluation purposes.

5.4.4 Bilateral USAIDs

Bilateral USAIDs will have no EXITOS implementation responsibilities per se. To the extent that they employ the EXITOS buy-in mechanism to access the Project for goods or services, however, they will be responsible for submitting PIO/Ts to ROCAP, managing the buy-in activities they fund, and participating in program reviews. ROCAP also anticipates receiving feedback on Project-related issues from bilateral USAIDs on an ad hoc basis.

Table 5-1

Implementation Schedule

<u>Project Month</u>	<u>Calendar Date</u>	<u>Action</u>	<u>Responsible Parties</u>
<u>1991</u>			
<u>Project Year One</u>			
0	8/30	Project Authorized	ROCAP
	9/28	Contract Signed	ROCAP, Contractor
1	10/15	PIL 1 Issued	ROCAP
		PSC Project Manager Selected	ROCAP
	10/30	Long-term Team on board	Contractor
		First Annual Work Plan submitted	Contractor
2	11/15	Project reporting plans finalized	ROCAP, Contractor
		First Annual Work Plan approved	Contractor
3	12/15	Short-term Consultant Program Finalized	ROCAP, Contractor
<u>1992</u>			
4	1/		
5	2/	Contractor First Semi-Annual Report	Contractor
6	3/		
7	4/15	New Country Program begins (Belize)	Contractor
	4/15	ROCAP SAR Presentation	ROCAP
8	5/15	First Annual Regional Conference with CA counterparts/target group reps	Contractor
9	6/		
10	7/		
11	8/15	First Annual Report due	Contractor
12	9/15	First Formal Project Review	ROCAP, Contractor
	9/15	First Project Audit	ROCAP
<u>Project Year Two</u>			
13	10/15	ROCAP SAR Presentation	ROCAP
	10/30	Second Annual Work Plan submitted	Contractor
14	11/15	Second Annual Work Plan approved	ROCAP
15	12/		
<u>1993</u>			
16	1/		
17	2/	Contractor Second Semi-Annual Report	Contractor
18	3/		
19	4/15	ROCAP SAR Presentation	ROCAP
20	5/15	Second Annual Regional Conference with CA counterparts/target group reps	Contractor
21	6/		

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Table 5-1

Implementation Schedule
(continued)

Project Month	Calendar Date	Action	Responsible Parties
<u>Project Year Three</u>			
22	7/		
23	8/15	External Mid-term Evaluation	ROCAP
		Second Annual Report due	Contractor
24	9/15	Second Formal Project Review	ROCAP, Contractor
	9/15	Second Project Audit	ROCAP
25	10/15	ROCAP SAR Presentation	ROCAP
	10/30	Third Annual Work Plan submitted	Contractor
26	11/15	Third Annual Work Plan approved	ROCAP
27	12/		
	<u>1994</u>		
28	1/		
29	2/	Contractor Third Semi-Annual Report	Contractor
30	3/		
31	4/	ROCAP SAR Presentation	ROCAP
32	5/15	Third Annual Regional Conference with CA counterparts/target group reps	Contractor
33	6/		
34	7/		
35	8/15	Third Annual Report due	
36	9/15	Third Formal Project review	ROCAP, Contractor
	9/15	Third Project Audit	ROCAP
<u>Project Year Four</u>			
37	10/15	ROCAP SAR Presentation	ROCAP
	10/30	Fourth Annual Work Plan submitted	Contractor
38	11/15	Fourth Annual Work Plan approved	ROCAP
39	12/		
	<u>1995</u>		
40	1/		
41	2/	Contractor Fourth Semi-Annual Report	Contractor
41	3/		
43	4/	ROCAP SAR Presentation	ROCAP
44	5/15	Fourth Annual Regional Conference with CA counterparts/target group reps	Contractor
45	6/		
46	7/		

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Table 5-1

Implementation Schedule
(continued)

<u>Project Month</u>	<u>Calendar Date</u>	<u>Action</u>	<u>Responsible Parties</u>
47	8/15	Final Contractor Report due	Contractor
	8/31	Final Project Audit	ROCAP
	8/31	Final External Evaluation	ROCAP
48	9/30	PACD	ROCAP
49	10/15	ROCAP SAR Presentation	ROCAP
	10/31	Project Closeout Report	ROCAP

6.0 PROCUREMENT PLAN

6.1 PROCUREMENT RESPONSIBILITIES

With few exceptions, all long-term TA, short-term TA, commodity and training procurement will be the responsibility of the Contractor under the provisions of the Core and Buy-in Contracts. The only exceptions to Contractor procurement under EXITOS are the long-term PSC Project Manager, and short-term TA for audits, evaluations and special studies. Contracting for these services will be done by the Regional Contracts Office in Guatemala City, based on PIO/Ts prepared by ROCAP technical and project offices.

6.2 PROCUREMENT REQUIREMENTS

Four contracting arrangements will occur under EXITOS: (1) a Core Contract; (2) a Buy-In Contract; (3) a long-term PSC Project Manager Contract; and (4) short-term TA contracts managed by ROCAP.

Core and Buy-In Contracts. Based on competitive bidding, the selected Contractor will provide resident long-term advisors, recurrent and specific short-term advisors, training services, applied NTE research services, and provisions of limited commodities. The provisions of the new Buy America policy will be applied to the commodities, and the Contractor will be responsible for ensuring compliance with the applicable A.I.D. source, origin, shipping and eligibility requirements. The Core and Buy-in contracts are expected to be signed in September 1991.

Long-Term PSC Project Manager Contract. The procurement procedure for the PSC EXITOS Project Manager will be initiated immediately after Project authorization. ROCAP will initiate the required PIO/T, and will name thereon the Regional Contracts Office as the authorized agent to carry out the procurement. Because the anticipated transaction cost exceeds US\$ 250,000, the nationality of the new Project Manager will be limited to Geographic Code 000 (United States).

ROCAP-Managed Short-Term TA Contracts. A series of short-term consultancies will be contracted throughout the LOP for special studies. PIO/Ts to obtain all of these short-term services will be prepared by ROCAP. As the individual transactions will be valued at less than US\$ 250,000, both U.S. and Central American Common Market (CACM) contractors will be eligible to compete.

Audit services will be contracted through the PIO/T mechanism by the Regional Contracts Office using Indefinite Quantity Contracts (IQCs) that are in place at the time of contracting. The scopes of work will be developed by ROCAP and the AID/Guatemala Controller's Office. Annual audits are proposed, o/a months 12, 24, 36 and 47 of Project implementation. These services will be performed by CACM contractors.

At about Month 23 and at Month 47 of EXITOS implementation, external evaluation services will be contracted using the PIO/T mechanism. ROCAP will develop the scopes of work and process the PIO/T documents for issuance to the RCO. U.S. and CACM contractors will be eligible to perform these services.

6.3 PROCUREMENT LIMITATIONS

All commodities, services and their supplier's financed by A.I.D. under the Project shall have their source and origin in the United States, except as A.I.D. may otherwise agree in writing. Under A.I.D.'s Buy America guidance, no local procurements are authorized except as A.I.D. may otherwise agree in writing in the various agreements, contracts or Project Implementation Letters (PILs). Exceptions to this are as follows:

(1) Commodities of U.S. origin which are otherwise eligible for financing, if the value of the transaction is estimated not to exceed \$100,000 exclusive of transportation costs;

(2) Commodities of Geographic Code 899 origin if the value of the transaction does not exceed \$5,000;

(3) The following commodities and services which are available only locally: utilities, including fuel for heating and cooking, waste disposal and trash collection; communications, including telephone, telex, fax, postal and courier services; rental costs for housing and office space; petroleum, oils and lubricants for operating vehicles and equipment; newspapers, periodicals and books published in the cooperating country; and other commodities, services and related expenses that, by their nature or as a practical matter, can only be acquired, performed, or incurred in the cooperating country, e.g., vehicle maintenance, hotel accommodations, etc.; and

(4) Technical services when the value of the transaction is estimated not to exceed \$250,000;

Except for ocean shipping, the suppliers of commodities or services shall have the United States as their place of nationality, and ocean shipping financed by A.I.D. under the Grant shall be financed only on flag vessels of the United States except as A.I.D. may otherwise agree in writing. A record of all local procurement shall be maintained during EXITOS implementation.

6.4 WAIVERS

No waiver requirements were identified during Project design. If the need for waiver(s) is identified during implementation, all applicable A.I.D. procedures will be followed.

6.5 GRAY AMENDMENT CONSIDERATIONS

ROCAP encourages to the maximum extent practicable the participation of Small Business Concerns, Small Disadvantaged Business concerns, and women-owned small business concerns in this Project as either Prime Contractor or as subcontractor thereto in accordance with Part 19 of the Federal Acquisition Regulations (FAR). All selection evaluation criteria being found equal, the participation of 8(a) concerns may become a determining factor in selection of the Prime Contractors. If the Prime Contractor is not a small business concern, a small business and small disadvantaged business subcontracting plan will be required as part of the cost/business management proposal.

No less than 10% of the total value of the prime contracts will have to be subcontracted to Gray Amendment entities. These entities include: (1) U.S. socially and economically disadvantaged, including women-owned, businesses; (2) historically black colleges and universities; (3) U.S. colleges and universities with at least 40% Hispanic American students; and (4) U.S. private voluntary organizations controlled by socially and economically disadvantaged individuals, including women. To help identify potential subcontractors, a list of all organizations requesting a copy of the prime contract solicitations will be sent with each solicitation document. In the solicitation notices for the prime contracts published in the Commerce Business Daily (CBD), bidders for the prime contracts will be encouraged to indicate whether they are Gray Amendment entities when requesting the solicitation and may indicate that they do not wish to be included on the list. By providing the list, AID does not endorse the listed organizations as being capable of carrying out the activity, nor does AID verify the claimed status of the organizations. Necessarily, the list will contain the names of only those organizations known prior to the issuance of the solicitation document. Proposals submitted in response to the solicitation for prime contracts shall be required to include plans reflecting how the Prime Contractor will subcontract no less than 10% of the value of the prime contract with 8(a) entities, and proposals not including such plans will be considered to be non-responsive.

7.0 MONITORING AND EVALUATION PLAN

7.1 MONITORING

Nine mechanisms will be employed to monitor EXITOS: (1) Annual Work Plans (AWPs); (2) Contractor Annual and Semi-Annual reports; (3) bilateral USAID feedback on the quality of Contractor services provided under the buy-in mechanism; (4) field trips and trip reports; (5) ROCAP SARs; (6) personal contact between ROCAP Project management and the Contract Team; (7) Project financial reports issued by the Controller's Office; (8) external evaluations; and (9) audits. The Project reporting system will include an annual report submitted by the Contractor at or near the end of each year of implementation --either together with or separate from submittal of AWPs--and SARs prepared in or about the months of April and October in each year of implementation.

For monitoring purposes, the Contractor will keep careful records on training activities and beneficiaries. The specific beneficiary data to be collected by the Contractor during implementation will be determined in the first month of implementation, and may include data on (1) gender; (2) business size; (3) business maturity (i.e., new vs. established); and/or (4) business location (i.e., rural vs. urban).

7.2 EVALUATIONS

Two formal external evaluations will take place, a mid-term evaluation in or about Month 23 and an EOP evaluation in or about Month 47 of implementation. The mid-term evaluation will focus on progress in attaining Project objectives at the output level of the logframe, and will recommend changes and adjustments to be implemented over the remainder of the LOP. The EOP evaluation will focus on attainment of Project objectives at the purpose level of the logframe and lessons learned from the Project. The two external evaluation teams will consist of individuals knowledgeable of the NTE subsector in Central America. The methodologies for the evaluations will be developed by ROCAP. All gender and business-specific data collected during the LOP will be reviewed as a specific task of the Mid-term and EOP evaluations. Informal SARs of Project activities and performance will also occur during ROCAP's SAR process. Progress in addressing the issue of sustainability will be specifically addressed in SARs and in the mid-term and EOP evaluations, and the issue will also be raised with bilateral USAIDs (see Section 8.0).

7.3 AUDITS

Project funds (US\$ 110,000) are budgeted for annual performance audits of the U.S. Contractor. The first, a mid-Project audit, will occur in or about Month 12 and a final Project audit will occur in or about Month 47 of implementation. The U.S. Contractor will in addition be subject to the provisions of the Single Audit Act, and regular audits will be performed by the Contractor's cognizant Inspector General.

8.0 POLICY ISSUES

The only significant outstanding issue related to EXITOS is that of sustainability. The success of PROEXAG, and the potential success of EXITOS, are attributable almost entirely to the types and quality of TA provided. EXITOS is not sustainable per se, however, and the Project will not ensure sustainability after the EOP. Since A.I.D. is not in the business of providing project assistance indefinitely, alternatives for sustaining the activities funded after EXITOS terminates need to be articulated and evaluated. At the present time, however, there is insufficient information to either fully articulate or objectively evaluate alternative sustainability vehicles. In the U.S., such services are provided by the federal, state and county governments, universities, corporations, grower associations, and private sector consultants. While the mix of service deliverers most appropriate in the Central American context cannot currently be determined, it is nonetheless anticipated that an additional four years experience under EXITOS will permit realization of this objective.

The absence of assured sustainability does not imply that there should not be a follow-on to EXITOS should it be as successful as its predecessor, but rather demands that A.I.D. begin exploring alternatives for sustainability now and plan to implement the best alternative either late during EXITOS implementation or during a follow-on project. It is anticipated that the economies of scale deriving from provision of EXITOS-type services on a regional basis may help in identifying optimum sustainability alternatives. If an EXITOS follow-on project ensues, it may be designed to implement the best alternative(s) either as a sole purpose-level project objective or as a key purpose-level objective occurring in tandem with the continued objective of increasing NT exports.

Different alternatives for sustaining EXITOS-type activities that are considered practicable given the additional experience gained during implementation will therefore be articulated and evaluated during the Project. Potential alternatives include: (1) institutionalizing the activity in one or more regional public institutions; (2) developing the capacity of the private sector to provide these types of services; (3) developing a mechanism whereby an appropriate team can be permanently fielded and funded by user fees; (4) developing the in-business capacity to provide these types of advice through training of personnel who would return to work for C.A. businesses; or (5) a combination of the above. Progress in addressing the issue will be reviewed during the SAR process, incorporated as a specific output of the mid-term and EOP evaluations, and raised with the region's bilateral USAIDs.

9.0 SUMMARIES OF KEY ANALYSES

9.1 TECHNICAL ANALYSIS

A Technical Analysis for EXITOS is attached as Annex D. PROEXAG was predicated on the belief that improving "know-how" and "know-who" are critical to promoting NTA exports from Central America. Acknowledging that most of the same conditions prevailing during the life of PROEXAG remain applicable, EXITOS expands and builds upon this premise and concurrently addresses many "second generation" NTE issues. EXITOS therefore continues to focus on the deal-making process, but will at the same time work on improving access to the data, information, technology, inputs, equipment, services, contacts and business know-how required to further improve the state of the CA produce deal.

Experience clearly shows that judicious investments in technology development and adaptation are central to the NTE process. One simply cannot launch a program by just importing the required technology--rather on-site adaptive research is needed to adjust technology to the realities of the grower's environment. Lessons learned from Latin American countries (e.g., Chile and Mexico) that have succeeded broadly in promoting NT exports confirm the need for long-term (15 years or more) support to ensure sustained success.

An important point reaffirmed time and again under PROEXAG, however, is that technology cannot stand alone. To facilitate exports, a workable framework with appropriate incentives is required for transferring production technology and market information to growers. The produce "deal" is a useful means of concentrating the TA required to identify weak parts in the export chain, providing the "know-how" to overcome weakness using available information and technology, and applying this knowledge to remedy weak points.

Past experience also clearly show that research-extension capabilities are an essential foundation to long-term agronomic performance of non-traditional crops. The NTE industry cannot survive over the long term without the indigenous agronomic support that is capable of identifying and remedying diseases, pest infestations and productivity constraints. Because public sector commitment in research and extension is either weak or inappropriate to NTE in Central America, and because private sector adaptive research systems are in their infancy, individual entrepreneurs generally have to make their own investments and acquire their own expertise vis-a-vis the technological needs of the respective commodity. By accepting these realities and applying self-starting technological interventions, entrepreneurs have crossed the technological bridge to financial success. EXITOS will build upon PROEXAG success in this respect by applying and fine-tuning successful methodologies that promoted NTE, and by increasing the availability of new production technologies and marketing expertise to local enterprises.

Finally, successful exportation of NT products requires recognition that each combination of crops, product forms, and end-markets is unique. It acknowledges that "know-how" is not just having a knowledge of agricultural production skills, but an understanding of overall system technology. Successfully promoting NTA exports therefore requires: (1) improving entrepreneurial access to the results of applied experimentation (adaptive

research); (2) helping entrepreneur's stay on the "cutting edge" of technology related to production, packaging, delivery and sales; (3) helping them stay abreast of rapid market and market-related changes; and (4) promoting collective action that can cut production and delivery costs.

The technologies and methodologies proposed for EXITOS have been used throughout Central American, and indeed many were introduced into the region by PROEXAG. To successfully expand on these achievements, EXITOS resources and innovations must effectively address constraints related to institutional development, production, post harvest/quality control, marketing, information dissemination and technology transfer. Based on prior project performance, these activities are technically feasible, appropriate, and delivered in an acceptable institutional context. From the technical perspective, therefore, there is every reason to be confident that EXITOS objectives can be achieved with the resources available by the PACD.

9.2 FINANCIAL ANALYSIS

A Financial Analysis of EXITOS, addressing cost estimates, methods of implementation and financing, cost recovery, financial sustainability, cost-effectiveness, and financial management is attached as Annex E. A summary of the findings of the Analysis with respect to cost estimates and methods of implementation and financing are found in Section 4.0, and with respect to financial sustainability in Section 8.0.

EXITOS will finance for a period of four years the operations of a Contract Team that will essentially function as an export service organization. The role of the Contract Team is to enhance the sales and/or volumes of non-traditional exports. One method of enhancing the viability of these NTE enterprises is to increase their ability to deliver technical services, training and information to affiliated growers, transporters, packagers and exporters, and most of the services to be provided by the EXITOS Contract Team will be channelled through these counterpart organizations.

Cost Recovery. Because promotion of non-traditional exports is a relatively new and unusual type of activity for A.I.D., the financial resources used to implement PROEXAG were viewed as sunk costs. While much was learned under that Project, there is still insufficient information available on the rapidly evolving NTE subsector in Central America to fully evaluate how best to financially sustain the activities funded under PROEXAG and EXITOS. EXITOS does not, therefore, anticipate that the services provided under the Project will generate sufficient revenues to cover the costs of the Project, although some costs may be recovered for the TA, training and information services rendered. While no fees for technical assistance are to be charged by EXITOS directly, some counterpart organizations may charge clients at least a portion of the cost incurred to provide EXITOS support services.

Cost-Effectiveness. EXITOS will bring together a highly qualified core staff of seasoned generalists, back them up with the appropriate product and market specialists, fund dissemination of financial information, and provide related backstop resources. It is this package of technical and support resources that will help client entrepreneurs fill the gaps that are critical to entering and sustaining profitability in international markets.

The Financial Analysis found that three essential and explicit financial criteria are met by EXITOS. First, the funds provided by the Project cost-effectively meet the level of services required. In estimating key financial costs, especially those associated with the principal contract, it was necessary to consider both the needs of the NTE subsector and the level of financial resources reasonably available for the Project. Based on these two considerations, and on five years experience with PROEXAG, specific levels of effort were developed for long-term TA, recurrent short-term TA, and specialist short-term TA for the Contract Team that will implement the Project. This level of effort and associated costs strikes a workable and cost-effective balance between developmental and financial considerations.

Second, receipt of Project services represents a cost-effective alternative for the recipients. Because the NTE subsector remains nascent in Central America, development of the subsector rather than financial sustainability of service provision is the key objective of the Project. These two objectives are almost mutually exclusive in the current context of the CA NTE subsector, since most NTE enterprises do not have the level of financial resources required to: (1) develop the "know how" and "know who" required to succeed in the NTE business; (2) acquire the necessary technical, marketing, and managerial services; or (3) establish the required links to world markets. For this reason, most services provided to growers, transporters, packagers and exporters under the Project will be free of charge.

Third, the Project represent a cost-effective alternative to bilateral provision of the same or similar services. Many USAIDs in Central America are developing their own NTE promotion projects, working through national export federations and host government entities. These projects will contribute significantly to an increase in both NT exports and entrepreneurial profitability in CA over the coming years. Many NTE needs, however, can be more efficiently or more cost-effectively met by a single high quality TA team operating on a regional basis. Export deals, for example, are increasingly transnational and many constraints to developing those deals are therefore not easily addressed at the bilateral level. A single regional team can also more cost-effectively (1) develop and maintain international marketing links; (2) address transnational crop problems; (3) conduct NTA research for application in multiple countries; (4) develop/introduce new crops appropriate to multiple countries; and (5) address problems which are specific to crops that are under very limited cultivation in multiple countries.

Experience under PROEXAG clearly demonstrated that a single high quality TA team which rapidly and effectively applies world-class technical resources to specific NTE problems can operate efficiently and cost-effectively with a regional mandate. The cost-effectiveness of providing these types of services

on a regional basis therefore give EXITOS a comparative financial advantage over bilateral approaches to providing the same or similar NTE promotion services, although the bilateral role in NTE promotion is and will remain large.

Financial Management. The financial management systems established under PROEXAG were highly effective. EXITOS will, with minor refinements, operate using similar financial management systems and the Financial Analysis found that the accounting and reporting systems to be established will be capable of adequately supporting the basic management system.

9.3 ECONOMIC ANALYSIS

A detailed Economic Analysis of EXITOS--addressing the policy environment, transportation, market prices and regulatory factors--found the Project to be economically sound (Annex F). The Analysis notes that the rapid growth of the NTE subsector in Central America has foundations in a twenty year history of trial and error. Dominated in the early years by a few opportunistic exporters and profit seekers, often for short-term gain, the industry is now characterized by a large number of firms having established linkages with foreign importers and investments designed to achieve long-term profits. This industry is now making significant contributions to the economies of Central America as measured by foreign exchange earnings, diversification of export earnings, use of more productive technologies (with increased value of production from labor and land), and increased demand on the service industries.

At a level of \$475 million, the CA NTAE subsector is approaching the level of traditional agricultural exports--long the mainstay of foreign exchange earnings in Central America. As prices for traditional agricultural exports have plateaued or fallen in recent years, the earnings from this subsector have taken on new economic and political importance. This economic viability is dependent on several factors apart from natural phenomena, including (1) the policy environment, (2) market prices, (3) market saturation, (4) regulatory factors, (5) the availability of appropriate technology, and (6) Political support.

The Policy Environment. The early days of the industry were characterized by high transaction costs imposed, in part, by a policy framework that emphasized protection of the domestic market and a bias towards traditional export products. While many of these policies have changed, and others are in the process of change, a new policy framework is emerging to support an export oriented environment for all exports. Any changes in this direction will provide further support for NTA exports.

Transportation. Transport charges still represent a significant percentage of the value of the product placed in a foreign wholesale market. What has changed is the increased availability and timeliness of transport services. While transport infrastructure remains a major constraint for expanded exports and increases the costs to producers, market forces have demonstrated a clear

ability to find economic solutions to these problems. The next round of improvements, however, may require more public investment in roads, ports and airports, and more efficient management of public transport facilities.

Market Prices. Notwithstanding the increased volumes of product flowing from Central America to foreign markets, principally the U.S., prices are largely determined by external factors such as consumer demand and seasonal constraints faced by other suppliers. In both cases, all indications point to a continued positive market environment for the CA NTE subsector. Changing diets in the industrialized nations now favor fresh fruits and vegetables, and seasonality of production in northern climates favor CA suppliers. The economic health of buyers is the largest determinant of continued prices sufficiently high to provide profits for growers and exporters, however, a factor beyond the control of Central America.

Concerns about CA oversupply having an strong negative impact on market prices appear negligible. Melons probably represent the best example of increasing flows having a dampening effect on wholesale prices during the export season, but producers and exporters have shown an ability to anticipate the negative impact of oversupply in one market through diversification of both markets and products. Although the U.S. and Canada are "natural" trading partners for NTA exports, for example, efforts to penetrate the European and Japanese markets have also shown some success. The Japanese market still remains largely closed to CA products, however, and experience to date indicates that although this market is potentially lucrative continued attempts to satisfy regulatory requirements and establish reputations for quality products will be required. With respect to product diversification, "older" non-traditional exports--melons and snow peas--have been joined by new products such as asparagus and berries. Most of these are in the initial stages of production and export, however, and have not yet reached significant export volumes.

Regulatory Factors. Meeting health, sanitation, and pest regulations is a continuing problem for the CA NTE subsector. Regulations vary from market to market and are in a constant state of flux, and the subsector must demonstrate a more sophisticated capability to monitor and control products leaving the region. Changing pesticide regulations present the strongest threat to NTA exports. As regulations change and more producers and exporters enter the market, the risk of improper use or misuse of pesticides grows. Awareness by the industry of the importance of regulatory requirements has grown concomitantly, however, and steps to improve information flow--the recognized impediment to adherence to regulations--are receiving increased industry attention.

Conclusions. The NTE industry, and therefore this Project, are faced with several positive and negative factors that determine economic viability. The growth in NT exports over the past several years testifies to the strength of the market, however, and the ability of the industry to adapt to changing conditions. While the industry can still be considered "fragile", a changing policy environment to favor export industries, a strong consumer preference for fresh produce, and successful product and market diversification all suggest a predominance of positive over negative economic factors affecting the viability of the subsector. The Project is therefore considered to be economically sound.

9.4 INSTITUTIONAL ANALYSIS

An Institutional Analysis of EXITOS (Annex G) found that the institutional environment is conducive to successful implementation of the Project. Growth in the NTE subsector depends on the establishment of viable NTE-oriented businesses, and their subsequent expansion in terms of export volume and crop/product/market diversity. The establishment of nationally based entities such as the export federations is predicated on the critical assumption that sufficient potential exists for NTAE products in target markets for the development investment to pay off.

AID's general experience with CA NTE crops--particularly under PROEXAG-- supports the conviction that there is sufficient potential to justify the development investment. Several AID-financed studies (e.g., the "Cross-Cutting Evaluation"; CDIE's "Export Promotion and Investment Promotion: Sustainability and Effective Service Delivery") provide evidence of a positive correlation between export support organizations such as the various CA Federations and NTE growth. PROEXAG data, supported by case histories, suggest that with the participation of these support organization the Project can claim major credit for about \$30 million in incremental annual exports to date, and that the cumulative total may ultimately exceed \$60 million over the five year LOP. PROEXAG personnel note that the export federations played five significant roles in these increases: (1) they offered good entree into the NTE environments; (2) they developed an effective dialogue with public sector agencies in support of improved policies and infrastructure; (3) they served as foreign representatives to the NTE subsector, including channeling of external TA, financial resources and market links; (4) they identified, developed and supported new crops; and (5) they increased technology transfer and information flows.

Informal evaluations suggest that GREMIAL in Guatemala and CINDE in Costa Rica have been the most successful of the participating federations. GREMIAL is given high marks because of its cost efficiency, and was particularly proficient in channeling and managing external technical and financial resources to the NTE subsector even though it did not get the amount of AID funding support as did FPX, CINDE, and FUSADES. CINDE has been cited for its efficiency because of its excellent financial base and good management, and new entrants such as GREXPAN in Panama and APENN in Nicaragua will be emphasized more under EXITOS since the initial working relationships with these federations has been promising.

Although establishment and development of NTE support institutions such as the national or regional federations can help catalyze, accelerate and guide the natural evolutionary processes within the NTE subsector, the long-term sustainability of the industry depends on the viability of the enterprises themselves. Support institutions can facilitate development, but they cannot and should not be an end in themselves. In the final analysis, if NTE businesses are not profitable these institutions will wither away when external funding is exhausted. EXITOS should continue to support institutions such as the federations, and put more emphasis on the newer entities such as APENN and GREXPAN over the next several years. The Project must acknowledge, however, that these support institutions do not have open-ended development mandates.

9.5 SOCIAL SOUNDNESS ANALYSIS

A Social Soundness Analysis of EXITOS is attached as Annex H. The Project recognizes the diversity of Central American societies, and is designed to take advantage of the region's best resource: plentiful, low cost labor with a relatively strong work ethic.

Impact on Urban Populations. One common denominator in CA--as in virtually all countries of the world in the last 30 years--is a continuing influx of labor from rural to urban areas. This has resulted in a shift from the agricultural to the non-agricultural employment sector, and has and will likely continue to result in unemployment and underemployment. Major impacts of this trend include high urban crime rates, stagnating per capita income levels, and increasing pressure on social and physical infrastructure in urban areas. It is generally recognized as a matter of policy throughout CA that urban employment must be improved, preferably in industries oriented toward world markets and therefore less likely to encounter the stagnation and market size limitations that characterized the industrial import substitution efforts of the 1960s and 1970s.

Impact on Rural Populations. EXITOS cannot, however, lose sight of its potential impact on rural Central America. A growing body of information drawn from the experience of national NTE programs in CA suggests that increased commercialization of new crops in traditional smallholder agricultural regions has been economically and socially positive. While the volatile issues of urban employment and related quality of life issues are clearly acknowledged, there is evidence that NTE promotion programs also have significant positive spinoffs by enhancing well-being in rural environments. In Guatemala, El Salvador and Costa Rica, for example, studies suggest that the expansion of export crop production through various cooperative schemes have had major social benefits: strengthening of farmer cooperation, greater interaction between and among rural communities, and an emergence of local trading and entrepreneurship because of new crop introductions.

Expanding the potential of NTE will depend on how well marketing channels function with respect to inputs and outputs. Constant attention should be paid to reducing the inherent risks of new crop programs, since most small holder farmers have a great deal to lose by failure of what is perceived by some of them as "experimentation." With proper social articulation in expanding NTE programs, however, it is evident that producers can adequately compete and be as efficient or nearly as efficient in some crop production as large scale farm enterprises.

Impact on Women. Recent studies also indicate that the overall assessment of the impact of NTE on the income of women is positive. In two of the three countries studied (Guatemala, and Honduras), women were more likely than men to find permanent employment for the crops considered. In the third country, Costa Rica, the percentage of men and women permanently employed in production of the products considered was remarkably high for both genders (66% for women, 77% for men). Permanent employment in the high profile NTE sector is therefore probably one of the best assurances of a steady income an agriculturally employed person can have in these countries. This is

especially true when contrasted with traditional export crops: excluding bananas, production of such traditional export crops as sugar, coffee and cotton is seasonal. With the exception of a core field staff, all positions are seasonal and the overwhelming majority of positions open to women are concentrated in harvesting and paid at a piece rate. Opportunities for women to advance to supervisory levels in NTE production, however, are almost non-existent. The skills they master are usually not transferable except to another similar job, and even then they rarely translate into a wage benefit. Legislation designed specifically to benefit women over men, moreover, also appears at risk of working to women's disadvantage.

In short, the NTE industry clearly generates employment options for women, and in most cases assures them of a higher (government-established) minimum daily wage than multinational enterprises at their central facilities are likely to pay. It does not, however, ensure women the incentive of advancement or the financial rewards that accompany it. All indications are that NTE employment is at worst neutral, but more likely positive in its effects on the quality of life of women. In addition to assuring better hours and recognized payment of overtime than is ordinarily available to hired labor, employment in the NTE industry appears to be the preferred employment alternative available--with about two-thirds of women identifying their only other options as domestic services or staying at home. NTE multinational enterprises also generally provide satisfactory physical working conditions (including basic sanitary facilities) to their workers at central facilities for packing and greenhouse cultivation.

Beneficiaries. The immediate beneficiaries of EXITOS will be the export production businessmen and their work forces, a significant proportion of the working population in Central America. Project benefits will be in the form of more income for workers as production expands, and more profits for owners through improved operating efficiencies. Women will be major workforce beneficiaries, especially in food processing and agriculturally related assembly operations.

Potential Issues. Specific social issues directly related to EXITOS that may arise during Project implementation (e.g., regarding income gains and distribution) may be assessed using ROCAP-managed funds from the "Special Studies" line item of the EXITOS budget. All human data collected during the LOP of EXITOS will be gender disaggregated to the extent practicable, and reviewed as a specific task of the Mid-term and EOP evaluations. Following the mid-term evaluation, consideration will also be given to modifying applicable EXITOS progress indicators to incorporate specific gender issues that arise during the first two years of Project implementation.

9.6 ENVIRONMENTAL ASSESSMENT

The Initial Environmental Examination (IEE) for EXITOS recommended a Positive Threshold Decision (Annex I). Because EXITOS will almost exclusively fund advisory TA, no significant direct Project impacts were identified in the IEE; the rationale for the Positive Determination was that while EXITOS itself will have no direct environmental impact of any kind, it may have indirect adverse environmental impact by continuing to support NT export activities.

Pursuant to 22 CFR 216.3(a)(4), the IEE examined the reasonably foreseeable environmental impacts of EXITOS and a Scoping Statement was prepared for the Environmental Assessment (EA). This was submitted by cable to the LAC Bureau Environmental Officer (BEO) in AID/W for concurrence. The BEO concurred with the Scoping Statement in May 1991 (State 153200), and an EA was subsequently prepared (Annex I). Although only the Agricultural Component of EXITOS will be authorized in FY'91, the EA prepared for the Project also assessed the reasonably foreseeable environmental impacts likely to result from an EXITOS Light Industrial Component which ROCAP plans to design in FY'92. The EA was approved by the LAC/BEO on 22 August 1991 (FAX No. LAC-EA-91-05), subject to "incorporation into EXITOS of a monitoring program designed to identify and minimize, in a timely manner, any detrimental environmental effects directly or indirectly caused by project activities, such as conversion of wildlands to agriculture or significant contribution to industrial pollution...Assessment of progress and outcome of monitoring activities should be incorporated into the formal project evaluation process".

The EXITOS EA discusses the reasonably foreseeable environmental impacts of the Project and of two alternatives thereto. Pursuant to 22 CFR 216.6(c), it includes a discussion of the purpose of the EA, a summary comparison of the alternatives, a discussion of the affected environment, and an assessment of environmental consequences of the alternatives. Measures to mitigate any potential adverse environmental impacts which may result from Project implementation are also discussed.

The Alternatives. Three alternatives, including the proposed action (i.e., EXITOS), were evaluated for environmental assessment purposes. These alternatives are: (1) the Project as described in this Project Paper; (2) a Project designed to identify and analyze the environmental impacts associated with a continuation of the non-traditional export trend in Central America; and (3) the No Action Alternative, i.e., no continued NTE support activities funded by ROCAP after termination of the ongoing PROEXAG Project.

The Issues. Three potentially significant adverse environmental impacts were identified during EXITOS project development which may indirectly result from provision of TA to promote NT exports. These three issues, refined during preparation of and addressed in the EA, are: (1) the effects of the Project on pesticide use; (2) the effects of the Project on conflicting natural resource demands; and (3) the effects of the Project on industrial pollution and waste disposal problems.

Environmental Consequences. EXITOS will have no direct impact on the environment, and as a project promoting improved NTE operations it should result in few significant adverse indirect environmental impacts.

Pesticides. Except for limited research and field evaluation purposes by or under the supervision of Project personnel, EXITOS will neither procure nor use pesticides and no direct adverse pesticide impacts will therefore result from Project implementation. NTE crop production still relies on pesticide use for control of diseases and pests in Central America, and promotion of NTE crop production will most likely indirectly affect overall levels of pesticide use on a site-specific basis--increasing or decreasing use volumes depending

upon circumstances. EXITOS will not directly advise farmers on pesticide applications, but will refer pesticide-related technical demands to existing expert organizations, private consulting firms and/or governmental agricultural services. It will thereby--as with PROEXAG--continue to significantly improve awareness of regulations and restrictions governing pesticide use and the financial and environmental impacts resulting from misuse of agrochemicals. The Project is therefore expected to have a significant beneficial impact on pesticide management and use compared to pesticide management practices under the no action scenario.

Natural Resource Use Conflicts. EXITOS will not directly affect the rate or extent of land conversion to NTE crop production. The Project could indirectly contribute to such conversion to the extent that the TA provided under the Project contributes to the expansion of production areas of the existing export-related operations targetted by the Project. Some conversion may also occur indirectly by non-target producers outside the control of EXITOS who try to emulate EXITOS growers. Most land converted by such producers to NTE crops is agricultural land under traditional crop production. The net indirect impact of the Project on land conversion is unknown at this time.

Pollution and Waste Disposal. EXITOS will neither directly cause nor directly exacerbate industrial pollution/waste disposal problems. The target industries that would be supported are primarily existing operations, and indirectly the Project could contribute to such problems to the extent that TA results in an expansion of activities that cause pollution.

Mitigating and Environmental Enhancement Measures. **Pesticides.** EXITOS will have no direct adverse impact on pesticide use. It will have substantial indirect beneficial impact, however, and perhaps some indirect adverse impact. The Project will support activities that promote better pesticide management practices and serve to mitigate any adverse impact that might result from Project implementation. Training and information delivery support will mostly occur through regional and national organizations (e.g., CATIE, Zamorano, INCAP), and will mostly be funded by existing natural resource management projects in the region (e.g., RENARM, HADS II, LUPE). EXITOS will act as a broker directing pesticide-related demands towards appropriate regional and local reference groups, expanding on the progress realized under PROEXAG in developing these networks. Regional IPM networks around specific crops or themes will be promoted as appropriate, with select country or regional organizations assuming lead responsibility in carrying out IPM technical activities. EXITOS will also strengthen referral systems in the region for IPM diagnostic services with universities, governments, research and training organizations, and technical service entities of corporations. It will, in addition, facilitate integration and collaboration of regional organizations and bilateral activities in pesticide management through training and awareness programs. All cultivars introduced under EXITOS will be introduced through formal government quarantine programs.

Natural Resource Use Conflicts. EXITOS will have no direct, and little significant indirect impact on natural resource use conflicts. It will help mitigate existing natural resource use conflicts, however, by providing

funding to help articulate and objectively evaluate the larger issue of NTE promotion and its effect on land use patterns. It will also indirectly reduce the need to convert additional lands by providing the TA required to improve NTE crop management practices that contribute to intensification as opposed to extensification of agriculture. It may, moreover, directly help mitigate other specific natural resource use conflicts on a case-by-case basis as appropriate through provision of short-term TA and/or training.

Pollution and Waste Disposal. EXITOS will have no direct, and little if any significant indirect impact on industrial pollution or waste disposal problems. It will nonetheless indirectly help mitigate pollution/waste disposal problems by providing the TA required to help NTI operators improve their operations and become more responsible--and therefore profitable--businessmen. It may, moreover, directly help mitigate specific pollution/waste disposal problems on a case-by-case basis as appropriate through provision of short-term TA and/or training.

Annexes

Annex A

Project Approval Summary

Annex A

Project Approval Summary

A chronological summary of communications regarding proposal, approval and development of EXITOS is as follows:

FY'91-92 Action Plan (March 1990). EXITOS was included in ROCAP's approved FY'91-92 Action Plan (dated March 1990) under the name "Nontraditional Export Support". The New Project Description (NPD) for EXITOS in that Action Plan remains fully consistent with the Project as designed, i.e., having "two interacting components: 1) the continuation of the PROEXAG project with few modifications, and 2) using the PROEXAG model, providing assistance to the light industry sector". In this Action Plan, ROCAP requested authority to approve the PID and the PP in the field. PID approval was anticipated for January 1991, and PP approval for June 1991.

Programmatic Approval for EXITOS (May 1990). At the formal review of ROCAP's FY'91-92 Action Plan in AID/W (2 May 1990), chaired by DAA/LAC Fred Schieck, ROCAP was "given programmatic approval for the Project" and "asked to closely evaluate the potential of the proposed industry activity and advise AID/W if the design will not include this activity (90 State 173580).

FY'92 Congressional Presentation (February 1991). EXITOS was included in ROCAP's FY'92 CP (issued by AID/W in February 1991) under the name of Nontraditional Export Support.

FY'92-93 Draft Action Plan (April 1991). ROCAP's Draft FY'92-93 Action Plan--reviewed at the April Mission Director's Conference in Guatemala but still under revision--included EXITOS as an FY'91 obligation.

Mission Directors Conference (April 1991). The 1991 conference for the CA Mission Directors, chaired by AA/LAC Ambassador Michel, was held in Guatemala City 11-13 April 1991. At that meeting, "it was agreed by the AA/LAC that ROCAP's proposed FY'91 program should proceed as planned except that plans for the follow-on program for PROEXAG would be examined to consider whether an industrial component would be included at this time. ROCAP will continue to confer with the USAIDs during the process" (State 159235, May 1991).

The EXITOS PID (April 1991). The EXITOS PID, begun in January, was completed, circulated for review through the bilateral USAIDs, and approved by ROCAP following the Mission Directors Conference on 23 April 1991.

FY'93 ABS (June 1991). EXITOS was included in ROCAP's FY'93 ABS--issued by AID/W in June 1991--at an authorized level of US\$ 8,500,000 and a planned level of US\$ 14,000,000.

Congressional Notification (July 1991). A Congressional Notification for the Agricultural Component of EXITOS was submitted to Congress on July 26, and expired on August 10.

Annex B

Logical Framework

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Logical Framework
 EXITOS: 596-0165

<u>Level</u>	<u>Objectively Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
Goal:			(Both Goal and Purpose Levels)
Broad-Based, Sustainable Economic Growth in Central America.	<ol style="list-style-type: none"> 1. Financially sustainable private sector organizations supporting trade and investment in each CA country. 2. CA market information systems and networks meeting private sector trade and investment needs. 3. Number of CA agribusinesses increasing by 10% per year. 4. CA trade linkages with US and neighboring markets increasing by 15% per year. 	<ol style="list-style-type: none"> 1. Export federation financial streamflow data. 2. Survey of CA producers and exporters. 3. National agribusiness statistics. 4. CA export federation statistics. 	<p>Political stability;</p> <p>No unusual weather calamities;</p> <p>Adequate energy resources;</p> <p>No decline in market openness;</p> <p>Export policy environment does not deteriorate.</p>
Purpose:	<u>EOPS</u>		
To Increase the Sales and/or Volumes of Central American Non-Traditional Exports.	<ol style="list-style-type: none"> 1. CIF POE export sales of EXITOS client NTAE businesses increase by 15%/year over LOP. 2. Aggregate NTAE export sales for CA increase by US\$60 million by EOP. 3. POE NTAE export volumes increase by 12%/year over LOP. 4. Aggregate NTAE export volumes increase by 40% by EOP excluding bananas, pineapples and citrus products. 	<ol style="list-style-type: none"> 1. Contractor case studies. 2. USDA, USDOC and other official government statistics at POEs. 3. Contractor case studies. 4. USDA, USDOC and other official government statistics at POEs. 	

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Logical Framework
 EXITOS: 596-0165

<u>Level</u>	<u>Objectively Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
OUTPUTS			
A. Institutional:			
1. Increased indigenous NTE technical services capacity.	A.1. Export federation memberships increase 30% by EOP. Revenue generation by export federations related to member services increases by 30% by EOP. 20 new Crop Associations established and still in operation at EOP.	A.1. Export federation data; EOP evaluation. Export federation data; EOP evaluation. Contractor records.	(All Outputs) Demand exists for Project services. Effective Advisors. Entrepreneurial follow-through.
B. Corporate:			
1. NTE businesses improved.	B.1. 250 NTAE businesses receive Project assistance.	B.1. Contractor Records.	
2. Increased awareness and knowledge of export market opportunities.	B.2. 200 new export market opportunities convey to NTAE businesses.	B.2. Contractor records.	
3. Improved market exploitation.	B.3. 60 NTAE deals made over the LOP.	B.3. Contractor Records.	
4. Increased corporate use of improved technology.	B.4. 50 adoptions of key production/marketing technologies by NTAE businesses over the LOP.	B.4. Contractor Records.	

CP

Logical Framework
EXITOS: 596-0165

<u>Level</u>	<u>Objectively Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
OUTPUTS (Continued)			
C. <u>Commodity:</u>			
1. Better product quality.	C.1. 50% decrease in rejection rates for designated NTAE clients over the LOP. Weighted reduction of 10% of NTAE shipments rejected at or near POE due to phytosanitary problems over the LOP.	C.1. Contractor records and case studies. Data from FDA, Aphis and pest plant quarantine authorities in other major target countries.	
2. New products.	C.2. 20 new NTAE crops and/or crop product-country combinations exported for more than one season over LOP.	C.2. Contractor Records.	
<hr/>			
D. <u>Human:</u>			
1. Businessmen trained.	D.1. 7500 NTAE businessmen from 500 companies trained.	D.1. Contractor Records.	
<hr/>			

<u>Level</u>	<u>Objectively Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
<u>INPUTS</u>	<u>COSTS</u>		
A. Principal Contract	\$ 6,935,000	Signed Contract.	Funds Available; Acceptable proposals; Contractor compliance.
B. Special Studies	275,000	Final Study Reports.	
C. ARS/Miami	110,000	Annual Reports.	
D. PSC Project Manager	675,000	Signed Contract.	
E. Evaluations/Audits	160,000	Evaluation/Audit Reports.	
F. Contingencies/Inflation	345,000	MACS Reports.	
Subtotal	\$ 8,500,000		
Buy-ins (estimate)	\$ 5,000,000	PIO/Ts.	Demand meets estimates.
TOTAL (<u>NTAE Component</u>)	\$13,500,000		
TOTAL (<u>NTIE Component</u>) (estimate)	\$ 5,500,000	Signed Contract.	Amendment approval.
<u>GRAND TOTAL</u>	\$19,000,000		

18.

Annex C
Statutory Checklist

Annex C
Statutory Checklist

5C(2) - ASSISTANCE CHECKLIST

Listed below are statutory criteria applicable to the assistance resources themselves, rather than to the eligibility of a country to receive assistance. This section is divided into three parts. Part A includes criteria applicable to both Development Assistance and Economic Support Fund resources. Part B includes criteria applicable only to Development Assistance resources. Part C includes criteria applicable only to Economic Support Funds.

CROSS REFERENCE: IS COUNTRY CHECKLIST UP TO DATE?

A. CRITERIA APPLICABLE TO BOTH DEVELOPMENT ASSISTANCE AND ECONOMIC SUPPORT FUNDS

1. Host Country Development Efforts (FAA Sec. 601(a)): Information and conclusions on whether assistance 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.

2. U.S. Private Trade and Investment (FAA Sec. 601(b)): Information and conclusions on how assistance 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).

1. This is a trade and development project whereby agricultural producers and exporters will expand the amt of non-traditional agricultural export crops and concurrently improve the quality of these crops for the international market place. It will a) increase international trade, b) foster private initiatives and competition, c) strengthen cooperatives, and federations etc., d) expand client group, e) improve the operating efficiency of agricultural based enterprises, and f) indirectly enhance free labor unions.

2. Using private trade channels and U.S. private enterprises are cornerstones to this initiative.

6. **Water Resources (FAA Sec. 611(b); FY 1991 Appropriations Act Sec. 501):** 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, et seq.)? (See A.I.D. Handbook 3 for guidelines.)

N/A

7. **Cash Transfer and Sector Assistance (FY 1991 Appropriations Act Sec. 575(b)):** Will cash transfer or nonproject sector assistance be maintained in a separate account and not commingled with other funds (unless such requirements are waived by Congressional notice for nonproject sector assistance)?

N/A

8. **Capital Assistance (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 to maintain and utilize the project effectively?

N/A

9. **Multiple Country Objectives (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.

This regional activity is to increase international trade by expanding non-traditional export crops; strengthen the private sector; enhance the economic viability of cooperatives and federations; promote competition; introduce new crops, new production methods, identify new growers, new exporters and new markets.

10. **U.S. Private Trade (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).

An objective is increased U.S. private trade and investment in CA region with their regional counterparts to promote quality non-traditional export products from CA.

(4) If assistance is terminated to a country, will any unencumbered balances of funds remaining in a separate account be disposed of for purposes agreed to by the recipient government and the United States Government?

12. Trade Restrictions

a. **Surplus Commodities (FY 1991 Appropriations Act Sec. 521(a)):** 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?

b. **Textiles (Lautenberg Amendment) (FY 1991 Appropriations Act Sec. 521(c)):** 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?

13. **Tropical Forests (FY 1991 Appropriations Act Sec. 533(c)(3)):** Will funds be used for any program, project or activity which would (a) result in any significant loss of tropical forests, or (b) involve industrial timber extraction in primary tropical forest areas?

This project is not designed to promote agricultural exports that will glut the world market. It is to improve firm-level efficiency, lower per unit production costs, and greater competitiveness in world markets. It will help encourage products to compete in the U.S. market during those "windows of opportunity" when U.S. products are not readily available for the consuming public.

NO

No. Non-traditional exports crops in C.A. have demonstrated that it helps prevent the degradation of land by intensifying and stabilizing shifting cultivation systems on already cleared or open lands. Little evidence suggests adverse affects on forest lands.

extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate? Will A.I.D. specifications use metric units of measure from the earliest programmatic stages, and from the earliest documentation of the assistance processes (for example, project papers) involving quantifiable measurements (length, area, volume, capacity, mass and weight), through the implementation stage?

18. Women in Development (FY 1991 Appropriations Act, Title II, under heading "Women in Development"): Will assistance be designed so that the percentage of women participants will be demonstrably increased?

19. Regional and Multilateral Assistance (FAA Sec. 209): Is assistance more efficiently and effectively provided through regional or multilateral organizations? If so, why is assistance not so provided? Information and conclusions on whether assistance will encourage developing countries to cooperate in regional development programs.

20. Abortions (FY 1991 Appropriations Act, Title II, under heading "Population, DA," and Sec. 525):

a. Will assistance be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization?

b. Will any funds be used to lobby for abortion?

21. Cooperatives (FAA Sec. 111): Will assistance help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life?

Recent assessments demonstrate that EXITOS activities offer significant opportunities for women and efforts will be made in the project to facilitate expanded roles for women.

19. This is a project highly dependent on private sector organizations (production federations) throughout the countries of C.A. In select cases, participation of regional research and training institutions will be encouraged.

NO

NO

This project will facilitate and strengthen, as appropriate, the economic viability of cooperatives and the various production/marketing federations within the region.

under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.)

f. Cargo preference shipping (FAA Sec. 603): Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

NO

g. Technical assistance (FAA Sec. 621(a)): If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

YES

h. U.S. air carriers (International Air Transportation Fair Competitive Practices Act, 1974): If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

YES

i. Termination for convenience of U.S. Government (FY 1991 Appropriations Act Sec. 504): If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

YES

c. Large projects, Congressional approval (FAA Sec. 620(k)): If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the Congressional Presentation), or does assistance have the express approval of Congress?

N/A

25. U.S. Audit Rights (FAA Sec. 301(d)): If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?

YES, as appropriate.

26. Communist Assistance (FAA Sec. 620(h)). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries?

NC

27. Narcotics

a. Cash reimbursements (FAA Sec. 483): Will arrangements preclude use of financing to make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated?

Y

b. Assistance to narcotics traffickers (FAA Sec. 487): Will arrangements take "all reasonable steps" to preclude use of financing to or through individuals or entities which we know or have reason to believe have either: (1) been convicted of a violation of any law or regulation of the United States or a foreign country relating to narcotics (or other controlled substances); or (2) been an illicit trafficker in, or otherwise involved in the illicit trafficking of, any such controlled substance?

Y

B. CRITERIA APPLICABLE TO DEVELOPMENT ASSISTANCE ONLY

1. Agricultural Exports (Bumpers Amendment) (FY 1991 Appropriations Act Sec. 521(b), as interpreted by conference report for original enactment): 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: (1) 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 (2) in support of research that is intended primarily to benefit U.S. producers?

Project activities are neither so specifically and principally designed, nor are they in support of research that is intended primarily to benefit U.S. producers.

2. Tied Aid Credits (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund"): Will DA funds be used for tied aid credits?

N/A

3. Appropriate Technology (FAA Sec. 107): Is special emphasis placed on use of appropriate technology (defined as relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

Where new crop and new production methods are being introduced, tested and used, appropriate technologies which are cost saving, efficient, and scale neutral for small producers will be encouraged.

4. Indigenous Needs and Resources (FAA Sec. 281(b)): Describe extent to which the activity 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 civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

Programs that actively promote free and open trade such as this activity indirectly advances the cause of civic education, political awareness and self government. The Antigua Accords noted that governments in the region should "encourage the increase of non-traditional agricultural exports."

5. Economic Development (FAA Sec. 101(a)): Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

Yes

6. Special Development Emphases (FAA Secs. 102(b), 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 insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (b) 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.

This Project encourages a strong self-help effort on the part of private sector organizations - particularly the farmer based federation to develop better economic viability in their production-marketing activities. This is a regional project which will impact on a number of private/public national institutions as well as regional enterprises and institutions.

7. Recipient Country Contribution (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

8. Benefit to Poor Majority (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?

Beneficiaries will include members of the "poor majority"

Yes

601(e)): Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

- 11. **Disadvantaged Enterprises (FY 1991 Appropriations Act Sec. 567):** What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 40 percent of the students are Hispanic Americans, 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)?

Contract procurement will be a full and open competition. The ROCAP encourages the participation to the maximum extent possible of small disadvantaged business concerns, women-owned small business concerns and other small business concerns. No portion of the project funds were specifically set aside for disadvantaged enterprises.

12. **Biological Diversity (FAA Sec. 119(g):** 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?

This project will not directly affect the rate of extend of land to non-traditional crop production. It can indirectly enhance soil and water conservation as well as better natural resource management, at the farm and regional level.

13. **Tropical Forests (FAA Sec. 118; FY 1991 Appropriations Act Sec. 533(c)-(e) & (g)):**

a. **A.I.F. Regulation 16:** Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16?

Yes

b. **Conservation:** Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent

14. **Energy (FY 1991 Appropriations Act Sec. 533(c)):** If assistance relates to energy, will such assistance focus on: (a) end-use energy efficiency, least-cost energy planning, and renewable energy resources, and (b) the key countries where assistance would have the greatest impact on reducing emissions from greenhouse gases?

N/A

15. **Sub-Saharan Africa Assistance (FY 1991 Appropriations Act Sec. 562, adding a new FAA chapter 10 (FAA Sec. 496)):** If assistance will come from the Sub-Saharan Africa DA account, is it: (a) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (b) to be used to promote sustained economic growth, encourage private sector development, promote individual initiatives, and help to reduce the role of central governments in areas more appropriate for the private sector; (c) being provided in accordance with the policies contained in FAA section 102; (d) being provided in close consultation with African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (e) being used to promote reform of sectoral economic policies, to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating opportunities, to bring about appropriate sectoral restructuring of the Sub-Saharan African economies, to support reform in public administration and finances and to establish a favorable environment for individual enterprise and self-sustaining development, and to take into account, in assisted policy reforms, the need to protect vulnerable groups; (f) being used to increase agricultural production in ways that protect and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks,

N/A

b. Long-range plans (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?

YES

c. Interest rate (FAA Sec. 122(b)): If development loan is repayable in dollars, is interest rate at least 2 percent per annum during a grace period which is not to exceed ten years, and at least 3 percent per annum thereafter?

N/A

d. Exports to United States (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?

Agricultural commodities promoted under this project complement or supplement similar products produced in the U.S.

19. Development Objectives (FAA Secs. 102(a), 111, 113, 281(a)): Extent to which activity will: (1) effectively involve the poor in development, by expanding access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (2) 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; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries?

This is basically a self help project to the agriculture based private sector. It enhances the economy at the local, national and regional level; facilitates better economic viability to local production/marketing cooperatives-including the federations; offers wide range of opportunities for women employment; and strengthens CA regional efforts in export trade promotion.

mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems, and other modes of community outreach.

22. Education and Human Resources Development (FAA Sec. 105): If assistance is being made available for education, public administration, or human resource development, describe (a) extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, and strengthens management capability of institutions enabling the poor to participate in development; and (b) extent to which assistance provides advanced education and training of people of developing countries in such disciplines as are required for planning and implementation of public and private development activities.

Training opportunities at the private sector level to improve agricultural/marketing programs and it will be done with the active participation of local institutions such as the federations, input enterprises and the regional research and education institutions (e.g. Zamorano, GATIE)

23. Energy, Private Voluntary Organizations, and Selected Development Activities (FAA Sec. 106): If assistance is being made available for energy, private voluntary organizations, and selected development problems, describe extent to which activity is:

N/A

a. concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; and facilitative of research on and development and use of small-scale, decentralized, renewable energy sources for rural areas, emphasizing development of energy resources which are environmentally acceptable and require minimum capital investment;

b. concerned with technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

C. **CRITERIA APPLICABLE TO ECONOMIC SUPPORT FUNDS ONLY**

N/A

1. **Economic and Political Stability (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?

2. **Military Purposes (FAA Sec. 531(e)):** Will this assistance be used for military or paramilitary purposes?

3. **Commodity Grants/Separate Accounts (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?

4. **Generation and Use of Local Currencies (FAA Sec. 531(d)):** Will ESF funds made available for commodity import programs or other program assistance be used to generate local currencies? If so, will at least 50 percent of such local currencies be available to support activities consistent with the objectives of FAA sections 103 through 106?

5. **Cash Transfer Requirements (FY 1991 Appropriations Act, Title II, under heading "Economic Support Fund," and Sec. 575(b)).** If assistance is in the form of a cash transfer:

a. **Separate account:** Are all such cash payments to be maintained by the country in a separate account and not to be commingled with any other funds?

Annex D

Technical Analysis

Annex D

Technical Analysis

1.0 INTRODUCTION

PROEXAG was predicated on the belief that "know-how" and "know-who" were the two absolutely critical ingredients required to promote the NTAE subsector in Central America. EXITOS expands and builds upon these premises and moves on to address many "second generation" issues related to non-traditional agricultural exports. It also acknowledges, however, that many of the same conditions which prevailed during the life of PROEXAG are applicable to this new initiative.

The fundamental learning experience gained in PROEXAG is that the technology adaptation process for NTAE crops can only work if the critical tasks inherent to the process are systematically addressed and are economically and socially viable. Based on a review of progress reports and special analytical studies, four guiding principles emerged from PROEXAG:

- (1) Identify marketing opportunities and comparative advantages;
- (2) Employ the right technology;
- (3) Produce for the market; and
- (4) Sustain the services.

The following represents a more comprehensive picture of the above stated observations.

2.0 MARKETING OPPORTUNITIES AND COMPARATIVE ADVANTAGE

The existence of a market is essential if an entrepreneur is going to export any non-traditional crop successfully. NTAE businesses are high-risk ventures, but viability in these enterprises can be significantly reduced if they: (1) develop the skills and managerial ability to identify, penetrate, maintain and, where possible, expand the market for locally produced NTAE crops in the face of viable competition and changing circumstances; (2) have the capacity to withstand losses during start-up and during "down" seasons; and (3) maintain the ability to generate an acceptable return on the capital investment over the medium to long-term. The essence of a successful NTAE enterprise is that it is built around one or more competitive advantages-- usually an economy of place, time or location. However, competitiveness and

comparative advantage are relative and subject to change. Entrepreneurial capability is not only important in identifying and exploiting competitive advantages, but in maintaining that advantage and expanding or adding to it over time. The case study summarized by PROEXAG in illustration A (attached) demonstrates how one firm in the PROEXAG activity made good use of marketing opportunities for a commodity that has its own unique grower/exporter environment.

3.0 THE RIGHT TECHNOLOGY

Research and extension are the essential building blocks for long-term agronomic performance in any agricultural system. It is especially critical in a non-traditional system where new crops are being exploited. Successful experience establishing non-traditional export crops in the U.S., Chile, Mexico, and New Zealand strongly suggests that the main impetus and direction for NTAE-type development has to come from the private growers, shippers and exporters themselves. Yet these businesses remain high risk ventures because they: (1) usually involve a relatively new crop that has an unproven local technological base, thus needing considerable local adaptation; (2) are subject to unpredictable weather and ever-increasing pest and disease problems; (3) generally involve a highly perishable crop; (4) have very little agro-ecological margin for error or correction; and (5) require consistent and timely access to inputs.

The reality is that NTAE enterprises have little "learning time" in any given season to make necessary corrections and/or modifications. New crops also often perform unpredictably in new and untested environments, and therefore site-specific technologies need to be tested and worked out. This takes time. Establishing and sustaining these enterprises in the region then becomes a long-term undertaking. It took over 15 years in Chile and 20-30 years in Mexico, for example, before many of these "new crop"-oriented businesses became self sustaining. Even with the proliferation of quality research complexes around the world, it must be recognized that much of the technology is still generated and tested on experiment stations under more controlled environments. Not enough of this is being tested over a long enough period by working farmers on their own farms and under realistic conditions of work and actual site-specific agro-ecological conditions.

Because the public sector role in the overall research-extension system is often times weak, and the private sector adaptive research program for the non-traditional crops is in its infancy, individual entrepreneurs often have to make their own investments in adaptive research to identify the appropriate technology for growing crops under CA agro-climatic conditions. The important lesson here is that in case after case in Central America, success has been possible when the exporter and grower maintain control over technological needs and themselves secure the best available resources.

In Guatemala, for example, a melon exporting venture which became very successful was based on a technology adaptation process using resources and technical expertise from local and stateside research institutions. This process, which took place over several seasons, focused on varietal

selections, improved cultural practices, appropriate agro-chemical usage, virus control and post harvest handling practices. This particular grower/exporter enhanced his technological parameters by addressing specific melon concerns brought on by soil fertility, and by disease and insect control problems. Specialists were bought in and are still being used on a retainer basis to address crop-specific problems.

This example shows that learning how to grow and export melons is a systematic process. It takes a rational and scientific approach rather than the oft-pursued "trial and error" approach. Experience demonstrates that the more an entrepreneur takes a systematic approach to working out the steps for growing and exporting a crop, the more likely he will succeed. This is not to imply that mistakes will not be made, but rather that the entrepreneur that takes a systematic approach in nailing down the technological package required to make the exporting venture successful is most likely to survive and be financially rewarded. PROEXAG staff did a particularly good job in understanding this experimentation process, and were instrumental in establishing the foundation upon which a successful follow-on project could be constructed.

4.0 MARKET-SPECIFIC PRODUCTION

One of the lessons learned under PROEXAG, in developing NTAE production schemes oriented towards a specific market, is that the basic skill required is not so much having just the agricultural knowledge but rather having the appropriate task orientation. There is really no simple formula to assist entrepreneurs, but there are many resources that can provide information to guide or support entrepreneurial learning capacities in a wide range of disciplines and processes. In Central America, these resources include:

- Export development support activities (e.g. PROEXAG)
- Established NTAE organizations (e.g. FEPROEXAAH, CAAP)
- Cooperatives/farmer organizations/independent growers
- Transport companies
- Multinationals (e.g. United Fruit, Del Monte)
- Adaptive research organizations (e.g. ICTA, FHIA)
- Regional/country universities
- Equipment/input vendors (e.g. seed, fertilizers, pesticides)

Each source can provide information in growing and exporting a selected non-traditional crop. However, few can provide all of the information needed. Getting this information costs money and/or time, and the entrepreneur must therefore learn to acquire information selectively and efficiently. Analysis has shown that technology transfer is an integrated process and that it requires good working relationships among growers, exporters and other interveners such as sales agents. As experience from PROEXAG has shown, relying on single solutions to address very complex production-marketing problems usually does not work. All aspects of the business are important and they must fit together if long-term successes are to be achieved. Illustration B, prepared under PROEXAG, demonstrates clearly the benefit of treating all components of the system in an integrated manner.

5.0 SUSTAINING THE SERVICES

What really determines whether an NTAE crop is viable and sustainable over time is its profitability, both absolute and relative to alternative crops. Based on this premise, PROEXAG was conceived to "create and/or strengthen private sector capabilities through hands-on training and technical skills related to production technologies and market intelligence for non-traditional agricultural exports". Using the Project resources of technical assistance, training and equipment/commodities, PROEXAG developed a three pronged approach in perfecting the "know-how" and "know-who" for making produce deals work. Essentially, it evolved into three time-sequenced activities:

Short-Term: Providing technical and entrepreneurial assistance to individual enterprises in order to establish as quickly as possible self-sustaining growth in exports of non-traditional crops.

Medium-Term: Strengthening the capacity of export support organizations to represent and defend the interests of the NTAE subsector and to provide or facilitate the provision of general support services.

Long-Term: Transferring (crop by crop) technical information and contacts within the industry to groups of producers and exporters as a means of strengthening their capacity to access information, technology, expert advice, and markets.

As simple and as straightforward the approach may appear to be, the reality is that there are no simple formulas to follow for creating entrepreneurs. PROEXAG demonstrated that donors can facilitate entrepreneurial access to knowledge and information about growing, packing, and exporting NTAE crops. Facilitating such access reduces costs and the risks of entry to the industry, which in turn increases incentives for these entrepreneurs to enter the market. A.I.D. or other donor assistance generally cannot create a pool of entrepreneurial talent. The evidence shows, however, that assistance can help individuals or organizations/associations to grow and export non-traditional crops provided there are entrepreneurs committed to learning how to grow and export these crops.

Unlike many multi-faceted development projects, PROEXAG did not try to create or redesign a production/marketing system. It essentially played the role of being a "learning" catalyst whereby it could help entrepreneurs be better exporters more rapidly and more effectively. It was not in the business of creating new institutions. While PROEXAG specialists provided direct assistance to individual growers and shippers, they provided the latest market information to export organizations, growers, and shippers through interpretative analyses and the management of customized data bases. Through this and other resource inputs, the Project tried to build a self-sustaining capability within these institutions to better meet the challenge of non-traditional exports.

The skillful, energetic, well-targetted campaign of promotion and technical assistance by PROEXAG worked. New crops were introduced along with better production methods. New growers, exporters and markets all were identified, and production and sales appreciably grew in the original PROEXAG participating countries (Guatemala, Honduras, Costa Rica and El Salvador). The new project's intention of building upon and refining many of the PROEXAG successes makes EXITOS an appropriate "second generation" activity.

The cornerstone of the new Project rightfully focuses on strengthening the deal-making process. To solidify the quality of NTAE enterprises, there remains the task of facilitating and improving upon access to the data, information, technology, inputs, equipment, services, contacts and business know-how to make produce deals work. To continue the strengthening process, new Project resources and innovations can effectively address institutional development, production, post harvest/quality control, marketing, and information dissemination/technology transfer. This delivery agenda is based on the premises that:

- (1) Successful deals enable businesses to make money, grow and become self-sustaining;
- (2) Successful businesses together make a viable industry;
- (3) Viable companies mean growth in the NTAE subsector; and .
- (4) NTAE growth means more jobs, higher incomes and more foreign exchange, which in turn contribute to national economic and social welfare.

Deal Profile

Lindemann Farms in Central America - Melons

1. This is a family owned agribusiness specializing in melons and based in the San Joaquin Valley of California. It is one of the larger packer/shippers of cantaloupe and honeydew on the West Coast. As such it has been a seasonal shipper, beginning in Arizona in May then moving up to its home ground for the summer, before finishing up in the fall in Arizona again.
2. The owners want to use their human resources year round. They also want to maintain a year round market presence. They don't have any exclusive products, just a respected label and a proven ability to sell melons.
3. In 1986, when PROEXAG initiated contact with them, they had no offshore staff or infrastructure, no prior knowledge of how to do business offshore, and a few basic Mexican experiences.
4. In late 1986 a Central American melon shipper looking for marketing alternatives contacts PROEXAG. His marketing is concentrated on the East Coast. He is convinced that his distributors are overloaded, and he is seeking new outlets for his expanded melon volume. He is looking for a company with strengths in the West and Mid-West. We put him in contact with Lindemann Farms.
5. A deal is made. 20,000 boxes are shipped 1986-1987 as a result of PROEXAG's market linkage service. Total sales volume is estimated at some \$150,000.
6. As a result of a PROEXAG training course in California, in which 16 Central Americans visited melon packing operations in the U.S., Lindemann Farms as a collaborator in the training met a number of other Central Americans. Representatives of UCAPE - Panama, Agropecuaria Montelíbano - Honduras, and El Rico S. A. - El Salvador were in the course, and all three eventually marketed fruit through Lindemann Farms. In addition to this trip, in the fall of 1987 PROEXAG sponsored an orientation trip for El Salvador melon growers to the lower Río Grande Valley. This trip was made in conjunction with efforts to open the Mexican overland route to markets in the U.S. George Lindemann joined the group in McAllen, and met three more producers from El Salvador. One signed a contract for 1987-88.
7. Lindemann Farms was among the first U.S. companies to recognize the strategic importance of accessing ports of entry other than South Florida. They became, during 1987-88, the main users of the Mexican overland route for melons from El Salvador and Guatemala, pioneering the entry of fruit through Nogales, and strongly reinforcing the use of McAllen as an alternate port of entry.
8. For the 1987-88 season Lindemann Farms expanded its volume to 220,000 boxes. Port of entry value is estimated at around \$1,800,000. Contacts and relationships were further cemented after the season when FUSADES of El Salvador organized a trip to California. Even more El Salvador growers participated, and several new relationships were cemented. For the 1988-89 season Lindemann Farms reached a volume of 450,000 cartons, with an estimated value of circa \$4,000,000. By the 1989-90 season Lindemann Farms is marketing for the following companies:

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PROEXAG

COSTA RICA	EL SALVADOR	GUATEMALA	HONDURAS	PANAMA
Exporpac	Caexi Casvel Fruvex Ausol El Rico Capeco	La Aurora	Montelibano Coagroval	Ucape

At the end of the season we find that Lindemann Farms has marketed some 700,000 cartons with an estimated value of \$7,000,000. This comes from 11 companies, for which Lindemann's competence as a marketer is vital.

9. More importantly for PROEXAG, we find Lindemann Farms realizing some very important things about working in Central America:
 - a. Technology transfer in practical matters is a continuing and ongoing need. A post harvest handling and quality control team is put in place by Lindemann Farms in El Salvador in December and January. They give advice on picking, grading, sizing, packing and cooling. FUSADES underwrites 2/3 of the cost. This is a tremendous incentive, since it gives the importer the ability to work on improvements in quality.
 - b. Lindemann Farms also moves to improve its ability to receive and manage produce at various ports of entry. While maintaining its sales base in California, it hires agents or deploys employees at McAllen, Texas and Pompano Beach, Florida. Their function is to monitor arrival condition, which is quite variable, and thereby help in setting prices and determining sales destination. Because cooling in El Salvador is less than optimal, and container malfunction frequent, it is vital that each arrival be inspected and feedback provided to the Sales Department. Fair quality melons need to be disposed of quickly, and as close to port as possible. If shipped to a distant market, rejection is ensured and grower returns are diminished.

Both of these strategies relieve the pressure on PROEXAG to provide post harvest handling assistance, as well as to monitor arrival condition at market. Enlightened self interest (getting fruit to market in the best possible condition, and selling it at the best price realistically obtainable) results in important services being provided to shippers in the Region.

10. For the 1990-91, Lindemann Farms intends to continue expanding its volume from Central America, to 1 million packages, worth some \$10,000,000.

Deal Profile

Chiquita Melons in Costa Rica

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1. In 1987 CAAP expressed its interest in developing a melon export sector in Costa Rica. At that time Costa Rica lagged behind the rest of the Region in melon exports. We did not know how much Jay Nichols and Del Monte would achieve by early 1989 in this field.
2. Responding to CAAP's interest, John Guy Smith of PROEXAG agreed to undertake technical assistance to a pilot melon production program sponsored by CAAP in 1987/1988. Eight farmers in the Tempisque Valley participated with small acreages. The production model used employed conventional gravity irrigation. As such, this model is much less capital intensive than drip irrigation, and therefore, easily accessible to small and medium farmers. Results were mixed, but enough was learned so that all felt confident that they had learned enough to expand production beyond the pilot phase into commercial production.
3. During 1987/88 melon growers throughout Central America were operating under the severe threat of transport shortages. The option of a Mexican overland route to markets is not realistically open to the southern part of the Region. PROEXAG's recommendation to CAAP and the new melon growers was that market access ideally should be sought through one of the multinationals which could offer transport guarantees as well as marketing services. In the best of all possible worlds, the marketing company would provide:
 - a. Post Harvest handling and packing technology.
 - b. Packing materials from inhouse carton manufacturing capability in order to reduce costs.
 - c. Transport beyond South Florida to other ports of entry to enhance market access.
 - d. Marketing either on a commission or on a fixed price basis.
4. Castle and Cooke, Del Monte and Chiquita were approached. Castle & Cooke was unable to provide transport. Del Monte was busy expanding its melon production operations through its newly acquired Jay Nichols subsidiary. Chiquita was interested.
5. A preliminary meeting took place in June of 1988 between Chiquita management and the growers. CAAP and PROEXAG were present. At the meeting the growers discussed their needs, and Chiquita learned their intentions. It was agreed that a second meeting would be held, at which time Chiquita would present an offer.
6. In September of 1988 a second meeting was held between Chiquita management and the growers at CAAP's offices. PROEXAG was present. Chiquita presented an offer for the consignment marketing of the melons. Included in this offer were some very attractive provisions:
 - a. Chiquita would provide the design of packing sheds.
 - b. Chiquita would provide packaging materials at cost.
 - c. Chiquita would guarantee transport of the fruit either on its own ships to Wilmington, Delaware or on conference carriers to South Florida.

A significant number of growers however, felt that they would prefer a fixed price purchase contract F.O.B. Puerto Limón. The reason for this preference was the need to show their banks that payment of their fruit was assured, and that they would not be taking undue risks.

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PROEXAG

Chiquita was asked to formulate a fixed price offer, which they did during a recess in the meeting. What they offered was a bit higher than fixed price purchase policies in other countries of the Region. On this basis PROEXAG recommended to the growers that the offer be accepted, and it was.

7. Despite some production problems occasioned by lack of land leveling, and by high winds on fields without windbreaks, production was successful. Chiquita was able to pick up additional uncommitted production in the area. Both CAAP and Chiquita provide technical assistance in production and packing. At season's end some 130,000 boxes of honeydews, with an estimated CIF value of circa \$1,000,000 had been shipped.
8. In the 1989-90 season Chiquita expanded production in Costa Rica from 130 to 300 hectares (700+ acres). In addition, Chiquita built a packing shed to be able to pack and cool cantaloupe. A successful and profitable start-up is a much better inducement to investment than a pretty feasibility study. Estimated sales for the 1989-90 season are on the order of \$2,500,000.
9. From PROEXAG's standpoint the Chiquita-Guanacaste melon grower deal is a model of many desirables:
 - a. PROEXAG and CAAP are now in a position to withdraw from agricultural extension work, with Chiquita taking on this function at farm level with its growers.
 - b. Enlightened self interest dictates that Chiquita will continue to provide post-harvest handling and quality control, again freeing PROEXAG and CAAP resources.
 - c. Chiquita's continued involvement in transportation opens new ports of entry, relieves congestion in South Florida, improves distribution, and does not add to the demand of service from conference carriers.
 - d. Chiquita's activity creates viable medium sized farming enterprises which in turn create a demand for services, inputs and labor locally. As such this mode of operation is an important adjunct in the strengthening and expansion of a rural middle class. Therefore, it is in tune with one of PROEXAG's sub-objectives which states "Where possible, enterprises should be encouraged to source part of their production from small producers. Those companies doing so should receive greater support and attention from PROEXAG than enterprises engaging in plantation agriculture".
10. The crucial factor in Chiquita's success, however, is its ability to sell the products generated by its programs successfully. There are indications that in the 1988-89 and 1989-90 seasons Chiquita did not cope successfully with increased volumes. This in turn was reflected in lower prices or lesser returns to the producers who have begun to come to PROEXAG AND CAAP (now CINDE/División Agrícola) in search of marketing alternatives.
11. Our response to this situation has been to generate for CINDE/División Agrícola a list of 12 interested marketing companies. Expanded competition among marketers for supplies and for good returns is a means of ensuring that the industry continues to grow, and will also lead to the correction of problems in order to maintain competitive strength.

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Annex E

Financial Analysis

Annex E

Financial Analysis

EXITOS is a regional project that will finance for a period of four years the operations of a Contract Team that will essentially function as an export service organization. The role of the Contract Team is to enhance the profitability and sustainability of non-traditional export enterprises and support institutions. One method of enhancing the viability of these enterprises and organizations within the respective countries of the region is to increase their ability to deliver technical services, training and information to affiliated growers, transporters, packagers and exporters. Many of the services to be provided by the EXITOS Contract Team will be channelled through these counterpart organizations.

Cost Estimates. Detailed cost estimates for EXITOS are shown in Table E-1, including detailed annual breakdowns of estimated costs for the principal contract. The Agricultural Component of EXITOS is a four year, US\$ 8.5 million activity in addition to which US\$ 5.0 million is anticipated in Mission buy-ins over the LOP. Of the total Project budget for the Agricultural Component, US\$ 6.935 million or 81.6% will be expended on the principal contract; US\$ 275,000 or 3.2% on special studies; US\$ 110,000 or 1.3% to support AMS/Miami; US\$ 675,000 or 7.9% for a PSC Project Manager; US\$ 100,000 or 1.2% for evaluations; US\$ 110,000 or 1.3% for audits; and US\$ 295,000 or 3.5% for contingencies and inflation. Project expenditures by Project year exhibit significant front loading, declining progressively from 30.9% in Year 1 to 19.7% in Year 4 of the Project. With the exception of US\$ 110,000 for audits which will be paid in local currency, all expenditures will be paid in US dollars.

Methods of Implementation and Financing. The method of financing for A.I.D. funds expended on the core contract, the buy-in contract, the PSC Project Manager contract, special studies, support to AMS/Miami and evaluations and audits will be direct payment.

Cost Recovery. Because promotion of non-traditional exports is a relatively new and unusual type of activity for A.I.D., the financial resources used to implement PROEXAG were viewed as sunk costs. While much was learned under that Project, there is still insufficient information available on the rapidly

evolving NTAE subsector in Central America to fully evaluate how best to financially sustain the activities funded under PROEXAG and EXITOS. EXITOS does not, therefore, anticipate that the services provided under the Project will generate sufficient revenues to cover the costs of the Project, although some costs may be recovered for the TA, training and information services (e.g., technical literature, statistical data reports, fax or courier costs) rendered. In addition, while no fees for technical assistance are to be charged by EXITOS directly, some counterpart organizations may charge clients at least a portion of the cost incurred to provide EXITOS support services.

Financial Sustainability. Project financial sustainability remains a major issue which will be addressed by the Contract Team during implementation. The success of PROEXAG, and the potential success of EXITOS, are attributable almost entirely to the types and quality of technical assistance provided. EXITOS is not sustainable per se, however, and the Project will not ensure sustainability after the EOP. Since A.I.D. is not in the business of providing project assistance indefinitely, alternatives for sustaining the activities funded after EXITOS terminates need to be articulated and evaluated. While there is currently insufficient information to either fully articulate or objectively evaluate alternative sustainability vehicles, it is expected that an additional four years experience under EXITOS will permit realization of this objective.

The absence of assured sustainability does not imply that there should not be a follow-on to EXITOS should it be as successful as its predecessor, but rather demands that A.I.D. begin exploring alternatives for sustainability now and plan to implement the best alternative either late during EXITOS implementation or during a follow-on project. If an EXITOS follow-on project ensues, it may be designed to implement the best alternative(s) either as a sole purpose-level project objective or as one key purpose-level objective along with the continued objective of increasing non-traditional exports.

The Contract Team will therefore articulate and evaluate different alternatives for sustaining EXITOS-type activities that are considered practicable given the additional experience gained during implementation. Potential alternatives to be evaluated include: (1) institutionalizing the activity in one or more regional public institutions; (2) developing the capacity of the private sector to provide these types of services; (3) developing a mechanism whereby an appropriate team can be permanently fielded and funded by user fees; (4) developing the in-business capacity to provide these types of services through training of personnel who would return to work for C.A. businesses; or (5) a combination of the above.

Cost-Effectiveness. EXITOS will bring together a highly qualified core staff of seasoned generalists, back them up with the appropriate product and market specialists, fund dissemination of financial information, and provide related backstop resources. It is this package of technical and support resources that will help client entrepreneurs fill the gaps that are critical to entering and sustaining profitability in international markets. Three essential and explicit financial criteria are met by EXITOS as designed.

First, Project financial soundness dictates that the funds provided by the Project cost-effectively meet the level of services required. In estimating key financial costs, especially those associated with the principal contract, it was first necessary to consider both the needs of the NTA subsector and the level of financial resources reasonably available for the Project. Based on these two considerations, and on five years experience with PROEXAG, specific levels of effort were developed for long-term TA, recurrent short-term TA, and specialist short-term TA for the Contract Team that will implement the Project. This level of effort and associated costs strikes a workable and cost-effective balance between developmental and financial considerations.

Second, Project financial soundness dictates that the receipt of Project services represents a cost-effective alternative for the recipients. The provision of services under EXITOS will represent a clearly cost-effective alternative for the recipients of TA, training and commodities. Because the NTAE subsector remains nascent--if rapidly developing--in Central America, development of the subsector rather than financial sustainability of service provision is the key objective of the Project. These two objectives are almost mutually exclusive in the current context of the CA NTAE subsector, since most NTAE enterprises do not have the level of financial resources required to: (1) develop the "know how" and "know who" required to succeed in the NTAE business; (2) acquire the necessary technical, marketing, and managerial services; or (3) establish the required links to world markets. For this reason, most services provided to growers, transporters, packagers and exporters under the Project will be free of charge.

Third, Project financial soundness dictates that the Project represent a cost-effective alternative to bilateral provision of the same or similar services. Many USAIDs in Central America are developing their own NTAE promotion projects, working through national export federations and host government entities. These projects are expected to contribute significantly to an increase in both NTA exports and entrepreneurial profitability in CA over the coming years. Many NTAE promotion activities, however, can be either more efficiently or more cost-effectively addressed by a single high quality TA team operating on a regional basis. Export deals, for example, are increasingly transnational and many constraints to developing those deals are therefore not easily or cost-effectively addressed at the bilateral level. A single team with a regional mandate can also more efficiently: (1) address transnational crop problems such as new pest eruptions; (2) conduct applied NTA research for application in multiple countries; (3) develop new crops appropriate to the region; and (4) address problems which are specific to crops that are under very limited cultivation in individual countries.

Experience under PROEXAG clearly demonstrated that a single high quality TA team which rapidly and effectively applies world-class technical resources to specific NTAE problems can operate efficiently and cost-effectively with a regional mandate. The cost-effectiveness of providing these types of services on a regional basis therefore give EXITOS a comparative financial advantage over bilateral approaches to providing the same or similar NTAE promotion services, although the bilateral role in NTAE promotion is and will remain large.

Financial Management. The financial management systems established by the Contract Team under PROEXAG were highly effective. EXITOS will, with minor refinements, operate using similar financial management systems and the accounting and reporting systems to be established will be capable of adequately supporting the basic management system. The same conditions of identifying, tracking and maintaining information in a usable form for services rendered that made it possible for PROEXAG to operate efficiently on a regional basis will also apply under EXITOS.

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Table E-1

Detailed Project Cost Estimates

Line No.	Line Item	year 1	year 2	year 3	year 4	Total
1.	Salaries, Long-term	330,000	330,000	264,000	198,000	1,122,000
2.	Salaries, Recurrent ST	158,000	138,000	99,000	60,000	455,000
3.	Salaries, Short-term	8,000	16,000	8,000	8,000	40,000
4.	Salaries, Home office	36,000	36,000	36,000	36,000	144,000
5.	Salaries, Tech assistants	54,000	54,000	45,000	45,000	198,000
6.	Salaries, Local	30,000	30,000	30,000	30,000	120,000
	TOTAL:	616,000	604,000	482,000	377,000	2,079,000
7.	Fringe Benefits, LT	74,000	74,000	60,000	45,500	253,500
8.	Fringe Benefits, recurrent ST	35,500	31,000	22,000	13,500	102,000
9.	Fringe Benefits, ST	2,000	3,700	1,900	2,000	9,600
10.	Fringe Benefits, Home office	8,000	8,000	8,000	8,000	32,000
11.	Fringe Benefits, Tech assts.	200	200	200	200	800
12.	Fringe Benefits, Local	6,000	6,000	6,000	6,000	24,000
	TOTAL:	125,700	122,900	98,100	75,200	421,900
13.	Overhead, LT	245,000	245,000	195,000	146,000	831,000
14.	Overhead, recurrent ST	117,000	102,000	73,000	44,000	336,000
15.	Overhead, ST	6,000	12,000	6,000	6,000	30,000
16.	Overhead, Home office	31,500	31,500	31,500	31,500	126,000
17.	Overhead, Tech assistants	32,500	32,500	27,000	27,000	119,000
	TOTAL:	432,000	423,000	332,500	254,500	1,442,000
18.	Travel + Transportation	120,000	120,000	96,000	84,000	420,000
19.	Allowances	220,000	216,000	163,000	143,000	742,000
20.	Other Direct Costs	168,000	168,000	144,000	121,000	601,000
21.	Equipment	284,000	72,000	72,000	72,000	500,000
22.	Training Support	50,000	50,000	50,000	40,000	190,000
23.	Research	25,000	25,000	25,000	15,000	90,000
	SUBTOTAL	2,040,700	1,800,900	1,462,600	1,181,700	6,485,900

Table E-1

Detailed Project Cost Estimates

(Page 2)

Line No.	Line Item	year 1	year 2	year 3	year 4	Total
24.	General + Admin	58,000	51,500	41,100	33,000	183,600
25.	Fixed Fee	83,500	74,000	60,000	48,000	265,500
	Contract TOTAL :	2,182,200	1,926,400	1,563,700	1,262,700	6,935,000
26.	Inflation/Contingencies	84,000	95,000	53,000	63,000	295,000
27.	Special Studies	87,000	77,000	61,000	50,000	275,000
28.	Evaluation		40,000		60,000	100,000
29.	Audits	25,000	25,000	25,000	35,000	110,000
30.	AMS/Miami	27,500	27,500	27,500	27,500	110,000
31.	Project Manager	220,000	140,000	140,000	175,000	675,000
	GRAND TOTAL	2,625,700	2,330,900	1,870,200	1,673,200	8,500,000

Annex F
Economic Analysis

Annex F

Economic Analysis

1.0 INTRODUCTION

The rapid growth of the non-traditional agricultural export (NTAE) industry in Central America has foundations in a twenty year history of trial and error. Dominated in the early years by a few opportunistic exporters and profit seekers, often for short-term gain, the industry is now characterized by a large number of firms with established linkages with foreign importers having investments pointed toward longer-term profits. This industry is now making significant contributions to the economies of Central America as measured by foreign exchange earnings, diversification of export earnings, use of more productive technologies with increased value of production from labor and land, and increased demand for service industries.

The products included in Table F-1 represent (with one exception) products that, until recently, were not grown or were grown in smaller quantities for the domestic markets of Central America. The exception, plantain, is a staple in Central America but was not exported until the growth of ethnic markets in the United States. Snow peas and melons were the first successful products to be placed in foreign markets in significant quantities. The others reached significant export quantities more recently.

Reaching \$475 million, the NTAE industry is approaching the level of traditional agricultural exports, long the mainstay of foreign exchange earnings in Central America. As prices for traditional agricultural exports have plateaued or fallen in recent years, the earnings from this new industry has taken on new economic and political importance.

The economic viability of the NTAE industry is dependent on several factors, apart from natural phenomena. These include:

- The policy environment
- Market prices
- Market saturation
- Regulatory factors
- Availability of appropriate technology
- Political support

TABLE F-1

(100,000 pound units) Commodity	1987	1988	1989	1990	Total
Watermelons	110	37	71	99	317
Strawberries	14	25	41	19	99
Cantaloupe	469	737	1407	1928	4541
Cucumbers	33	61	145	202	441
Limes	13	20	8	23	64
Mixed melon	727	543	821	746	2837
Snow peas	108	125	161	196	590
Squash	27	26	34	69	156
Plantain	0	237	247	151	635
Total	1501	1811	2935	3433	9680

US\$ Commodity	1987	1988	1989	1990	Total
Watermelons	\$2,493,000	\$925,000	\$1,420,000	\$2,277,000	\$7,115,000
Strawberries	\$2,333,000	\$3,333,000	\$5,808,000	\$2,217,000	\$13,691,000
Cantaloupe	\$18,760,000	\$31,586,000	\$48,240,000	\$82,629,000	\$181,215,000
Cucumbers	\$924,000	\$1,220,000	\$5,220,000	\$5,656,000	\$13,020,000
Limes	\$520,000	\$800,000	\$320,000	\$920,000	\$2,560,000
Mixed melon	\$31,157,000	\$23,271,000	\$35,186,000	\$31,971,000	\$121,585,000
Snow peas	\$16,200,000	\$18,750,000	\$20,930,000	\$27,440,000	\$83,320,000
Squash	\$7,020,000	\$7,280,000	\$8,160,000	\$17,940,000	\$40,400,000
Plantain	\$0	\$4,622,000	\$4,817,000	\$2,945,000	\$12,384,000
Total	\$79,407,000	\$91,787,000	\$130,101,000	\$173,995,000	\$475,290,000

NOTE: Figures for volume (pounds) and prices are taken from USDA Market News Service Report. In order to determine average prices per pound, prices were taken from major market months for each commodity and are terminal market sales prices. For those years where no prices were available average of all years were used. Prices will have a variance of more or less 10%. Dollar figures are estimated and serve as an indication of increases or decreased not necessarily total value. Source: Values computed from quantity data and estimated prices received: USDA/AMS data.

2.0 THE POLICY ENVIRONMENT

The early days of the industry were characterized by high transaction costs imposed, in part, by a policy framework that emphasized protection of the domestic market and a bias towards traditional export products. Procedural requirements placed perishable products at risk each time a shipment was ready for market. While many of these policies have changed, and others are in the process of change, a new policy framework is emerging to support an export-oriented environment for all exports. Any changes in this direction will provide further support for non-traditional exports.

3.0 TRANSPORT

Transport charges still represents a significant percentage--estimated at 20 to 50 percent--of the value of the product placed in a foreign wholesale market. What has changed is the increased availability and timeliness of transport services. Trucking services are now available through Mexico for the northern areas of Central America, additional air cargo flights are now scheduled, and significant increases in liner services (and even short containers) are recognition of the increased flow of product from the region.

While transport infrastructure remains a major constraint for expanded exports, and increase the costs to producers, market forces have effectively demonstrated their power to find economic solutions to these constraints. The next round of improvements, however, may require more public investment in such areas as road improvement, increased investment in ports and airports, and more efficient management of public transport facilities.

4.0 MARKET PRICES

Notwithstanding the increased volumes of products flowing from Central America to foreign markets, principally the United States, prices are largely determined by external factors such as consumer demand and seasonal constraints faced by other suppliers. In both cases, all indications point to continued positive factors for the Central American industry. Changing diets in the industrialized world are favoring fresh fruits and vegetables and the seasonality of production in northern climes favor suppliers from Central America. As such, the economic health of the buyers is the largest determinant of continued prices sufficiently high to provide profits for growers and exporters, a factor out of the control of Central America.

Concern about oversupply from Central America having a strong negative impact on market prices appears to be negligible. In the case of Central American products, melons probably represent the strongest example where increased flows have had a dampening effect on wholesale prices during the export season. But producers and exporters have shown an ability to anticipate the negative effects of too much volume in one market through market and product diversification. Although the United States and Canada are "natural" trading partners for non-traditional exports, efforts to penetrate European markets

have shown some success. The Japanese market remains largely closed to Central American products and experience to date indicates that although this market is potentially lucrative, continued attempts to satisfy regulatory requirements and establish reputations for quality products will be required.

Quality considerations become more important as more produce enters a market. Building a reputation for delivery of quality produce becomes an important competitive factor as increased volumes reach markets during a given period. While some individual firms are stressing this, the industry as a whole and national commodity organizations do not have the organizational infrastructure to deliver a high quality standard.

Product diversification by the industry has been an important factor in combatting the risk of oversupply. As shown in Table F-1, the "older" non-traditional exports--melons and snow peas--have been joined by other products. Other commodities such as asparagus and berries are in the initial stages of production and export and have not reached significant export volumes.

5.0 REGULATORY FACTORS

Meeting health, sanitary, and pest regulations is a continuing problem for the industry. As regulations vary from market to market, and are in a state of change, the industry must demonstrate a sophisticated capability to constantly monitor and control the produce leaving the region. At this stage of evolution of the industry, a series of ad hoc interventions has protected the entry of exports into foreign markets.

The changing world of pesticide regulations presents the strongest threat to continued exports. As the regulations change, and more producers and exporters enter the market, the risk of improper use or misuse grows. In the case of the United States, sanctions are first applied against the individual exporter but continued industry citations can result in the ban of exports of a particular product from a country.

The awareness of the industry, exporters and growers, of the importance of regulatory requirements has shown a significant increase. Steps to improve information flow, the recognized impediment to adherence to regulations, are receiving industry attention, often with support from AID.

6.0 CONCLUSIONS

The industry, and therefore this project, is faced with several positive and negative factors that determine economic viability. The growth over the past several years testifies to the strength of the market and the ability of the several actors in the industry to adapt to changing conditions. While the industry can still be considered "fragile", a changing policy environment to favor export industries, a strong consumer preference for fresh produce, and successful product and market diversification all speak of the predominance of the positive factors. The Project is economically sound.

Annex G

Institutional Analysis

Annex G

Institutional Analysis

Growth in the NTAE subsector depends on the establishment of viable NTAE-oriented businesses and their subsequent expansion in terms of export volume and crop/product/market diversity. The establishment of nationally based entities such as the export federations is predicated on one critical assumption--sufficient potential exists for NTAE products in target markets for the development investment to pay off.

AID's general experience with NTAE crops produced in Central America--particularly with the PROEXAG activity--supports the conviction that there is sufficient potential to justify the development investment. Several AID-financed studies (e.g. the "Cross-Cutting Evaluation" and the CDIE Study "Export Promotion and Investment Promotion: Sustainability and Effective Service Delivery") provide evidence of a positive correlation between export support organizations such as the various Central American Federations and NTAE growth. PROEXAG's in-house data, supported by case histories, notes that the Project with the participation of these support organization can claim major credit for about \$30 million in incremental annual exports thus far. It is expected that the cumulative total could exceed \$60 million over 5 years. PROEXAG personnel contend that the federations played significant role in these increases.

Basically, these entities offer good entrees into the respective NTAE environments. Experience to date suggests they can effectively contribute in:

- (1) Dialogue with public sector agencies in support of improved policies and infrastructure;
- (2) Foreign representation to the NTAE section including the channeling of external TA, financial resources, market links;
- (3) Identification, development and support of promising new crops; and
- (4) Technology transfer and information.

PROEXAG informal evaluations also suggest that GREMIAL in Guatemala and CINDE in Costa Rica have been the most successful of the participating federations. GREMIAL is given high marks because of its cost efficiency, and was particularly proficient in channeling and managing external technical and

financial resources to the NTAE subsector even though it did not receive the amount of AID funding support as did FPX, CINDE, and FUSADES. CINDE is efficient because of its excellent financial base and good management. New enterprises such as GREXPAN in Panama and APENN in Nicaragua will be emphasized more under EXITOS, and the initial working relationships with these federations has been promising.

Although the establishment and development of NTAE support institutions such as the national or regional federations can help catalyze, accelerate and guide the natural evolutionary processes within the NTAE sector, the long-term sustainability of the subsector depends on the viability of the NTAE enterprises themselves. Support institutions can induce development, but they cannot and should not be the primary force. In the final analysis, if the businesses are not profitable, such institutions will essentially wither away when external funding is exhausted. EXITOS should continue to support institutions such as the federations and put more emphasis on the newer entities such as APENN and GREXPAN over the next several years. However, the Project must acknowledge that these support institutions do not have open-ended development mandates and influence, and should not wander too far from established operational parameters.

Annex H

Social Soundness Analysis

Annex H

Social Soundness Analysis

This Social Soundness Analysis consists of two parts: (1) an analysis of the social soundness of the Project in general; and (2) the Executive Summary of a document specific to the impact on women of NTAE production entitled "Impact Participation in Non-traditional Agricultural Export Production on the Employment, Income, and Quality of Life of Women in Guatemala, Honduras and Costa Rica", prepared by SRD Research Corporation in April 1991. The full text of that document is on file in the ROCAF Project Development Office.

1.0 INTRODUCTION

EXITOS recognizes the diversity of Central American societies, and is designed to take advantage of the region's best resource--plentiful, low cost labor with a relatively strong work ethic. One common denominator prevails: a continuing influx of labor from rural to urban areas, resulting in unemployment and underemployment, with the further consequences of growing high urban crime rates, stagnating per capita income levels, and increasing pressure on urban social and physical infrastructure. It is generally recognized as a matter of policy throughout the area that urban employment must be improved, preferably in industries oriented toward world markets and therefore less likely to encounter the stagnation and market size limitations that characterized the industrial import substitution efforts of the 1960's and 1970's.

At the same time, the Project cannot lose sight of its potential impact on rural Central America. A growing body of information drawn from the experiences of the national programs involved in non-traditional export crops basically suggests that increased commercialization of the new crops in traditional small holder agricultural regions has been economically and socially positive.

2.0 EMPLOYMENT

While the Project notes the volatile issues of urban employment and related quality of life issues, there is also evidence that NTAE promotion programs have significant spinoffs in enhancing well-being in the rural environments. For example, in Guatemala, El Salvador and Costa Rica studies

have suggested that the expansion of export-crop production through the varying cooperative schemes have been very beneficial. There are clear signs of the strengthening of cooperation among farmers, more interaction in and among the rural communities, and an emergence of local trading and entrepreneurship because of these new crop introductions.

Expanding the potentials of NTAE will depend on how well the marketing channels function for both the inputs and the outputs. Constant attention has to be given to reducing the risks in new crop programs because small holder farmers have so much to lose. Yet with the proper social articulation in expanding export crop programs, it is evident these producers can adequately compete and be as efficient in many of the scale-neutral products as the large scale farm enterprises.

3.0 IMPACT ON WOMEN

Recent studies indicate that the overall assessment of the impact of NTAE on the income of women is positive. In two of the three countries studied (Guatemala, and Honduras), women are more likely than men to find permanent employment for the crops considered. In the third country, Costa Rica, the percentages of men and women with permanent employment for the products selected is remarkably high (66% for women, and 77% for men). Permanent employment in the high profile NTAE sector is probably one of the best assurances of a good and steady income a person working in agriculture in these countries can have.

This is all the more true when contrasted with traditional export crop production. Excluding bananas, production of the traditional export crops--sugar, coffee, and cotton--is seasonal. With the exception of a core field staff, all positions are seasonal and the overwhelming majority of positions open to women are concentrated in harvesting and paid at a piece rate.

Opportunities for women to advance to supervisory levels in NTAE, however, are almost non-existent. The skills they master are usually not transferable except to another similar job, and even then they rarely translate into a wage benefit. Legislation designed specifically to benefit women over men is at risk of working to their disadvantage. In short, NTAE clearly generates employment options for women and in most cases assures them of a government-established minimum daily wage--if not better--than multinational enterprises at their central facilities are most likely to pay. It does not offer women the incentive of advancement, however, or the financial rewards that accompany it.

All indications are that NTAE employment is at worst neutral, but more likely positive in its effects on the quality of life of women. In addition to assuring better hours and recognized payment of overtime than is ordinarily available to hired labor, employment in NTAE appears to be the preferred employment alternative available with approximately two-thirds of the women identifying their only other options as domestic services or staying home. NTAE multinational enterprises also generally provide satisfactory physical working conditions, including basic sanitary facilities, to their workers at central facilities for packing and greenhouse cultivation.

4.0 BENEFICIARIES

The immediate beneficiaries of the Project will be the export production businessmen and their work forces, a substantial proportion of the working population in Central America. The benefits will be in the form of more income for workers as production expands, and more profits for owners through improved operating efficiency. Women will be major workforce beneficiaries, in food processing, light industry assembly operations, and particularly in the garment industries in EPZ's.

5.0 SPECIAL SOCIAL STUDIES

During the course of the Project, ROCAP will carry out a series of studies of various social impacts, e.g., on the role of women and on income gains and distribution. Evaluations of EXITOS will include gender disaggregated data collection and analysis of benefits by both men and women during the life of the project. Following the mid-term evaluation, consideration may be given to modifying some of the progress indicators as appropriate.

**PROEXAG
NON-TRADITIONAL AGRICULTURAL EXPORT SUPPORT PROJECT**

**IMPACT OF PARTICIPATION IN NON-TRADITIONAL AGRICULTURAL EXPORT
PRODUCTION ON THE EMPLOYMENT, INCOME, AND QUALITY OF LIFE
OF WOMEN IN GUATEMALA, HONDURAS, AND COSTA RICA**

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EXECUTIVE SUMMARY

THE IMPACT OF NTAE PARTICIPATION ON THE EMPLOYMENT, INCOME, AND QUALITY OF LIFE OF WOMEN IN GUATEMALA, HONDURAS, AND COSTA RICA

In Central America the term "nontraditional agricultural exports" (NTAE) is a loose descriptor referring to a mix of different crops in each country that includes fruits, vegetables, cut flowers, ornamental plants, foliage, spices, herbs, and nuts. Non-traditionals have been the focus of much attention by development agencies. They are perceived to hold great promise because: first, they tend to be labor intensive thus helping to address the region's unemployment problems; second, they can often be grown on comparatively small parcels of land, thus achieving a "higher" use of the land and bringing development opportunities within the range of smaller land holders and providing a wider distribution of benefits among the population; and, third, they tend to be high valued, thus helping improve the flow of hard currency into the region.

One of the unspoken assumptions of programs and projects aimed at strengthening the NTAE subsector has been that women will benefit as much as men from increases in NTAE activity, and probably more. This has never been confirmed, however, and in fact little is known about the true nature or magnitude of benefits that may be accruing to women. The question sparking this study is whether the promise of benefits from NTAE exports is translating into real benefits for the women of Central America.

Specifically, the purpose of this study is to analyze the impact on women of involvement in NTAE through its effect on employment, income and quality of life. The first part of this study describes the women and men who work in NTAE production --their civil status, age, education, number of children, and the like. The second part addresses how women experience the impact of NTAE in their lives.

METHODOLOGY

Given the enormity and variety of possible enterprises and persons working in those enterprises, the initial research design assumed a selective sampling of products that would allow for comparisons both within and across the three countries included in the study, namely, Guatemala, Honduras, and Costa Rica. Based on conversations with several key persons involved in NTAE production, the following crops were selected:

1. Melons as a seasonal crop grown in each of the three countries
2. Ornamental plants and/or flowers as a product that is cultivated year-round

3. Specialty products -products that are unique to each country and represent a competitive advantage for them - that include highland vegetables in Guatemala, hard or winter squash in Honduras, and processed tropical fruits in Costa Rica.

Two field interview instruments were prepared, one for worker interviews and the other for management-level interviews from each firm's administration. With the aid of collaborating institutions, select enterprises were contacted and interviews conducted in each country. All interview data has been weighted for country, product, estimated number and sex of workers, and permanent versus temporary status. All findings are based on the analysis of weighted data. All findings are presented in percentages or proportions based on 100.

FINDINGS

NTAE WORKFORCE CHARACTERISTICS AND RESOURCES

NTAE workforce composition varies by product and by type of work performed. Different labor needs are associated with different products. The ratio of pre-harvest cultivation to post-harvest (value-added) processing required for a given product has direct implications for the proportion of female and male labor likely to be sought. Different types of work -- field cultivation, packing, and greenhouse production -- track labor into non-overlapping activities. In fact, it is probably the interaction of the two factors, product and type of work, that best explains the distribution of the workforce by gender in any given context.

Workforce characteristics vary more by type of work than by product. The data indicate that people who engage in field work frequently do so because they have fewer options. If they are women, they tend to include a greater proportion of the youngest (including 15 years old and under), and oldest (45 and over) workers in their midst. If they are partnered, they have more children. Women who work in the field tend to have less education and are more likely to come from households that do not have access to land. If they are men and work in the field, they tend to be older, have less education, and come from households that do not have access to land. Whether male or female, because the products are seasonal, their work is almost always temporary.

People who work in the non-field activities are more closely associated with what is unique to NTAE products, the highly valued post-harvest processing. If they are women and work in non-field activities, they are more likely 25 years old or under (but over 15). If they are partnered, they have none or fewer children. Women who work in non-field activities have more education and are more likely to come from households with access to land, especially if they are unpartnered and still live at home.

If they are men and work in non-field activities, they are decidedly more likely to be 25 or less, and slightly less likely to be partnered or have children. They clearly have more education. If partnered, they are slightly less likely to have access to land, and if unpartnered and still at home, are most likely to come from households with access to land. Whether male or female,

they are considerably more likely than their field colleagues to have permanent jobs. Of the four subgroups, however, male non-field workers are the most likely to hold permanent positions.

IMPACT OF NTAE ON THE EMPLOYMENT OF WOMEN

For a number of reasons, women occupy more than half of the jobs associated with the processing, or post-harvest handling, of the NTAE products selected in Guatemala, Honduras, and Costa Rica in comparison with men who work in NTAE and with women who work in traditional agricultural export products.

First, NTAE creates a level of manual processing encompassed in the post-harvest handling, or value-added, aspect that is not associated with traditional agricultural exports. Second, the conditions associated with the NTAE post-harvest processing phase are such that they invite to the workplace women who, because of social constraints, would not ordinarily work -- or be permitted to work -- in jobs related to agriculture that are normally available in their areas.

In other words, NTAE not only increases the number and "quality" of working conditions of jobs available, but because of the latter, also expands the potential labor pool from which it draws workers. Furthermore, because of the personal qualities, such as careful handling and constant and close attention, needed to perform the post-harvest tasks well, women are preferred to men for the majority of the new positions created.

In contrast, women represent 30% or less, depending on the country (See Table 2), of the workforce in field labor for the NTAE products included. The female component of the field workforce is clearly in the minority when compared with the male component. When comparing the extent of female participation in the cultivation of nontraditional agricultural export crops with traditional agricultural export crops, however, the rate of female participation in NTAE field work (apart from harvesting) is markedly higher.

More specifically, women generally do not have a role in the cultivation (i.e. production prior to harvest) of traditional export crops. Thus, the intensity of labor required for the successful cultivation of many of the NTAE crops has the effect of not only increasing the number of positions, but also altering the nature of many of the tasks defined as cultivation. If women are not preferred they are at the least competitive with men in terms of their ability to perform many of these more intensive cultivation tasks.

Greenhouse cultivation (i.e. production under glass or plastic) has proliferated as a medium for NTAE production in flowers and ornamental plants. It has no comparable significance in the production of traditional agricultural exports. Thus, it is not only a new source of jobs but, because of the nature of many of the greenhouse cultivation and packing tasks, a source in which female labor is explicitly preferred. Moreover, as a result of the "quality" of the jobs created, it too draws on the expanded labor pool of women who would not otherwise work in jobs associated with agriculture.

IMPACT OF NTAE ON THE INCOME OF WOMEN

The overall assessment of the impact of NTAE on the income of women is positive. In two of the three countries (Guatemala and Honduras; see Table 14) women are more likely than men to find permanent employment for the crops considered. In the third country, Costa Rica, the percentages of men and women with permanent employment for the products selected is remarkably high (66% for women, and 77% for men). Permanent employment in the high profile NTAE sector is probably one of the best assurances of a good and steady income a person working in agriculture in these countries can have.

This is all the more true when contrasted with traditional export crop production. Excluding bananas, production of the traditional export crops -- sugar, coffee, and cotton -- is seasonal. With the exception of a core field staff, all positions are seasonal, and the overwhelming majority of positions open to women are concentrated in harvesting and paid at a piece rate.

At the same time, opportunities for women to advance to supervisory levels in NTAE are almost non-existent. The skills they master are usually not transferable except to another similar job, and even then they rarely translate into a wage benefit. Legislation designed specifically to benefit women over men is at risk of working to their disadvantage.

In short, NTAE clearly generates employment options for women and in most cases assures them of a government-established minimum daily wage -- if not better -- that multinational enterprises at their central facilities are most likely to pay. However, it does not offer women the incentive of advancement or the financial rewards that accompany it.

As a closing note on wages, a surprising number of people interviewed were uncertain about how much they earn per hour or per day, whether they earn overtime and whether the overtime rate differs from the regular rate, or why their earnings vary from one week to another. In other words, they do not keep track of their hours or calculate what they should be paid. They are much more attuned to the amount they generally receive per week or pay period and trust that they are being paid fairly.

IMPACT OF NTAE ON THE QUALITY OF LIFE OF WOMEN

All indications are that NTAE employment is at worst neutral, but more likely positive in its effects on the quality of life of women, in this study considered primarily from an economic perspective. In addition to assuring better hours and recognized payment of overtime than is ordinarily available to hired labor, employment in NTAE appears to be the preferred employment alternative available, with approximately two-thirds of the women identifying their only other options as domestic services or staying home. NTAE multinational enterprises generally provide satisfactory physical working conditions, including basic sanitary facilities, to their workers at central facilities for packing and greenhouse cultivation.

Economic benefits via income are distributed almost equally between women with family responsibilities (children and/or partner) and unpartnered women without children who live at home, with differing implications for immediate versus longer term impacts on the quality of life. Benefits are also distributed among women located at various points along the socioeconomic scale encompassing the NTAE female laborpool. For the women most in need, NTAE provides an accessible, reliable source of income, for however short a period of time, to directly meet those needs. For the women who can afford not to work but do, NTAE employment may well result in a qualitative change in their own, or a child's, or a household's lifestyle. In either case, much depends on the length of employment and the skills of the individual in managing the income.

To conclude, what must be kept in mind is that NTAE's impact on quality of life and its impact on employment and on income interact: the longer the duration of work and the higher the wage, the more pronounced the quality of life impact is likely to be. For NTAE positions filled by women, single female workers without children still living at home are more likely to hold the short-term, part-time jobs. Unpartnered female household heads and partnered women predominate in the longer-term and full time employment available through NTAE. Thus, in comparison with single women without children still living at home, women with responsibilities for others earn a larger share of the total NTAE income generated by women thereby enhancing their ability to improve the quality of life of themselves and those around them.

IMPLICATIONS FOR ACTION

DEVELOP A SERIES OF INTERVENTIONS AND MATCH THE INTERVENTION TO THE TYPE OF WORK PERFORMED. Workforce composition and the demographic characteristics of the workforce vary markedly according to the product and the type of work performed. By considering select worker traits as well as characteristics of the workplace associated with different types of work, interventions can be tailored to best meet the needs of targeted audiences. The NTAE workplace provides an excellent opportunity to channel public sector service delivery to private sector target audiences. If AID (or any other donor), interested governmental agencies in Central America, or progressive NTAE enterprises were to seek to enhance the impact on women of their projects, various types of possible intervention could be derived from this study. Examples of targeted audiences and tailored interventions might include:

Field workers: female field workers in NTAE generally have less access to education and land, less likelihood of permanent employment, and a greater number of children.

Interventions to improve field workers' quality of life: Establish contact with basic health and social services facilities. Provide information regarding resources, for example, facilitators to establish independent solidarity groups for savings and credit (such as the Grameen Bank model promoted by CARE). If the work location permits, provide child care and pre-school readiness activities, otherwise setup in-town facility.

Interventions to improve working conditions: provision of tarps for shade and water to drink during the midday break.

Interventions to improve workers' skills: basic record keeping including a weekly time sheet and how to calculate wages due.

Packing and greenhouse workers: female packers are comparatively young, often have a sixth grade education, and are frequently single. Female greenhouse workers are more often partnered or female household heads with children, and from households with access to resources.

Interventions to improve packing and greenhouse workers' quality of life: information on family planning; provision of child-care and pre-school readiness activities; information on crops and cultivation practices for crops that could be grown in women's household gardens.

Interventions to improve workers' skills: budgeting and household resource management.

Permanent employees (mostly greenhouse workers): permanent female employees are most frequently either partnered or unpartnered female household heads who have had access to education and may have access to land.

Interventions to improve workers' quality of life: family planning information; establishment of an enterprise-affiliated credit/savings facility to promote savings and encourage cash purchases of larger items; information on crops and cultivation practices for women's household gardens.

ENCOURAGE INTRODUCTION OR EXPANDED CULTIVATION OF NTAE PRODUCTS WITH A HIGHER RATIO OF POST HARVEST (VALUE-ADDED) PROCESSING TO FIELD ACTIVITIES. Not only does the post-harvest processing greatly enhance the value of the NTAE product in question, but it is also the site of the qualitatively better jobs.

ENCOURAGE EXPANDED CULTIVATION OF NTAE PRODUCTS THAT USE GREENHOUSE CULTIVATION. It is not the greenhouse itself as much as the fact that a greenhouse represents an investment that management must capitalize on to insure a profit that makes it such a positive source of employment. Once the structure is in place, management needs reliable, responsible, permanent workers to insure the profitability of the business. It bypasses the constraints associated with other facilities such as-freezing plants in that it produces the product it processes and is not heavily reliant on electricity to operate. On the other hand, greenhouse production tends to require a much higher investment per job created.

PROMOTE BENEFITS FOR ALL WORKERS IN NTAE, AND WOMEN WILL AUTOMATICALLY BENEFIT. Women are preferred for many of the tasks associated with NTAE because of the qualities they bring to the workplace. Singling out women for special treatment can initiate a negative backlash effect. Women are clearly and deliberately part of the NTAE workforce and will automatically benefit as all workers benefit.

HIGHLIGHT ACCOMPLISHMENTS OF SPECIFIC ENTERPRISES UNDERTAKEN TO BENEFIT OR ENRICH THEIR WORKERS, ESPECIALLY FEMALE WORKERS. Because NTAE is such a high profile industry, a little praise of the efforts of one enterprise can go a long way in prompting similar efforts on the part of others.

PROMOTE BETTER ACCESS TO BENEFITS FOR PART-TIME AND SEASONAL EMPLOYEES. Since NTAE products are agricultural, it is inevitable that there be seasonal workers. The NTAE workplace can serve as a conduit for public sector delivery services that can be drawn upon throughout the year.

PROMOTE AND PUBLICIZE INNOVATIVE APPROACHES TO ALLEVIATE WORKFORCE CONSTRAINTS. As an example, depending on the profits generated, a number of firms give all their workers, seasonal and permanent, a bonus. Payment of bonuses -- with appropriate accrued interest -- to seasonal workers might be timed to coincide with the onset of the school year when so many additional expenses must be incurred.

Annex I

Environmental Assessment

Annex I

Environmental Assessment

Export Industry Technology Support Project
(EXITOS: 596-0165)

by

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Regional Office for Central American Programs
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Guatemala City, Guatemala

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ACRONYMS

AID U.S. Agency for International Development
APPEN National Association of Nicaraguan Producers and Exporters
BARCO Belize Agribusiness Company
CATIE Center for Tropical Agriculture and Training
CSUCA Central American Council of Higher Education
CINDE Costa Rican Coalition for Development Initiatives
EA Environmental Assessment
EAP Panamerican School of Agriculture of Zamorano, Honduras
EXITOS Export Industry Technology Support Project
FDA U.S. Food and Drug Administration
FEPROX Honduran Federation of Agricultural and Agroindustrial
Producers and Exporters
FHIA Honduras Agricultural Research Foundation
FUSADES Salvadoran Foundation for Economic and Social Development
HADS II Highlands Agricultural Development Phase II (Project USAID/
Guatemala)
IEE Initial Environmental Examination
IFPRI International Food Policy Research Institute
IPM Integrated Pest Management
LUPE Land Use Productivity Enhancement Project - USAID/Honduras
NAS National Academy of Sciences
NTAES&NTA Non-Traditional Agricultural Exports
NTE Non-Traditional Exports
NTIE Non-Traditional Industrial Exports
ODA Overseas Development Administration (United Kingdom)
PID Project Identification Document
PP Project Paper
PROEXAG Non-Traditional Agricultural Export Support Project
RENARM Regional Environmental and Natural Resources Management
Project
ROCAP Regional Office for Central American Programs
TA Technical Assistance
USDA/OICD United States Department of Agriculture/Office of
International Development and Cooperation

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Environmental Assessment

Export Industry Technology Support Project
(EXITOS: 596-0165)

1.0 SUMMARY

This Environmental Assessment (EA) discusses the reasonably foreseeable environmental impacts of the proposed Export Industry Technology Support Project (EXITOS: 596-0165), and of two alternatives to the Project. Pursuant to 22 CFR Part 216, it includes a discussion of the purpose of the EA (Sct. 2.0); a summary comparison of the alternatives (Sct. 3.0); a discussion of the affected environment (Sct. 4.0); and an assessment of environmental consequences of the alternatives (Sct. 5.0). Measures to mitigate any potential adverse environmental impacts which may result from Project implementation are discussed in Sct. 5.7 and summarized in Sct. 3.2.

The Proposed Project. EXITOS is a four year, activity designed to "increase the sales and/or volumes of Central American exports." EXITOS has two components. The Agricultural Component will continue the types of activities implemented under ROCAP's Non-Traditional Agricultural Export Support Project (PROEXAG), which will terminate in September 1991. PROEXAG provided technical assistance (TA) to assist with all aspects of non-traditional agricultural export (NTAE) in Central America from 1986-1991, including crop production, packaging, transporting, shipping and receipt-related activities. EXITOS will also expand the scope of PROEXAG activities to include a new component addressing non-traditional light industrial (NTI) exports, which will employ many of the principles that led to the PROEXAG successes in NTAE promotion.

EXITOS will attain its objectives by strengthening private sector organizations promoting trade and investment; stimulating agricultural production and trade; promoting technological improvement; increasing market information systems and networks; and increasing participation in income-generating opportunities by segments of the society previously at the margin of the mainstream economic system.

The Alternatives. Three alternatives, including the proposed action (i.e., EXITOS), were evaluated for environmental assessment purposes. These alternatives are: (1) the Project as described in the Project Paper of July, 1991; (2) a Project designed to identify and analyze the environmental impacts associated with a continuation of the non-traditional export trend in Central America; and (3) the No Action Alternative, i.e., no continued NTE support

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activities funded by ROCAP after termination of the ongoing PROEXAG Project.

The Issues. Three potentially significant adverse environmental impacts were identified during EXITOS project development which may indirectly result from provision of TA to promote NTA and NTI exports. These three issues, refined during preparation of and addressed in this Environmental Assessment (EA), are: (1) the effects of the Project on pesticide use; (2) the effects of the Project on conflicting natural resource demands; and (3) the effect of the Project on industrial pollution and waste disposal problems.

Environmental Consequences of the Proposed Action. EXITOS will have no direct impact on the environment, and as a project promoting improved NTA and NTI operations it should result in few significant adverse indirect environmental impacts.

Pesticides. Except for limited research and field evaluation purposes by or under the supervision of Project personnel, EXITOS will neither procure nor use pesticides, and no direct adverse pesticide impacts will therefore result from Project implementation. NTAE crop production still relies on pesticide use for control of diseases and pests in Central America, amounting to about 300,000 to 500,000 kilograms per year. Promotion of NTAE crop production will most likely indirectly affect the overall levels of pesticide use on a site-specific basis--increasing or decreasing use volumes depending upon circumstances. EXITOS will not directly advise farmers on pesticide applications, but will refer pesticide-related technical demands to existing expert organizations, private consulting firms and/or governmental agricultural services. It will thereby--as with PROEXAG--continue to significantly improve awareness of regulations and restrictions governing pesticide use and the financial and environmental impacts resulting from misuse of agrochemicals. The Project is therefore expected to have a significant beneficial impact on pesticide management and use compared to pesticide management practices under the no action scenario.

Natural Resource Use Conflicts. EXITOS will not directly affect the rate or extent of land conversion to NTA crop production. The Project could indirectly contribute to such conversion to the extent that the Technical Assistance provided for under the Project contributes to the expansion of production areas of the existing export-related operations targetted by the Project. Some conversion may also occur indirectly by non-target producers outside the control of EXITOS who try to emulate EXITOS growers. Most land converted by such producers to NTA crops is agricultural land under traditional crop production. The net indirect impact of the Project on land conversion is unknown at this time.

Pollution and Waste Disposal. EXITOS will neither directly cause nor directly exacerbate industrial pollution/waste disposal problems. The target operations to be supported are primarily existing operations. Indirectly the Project could contribute to such problems to the extent that TA results in an expansion of activities that cause pollution.

Mitigating Measures. Pesticides. EXITOS will have no direct adverse impact on pesticide use. It will have substantial indirect beneficial impact, however, and perhaps some indirect adverse impact. The Project will support activities that promote better pesticide management practices and serve to mitigate any adverse impact that might result from Project implementation. Training and information delivery support will mostly occur through regional and national organizations (e.g., CATIE, Zamorano, INCAP), and will mostly be funded by natural resource management projects in the region (e.g., RENARM, HADS II, LUPE). EXITOS will act as a broker directing pesticide-related demands towards appropriate regional and local reference groups, expanding on the progress realized under PROEXAG in developing these networks. Regional IPM networks around specific crops or themes will be promoted as appropriate, with select country or regional organizations assuming lead responsibility in carrying out IPM technical activities. EXITOS will also strengthen referral systems in the region for IPM diagnostic services with universities, governments, research and training organizations, and technical service entities of corporations. It will, in addition, facilitate integration and collaboration of regional organizations and bilateral activities in pesticide management through training and awareness programs. All cultivars introduced under EXITOS will be introduced through formal government quarantine programs.

Natural Resource Use Conflicts. EXITOS will have no direct, and little significant indirect impact on natural resource use conflicts. It will help mitigate existing natural resource use conflicts, however, by providing funding to articulate and objectively evaluate the larger issue of NTA promotion and its effect on land use patterns. It will also indirectly reduce the need to convert additional lands by providing the Technical Assistance required to improve NTA crop management practices that contribute to intensification as opposed to extensification of agriculture. It may, moreover, directly help mitigate other specific natural resource use conflicts--both NTA and NTI related--on a case-by-case basis as appropriate through provision of short-term TA and/or training.

Pollution and Waste Disposal. EXITOS will have no direct, and little if any significant indirect impact on industrial pollution or waste disposal problems. It will nonetheless indirectly help mitigate pollution/waste disposal problems by providing the TA required to help NTI operators improve their operations and become more responsible--and therefore profitable--businessmen. It may, moreover, directly help mitigate specific pollution/waste disposal problems on a case-by-case basis as appropriate through provision of short-term TA and/or training.

2.0 PURPOSE

The purpose of A.I.D. Environmental Assessments is "to provide Agency and host country decision makers with a full discussion of the significant environmental effects of a proposed action. The EA includes alternatives which would avoid or minimize adverse effects or enhance the quality of the

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environment so that the expected benefits of development objectives can be weighed against any adverse impacts upon the human environment or any irreversible or irretrievable commitment of resources" (22 CFR 216.6(a)). The underlying purpose of this EA is to identify and propose measures to mitigate potentially significant adverse environmental impacts which may result from implementation of EXITOS.

Pursuant to 22 CFR 216.6(c)(2), the need to which the Agency is responding in proposing the alternatives described herein--including the preferred alternative (EXITOS)--is the need to "achieve broad-based, sustainable economic growth in Central America." This is the second of three A.I.D. Latin America/Caribbean (LAC) Bureau Strategic Objectives for Central America during the decade of the 1990's (USAID/LAC 1991). Specific Bureau Sub-Objectives for the 1990's to which EXITOS will directly contribute are:

(1) Strengthening private sector organizations promoting trade and investment, and cooperation with other U.S. Government trade and investment promotion efforts (Strategic Objective 2, Sub-Objective 2);

(2) Stimulating agricultural production and trade through promotion of technology improvements and agribusiness development, and trade linkages with U.S. and neighboring markets (Strategic Objective 2, Sub-Objective 5); and

(3) Increasing investment in market information systems and networks, education and training, and technology development and dissemination (Strategic Objective 2, Sub-Objective 6).

Pursuant to formal review of ROCAP's fiscal year (FY) 1991-92 Action Plan in AID/Washington (AID/W) on 2 May 1990, ROCAP was given programmatic approval to design and approve EXITOS. The Initial Environmental Examination (IEE) for the Project recommended a Positive Threshold Decision (Appendix 1) and, pursuant to 22 CFR 216.3(a)(4), examined reasonably foreseeable direct and indirect impacts of EXITOS on the environment.

EXITOS funding is essentially for technical assistance (TA), which will act in an advisory capacity only. Limited funds are earmarked for specialized NTA research, and limited non-pesticide related commodities may be procured to support that research. Because EXITOS will almost exclusively fund advisory TA, no significant direct Project impacts were identified in the IEE. The rationale for the IEE's Positive Determination was that while EXITOS itself will have no direct environmental impact of any kind, it may have indirect adverse environmental impact by continuing to support NT export activities.

Three potentially significant adverse environmental impacts were identified in the IEE which may indirectly result from provision of TA to promote NTA and NTI exports. These three issues, refined during preparation of and addressed in this Environmental Assessment (EA), are: (1) the effects of the Project on pesticide use; (2) the effects of the Project on conflicting natural resource demands, especially insofar as land conversion is concerned; and (3) the effect of the Project on industrial pollution and waste disposal problems.

Pursuant to 22 CFR 216.3(a)(4), a Scoping Statement was subsequently prepared for the EXITOS EA (Appendix 2) and submitted by cable to the LAC Bureau Environmental Officer (BEO) in AID/W for concurrence. The BEO concurred with the scoping statement in May 1991 (State 153200; Appendix 3).

Although only the Agricultural Component of EXITOS will be authorized in FY 1991, ROCAP plans to amend the Project in FY'92 to include a non-traditional Light Industrial Export Component. This EA therefore assesses the reasonably foreseeable environmental impacts likely to result from implementation of both the agricultural and light industrial components of the Project.

3.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

3.1 DESCRIPTION OF ALTERNATIVES

Three alternatives, including the proposed action, were evaluated for environmental assessment purposes. These alternatives were: (1) the Project as described in the Project Paper of July, 1991; (2) a Project designed as an environmental endeavor focussed on studying the adverse environmental impacts of continued CA non-traditional exports; and (3) a No Action Alternative, i.e., no continued NTE support activities funded by ROCAP after termination of the ongoing PROEXAG Project. Two of these alternatives were analyzed considering the three issues described and approved in the Initial Environmental Evaluation (IEE) of: (1) pesticide use; (2) potential natural resource use conflicts; and (3) potential light industrial pollution and waste disposal problems. Pursuant to 22 CFR 216, Alternative 2 was deleted from detailed consideration.

3.1.1 Alternative 1: EXITOS as Designed

EXITOS is a four year, US\$ 14.0 million activity. The goal to which EXITOS will contribute in the long-term is broad-based economic growth in Central America, with cumulative increases in the volume and value of NTA and NTI products. The Project "purpose", attainable over the life of Project (LOP), is to "increase the sales and profitability of Central American non-traditional agricultural and manufactured export products".

The Project's objectives are to: strengthen private sector organizations promoting trade and investment; stimulate agricultural production and trade; promote technological improvement; increase market information systems and networks; and increase participation in income-generating opportunities by segments of the society previously at the margin of the mainstream economic system.

EXITOS has two components. The Agricultural Component concentrates on five specific agriculturally related export areas: (1) institutional development of counterpart export federations and commodity trade groups; (2)

agricultural production; (3) post harvest/quality control activities; (4) marketing; and (5) information dissemination and technology transfer. It includes long-term TA, short-term TA, short-term training, specific NTA-related research, and special studies.

The Light Industrial Component of EXITOS still under design will be analogous to the Agricultural Component in providing long-term and short-term TA, some training and commodities, limited funds for special studies, and perhaps limited funding for specific applied research activities. This component will also work through national export federations to identify specific points along the production and export chain where assistance would be provided. Possible target operations include: food processing; wood working and wood products utilization; metal working; and apparel assembly and manufacturing. Specific project interventions for NTI export activities will be defined on a need and demand-driven basis during Project implementation.

EXITOS is a technical assistance project, and consequently no significant, direct, adverse environmental impacts are expected to result from Project implementation. Indirect adverse environmental impacts may occur in the event that any adverse impacts are identified during project implementation that may, on a case by case basis be significant, mitigation measures as described in section 5.5 of this Environmental Assessment will be undertaken. Improved export production and improved use of natural resources via EXITOS Technical Assistance is expected to provide sufficient mitigations should negative impacts occur.

3.1.2 Alternative 2: An NTE Environmental Impact Project

Alternative 2 is design and implementation of an NTE Environmental Impact Project, designed not to promote NT exports from CA but rather to identify and analyze the greater issue of environmental impacts that may result from continued export of non-traditional agricultural and light industrial products from the region. This is proposed as an alternative for three reasons. First, adverse impacts have in some cases resulted from increased NTA and NTI exports from Central America as witnessed by cargo detentions and local resale of refused products and pesticide poisonings. Second, there is a clear need for more information on the scope, nature and extent of such impacts, be they localized or more widespread. And third, analysis may identify a need to mobilize significant resources to address these impacts over the long term.

The broader issue of NT export environmental impact is clearly analogous to the issue of social impacts of structural adjustment programs. Alternative 2 has not, however, been subjected to detailed assessment in this EA. This is because Alternative 2 would not address the U.S. foreign policy objectives for which EXITOS was designed. Considerable donor resources related to environment and natural resource management exist in the region that are appropriate for conducting such activities. Alternative 2 should, however, be considered for funding as a separate activity.

3.1.3 Alternative 3: No Action

The No Action Alternative consists of taking no action, i.e., funding neither EXITOS nor an environmental impact assessment project, and would preclude continuation of the technical support provided by PROEXAG to support Central American Non-Traditional Export activities. Under this scenario, NTE businesses and export federations would have to rely on their own capabilities for sustaining the present level of non-traditional exports. Non-Traditional Agricultural Export activities would continue in the region even in the absence of the EXITOS project. In terms of the environment, the foreseeable result is increased pesticide misuse, faster depletion of primary natural resources, further aggravation of increasing NTE industrial pollution and, in several countries, salary inequities. As already proven by PROEXAG, the region responds effectively to reliable technical assistance and readily adopts practices leading to a sustained export drive.

3.2 SUMMARY COMPARISON OF ALTERNATIVES

Pursuant to 22 CFR 216, this summary comparison of alternatives with respect to their relative environmental impacts addresses Alternative 1 (EXITOS) and Alternative 3 (No Action), based on the more detailed evaluation of environmental impacts found in Sct. 5.0. It is organized by major issue rather than by alternative, and includes a summary of mitigation measures to be undertaken.

With respect to mitigation, it is important to note that potential adverse environmental impacts may continue to result from a continuation of the trend towards increasing non-traditional exports in Central America whether or not EXITOS is implemented. That is, since non-traditional exports will continue to be produced and flow from the region independent of EXITOS, any adverse impacts associated with those exports would occur under the "no action" alternative as well as under EXITOS. The primary difference between the No Action and EXITOS alternatives regarding the environment is that EXITOS will be able to bring to bear much needed resources required to analyze the nature of, help mitigate, and/or respond to certain potential impacts. The foreseeable results of the no action alternative are increased pesticide misuse, an increase of poor land use management practices, and no lessening of light industrial pollution and waste disposal problems.

3.2.1 Pesticide Use

The Issue. Section 5.1 reviews the pesticide management capabilities of national and regional institutions; assesses their reach in light of the demand for services; and recommends most appropriate mechanisms to ensure that a Project referral system for growers/exporters with pesticide problems is established during Project implementation.

Production of NTAE crops for export to the United States depends on application of select pesticides in Central America As the area and production

of NTAE crops increase overall, pesticide volumes can be expected to increase. EXITOS Technical Advisors will encourage both a lessening of pesticide use per unit area and improvements in pesticide use practices. It is therefore an objective of EXITOS mitigation measures in pesticide use to reduce the volumes of pesticides currently applied to NTAE crops per unit area; which would decrease significantly the total pesticide volume utilized on target crops in the area compared to the "No Action" alternative. Under a sustained drive of USAID in Central America, especially the influence of PROEXAG, pesticide management has improved over the past few years. Part of this is due to the orientation provided to local export organizations concerning pesticide regulations and the product quality requirements of the world markets. There is a new awareness about the need to comply with pesticide regulations if the export drive is to be sustained. Because of this, an information network has arisen through which local organizations receive updated information on regulations, trends and pesticide issues of interest to the region. PROEXAG experience has shown that producers respond readily to orientation and information leading to compliance with market quality requirements, including pesticide use regulations. The U.S. Food and Drug Administration did report that there were 213 detentions of food commodity exports from Central America in FY 1990, primarily NTAE's, with a value of several millions of dollars. Currently it is not known what percentage of these detentions were related directly to PROEXAG clientele, but improvement of the non-traditional export industries in Central America would be facilitated by a reduction of detentions, which has been an accomplished objective of PROEXAG. Several persons interviewed during the fact-finding process of this EA indicated that there has been an apparent decrease in the number of pesticide-related detentions by the U.S. Food and Drug Administration (FDA) of selected Central American produce.

Related to pesticide use is the issue of inadvertant introduction of foreign germplasm to the region. Under EXITOS, it is possible that improved cultivars of select crops may be introduced for adaptive research purposes. Prevention of new pest introductions--including some crops themselves--will be ensured as appropriate in association with NTA applied research activities funded by EXITOS.

Alternative 1 (EXITOS). As stated earlier, except for research or limited field evaluation purposed by or under the supervision of Project personnel for limited, applied NTA crop research activities, EXITOS will neither procure nor use pesticides, and no direct adverse pesticide impacts will result from Project implementation. Promotion of NTAE crop production may indirectly affect the overall levels of pesticide use on a site-specific basis--increasing or decreasing use volumes depending upon circumstances. Considering the total use of pesticides in Central America, the Project impact on total use volumes is expected to be small. However, at the local level, especially with vegetables which traditionally demand more pesticides to maintain or achieve export quality, may increase. EXITOS will not directly advise farmers on pesticide applications, however but rather will refer pesticide-related technical demands to existing expert organizations. It will thereby continue to significantly improve awareness of regulations and

restrictions governing pesticide use and the financial and environmental impacts resulting from misuse of agrochemicals. The Project is therefore expected to have a beneficial impact on pesticide use over and above what pesticide management practices would be under the no action scenario.

Alternative 3 (No Action). The No Action Alternative would have negative effects on the environment by obviating the positive environmental influences of Pesticide management practices could deteriorate. Not only would beneficial dissemination of information on correct pesticide management practices occurring under PROEXAG cease, but new NTA farmers and exporters would not have the opportunity to obtain and apply information on pesticide regulations that would be provided by EXITOS.

Mitigation. EXITOS will support activities promoting better pesticide management practices that will serve to mitigate any adverse impact that might result from project implementation. Training and information delivery support will mostly occur through regional and national organizations, and will mostly be funded by projects addressing natural resource management issues in the region. EXITOS will act as a broker directing pesticide-related demands towards appropriate regional and local reference groups, expanding on the progress realized under PROEXAG in developing these networks. Regional IPM networks around specific crops or themes will be promoted as appropriate, with select country or regional organizations assuming lead responsibility in carrying out IPM technical activities. EXITOS will also strengthen referral systems in the region for IPM diagnostic services with universities, governments, research and training organizations, and technical service entities of corporations. It will, in addition, facilitate integration and collaboration of regional organizations and bilateral activities in pesticide management through training and awareness programs. Any cultivars introduced under EXITOS will be introduced through formal government quarantine programs and evaluated under qualified testing programs.

3.2.2 Natural Resource Use Conflicts

The Issue. Section 5.1.2 reviews in detail the issue of potential Project impacts on natural resource use conflicts.

Land quality, the quality of land management, and conversion of land to agricultural production with respect to NTAE promotion in Central America represent significant issues. Some aspects of these concerns remain unquantified, and more information is needed. Three points are germane in this respect. First, the amount of land currently used to grow those NTA crops targeted by EXITOS is estimated to be about 1-3% of the total land in agricultural production in Central America, including pasturelands. This 1-3% of the land is considered in most cases to be the best agricultural land available. Second, indications are that land conversion to NTAE crops is occurring. A fundamental question remains, however, whether this conversion is in excess of what conversion rates could be expected in view of expanding

rural population effects, and the ratios between traditional and non-traditional crops. Conversely, EXITOS may actually reduce land conversion rates over what they would otherwise be by promoting agricultural intensification (vs. extensification), with the consequent effect of stabilizing formerly shifting cultivation systems on already cleared lands. Third, in many cases NTA cropping is associated with improvements in land management practices over those of traditional agricultural systems. The project proposes to study these phenomena.

Alternative I (EXITOS). EXITOS will not directly affect the rate or extent of land conversion to NTA crop production. Indirectly the Project could contribute to such conversion. This would not necessarily represent an increase in conversion over the No Action scenario. The target operations mostly exist, and the Project may indirectly reduce the need to convert additional lands through provision of Technical Assistance which improves crop yields per unit area.

Alternative 3 (No Action). Under the No Action Alternative, those natural resource use conflicts which exist would continue. A.I.D. would not, moreover, be able to either better understand the nature of--nor positively influence resolution of--conflicts with the financial resources currently approved for EXITOS.

Mitigation. EXITOS will indirectly reduce land use conversion by improving those NTA crop management practices that contribute to agricultural intensification and thereby reduce the need for such conversion. It will also fund a study to help objectively evaluate the nature of NT export trends on land use, and in the event that significant conflicts occur as a result of Project activities EXITOS will help mitigate those conflicts as appropriate through provision of short-term TA and/or training.

3.2.3 Light Industrial Pollution

The Issue. Section 5.1.3 reviews light industrial pollution and waste disposal problems that may result from promotion of NTI exports. Most light industrial activities themselves do not contribute significantly to regional pollution problems. The aggregate effects of these activities, however, place clear stresses on some ecosystems including human environments because of the volume of the load and the limited assimilative capacities of recipient systems.

Alternative 1 (EXITOS). EXITOS will not directly cause or exacerbate industrial pollution/waste disposal problems. The nature of any problems which may be encountered during implementation will be highly case-specific, and depend on the type, size, location and nature of the industrial operation. The types of Technical Assistance to be funded by EXITOS will concentrate on improving the quality of the export product and on ways of increasing the profitability of the export operation. While EXITOS is not designed to provide pollution-specific TA, it was observed during numerous field trips to light industrial candidates, that pollution/waste disposal

issues may directly affect product quality and operational profitability. EXITOS may, therefore, provide short-term Technical Assistance to assist with pollution/waste disposal problems as appropriate when requested.

Alternative 3 (No Action). Under the No Action Alternative, those pollution and waste disposal problems which currently exist would continue to exist and possibly grow worse. ROCAP would not, therefore, be able to positively influence resolution of specific problems affecting the viability of NTI operations assisted under the Project with these financial resources.

Mitigation. Under EXITOS, light industrial pollution incidents will continue to occur. EXITOS will indirectly help mitigate these problems by providing the TA required to help NTI operators improve their operations and become more responsible and profitable businessmen. EXITOS may also fund provision of problem-specific short-term TA, training and/or commodities on a case-by-case basis as determined appropriate during implementation.

3.3 THE PREFERRED ALTERNATIVE

Alternative 1, EXITOS as designed, is a distinctly superior option. It is therefore the preferred and recommended alternative. This conclusion is based on: (1) the absence of any direct adverse impact which the Project would have on the environment; (2) its contribution to improved pesticide management, crop management, and industrial operations which would mitigate negative environmental impacts should they occur; and (3) its ability to mobilize internal and external financial resources to improve and enhance environmental quality. The "no action" alternative, conversely, represents less than a status quo approach which in the absence of USAID/ROCAP influence would permit an exacerbation of those adverse environmental impacts which are occurring in association with NTE trends in Central America.

4.0 AFFECTED ENVIRONMENT

Central America--the EXITOS target zone--includes the seven countries of Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. The region covers an area of 513,000 km², about three quarters the size of Texas (Table 4-1). In spite of its small size, Central America is remarkably diverse--indeed, it may be one of the most biologically diverse regions on earth per unit area.

4.1 THE HUMAN ENVIRONMENT

4.1.1 Demographics

As a region, Central America has a total estimated population size of about 28.5 million (1990), up from about 22.1 million in 1980, and a mean population density of about 55.6 per square kilometer (km²). There is, however, considerable national variability in demographics.

Table 4-1

Selected Economic and Social Data
EXITOS Target Countries

Country	Size (000's km)	Population (000's)		Population (% change) (1989-1990)	Estimated Pop. Growth Rate (%) (1990-1995)	Real GDP (% change) (1989-1990)	Exports (\$Millions) (1990)	Exports to U.S. (Annual Rate)					
		1980	1990					Non-Tradit. '83-90 '89-90		Manufactured '83-90 '89-90		Vegetal '83-90 '89-90	
Belize	13	145	191	2.6	nd	6.0	44.0	18.9	-11.4	3.3	-44.7	18.9	-11.4
Costa Rica	51	2246	2935	2.7	2.3	3.6	1006.5	27.7	11.3	27.1	9.6	27.7	11.3
El Salvador	21	4525	5252	2.2	2.5	2.5	237.5	2.9	17.1	2.5	17.3	2.9	17.1
Guatemala	109	6900	9192	2.9	2.9	3.5	790.9	37.6	28.5	48.5	33.0	37.6	28.5
Honduras	112	3546	4696	3.1	3.0	-2.5	486.3	20.3	23.8	23.0	28.4	20.3	23.8
Nicaragua	130	2771	3870	3.3	3.2	-5.7	15.3	12.4	3.8	13.2	6.3	12.4	3.8
Panama	77	1956	2421	2.1	1.9	3.4	226.6	21.7	15.6	21.6	15.7	21.7	15.6

Source: Country Size data from Espenshade (1982) and IBRD (1985); All other data from A.I.D. (1991).

Population size ranges from 0.19 million (Belize) to 9.19 million (Guatemala); population density from 14.7/km² (Belize) to 250/km² (El Salvador); and population growth rates from about 2.1%/year (Panama) to 3.3%/year (Nicaragua). In general, the rate of population growth is stable or declining in all CA countries except El Salvador, and perhaps Belize where reliable statistics are not available (Table 4-1).

Population distribution is also highly uneven, both within and between countries. In 1985, the percentage of the national populations that were urban ranged from 40% (Honduras) to 59% (Nicaragua). As in virtually all countries of the world, the trend of rural-urban migration is strong. Rural population change in the first half the 1980s, for example, ranged from only 0.2%/yr (Panama) to 2.4%/yr (El Salvador), while urban population change ranged from 2.9%/yr in Panama to 4.1%/yr in Guatemala (Table 4-2).

4.1.2 Employment and Land Use

Central America has historically been rural, with most employment occurring in the agricultural sector. In 1980, 29% of Costa Ricans were agriculturally employed while 63% of Hondurans and 55% of Guatemalans remained employed in the sector. The percentage of land in agricultural production (cultivation and permanent range) from 1982-1984, ranged from a low of 22.7% in Panama to a high of 64.4% in El Salvador. The amount of land under permanent range is higher than that under cultivation in Costa Rica, Honduras, Nicaragua and Panama, and the reverse is true in El Salvador and Guatemala (data for Belize are not available) (Table 4-2).

4.1.3 Economics and Exports

Central American economies went through a period of severe difficulty during the 1980s as a result of civil strife, world market changes, non market-conducive economic policies, and a range of other factors. By the end of the decade, the (1989-1990) GDP varied from a low of -5.7% (Nicaragua) to a high of 6.0% (Belize).. Export growth occurred significantly during this time. Double digit annual growth was averaged for non-traditional exports to the U.S. from all Central American countries from 1983-1990, except for El Salvador. Growth rates varied from 12.4% (Nicaragua) to 37.6% (Guatemala), and El Salvador experienced annual increase during this period of 2.5% per year. During the same period, average annual growth rates for export of manufactured products to the U.S. ranged from 2.5% (El Salvador) to 48.5% (Guatemala), and from 2.9% (El Salvador) to 37.6% (Guatemala) for fruits, vegetables and plants (Table 4-1).

4.2 THE NATURAL ENVIRONMENT

4.2.1 Vegetational Systems

The ecosystems of Central America can be broadly divided



Fig. 4-1

Major Ecosystems of Central America

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into eight categories: mangrove swamps and associated wetlands; deciduous forests; evergreen forests; high humid tropical forests; coniferous forests; low lying subtropical and tropical forests; savannahs; and coral reefs (Fig. 4-1). Active volcanic areas could also be considered a specific ecosystem type, and many integrated ecotones exist depending on soil type, precipitation, fire history, elevation and human activity. The length of the rainy season has a major influence on the types and distributions of ecosystems present throughout the isthmus. The complexity of CA ecosystems is enormous and perhaps best exemplified by Costa Rican natural history (Janzen, 1983). The Tropical Science Center in San Jose, Costa Rica, for example, recognized for its work carrying out national and international ecological classification, lists 22 Holdridge life zones in Costa Rica (Fig. 4-1) from a "reduced version" map which includes only forest types.

4.2.2 Biological Diversity

The biotic history and paleogeography of the CA dispersal route for flora and fauna between North and South America has formed one of the most diverse regions on Earth. Even an abbreviated description of each of the major life zone of the isthmus would be outside the scope of requirements of this Environmental Assessment. In general, however, and in spite of its relatively small size, the natural environment of Central America can be characterized as an admixture of steep mountains, tropical rain forests, deserts, inland wetlands, highly variable coastal ecosystems on both the Atlantic Ocean and Caribbean Sea, significant mangrove ecosystems, and the second largest coral reef in the world. The region is also characterized by frequently recurring natural disasters, including earthquakes, volcanism, hurricanes and flooding, which result in a unique array of seral stages. While this complicates the classification of regional biotypes, it also--with the overlay of ancient and new agricultural activities--results in some of the very richest and biologically diverse ecosystems for its area found anywhere in the world.

Two ecosystems are of special interest with respect to development projects in Central America: (1) mangrove swamps and associated wetlands and (2) forests. About 8980 square kilometers of mangrove swamps and associated wetlands were present in Central America in 1983 (Leonard 1986). Mangroves are not necessarily diverse in terms of vegetation, but they: (1) tend to have very high primary and secondary productivity; (2) are critical to the life cycles of a range of species, serving as spawning grounds for many marine and estuarine organisms; (3) are important habitats for migrating species such as robins, gulls, terns, swallows, warblers, flycatchers, and such marine species as sea turtles; (4) are important ecosystems for nutrient cycling; (5) are highly complex in terms of their structure and function; and (6) are important buffers against erosional forces (e.g., hurricanes) along some coasts in CA. Mangrove systems are currently under pressure in much of the region--directly and indirectly--from agricultural use, fish farming, wood cutting, "urban" development, and a range of industrial operations. While many mangrove sites are said to be substantially depleted, however, significant locations are believed to remain virtually untouched.

From the biological diversity perspective, the forests of Central America include some of the most biologically interesting systems found anywhere in the world. Central American forest types range from pure pine stands in high mountains, to mixed pine-oak systems, to broadleaved subtropical dry systems, to humid rainforests, to the biologically complex lowland tropical forests and the extremely heterogeneous cloud forests of high mountain peaks in Guatemala, Honduras, El Salvador, and Costa Rica. Extensive areas also exist that are flooded for long periods each year.

5.0 ENVIRONMENTAL CONSEQUENCES

5.1 ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES

5.1.1 Pesticide Use

The Issue. The specific issue with respect to pesticide use raised in the EA Scoping Statement was "increased pesticide use resulting from promotion of NTA exports". Production of export crops--both traditional and non-traditional--relies on the use of pesticides for control of diseases and pests. This is not true for the standard traditional crops of corn and beans--particularly in highland agriculture. The resistance of the majority of pests and diseases on these crops is the result of a natural selection process that has been going on by the highland farmers since Mayan times. Increases in NTA cropping areas will likely have an effect on increasing the amount of pesticides used. EXITOS Technical Assistance, as with PROEXAG, will encourage both a lessening of use per unit area and better use practices.

Considering the caveats mentioned previously about research and limited field work, EXITOS will neither "procure nor use" pesticides in the sense implied by 22 CFR 216.3(b). As with PROEXAG, EXITOS will work to inform NTA producers and exporters about the adverse financial impact of pesticide misuse, and improve the flow of U.S. (and European and Asian) regulatory information required to help improve pest management practices and reduce pesticide detentions. This may include courses given in conjunction with Zamorano or other local institutions; crop bulletins that disseminate information on EPA regulations regarding what pesticides and pesticide management practices are appropriate for target crops; and/or papers or seminars designed to improve the knowledge of NTA exporters regarding what are acceptable U.S. (and European and Asian) pesticide management practices for export crops. As with PROEXAG, however, EXITOS will not recommend specific pesticides nor pesticide management practices to farmers, nor will it become proactively involved in any way with procurement or actual use of pesticides.

The only pesticides which may be "procured or used" under EXITOS are those for research or limited field evaluation purposes by or under the supervision of Project personnel for limited, applied NTA crop research activities. Pursuant to 22 CFR 216.3(b)(2)(iii), in such instances A.I.D. will ensure that the manufacturers of the pesticides provide toxicological and environmental data necessary to safeguard the health of research personnel and

the quality of the local environment in which the pesticides will be used. Treated crops will not be used for human or animal consumption unless appropriate tolerances have been established by EPA or recommended by FAO/WHO, and the rates and frequency of application, together with the prescribed preharvest intervals, do not result in residues exceeding such tolerances. This prohibition does not apply to the feeding of such crops to animals for research purposes.

The majority of pest/pesticide management demands related to EXITOS will be met by existing organizations in the region, and funded through other existing projects such as RENARM. Consequently, and pursuant to the EA Scoping Statement, the focus of this analysis is on "reviewing the pesticide management capabilities of national and regional institutions; assessing their reach in light of the demand for services; and recommending the best and most appropriate mechanisms to ensure that a project referral system for growers/exporters with pesticide problems is established during Project implementation".

Pesticide Use Overview. Approximately 450 generic pesticides are in use in the region, with over 1,000 commercial brands and close to 2,000 large and small marketing outlets involved in their trade. An estimated 52.3 million kg of commercial pesticides were used in 1990. Some pesticides banned by EPA are still used, although sporadically or in mixtures with other compounds, e.g. DDT and chlordane. Restricted use pesticides available in the region include Paraquat, Parathion, Carbofuran, Benlate, Aldrin, Captan, 2,4-D, various EBDC's, PCNB, strychnine, 2,4-ST, pentachlorophenol and others. In general, pesticides are used on rice, traditional plantation export crops (bananas, coffee, sugar, cotton), and on an increasing number of non-traditional fruit and vegetable crops. It is generally agreed, however, that pesticide use on the traditional CA corn and bean crops is very low and it is not likely that it will significantly increase in the foreseeable future. During implementation of PROEXAG, the greatest pesticide issues arising in association with NTA crops was in Guatemala. The expansion of NTAE crops of the last 5-10 years contributed to several important phytosanitary problems (Table 5).

Complete data are presently unavailable on pesticide detentions from Central America, i.e., on the per unit (shipment or volume) and per inspection basis required to analyze changes in detention levels over time. PROEXAG became concerned about the issue of detentions in 1988-89, and related that in both Guatemala and Costa Rica, there was a significant increase in the number and volume of shipments of NTA exports to the U.S. from 1989-1990 (a 15% increase in value in Guatemala and 19% in Costa Rica concurrent with a decline in price), while pesticide detentions dropped during the same period. The U.S. Food and Drug Administration observed 214 detentions of ~~NTA~~ commodities in Central America during that time. Better information on pesticide regulations, economic losses incurred due to pesticide detentions, and training by PROEXAG have increased grower/exporter awareness and strengthened compliance with U.S. market and pesticide regulations in the region. EXITOS will continue to support this process through provision of TA and training.

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Regional Pesticide Management Capabilities. Every country in the region has developed a set of laws and regulations meant to promote rational pesticide use. The extent to which governments are able to exert compliance with pesticide regulations, however, is rather limited and this is expected to continue in the future because of limited public sector financial resources available to support this competing need. Because of this, the participatory involvement of industry, trade, producer and shipping organizations, and extension programs is required to continue the trend towards improved pesticide management. In this context, significant progress has been made on NTA crops over the last decade.

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Table 5-1

Selected NTAE Crops and Key Phytosanitary Problems
in Central America
(1990)

Melon	Cucumber Mosaic Virus CMV Papaya Ringspot Virus PRSY Aphids White fly Weeds-Nutgrass Fusarium Wilt Root Knot Nematode
Snowpeas	Aschochyta blight Powdery and Downy mildew Weeds Fusarium Wilt Lepidoptera Larvae
Asparagus	Weeds
Mango	Fruit Flies Anthracnosis
Strawberry	Botrytis Fruit rot Mites Phytophthora Fruit Rot

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AID-sponsored private sector organizations promoting NTA exports have been developed in each country of the region. The regional research and training IPM programs at CATIE and the Panamerican School at Zamorano (Honduras) provide scientific support to this ongoing effort. USAID bilateral programs in Belize, with the Belize Agribusiness Company (BABCO); Guatemala, with the Export Guild (GREMIAL); El Salvador, with the Foundation for Economic and Social Development (FUSADES); Honduras, with the Federation of Agricultural and Agroindustrial Producers and Exporters (FEPROX); Nicaragua, with the National Association of Producers and exporters (APENN); and Costa Rica, with the Coalition for Initiatives Development (CINDE), actively support training and information programs fostering appropriate pesticide use.

These organizations will act as EXITOS counterpart organizations in identifying, planning and delivering needed pesticide-related TA. Awareness of NTAE-related pesticide issues has risen significantly at producer and shipper group levels, and training, information and quality assurance activities--including pesticide residue testing--in support of NTA exports are on the increase. CINDE (Costa RICA) and FUSADES (El Salvador) have pursued the establishment of quality assurance programs covering both testing of produce samples for pesticide residues and design and supervision of sound IPM/pesticide use programs for NTAE commodities. This strategy has already contributed to assuring better export quality for, e.g., Costa Rican strawberries and Salvadorean melons.

USAID has also promoted the development of an important regional IPM program, with CATIE and EAP as the major implementing agencies. Although initially focussed mostly on food crops, both programs have over the past few years engaged in IPM research and training on melons, plantains, peach-palms, macadamia, brocoli and other crops. In addition, both organizations have extensive pest reference collections as part of their diagnostic services. Data bases on pests and pesticides are well advanced and computers are organized for expeditious retrieval. The CATIE and Zamorano staff comprise specialists in all major IPM disciplines, including social scientists, forestry specialists and economists. In addition, CATIE and Zamorano are major reference and technical support organizations for an active 80 member regional IPM diagnostic network, comprising universities, government programs, private research and training organizations and agricultural technical services of major corporations.

These research, training and outreach capabilities represent a significant resource for collaboration during EXITOS implementation. Planning with these important groups to help focus IPM work on select NTAE commodities, sites and target groups will occur as the Project is implemented and demands arise. EXITOS will, through collaboration and perhaps provision of TA and training, strengthen the regional technical capabilities of these organizations in IPM. Complementary regional projects and activities through which collaboration will also occur include RENARM's Pesticide Use Awareness and Improvement activity and the EAP's Pesticide Applicator Training Program.

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Still, much remains to be done. GREMIAL (Guatemala), FPX (Honduras) and the more recent APENN (Nicaragua) need to strengthen outreach in support of their emerging NTA crop exporters and less endowed producer groups, and securing IPM technology tailored to these new crops and evolving international pesticide use trends is a major task for all organizations promoting NTAE in the region.

Environmental Consequences.

Alternative 1 (EXITOS). EXITOS will neither procure nor use pesticides of any kind, and no direct adverse pesticide impacts will therefore result from Project implementation. (please refer to exemption on research etc.). Production of crops in the region still relies on the use of pesticides for control of diseases and pests, and promotion of NTA crops may therefore indirectly affect the overall levels of pesticide use--increasing or decreasing use volumes depending upon circumstances. While EXITOS will not directly advise farmers on pesticide applications, it will refer pesticide-related technical demands of counterpart organizations, growers and shippers to (1) expert organizations in the region (e.g., CATIE, Zamorano); (2) private consulting firms; and/or (3) governmental agricultural services. It will also improve awareness of regulations and restrictions governing pesticide use by NTAE producers and exporters. The Project is therefore expected to have a significant beneficial impact on pesticide management and use over and above what pesticide management practices would be under the No Action scenario.

Alternative 3 (No Action). The No Action Alternative could have direct significant negative impacts on the environment as described in Section 3.1.3. Indirectly, pesticide management practices might deteriorate. Not only would the beneficial dissemination of information on good pesticide management practices occurring under PROEXAG cease, but new NTA farmers and exporters would not have the opportunity to obtain and apply new information on pesticide regulations that would be provided by EXITOS.

5.1.2 Natural Resource Use Conflicts

The Issue. The issue of natural resource use conflicts as stated in the EA Scoping Statement was "potentially conflicting natural resource demands resulting from promotion of both NTA and NTI exports". Some reallocation of natural resources may indirectly result from increased NTA and NTI exports, and by promoting NT exports EXITOS may indirectly affect those reallocations.

During EA preparation, the impact of continued non-traditional agricultural production on land use and--by extension--on forest, soil and water resources was identified as the key issue because of potential natural resource use conflicts. This is a complex issue, for which there are limited hard data and differing opinions of technical observers. Before addressing this issue, however, and to put it into perspective, it is essential to note

three key points. First, the estimated amount of land currently used to grow NTA crops targeted by EXITOS is approximately 1-3% of the total CA land in agricultural production including pasturelands, and is in most cases the best agricultural land in the region. Second, it is not currently known what incremental conversion of land to NTAE commodities is reflected beyond conversion rates due to other factors such as population pressures for traditional crops. NTAE crops may reduce land conversion rates over what they would otherwise be by promoting agricultural intensification (vs. extensification), with the consequent effect of stabilizing formerly shifting cultivation systems on already cleared lands. There is also evidence that in some cases conversion of forests to NTA crops is occurring. Third, in many cases NTA cropping is associated with improvements in land management practices over those of traditional agricultural systems. Numerous examples exist of NTAE crops being planted on steep slopes causing erosion and deforestation resulting in land degradation. The quantified extent to which this represents an increase in conversion over what would occur in the absence of NTA crops is unknown.

Land Quality. With respect to land quality, generally the best agricultural lands are used for production of NTAE crops (e.g., in Guatemala in Chimaltenango, Tecpan-Patzicia, Solola, San Marcos, Totonicapan, Huehuetenango, Quiché and Quetzaltenango). There also exists, conversely, information that the best agricultural lands available in some areas have been reserved for traditional crops due to farmer hesitancy to risk known benefits of traditional crops for unknown or unproven benefits of non-traditional crops.

Quality of Land Management. Sustainable agricultural development and better environmental and natural resource management can be mutually reinforcing propositions. Farmers who cultivate crops in ways that maintain productivity increase the sustainability of the cropping system on that parcel of land. Often, land management under NTAE cropping has been considered to be superior to traditional crops because of increased use of fertilizers, improved use of pesticides, better farmer knowledge of good cropping practices, and better farmer application of that knowledge. It has also been observed that farmers who plant NTA crops for export often times apply those improved crop management practices to their traditional croplands. On the other hand, it has been observed that traditional crops may be the most sustainable type of agriculture, yield well, and that no spill over from NTAE practices occurs. The issue is complex, and beyond the scope of the present Environmental Assessment.

Conversion of Land to Agricultural Production. In virtually all developing countries of the world, land is being increasingly converted to agricultural uses. In Guatemala, for example, the area under cultivation grew by about 0.8%/yr from 1950-1979 (IFPRI 1989). Agricultural conversion is attributable to natural population growth and a myriad of other factors, and may be mitigated by rural-urban migration and movement out of the agricultural economic sector. In Latin America as worldwide, most deforestation is directly attributable to agricultural conversion of land for cropping and/or pasturage.

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The extent to which NTAE cropping increases have caused increased land conversion, however, has yet to be quantified. On the one hand, there exist observations of deforestation for direct planting of non-traditional crops. Conversely, IFRP in 1989 indicated that when small farmers in Guatemala shifted to non-traditional crops the total amount of a farmer's land under cultivation did not increase. This may, however have been because no more land was available (DAI, 1982).

Assessing the Issue. TA personnel under PROEXAG have never observed or provided assistance to NTA crop growers who cut forest for NTA crop production, and TA personnel will not provide such assistance during implementation of EXITOS. Nonetheless, and while it goes far beyond EXITOS itself, this is an important issue insofar as the extent to which continued increases in NTA crop production may exacerbate deforestation is concerned.

What is required to help resolve the issue is a full assessment--conducted in a quantitative and objectively verifiable way on a country by country basis--of the extent to which NTA cropping affects the rate of land conversion and rates of deforestation.

This is, however, a complex issue and to resolve it in a verifiable way would require a series of applied research steps: First, it must be determined under what circumstances the trend towards increased NTA cropping is: (1) reductive (i.e., results in less net land in cultivation than would otherwise occur); (2) expansionary (i.e., results in more land in cultivation than would otherwise occur); or (3) neutral (i.e., has no net impact on the amount of land in cultivation). Second, the geographical distribution of this impact must then be mapped, i.e., the geographical distribution of areas of increasing or decreasing spatial impact as a result of NTA crop cultivation. Third, the relative importance of the impact of increasing or decreasing land conversion must then be evaluated in relation to other factors causing changes in land use (e.g., increased agricultural conversion from natural population growth, traditional cropping, conversion to pasturage, infrastructural development, etc.) to put the level of impact into its quantitative perspective. And fourth, the distribution of important natural resources must be mapped. When these steps have been completed an analysis of the impact of NTA crop production on natural resources can be assessed by evaluating the spatial juxtaposition of impact against the natural resources of concern.

It is important that concurrence be reached on (1) the true importance of the issue; (2) the best and most practicable means of addressing it; and (3) the costs of addressing it. For this reason, and while it goes beyond the immediate scope of EXITOS, some funds retained for special studies under the Project will be used to conduct a literature and limited field review of quantitative information directly relevant to the impact of NTAE cropping on land demand and deforestation. This study will coordinate its activities with key regional institutions that are giving serious attention to addressing key resource management issues in Central America (e.g., CATIE and Zamorano).

Environmental Consequences.

Alternative 1 (EXITOS). EXITOS will not directly affect the rate or extent of land conversion to NTA crop production. It is conceivable that indirectly the Project could contribute to such conversion to the extent that the technical assistance provided under the Project contributes to export-related operations that expand in the future. This does not necessarily imply, however, an increase in overall land use conversion over and above what would exist under the No Action scenario. The Project will directly help mitigate natural resource use conflicts by providing funding to articulate and objectively evaluate the larger issue of NTA promotion and its effect on land use. It will also indirectly reduce the need to convert additional lands through provision of TA to improve NTA crop management contributing to intensification as opposed to extensification of agriculture. It may, moreover, directly help mitigate other specific natural resource use conflicts--both NTA and NTI related--on a case-by-case basis as appropriate through provision of short-term TA and/or training.

Alternative 3 (No Action). Under the No Action Alternative, those natural resource use conflicts which exist would continue to exist and possibly become worse. A.I.D. would not, moreover, be able to either better understand the nature of--nor positively influence resolution of--conflicts with the financial resources currently approved for EXITOS. Other USAID projects may, in addition have a greater burden placed upon them in the absence of EXITOS.

5.1.3 Light Industrial Pollution

The Issue. The issue of light industrial pollution as stated in the EA Scoping Statement is "potential industrial pollution and waste disposal problems associated with promotion of NTI exports". Most light industrial activities by themselves do not contribute significantly to regional pollution problems. The aggregate effects of these activities, however, places clear stress on some key ecosystems because of the volume of the load and the limited assimilative capacities of the recipient systems. A good example of this is effluent from Guatemala City on the Rio Montagua and Lake Amatitlan watersheds.

EXITOS may be able to improve specific problems associated with specific operations. The types of NTI assistance provided under EXITOS will be directly analogous to that provided in support of NTA production, i.e., it will be provided to existing operators whose requests will be screened through national export federations. The nature of any light industrial pollution/waste disposal problems which may be encountered during implementation will be highly case-specific, and depend on the type, size, location and nature of the industrial operation to which assistance is provided, and upon the nature of the TA provided thereto. The most reasonably foreseeable types of pollution/waste disposal problems which recipients of TA may have include: (1) solid waste disposal problems, especially where large volumes of waste material are

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generated by the operation; (2) disposal of specific toxic chemicals used by specific operations; (3) point source pollution of aquatic ecosystems, and (4) air pollution.

The types of TA to be provided by EXITOS will concentrate heavily on improving the quality of the export product and ways of increasing the profitability of the export operation. EXITOS is not designed to provide pollution-specific TA. Nonetheless, it is conceivable that pollution/waste disposal issues may directly affect either product quality or operational profitability. EXITOS may, therefore, provide short-term TA to assist with pollution/waste disposal as appropriate when requested.

Environmental Consequences.

Alternative 1 (EXITOS). EXITOS will neither directly cause nor exacerbate industrial pollution/waste disposal problems. It is conceivable that indirectly the Project could contribute to such problems to the extent that the technical assistance provided under the Project contributes to the long-term success of export-related NTI operations that expand in the future. The target operations to be supported are existing and largely viable operations, however, and Project support is therefore neither likely to cause significant problems nor significantly affect the nature or extent of any preexisting problems.

The Project will, conversely, indirectly help mitigate pollution/waste disposal problems by providing the TA required to help NTI operators improve their operations and become more responsible--and therefore profitable--businessmen. It may, moreover, directly help mitigate specific pollution/waste disposal problems on a case-by-case basis as appropriate through provision of short-term TA and/or training.

Alternative 3 (No Action). Under the No Action Alternative, those pollution/waste disposal problems which exist would continue to exist. A.I.D. would not, therefore, be able to positively influence resolution of specific problems affecting the viability of NTI operations assisted under the Project with these financial resources.

5.2 CONFLICTS WITH LAND USE PLANS, POLICIES AND CONTROLS

Land use plans, policies and controls in Central America--in the sense in which they are thought of in the United States--are virtually nonexistent. Land use planning, and enforcement of land use plans, will likely continue to develop slowly in Central America because of the extremely limited public sector resources generally available, and because of the extremely stiff competition for public sector funds by other key public sectors (e.g., health, education). Activities financed under the Project would therefore not likely be in either direct or indirect conflict with existing and vested land use plans, policies and controls. Indirectly,

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however, by stimulating production of high value cash crops and improved NTI operations, EXITOS should have positive economic benefits which will in turn contribute to overall public sector resources. The Project will, moreover, directly support the kinds of agricultural and light industrial operational improvements that are a key objective of rational land use plans, policies and controls.

5.3 ENERGY REQUIREMENTS

Central America is rapidly approaching a true energy "crisis", i.e., the existence of insufficient generating capacity to meet current, much less future, demand. Both the CA public and private sectors are aware of the problem, and numerous measures were recommended during the recent CA Energy Conference to encourage energy conservation and investment in additional generating capacity.

Virtually all of the agricultural and light industrial operations that will receive EXITOS support use electrical power to one degree or another, and energy costs are a key constraint to increasing the profitability of NTA and NTI export operations. The electrical costs incurred by irrigation pumping, for example, represent a major cost of production and may be a limiting factor in some agricultural operations. Field observations during preparation of this EA found that energy use in melon, pea, baby vegetable and fruit packing and storage operations--as well as many light industrial operations--could easily be improved. Some of the TA provided by EXITOS to NTA and NTI operations will contribute to more efficient energy use per production unit, and will therefore both lower producer energy costs per output unit and increase profit margins. From the environmental perspective, this increased energy use efficiency should therefore indirectly contribute to a reduction of the adverse environmental impacts that are typically associated with electrical generation and transmission facilities required to meet electrical demand.

5.4 DEPLETABLE RESOURCES AND CONSERVATION POTENTIAL OF THE ALTERNATIVES

Land and Vegetational Resources. Regional NTA production activities tend to concentrate on already cleared lands. Many of these lands have been cropped intensively for years (e.g. for cotton, vegetable and grain production), and in some cases have been intermittently cropped for millenia (i.e., in areas formerly occupied by the Maya). Present estimates of land dedicated to target NTA crops, moreover, is about 1-3% of total agricultural land.

As discussed earlier, several information sources suggest that new lands are being converted to NTA production. Sufficient data do not exist on the extent to which this conversion represents an increase over and above what would otherwise occur in the absence of NTA cropping. A factor that is important from the environmental perspective, however is that NT crop farmers

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many times employ superior land management practices. The Project, by providing the Technical Assistance required to promote improved agricultural land management practices, therefore represents a clearly superior alternative from the conservation perspective.

Water Resources. Central America for the most part has excellent water resources, although it is common for delivery of those resources on demand to be problematic. Virtually all NTA and NTI operations that will receive Project TA use water to some extent, and as with energy this use results in financial costs that directly affect profitability. Some of the TA provided by EXITOS to NTA and NTI operations will contribute to more efficient water use, and will therefore both lower water costs per output unit and increase profit margins. From the environmental perspective, this increased water use efficiency represents a clearly superior conservation alternative.

5.5 MITIGATION MEASURES

Measures to mitigate the potential indirect adverse impact of EXITOS focus on use of TA, training and/or commodities provided through: (1) A.I.D. regional projects and regionally supported institutions; (2) A.I.D. bilateral projects and bilaterally supported institutions; (3) private sector consulting groups; and (4) national public sector institutions. EXITOS will also fund a select, highly focussed study on the greater issue of NT crop expansion and land conversion, and may fund specialized short-term TA as needed on a case-by-case, activity-specific basis.

5.5.1 Pesticide Mitigation

EXITOS will support a number of activities that will promote better pesticide management practices and will serve to mitigate any adverse impact that might result from Project implementation.

Linkages with USG Programs. Training and information delivery support in pesticide management will be the most important mitigation activity of the Project. This will mostly occur through regional and national organizations, and will mostly be funded by projects addressing natural resource management issues in the region. ROCAP's RENARM Project currently implements an IPM component, through CATIE, EAP and INCAP, which provides training and technology on the subject throughout Central America. This activity focusses specifically on enhancing general awareness of the cost and misuse of pesticides, the benefits of their proper handling, and institutionalization of sound public and private sector pesticide management practices. This RENARM component will be tapped to address specific issues and needs as they arise during EXITOS implementation.

A large pool of expertise also exists within bilateral USAID Missions, e.g., in projects such as HADS II and LUPE. There are, in addition, other organizations in the region which can serve as TA resources. The Bureau of

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Science and Technology has expertise to lend to EXITOS, for example, and USDA-OICD maintains an active list of experts to draw upon to address specific problems.

Linkages to Regional and Local Programs. Most pesticide-related demands can and will be addressed by existing regional and local resources. Local organizations have collectively developed an excellent capacity to promote better pesticide use. Promotion by the organizations of better selection of producer groups, improved crop protection programs, timely information on current pesticide regulations, pesticide residue monitoring, and more general awareness on export quality requirements, have all contributed to a higher awareness in the agricultural community of the problems associated with export detentions and have as an objective the lowering of detention incidents.

During implementation, EXITOS will act as a broker directing pesticide-related demands towards appropriate regional and local reference groups. This will be consistent with the progress realized under PROEXAG in developing these networks. The CATIE and EAP programs will be major targets for collaboration, and NTAE counterpart organizations--through their technical assistance and quality assurance programs--will be involved as needed. The University of Costa Rica Diagnostic Center and FHIA (Honduras) also have research and extension centers with the programmatic capacity to contribute to the effort. Specialized EXITOS consultants may coordinate their country visits and technical involvement--as appropriate--with established and more permanent IPM and regulatory programs.

IPM Commodity Activities. IPM appears to have an important role to play in the long-term sustainability of NTA crops in Central America. Regional networks around specific crops or themes will be promoted as appropriate, with select country or regional organizations assuming lead responsibility in carrying out IPM technical activities. The recently organized Regional Melon Crop Protection Network is a good illustration, and another is EAP, CATIE and the University of Costa Rica which share responsibility for research and training in melon virus control. FUSADES, FPX and CINDE contribute to this collaboration, and annual planning and information meetings are held and attended by scientists, producers, and development support organizations.

There is already evidence of potentially significant IPM-based technical contributions to reducing virus problems in melons and, concomitantly, diminishing pesticide use on this crop. EXITOS will support these activities as appropriate during Project implementation.

Introduced Cultivars. Under EXITOS, any cultivars introduced into the region will subscribe to the procedures established by that country's official quarantine and certification programs. As appropriate, EXITOS will collaborate very closely with the respective host country research entities in the testing and application of these new cultivars. EXITOS will continue the PROEXAG practice of providing plant and seed materials to these research institutions whereby parallel but mutually reinforcing trials may be undertaken.

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5.5.2 Natural Resource Use Conflict Mitigation

The Project will directly help mitigate natural resource use conflicts by providing funding to articulate and objectively evaluate the larger issue of NTA promotion and its effect on land use. It will also indirectly reduce the need to convert additional lands through provision of TA to improve NTA crop management contributing to intensification as opposed to extensification of agriculture. It may, moreover, directly help mitigate other specific natural resource use conflicts--both NTA and NTI related--on a case-by-case basis as appropriate through provision of short-term TA and/or training.

In the event that a clear case arises of Project-provided TA creating or exacerbating a natural resource-related conflict during implementation, the Project contractor will, on a case-by-case basis: (1) identify and clearly articulate the problem; (2) consult with ROCAP on best alternative mechanisms for addressing the problem; (3) identify institutions in Central America with specific expertise in addressing the types of problems raised; and (4) in conjunction with ROCAP and with ROCAP approval, propose a means of employing the respective institution(s) to help resolve the problem. Existing bilateral and regional USAID projects which may be mobilized to address any problem which arises include HADS II in Guatemala, LUPE in Honduras, and ROCAP's Regional Environment and Natural Resource Management Project (RENARM). In association with such mitigation efforts, EXITOS may fund provision of problem-specific short-term TA, training and/or commodities on a case-by-case basis as determined appropriate during implementation. Also, to more clearly identify the true nature of the relation between the non-traditional export subsector and natural resource allocations, EXITOS will fund a study to thoroughly assess--based on hard data--the extent to which NTAE activities may affect land use.

5.5.3 Industrial Pollution Mitigation

EXITOS will indirectly help mitigate pollution/waste disposal problems by providing the Technical Assistance required to help NTI operators improve their operations and become more responsible--and therefore profitable-- businessmen. It may, moreover, help mitigate specific pollution/waste disposal problems on a case-by-case basis as appropriate through provision of short-term TA and/or training.

Under EXITOS, light industrial pollution incidents will probably continue to occur. It is unlikely, however, that Project would exacerbate these incidents. It is, conversely, very likely that Project resources will be used at some point during implementation to help mitigate pre-existing pollution problems. Because the nature of any individual pollution incident would vary according to the type, size and nature of the industrial activity, it is difficult to assess the nature and extent of any pollution impact which may be exacerbated by provision of TA prior to Project implementation.

In the event that a clear case arises of Project-provided TA creating or worsening an industrial pollution problem during implementation, the Project contractor will, on a case-by-case basis: (1) identify and clearly articulate the problem; (2) consult with ROCAP on best alternative mechanisms for addressing the problem; (3) identify institutions in Central America with specific expertise in addressing the types of problems raised; and (4) in conjunction with ROCAP and with ROCAP approval, propose a means of employing the respective institution(s) to help resolve the problem. Existing bilateral and regional USAID projects which may be mobilized to address any problem which arises include HADS II in Guatemala, LUPE in Honduras, and ROCAP's RENARM Project. In association with such mitigation efforts, EXITOS may fund provision of problem-specific short-term TA, training and/or commodities on a case-by-case basis as determined appropriate during implementation.

5.6 UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts have been identified.

5.7 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

EXITOS will support existing Non-Traditional Export activities which represent short-term uses of the environment. Through promotion of improved agricultural and light industrial practices, the Project will help ensure the maintenance and enhancement of long-term productivity at those current locations.

5.8 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

Natural resources used in the Non-Traditional exports receiving technical assistance will be used better and more efficiently than under the no action alternative, because the Project will promote improved resource management practices.

6.0 PREPARERS

This Environmental Assessment was prepared primarily by two specialists under long-term contract to ROCAP. Dr. Mario Contreras, Pest Management Specialist/Team Leader, works under contract to ROCAP in Costa Rica and has considerable experience in agricultural diversification, agricultural research, and technology transfer in Central America. Dr. Contreras is familiar with Central American NTAE activities, opportunities and limitations; has worked extensively with regional crop pests; and has in-depth experience with pesticide regulations and trends both in the region and in target export markets. Dr. Contreras was responsible for analyses related to the issues of pesticide usage, had lead responsibility for assessing the issue of light industrial pollution/waste management, and served as overall quality control for preparation of the EA.

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Dr. Wayne Williams served as Environmental Specialist for the EA. Dr. Williams has extensive experience with Central American agriculture, ecosystems and human impact patterns, and helped assess the issue of potential natural resource conflicts. He also assisted with collection of information related to assessment of the light industrial pollution/waste management issue.

Collaboration and interviews with bilateral USAID and host country counterparts and participants in non-traditional agricultural export commodities were carried out in Panama, Costa Rica, Nicaragua, Honduras, El Salvador, Guatemala and Belize. Discussions on the various components of the EXITOS project were primarily based on the coauthor's experiences in Costa Rica, Honduras, Belize and Guatemala.

Extensive review, analysis and editing of the Environmental Assessment were provided by Ronald V. Curtis, Chief, RADO, J.W. Goodson, ROCAP PDO, William Sugrue, Renarm PM, Richard Clark, Pesticide Specialist, R.W. Waldron, RADO, and Al Hankins, Agricultural development consultant.

Prior to finalization of this document, the EA team (1) reviewed relevant information related to the three target issues; (2) conducted a field review of select agricultural activities supported under PROEXAG; (3) conducted a field review of select light industrial operations of the type to be addressed by EXITOS; (4) proposed and discussed alternative mitigative measures with the Project Paper team; and (5) proposed and discussed alternative monitoring mechanisms.

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APPENDICES

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Appendix 1

EXITOS Initial Environmental Examination

INITIAL ENVIRONMENTAL EXAMINATION PAGESHEET

Project Title: Export Industry Technology Support (EXITOS)

Project Number: 598-0163

Project Location: Central America

LDP Funding: US\$6.8 million

Life of Project: Five years

IEE Prepared by: Mario Contreras, Ph.D. *MC*
 Regional Pest Management Specialist
 ROCAP

Wayne T. Williams, Ph.D. *W.T.W.*
 Regional Environmental Advisor
 ROCAP

Date Prepared: April 1991

Recommended Threshold Decision: Positive Determination

Discussion: Pursuant to 22 CFR 216, this Initial Environmental Examination (IEE) identifies potentially significant adverse environmental impacts which are reasonably foreseeable as a result of Project implementation. A positive environmental threshold determination is therefore recommended. An Environmental Assessment (EA) scoping statement is attached, recommending more detailed examination of three key Project-related issues: (1) increased pesticide usage resulting from promotion of non-traditional agricultural (NTA) exports; (2) potentially conflicting natural resource demands resulting from promotion of both NTA and non-traditional light industrial (NTI) exports; and (3) potential industrial pollution and waste disposal problems associated with promotion of NTI exports.

Because the specific impacts are unidentifiable at this time, the EA will focus on developing mechanisms to mitigate adverse impacts as they arise, on a case-by-case basis, during implementation. Special emphasis will be on establishing linkages with other more specialized A.I.D. projects in the region for provision of specialized short-term technical assistance and specialized short-term training.

INITIAL ENVIRONMENTAL EXAMINATION

Export Industry Technology Support Project (EXITOS)
(596-0165)

1.0 PROJECT DESCRIPTION

The Export Industry Technology Support Project (EXITOS) is a five year, US\$ 8.5 million activity whose goal is "a 15% annual gain in foreign exchange earnings from the sale of non-traditional agricultural and industrial products in each year from 1992-1996". The purpose of the Project is "to increase the sales and profitability of Central American non-traditional agricultural and manufactured export products". Project outputs will fall into three broad categories: human, corporate and commodity. Correspondingly, accomplishments will include: (1) better informed individuals and organizations with improved competence in the workings of export markets; (2) participating companies practicing up-to-date operating methods in the export production and marketing chain; and (3) greater export volumes of NTE products with better quality.

The Project will build upon the groundwork laid by the Non-traditional Agricultural Export Support Project (PROEXAG) over the past 5 years, and will expand it to address the increasing regional demands for technical assistance by light industry. EXITOS will take an approach paralleling PROEXAG, addressing common technical deficiencies in individual firms, setting up technical assistance programs, and delivering quickly the services needed. To this end, a contracted U.S. firm or firms will provide technical assistance in non-traditional agricultural and industrial exports throughout Central America from Belize to Panama. Paramount to the overall process is the production and processing of export products in response to market demands.

2.0 ENVIRONMENTAL REVIEW

2.1 ENVIRONMENTAL IMPACT OF PROEXAG

The current NTAE drive in Central America began in the early 1970's. At that time, pioneer vegetable and melon research and small-scale agricultural export production activities began in Guatemala and Honduras. This was followed by a rapid expansion in production and exports in the early 1980's, and dramatic increases in the volume and value of export produce over the past five years.

PROEXAG began operations in 1986. Oriented towards promotion of NTA exports from Central America, a negative determination was recommended and approved for this project and the activity was authorized on 20 December 1985. Through a well managed and skilfull intervention process, PROEXAG has been able to provide substantial positive impetus to NTA exports from the region. At the same time, PROEXAG has substantially contributed to making the NTA exporter and local organizations increasingly aware of produce quality standards

required by the U.S. market--and thereby has had a significant beneficial, if indirect, environmental impact. Detentions of Central American NTA produce with illegal pesticide levels, for example, has declined. Thus, although PROEXAG has significantly contributed to increased NTA exports from the region, it has also played an important role in mitigating the adverse impact of pesticide usage. The new EXITOS Project will continue to play this positive environmental role and it should also contribute to mitigating other potentially significant adverse environmental impacts associated with increased NTA and NTI exports.

2.2 ENVIRONMENTAL IMPACTS OF EXITOS

Although some commodities (e.g., those supporting a very limited level of NTA research) may be procured, EXITOS consists almost entirely of specialized long-term and short-term technical assistance. No Project activities are therefore expected to have a direct and significant environmental impact--either beneficial or adverse. Indirect environmental impact will also be relatively limited, but some indirect beneficial and indirect adverse environmental impacts are reasonably foreseeable.

2.2.1 Potential Beneficial Environmental Impacts of EXITOS

Four beneficial Project environmental impacts are reasonably foreseeable as a result of Project implementation. First, increasing awareness by the business community of the financial costs of environmental impact will be strengthened through Project-supported market promotion, information dissemination and training activities. This process has already begun under ROCAP's FEDEPRICAP Project, and will be supported by EXITOS. Second, as with PROEXAG, agricultural produce quality and appropriate pesticide use and lower residue levels are expected to result. Third, efficiency in the use of renewable resources among select light industries should be improved--having both beneficial environmental and business impact. And finally, in conjunction with other ROCAP trade and investment projects, new market opportunities developed by EXITOS will contribute to streamlining and improving basic export operations and infrastructure; this should result in significant secondary beneficial impact, e.g., improved zoning and concentration of industrial operations in free trade zones.

2.2.2. Potentially Significant Adverse Environmental Impact

Three potentially significant, adverse environmental impacts have been identified with respect to Project implementation: (1) increased pesticide use; (2) conflicting natural resource demands; and (3) pollution and waste disposal from light industrial operations.

Increased Pesticide Use and Pest Control. Over the past twenty years, as NTA export levels increased in Central America, pesticide use has also increased with possible adverse environmental impact. Shipment detentions due to

violations of U.S. pesticide regulations have nonetheless decreased, largely as a result of PROEXAG. Detentions continued to hurt business, however, and to mitigate this situation PROEXAG identified pesticide use parameters for the majority of target export crops. An extensive literature base was prepared, various courses on appropriate pest management were offered, and technical assistance was provided to producers, exporters and other interested parties. Information on U.S. pesticide regulations was also disseminated by PROEXAG, and pesticide residue monitoring was performed. Although detentions decreased as a result, it is foreseeable that a continued increase in NTA exports will cause an increase in the volume of pesticides used in Central America.

For both business and environmental reasons, inappropriate pesticide use must be curtailed and the percentage of cargoes detained for reasons of unacceptable pesticide residues further reduced. While technical assistance to be funded under EXITOS will not directly advise farmers on pesticide applications, it will act as a broker by referring all pesticide-related technical assistance needs of growers and shippers to (1) existing experts in the region (e.g., the faculties of CATIE and Zamorano), (2) private consulting firms, and/or (3) governmental agricultural extension services in a balanced manner. Some of these organizations currently receive assistance from ROCAP and USAID bilateral programs, and this referral service will further promote U.S. development objectives in the region. In addition, to help resolve special pesticide problems, the Project may fund specialized short-term technical assistance on a case-by-case basis. Ancillary to this issue, and to avoid the introduction of new noxious pests, the Project is committed to ensuring that all existing Central American pest quarantine controls and regulations are met.

The Environmental Assessment will review the pesticide management capabilities of national and regional institutions; assess their reach in light of the demand for services; and recommend the best and most appropriate mechanisms to ensure that this referral system operates smoothly during implementation.

Conflicting Natural Resource Demands. It is reasonably foreseeable that some potentially significant and conflicting natural resource demands may arise as a result of technical assistance provided by EXITOS contractors during Project implementation. Promotion of NTA and NTI exports may, for example, indirectly place conflicting demands on soil, water, air and/or vegetational (including tropical forest) resources on a case-specific basis. It is impossible to assess specific natural resource conflicts prior to Project implementation because the nature of these conflicts will vary according to the type of agricultural/industrial intervention supported by the Project; the unique characteristics of the individual operation and site; intervention timing; and a myriad of other factors. The Environmental Assessment will therefore concentrate (1) on identifying reasonably foreseeable types of impacts that may occur as a result of Project-specific provision of technical assistance; and (2) on recommending appropriate mechanisms to address conflicts as they arise--on a case-by-case basis--during Project implementation. ROCAP intends to address the broader issue of continued NTA export increases and the impact on regional natural resources as a separately funded activity in FY'92-93.

Light Industrial Pollution and Waste Disposal. It is reasonably foreseeable that adverse environmental impact may result from provision of technical assistance to light industries. The most significant of these impacts (not addressed under the issue of conflicting natural resource demands) relate to increased industrial pollution and industrial waste disposal. Again, however, the nature of impact will be highly case-specific--depending on the type, size and nature of the industrial activity, and upon the nature of the technical assistance provided thereto. The EXITOS EA will therefore concentrate on (1) identifying reasonably foreseeable types of impacts that may occur as a result of Project-specific provision of technical assistance (especially to manufacturing and processing activities); and (2) on recommending appropriate mechanisms to address case-by-case conflicts as they arise during implementation.

In the case of all three issues scoped for this Environmental Assessment, mitigation measures will focus on use of technical assistance, training and/or commodities provided through: (1) A.I.D. regional projects and regionally supported institutions; (2) A.I.D. bilateral projects and bilaterally supported institutions; (3) private sector consulting groups; and (4) national public sector institutions. The EXITOS Project may, nonetheless, fund specialized short-term technical assistance on a case-by-case basis.

3.0 RECOMMENDED ENVIRONMENTAL THRESHOLD DECISION

Because potentially significant adverse environmental impacts are reasonably foreseeable as a result of Project implementation, a positive determination for the EXITOS Project is recommended pursuant to 22 CFR 216.3(a)(2)(iii).

(5799j)

Appendix 2

EXITOS Environmental Assessment Scoping Statement

ENVIRONMENTAL ASSESSMENT SCOPING STATEMENT

Export Industry Technology Support Project (EXITOS)

1.0 BACKGROUND

The Non-Traditional Agricultural Export Support Project (PROEXAG) has provided technical assistance in production and export in Central America for the past five years. The EXITOS Project will build upon PROEXAG's success, and expand the scope of activities to include non-traditional, light industrial export commodities. The Project will strengthen private sector organizations promoting trade and investment; stimulate agricultural production and trade; promote technological improvement; increase market information systems and networks; and increase participation in income-generating opportunities by segments of the society previously at the margin of the mainstream economic system.

2.0 SCOPE AND SIGNIFICANCE OF ISSUES

The Initial Environmental Examination (IEE) recommended a Positive Threshold Decision for the Project and, pursuant to 22 CFR 216.3(a)(4), examined probable direct and indirect impacts of EXITOS on the environment. EXITOS funding will almost exclusively support provision of technical assistance which will act in an advisory capacity only. Limited funds are earmarked for specialized NTA research, and limited (non-pesticide) commodities may be procured to support that research. No commodities will be provided to target producers/exporters, however, and no training courses per se will be funded under the Project. Because EXITOS will almost exclusively fund advisory technical assistance, no significant direct Project impacts were identified in the IEE. Three potentially significant adverse environmental impacts were identified, however, which may indirectly result from provision of technical assistance to promote non-traditional agricultural (NTA) and non-traditional light industrial (NTI) exports. These three issues, to be addressed in the Environmental Assessment, are: (1) increased pesticide use resulting from promotion of NTA exports; (2) potentially conflicting natural resource demands resulting from promotion of both NTA and NTI exports; and (3) potential industrial pollution and waste disposal problems associated with promotion of NTI exports.

3.0 SCOPE OF WORK

The EA team will (1) review relevant information related to these three issues; (2) conduct a field review of select agricultural activities supported under PROEXAG; (3) conduct a field review of select light industrial operations of the type to be addressed by EXITOS; (4) propose and discuss potential mitigative measures with the EA team, including cost estimates; (5) propose and discuss alternative monitoring mechanisms, including cost

estimates; and (6) prepare an EA as consistent as practicable with the provisions of 22 CFR 216. At a minimum, the EA will include an Executive Summary providing major conclusions; a Purpose section; a section on alternatives, including the proposed action (i.e., the Project as designed); a section on the environment likely to be affected; a section discussing reasonably foreseeable Project impacts; a section on monitoring; a section on mitigation alternatives; and a conclusions section.

Specific to the issue of pesticide usage, the Environmental Assessment will review the pesticide management capabilities of national and regional institutions; assess their reach in light of the demand for services; and recommend the best and most appropriate mechanisms to ensure that a Project referral system for growers/exporters with pesticide problems is established and operates smoothly during implementation.

Specific to the issue of natural resource conflicts, it will be impossible to assess specific conflicts prior to Project implementation. This is because the nature of the conflicts will vary according to the type of agricultural/ industrial intervention supported by the Project; the characteristics of the individual operation and site; intervention timing; and a myriad of other factors. The Environmental Assessment will therefore concentrate (1) on identifying reasonably foreseeable types of impacts that may occur as a result of Project-specific provision of technical assistance; and (2) on recommending appropriate mechanisms to address conflicts as they arise--on a case-by-case basis--during Project implementation. (ROCAP intends to address the broader issue of the impact of continued NTA export increases on natural resources in Central America as a separately funded activity in FY'92-93.)

Specific to the issue of light industrial pollution and waste disposal, the nature of impact will also be highly case-specific--depending on the type, size and nature of the industrial activity, and upon the nature of the technical assistance provided thereto. The EA will therefore concentrate on (1) identifying reasonably foreseeable types of impacts that may occur as a result of Project-specific provision of technical assistance (especially to manufacturing and processing activities); and (2) on recommending appropriate mechanisms to address case-by-case conflicts as they arise during implementation.

In the case of all three issues scoped for this Environmental Assessment, mitigation measures will focus on use of technical assistance, training and/or commodities provided through: (1) A.I.D. regional projects and regionally supported institutions; (2) A.I.D. bilateral projects and bilaterally supported institutions; (3) private sector consulting groups; and (4) national public sector institutions. The EXITOS Project may, nonetheless, fund specialized short-term technical assistance as needed on a case-by-case basis.

4.0 TEAM COMPOSITION

The EA team will consist of two specialists. Dr. Mario Contreras, with experience in agricultural diversification, agricultural research and technology transfer, will serve as the Pest Management Specialist/Team Leader. Dr. Contreras is familiar with Central American NTAE activities,

opportunities and limitations; has worked extensively with regional crop pests; and has in-depth experience with pesticide regulations and trends both in the region and in intended export markets. Dr. Contreras will be responsible for all analysis related to the issue of pesticide usage, will take lead responsibility for assessing the issue of light industrial pollution/waste management, and will serve as overall quality control for the Environmental Assessment activity.

Dr. Wayne Williams will serve as the Environmental Specialist. Dr. Williams has extensive experience in preparing environmental analyses, and is familiar with Central American agriculture, ecosystems and human impact patterns. Dr. Williams will take lead responsibility for assessing the issue of potential natural resource conflicts, and will help assess the light industrial pollution/waste management issue.

5.0 SCHEDULE AND TIMING

A draft EA will be completed not later than 15 May 1991, and a final EA will be incorporated into the final EXITOS Project Paper as an annex on or about 7 June 1991.

(5799j)

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Appendix 3

Scoping Statement Approval Cable

ORIGIN ROCP INFO AMB DCM ECC AID/5

VZCZCGTI *
FP RUEFC
DE RUEEGT #4138/01 116 **
ZNR UUUUU ZZE
P 261657Z APR 91
FM AMEMBASSY GUATEMALA
TO SECSTATE WASEDC PRIORITY 8659
BT
UNCLAS SECTION 01 OF 03 GUATEMALA 04138

CLASS: UNCLASSIFIED
CHRG: ROCP 4/19/91
APPRV: RDIR/ICASTILLO
DRFTD: DPDO:JGOODSON:JK-9J
CLEAR: 1. PDO:PTUEBNER
2. RADO:WSUGRUE
3. RADO:WILLIAMS

AIDAC

ROCAP

DISTR: ROCP
ORGIN: OCR

FOR LAC BUREAU ENVIRONMENTAL OFFICER JAMES HESTER

E.O. 12356: N/A

SUBJECT: ENVIRONMENTAL ASSESSMENT SCOPING STATEMENT,
EXPORT INDUSTRY TECHNOLOGY SUPPORT PROJECT (EXITOS);
PROJECT 596-0165.

1. PURSUANT TO FORMAL REVIEW OF ROCAP'S FY 1991-92 ACTION PLAN IN AID/W ON 2 MAY 1990, ROCAP WAS GIVEN PROGRAMMATIC APPROVAL TO DESIGN AND APPROVE THE EXPORT INDUSTRY TECHNOLOGY SUPPORT PROJECT (EXITOS: 596-0165). THE INITIAL ENVIRONMENTAL EXAMINATION (IEE) FOR THE EXITOS PROJECT IDENTIFICATION DOCUMENT (PID) RECOMMENDED, AND THE ACTING DIRECTOR CONCURS WITH, A POSITIVE THRESHOLD DECISION FOR THIS PROJECT. PURSUANT TO 22 CFR 216.3(A)(4), A SCOPING STATEMENT HAS PREPARED FOR THE ENVIRONMENTAL ASSESSMENT (EA) AND IS APPENDED TO THE EXITOS PID. THAT SCOPING STATEMENT IS SUBMITTED HEREWIT FOR THE CONCURRENCE OF THE LAC BUREAU ENVIRONMENTAL OFFICER (BEO). PLEASE BE ADVISED THAT ROCAP NOW PLANS TO AUTHORIZE ONLY REPEAT ONLY THE AGRICULTURAL PORTION OF EXITOS IN FY 91. BECAUSE WE PLAN TO AMEND THE PROJECT IN FY 92 TO INCLUDE THE INDUSTRIAL PORTION, HOWEVER, ROCAP PROPOSES TO ASSESS THE ENVIRONMENTAL IMPACT OF BOTH COMPONENTS CONCURRENTLY.

DUE TO AN EXTREMELY TIGHT PROJECT PAPER (PP) DESIGN SCHEDULE, ROCAP WOULD APPRECIATE YOUR CONCURRENCE WITH THIS SCOPING STATEMENT AT THE EARLIEST POSSIBLE DATE SO THAT EA PREPARATION CAN BEGIN.
BEGIN ENVIRONMENTAL ASSESSMENT SCOPING STATEMENT

2. BACKGROUND

- THE NON-TRADITIONAL AGRICULTURAL EXPORT SUPPORT PROJECT (PROEXAG) HAS PROVIDED TECHNICAL ASSISTANCE IN PRODUCTION AND EXPORT IN CENTRAL AMERICA FOR THE PAST FIVE YEARS. THE EXITOS PROJECT WILL BUILD UPON PROEXAG'S SUCCESS, AND EXPAND THE SCOPE OF ACTIVITIES TO INCLUDE NON-TRADITIONAL, LIGHT INDUSTRIAL EXPORT COMMODITIES. THE PROJECT WILL STRENGTHEN PRIVATE

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SECTOR ORGANIZATIONS PROMOTE; TRADE AND INVESTMENT; STIMULATE AGRICULTURAL PRODUCTION AND TRADE; PROMOTE TECHNOLOGICAL IMPROVEMENT; INCREASE MARKET INFORMATION SYSTEMS AND NETWORKS; AND INCREASE PARTICIPATION IN INCOME-GENERATING OPPORTUNITIES BY SEGMENTS OF THE SOCIETY PREVIOUSLY AT THE MARGIN OF THE MAINSTREAM ECONOMIC SYSTEM.

3. SCOPE AND SIGNIFICANCE OF ISSUES

- THE INITIAL ENVIRONMENTAL EXAMINATION (IEE) FOR EXITOS RECOMMENDED A POSITIVE THRESHOLD DECISION FOR THE PROJECT AND, PURSUANT TO 22 CFR 216.3(A)(4), EXAMINED PROBABLY DIRECT AND INDIRECT IMPACTS OF EXITOS ON THE ENVIRONMENT. EXITOS FUNDING WILL ALMOST EXCLUSIVELY SUPPORT PROVISION OF TECHNICAL ASSISTANCE WHICH WILL ACT IN AN ADVISORY CAPACITY ONLY. LIMITED FUNDS ARE EARMARKED FOR SPECIALIZED NON-TRADITIONAL AGRICULTURAL (NTA) RESEARCH, AND LIMITED NON-PESTICIDE RELATED COMMODITIES MAY BE PROCURED TO SUPPORT THAT RESEARCH. NO COMMODITIES WILL BE PROVIDED TO TARGET PRODUCERS/EXPORTERS, HOWEVER, AND NO TRAINING COURSES PER SE WILL BE FUNDED UNDER THE PROJECT. BECAUSE EXITOS WILL ALMOST EXCLUSIVELY FUND ADVISORY TECHNICAL ASSISTANCE, NO SIGNIFICANT DIRECT PROJECT IMPACTS WERE IDENTIFIED IN THE IEE.

- THREE POTENTIALLY SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS WERE IDENTIFIED, HOWEVER, WHICH MAY INDIRECTLY RESULT FROM PROVISION OF TECHNICAL ASSISTANCE TO PROMOTE NTA AND NON-TRADITIONAL LIGHT INDUSTRIAL (NTI) EXPORTS. THESE THREE ISSUES, TO BE ADDRESSED IN THE ENVIRONMENTAL ASSESSMENT, ARE: (1) INCREASED PESTICIDE USE RESULTING FROM PROMOTION OF NTA EXPORTS; (2) POTENTIALLY CONFLICTING NATURAL RESOURCE DEMANDS RESULTING FROM PROMOTION OF BOTH NTA AND NTI EXPORTS; AND (3) POTENTIAL INDUSTRIAL POLLUTION AND WASTE DISPOSAL PROBLEMS ASSOCIATED WITH PROMOTION OF NTI EXPORTS.

4. SCOPE OF WORK

- THE EA TEAM WILL (1) REVIEW RELEVANT INFORMATION RELATED TO THESE THREE ISSUES; (2) CONDUCT A FIELD REVIEW OF SELECT AGRICULTURAL ACTIVITIES SUPPORTED UNDER PROEXAG; (3) CONDUCT A FIELD REVIEW OF SELECT LIGHT INDUSTRIAL OPERATIONS OF THE TYPE TO BE ADDRESSED

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FY EXITOS; (4) PROPOSE AND DISCUSS POTENTIAL MITIGATIVE MEASURES WITH THE PP TEAM, INCLUDING COST ESTIMATES; (5) PROPOSE AND DISCUSS ALTERNATIVE MONITORING MECHANISMS, INCLUDING COST ESTIMATES; AND (6) PREPARE AN EA CONSISTENT WITH THE PROVISIONS OF 22 CFR 216. AT A MINIMUM, THE EA WILL INCLUDE AN EXECUTIVE SUMMARY PROVIDING MAJOR CONCLUSIONS; A PURPOSE SECTION; A SECTION ON ALTERNATIVES, INCLUDING THE PROPOSED ACTION (I.E., THE PROJECT AS DESIGNED); A SECTION ON THE ENVIRONMENT LIKELY TO BE AFFECTED; A SECTION DISCUSSING REASONABLY FORSEEABLE PROJECT IMPACTS; A SECTION ON MONITORING; A SECTION ON MITIGATION ALTERNATIVES; AND A CONCLUSIONS SECTION.

- SPECIFIC TO THE ISSUE OF PESTICIDE USAGE, THE ENVIRONMENTAL ASSESSMENT WILL REVIEW THE PESTICIDE MANAGEMENT CAPABILITIES OF NATIONAL AND REGIONAL INSTITUTIONS; ASSESS THEIR REACH IN LIGHT OF THE DEMAND FOR SERVICES; AND RECOMMEND THE BEST AND MOST APPROPRIATE MECHANISMS TO ENSURE THAT A PROJECT REFERRAL SYSTEM FOR GROWERS/EXPORTERS WITH PESTICIDE PROBLEMS IS ESTABLISHED DURING PROJECT IMPLEMENTATION.

- SPECIFIC TO THE ISSUE OF NATURAL RESOURCE CONFLICTS, IT WILL BE IMPOSSIBLE TO ASSESS SPECIFIC CONFLICTS PRIOR TO PROJECT IMPLEMENTATION. THIS IS BECAUSE THE NATURE OF THE CONFLICTS WILL VARY ACCORDING TO THE TYPE OF AGRICULTURAL/INDUSTRIAL INTERVENTION SUPPORTED BY THE PROJECT; THE CHARACTERISTICS OF THE INDIVIDUAL OPERATION AND SITE; INTERVENTION TIMING; AND A MYRIAD OF OTHER FACTORS. THE EA WILL THEREFORE CONCENTRATE (1) ON IDENTIFYING REASONABLY FORSEEABLE TYPES OF IMPACTS THAT MAY OCCUR AS A RESULT OF PROJECT-SPECIFIC PROVISION OF TECHNICAL ASSISTANCE; AND (2) ON RECOMMENDING APPROPRIATE MECHANISMS TO ADDRESS CONFLICTS AS THEY ARISE--ON A CASE-BY-CASE BASIS--DURING PROJECT IMPLEMENTATION. (ROCAP INTENDS TO ADDRESS THE BROADER ISSUE OF THE IMPACT OF CONTINUED NTA EXPORT INCREASES ON NATURAL RESOURCES IN CENTRAL AMERICA AS A SEPARATELY FUNDED ACTIVITY IN FY'92-93.)

- SPECIFIC TO THE ISSUE OF LIGHT INDUSTRIAL POLLUTION AND WASTE DISPOSAL, THE NATURE OF IMPACT WILL ALSO BE HIGHLY CASE-SPECIFIC--DEPENDING ON THE TYPE, SIZE AND NATURE OF THE INDUSTRIAL ACTIVITY, AND UPON THE NATURE OF THE TECHNICAL ASSISTANCE PROVIDED THERETO. THE EA WILL THEREFORE CONCENTRATE ON (1) IDENTIFYING REASONABLY FORSEEABLE TYPES OF IMPACTS THAT MAY OCCUR AS A RESULT OF PROJECT-SPECIFIC PROVISION OF TECHNICAL ASSISTANCE (ESPECIALLY TO MANUFACTURING AND PROCESSING ACTIVITIES); AND (2) ON RECOMMENDING APPROPRIATE MECHANISMS TO ADDRESS CASE-BY-CASE CONFLICTS AS THEY ARISE DURING IMPLEMENTATION.

- IN THE CASE OF ALL THREE ISSUES SCOPED FOR THIS

ENVIRONMENTAL ASSESSMENT, MITIGATION MEASURES WILL FOCUS ON USE OF TECHNICAL ASSISTANCE, TRAINING AND/OR COMMODITIES PROVIDED THROUGH: (1) A.I.D. REGIONAL PROJECTS AND REGIONALLY SUPPORTED INSTITUTIONS; (2) A.I.D. BILATERAL PROJECTS AND BILATERALLY SUPPORTED INSTITUTIONS; (3) PRIVATE SECTOR CONSULTING GROUPS; AND (4) NATIONAL PUBLIC SECTOR INSTITUTIONS. THE EXITOS PROJECT MAY, NONETHELESS, FUND SPECIALIZED SHORT-TERM TECHNICAL ASSISTANCE AS NEEDED ON A CASE-BY-CASE BASIS.

5. TEAM COMPOSITION

- THE EA TEAM WILL CONSIST OF TWO SPECIALISTS. DR. MARIO CONTRERAS, WITH EXPERIENCE IN AGRICULTURAL DIVERSIFICATION, AGRICULTURAL RESEARCH AND TECHNOLOGY TRANSFER, WILL SERVE AS THE PEST MANAGEMENT SPECIALIST/TEAM LEADER. DR. CONTRERAS IS FAMILIAR WITH CENTRAL AMERICAN NTAE ACTIVITIES, OPPORTUNITIES AND LIMITATIONS; HAS WORKED EXTENSIVELY WITH REGIONAL CROP PESTS; AND HAS IN-DEPTH EXPERIENCE WITH PESTICIDE REGULATIONS AND TRENDS BOTH IN THE REGION AND IN INTENDED EXPORT MARKETS. DR. CONTRERAS WILL BE RESPONSIBLE FOR ALL ANALYSIS RELATED TO THE ISSUE OF PESTICIDE USAGE, WILL TAKE LEAD RESPONSIBILITY FOR ASSESSING THE ISSUE OF LIGHT INDUSTRIAL POLLUTION/WASTE MANAGEMENT, AND WILL SERVE AS OVERALL QUALITY CONTROL FOR THE ENVIRONMENTAL ASSESSMENT ACTIVITY.

- DR. WAYNE WILLIAMS WILL SERVE AS THE ENVIRONMENTAL SPECIALIST. DR. WILLIAMS, FAMILIAR WITH CENTRAL

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AMERICAN AGRICULTURE, ECOSYSTEMS AND HUMAN IMPACT PATTERNS, WILL TAKE LEAD RESPONSIBILITY FOR ASSESSING THE ISSUE OF POTENTIAL NATURAL RESOURCE CONFLICTS AND WILL HELP ASSESS THE LIGHT INDUSTRIAL POLLUTION/WASTE MANAGEMENT ISSUE.

6. SCHEDULE AND TIMING

- A DRAFT EA WILL BE COMPLETED ON OR ABOUT 7 JUNE 1991, AND A FINAL EA WILL BE INCORPORATED INTO THE FINAL EXITOS PROJECT PAPER AS AN ANNEX ON OR ABOUT 25 JULY 1991.

END ENVIRONMENTAL ASSESSMENT SCOPING STATEMENT

7. PLEASE ADVISE REGARDING BEO CONCURRENCE AT EARLIEST OPPORTUNITY. CASTILLO. STROOCK
BT

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Appendix 4
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Appendix 5

Partial List of Contacts

Appendix 5

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This Appendix constitutes a partial list of personnel contacted and/or interviewed by EA team members during the course of preparing this assessment.

- Alonso, Enrique Perez. Shrimp and fish flour exportation and marketing;
Coresa, Guatemala.
- Bennett, Robert Joseph. Peace Corps; Cabrican, Guatemala.
- Capco, S.A.: Melon producer, packing and shipping; Zacapa, Guatemala.
- Carpintería Centroamericana: Large Furniture Mfg. complex; Z. 10, Guatemala
(3 May, 1991).
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- Clark, Howard L. Regional Environmental Advisor; USAID/Quito.
- Cooperativa Champerico. Shrimp fishing, packing and shipping house; Puerto de
San José, Guatemala.
- Cooperativa Cuatro Pinos. San Juan Sacatepequez, Guatemala.
- Corrick, Tulley. ORD, USAID/Guatemala.
- Diehl, John. NTAE producer, packer, shipper and exporter; Quetzaltenango,
Guatemala.
- Fisher, Richard. IPM Specialist, Lewis Berger, Inc. HADSII project.
USAID, Guatemala.
- Frutesa, S.A. Snowpea, baby vegetable and tropical fruit packing and
shipping; Guatemala.
- Gardella, David. USAID/Panama.
- Gibson, David. Regional Environmental Advisor. LAC/DR USAID Washington, D.C.
- Gremial de Exportadores de Productos No Tradicionales. Guatemala.
- Heffron, Thomas. Fruit and vegetable exporter; Guatemala.
- Lamb, John. PROEXAG; Guatemala.
- Like, George. USAID/Belize.

Liztex, S.A. Broad cloth, thread, weavers and dyers; Calzada Roosevelt, Guatemala.

Mauer, Alan. HADS II Marketing Advisor; Guatemala.

Mayasol. Modern shrimp packing and shipping house; Z. 11, Guatemala.

McKlusky, Delbert. USAID/Honduras.

Nakatsuma, Alfred. ORD, USAID/Guatemala.

Pineda, Edgar, Forester. ORD/USAID Guatemala

PROBAR (Arturo Rivera). Shrimp fishing; Puerto de San José, Guatemala.

Puli, S.A. Wooden Door Mfg; Z. 4, Guatemala (2 May, 1991).

Tovar, Ricardo. PROEXAG; Guatemala.

Wilson, Mark. Forester, Project Share; Guatemala.

Velado, Sidney. International Community Development Consultant; El Salvador.

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