

PD-NAAT-837
15N-46080

UNCLASSIFIED

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

CARIBBEAN REGIONAL

PROJECT PAPER

INFRASTRUCTURE EXPANSION AND MAINTENANCE

AID/LAC/P-284

Project Number: 538-0138

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT DATA SHEET

1. TRANSACTION CODE
 A = Add
 C = Change
 D = Delete
 Amendment Number _____
 DOCUMENT CODE
3

2. COUNTRY/ENTITY
 Regional Development Office/Caribbean

3. PROJECT NUMBER
538-0138

4. BUREAU/OFFICE
 LAC 05

5. PROJECT TITLE (maximum 40 characters)
Infrastructure Expansion and Maintenance

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
 MM DD YY
09 30 93

7. ESTIMATED DATE OF OBLIGATION
 (Under "B." below, enter 1, 2, 3, or 4)
 A. Initial FY **86** B. Quarter **3** C. Final FY **90**

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

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(2,000)	()	(2,000)	(40,000)	()	(40,000)
(Loan)	(4,000)	()	(4,000)	(40,000)	()	(40,000)
Other U.S.						
1.						
2.						
Host Country						
Other Donor(s)						
TOTALS	6,000		6,000	80,000		80,000

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) ESF	770	800	800	-0-	-0-	18,000*	-0-
(2)									
(3)									
(4)									
TOTALS				-0-	-0-	18,000*	-0-	40,000	40,000

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

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
 A. Code _____
 B. Amount _____

13. PROJECT PURPOSE (maximum 480 characters)

To create an infrastructure environment that will stimulate investment and productive activity in the Eastern Caribbean.

14. SCHEDULED EVALUATIONS
 Interim MM YY Final MM YY
09 88 03 93

15. SOURCE/ORIGIN OF GOODS AND SERVICES
 000 941 Local Other (Specify) _____

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

* This project will be amended as subprojects are identified and designed.

17. APPROVED BY

Signature
James S. Holtaway
 Title
 Director, RDO/C
 Date Signed
 MM DD YY
05 06 96

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
 MM DD YY
05 27 96

AUTHORIZATION

Name of Country: Eastern Caribbean Regional

Name of Project: Infrastructure Expansion and
Maintenance Systems

Number of Project 538-0138

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Infrastructure Expansion and Maintenance Systems Project for the Caribbean Region involving obligations of not to exceed Eighteen Million United States Dollars (US\$18,000,000) in grant funds over a five year period from date of authorization, subject to the availability of funds in accordance with the AID OYB/allotment process, to help in financing foreign exchange and local currency costs for the Project. Subject to future authorizations, the Project Authorization may be increased by an amount not to exceed Twenty Two Million United States Dollars (US\$22,000,000) in grant and loan funds. The planned life of project is seven years from the date of initial obligation.

2. The Project ("Project") will provide assistance to expand and maintain the physical infrastructure of the countries of the region and to strengthen the local institutions which are responsible for providing and maintaining the infrastructure; thereby encouraging private sector investment in productive enterprises which create jobs and earn foreign exchange. The Project will include a Small Activities Fund and the Engineering and Technical Services Contractor component which will design and monitor infrastructure activities/subprojects.

3. The Project authorization will be amended to include specific subprojects, to be financed from loan and grant funds, through supplements to the Project Paper.

4. Project Agreements, which may be negotiated and executed by the officer to whom such authority has been delegated in accordance with AID's regulations and delegations of authority, will be entered into for small activities developed under this Project and shall be subject to the following essential terms, conditions and covenants, together with such other terms and conditions as AID may deem appropriate.

a. Source and Origin of Commodities, Nationality of Services

Commodities financed by AID under the Grant shall have their source and origin in the United States or in the participating countries (Anguilla, Antigua, Dominica, Grenada, St. Kitts-Nevis, St. Lucia, St. Vincent and the Grenadines, Montserrat, and Barbados) except as AID may otherwise agree in writing. Except for ocean

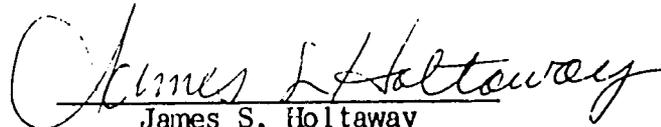
shipping, the suppliers of commodities or services shall have the United States or the participating countries as their place of nationality, except as AID may otherwise agree in writing. Ocean shipping financed by AID under the Project shall be financed only on flag vessels of the United States, except as AID may otherwise agree in writing.

b. Conditions Precedent

i. Conditions Precedent to First Disbursement for Each Small Activity. Prior to the first disbursement, or to the issuance by AID of documentation pursuant to which disbursement will be made for each Activity from the Small Activities Fund, the Grantee will, except as the Parties may otherwise agree in writing, furnish to AID, in form and substance satisfactory to AID,:

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

(b) A statement of the name of the person holding or acting as representative of the Grantee and of any additional representatives, together with a specimen signature of each person specified in such statement.


James S. Holtaway
Director

May 6, 1986
Date

(i)

INFRASTRUCTURE EXPANSION AND MAINTENANCE SYSTEMS
NO. 538-0138

TABLE OF CONTENTS

	<u>PAGE</u>
Project Data Sheet	
Project Authorization	
Table of Contents	
Glossary, Abbreviations and Acronyms	
I. SUMMARY AND RECOMMENDATIONS	1
A. Summary	1
1. Summary Project Description	1
2. Summary Background	2
B. Recommendations	2
C. Status of Authorization for Project Components	3
D. Summary Findings	3
E. Project Paper Contributors	3
II. PROJECT RATIONALE	5
A. Project Background	5
B. Project Rationale	5
1. Relationship to RDO/C Action Plan	6
2. Relationship to Host Countries' Development Goals	6
C. Project Strategy	10
III. PROJECT OBJECTIVES: GOAL AND PURPOSE	11
IV. PROJECT DESCRIPTION AND COMPONENTS	12
A. Engineering and Technical Services Contract (E/TS)	12
1. E/TS Scope of Work	12
2. Contract Implementation and Relationship to RDO/C	13
B. Small Activities Fund (SAF)	13
1. SAF Activity Development Process	14
2. SAF Activity Implementation	14

(ii)

TABLE OF CONTENTS (Continued)

	<u>PAGE</u>
C. Large Subproject Program (LSP)	15
1. LSP Subproject Development	16
2. LSP Subproject Implementation	16
V. ACTIVITY/SUBPROJECT NOTIFICATION, SELECTION, ANALYSIS AND EVALUATION/AUDIT PROCEDURES	18
A. Congressional Notifications	18
B. Criteria for Selection	18
C. Analyses Required for Activity/ Subproject Development	20
D. Evaluation and Audit Procedures	21
VI. COST ESTIMATES AND FINANCIAL PLAN	23
A. Project Component Costs	23
B. Financial Plan	24
C. Methods of Implementation and Financing	24
D. Host Country Capability and Contribution	25
VII. IMPLEMENTATION, MONITORING AND PROCUREMENT PLAN	26
A. Implementation Plan	26
B. Monitoring Plan	27
C. Procurement Schedule	28
1. Services	28
2. Opportunities for Gray Amendment Implementation	28
3. Commodities	28
D. Implementation Schedule	29

ANNEXES

- A. PID Guidance Cable
- B. Gray Amendment
- C. 611(e) Certification
- D. Approval of the A/AID for Relegation
- E. Project Checklist
- F. Small-Scale Activity Fund Illustrative Requests
- G. Large-Scale Subproject Program Illustrative Requests
- H. Methodologies for Activity/Subproject Analysis
 - 1. Technical
 - 2. Financial
 - 3. Economic
 - 4. Institutional
 - 5. Social
 - 6. Environmental
- I. Request for Proposals for E/TS Contract

GLOSSARY, ABBREVIATIONS AND ACRONYMS

Activity	In the IEMS Project, an AID-funded effort with a Life of Project funding level less than \$1 million.
AID/W	Agency for International Development, Washington D.C.
BDD	British Development Division
CDB	Caribbean Development Bank
CDC	Caribbean Development Corporation
CIDA	Canadian International Development Agency
EIB	European Investment Bank
E/TS	Engineering and Technical Services Contract
IDA	International Development Agency of the World Bank
IEMS	Infrastructure Expansion and Maintenance Project
INFRA	The Infrastructure Division of RDO/C which implements all energy and engineering projects.
LOP	Life of Project Funding
LSP	Large-scale Subproject Program
RDO/C	Regional Development Office, Caribbean.
SAF	Small-scale Activities Fund
Subproject	In the IEMS project, an AID-funded effort with a life of project funding level exceeding \$ 1 million.

11

I. SUMMARY AND RECOMMENDATION

A. Summary

1. Summary Background

The island nations of the Eastern Caribbean which are served by RDO/C are former British colonies whose economies are still dependent on traditional agriculture. All have become independent since 1966 (except the Dependencies of Montserrat and Anguilla) and show significant potential for greater development through light manufacturing and tourism as well as agricultural diversification. High standards of literacy and health, pleasant weather, and proximity to the markets of the United States, Canada and Europe are assets which auger well for the future prosperity of the Eastern Caribbean.

However, inadequate and poorly maintained physical infrastructure has constrained development and made the islands less attractive to private investors. The electric power and water supply systems are insufficient for modern manufacturing, tourism and farming. Inadequate transport and utility networks isolate new development sites and delay the development of new enterprises. Potholed roads, erratic power and water services, and delays for hook-up or repairs undermine the existing infrastructure systems. As a result, high start-up, production and delivery costs make the Eastern Caribbean less attractive to investors than other regions of the developing world.

These small island nations lack the institutional base and the public funds which are necessary to improve the infrastructure and maintain it in good condition. Nonetheless, they must improve and maintain their infrastructure in order to attract the foreign and local investment necessary to stimulate their economies. At a turning point in their social and political history, the governments of the Eastern Caribbean share a generally open and pragmatic attitude toward foreign and local private investment as a means of creating new jobs and earning foreign exchange. They have sought the assistance of AID and the other donors to expand and diversify their economies through private sector-led development.

The objective of U.S. assistance to the Eastern Caribbean is to provide the basis for sound, sustained economic development, and is directed at developing the infrastructural base essential for the countries of the region to take full advantage of the trade and investment provisions of the Caribbean Basin Initiative (CBI). The IEMS project will create an infrastructure environment in the Eastern Caribbean which is conducive to investment and productive activity, and which supports the trade and development objectives of the CBI.

2. Summary Project Description

The Infrastructure Expansion and Maintenance Systems (IEMS) Project is a comprehensive program to provide and upgrade primary infrastructure for the productive sectors of agriculture, manufacturing and tourism in the Eastern Caribbean. Modern and reliable infrastructure is prerequisite to attracting the foreign and local investment in private enterprise which will create new jobs and earn foreign exchange. The Project, with Life of Project funding totalling \$80 million, consists of three components:

- 1) the \$10 million Small Activities Fund (SAF) to finance specific small-scale infrastructure and maintenance activities, each of \$1 million or less in LOP funding, which meet IEMS Project criteria,
- 2) the \$62 million Large Subproject Program to provide financing for infrastructure and maintenance subprojects (such as the St. Kitts Southeast Peninsula Road subproject) which are of greater than \$1 million LOP, meet project criteria, and have been approved in the Annual Action Plan, and,
- 3) the \$8 million contract for an Engineering and Technical Services (E/TS) consultant to assist RDO/C in the identification, feasibility analysis and documentation of new activities/subprojects, the design and construction supervision of activities, the oversight of the implementation for all infrastructure activities/subprojects, and the support, as needed, for ongoing infrastructure projects which are not included in the IEMS project.

B. Recommendations

RDO/C recommends that \$18 million in grant funds be authorized for the E/TS Contract and the Small Activities Fund component of the IEMS Project.

The PID and PP for the IEMS Project forecast an eventual planned life-of-project funding level of \$80 million in ESF grant and loan funds to be authorized and obligated over five fiscal years and expended over seven fiscal years. Because a special redelegation of authority will be required from the AA/LAC to the Mission Director prior to increasing the authorized LOP funding beyond \$40 million, both the Congressional Notification and the original project authorization show a planned LOP of \$40 million. The A/AID has delegated to the RDO/C Mission Director the authority to authorize \$40 million incrementally.

The Director will authorize the component parts of the IEMS Project incrementally based on AID/W's approval of the RDO/C Annual Action Plan and Mission review of the appropriate analyses

which will be included in supplements to this Project Paper. The IEMS project paper provides the documentation for the Director to authorize \$8 million in grant funds for the E/TS contract and \$10 million in grant funds for the Small Activities Fund. A FY86 supplement to the Project Paper will provide documentation for the authorization of the St. Kitts Southeast Peninsula Road Subproject. Major subprojects will generally be loan-funded, with grant funding only provided for technical assistance. However, the A/AID has approved complete grant funding of Grenada subprojects, and grant funding may be justified for major subprojects in the other participating countries on a case by case basis with the prior agreement of AID/W.

C. Status of Authorization for Project Components

The IEMS Project initial authorization applies only to the E/TS contract and the SAF. The authorization will be amended for each subproject based on Handbook 3 analysis.

<u>Element</u>	<u>Initial Authori- zation</u>	<u>Delegated for RDO/C Incremental Authorization</u>	<u>AA/LAC Redelegation Required</u>	<u>TOTAL</u>
E/TS	8.0	-	-	8.0
SAF	10.0	-	-	10.0
LSP	-	<u>22.0</u>	<u>40.0</u>	<u>62.0</u>
Total	18.0	22.0	40.0	80.0

D. Summary Findings

This project is ready for implementation and is considered to be programatically sound, and technically and administratively feasible. Economic, financial, technical, institutional, environmental and social analyses will be prepared and considered on an individual activity/subproject basis.

E. Project Development Committee

Joanne Connolly, Project Development Officer
Blaine Jensen, Program Officer
Chester Teaford, Engineer, Infrastructure
Roy Grohs, Economist, Program/Economist Office

Other Contributors to the Project Paper

James Baird, Engineer, Infrastructure Division
Ralph Barnett, Engineer, Infrastructure Division
Darwin Clarke, Evaluation Officer
Stanley Heishman, Regional Contracts Officer
Cecilia Karch, Social/Institutional Analyst
Andrew Proctor, PDAP Advisor
Brinley Selliah, Engineer, Infrastructure Division
Don Soules, Program Officer
James Stephenson, Project Development Officer
James Talbot, Regional Environmental Management
Specialist

Project Review Committee

James S. Holtaway, Director, RDO/c
Robert Clark, Deputy Director
Michael DeMetre, Chief, Infrastructure Division
Carey Coulter, Chief, Program Division
Theodore Carter, Regional Legal Advisor
Peter Orr, Chief, Project Development and Management Division
Kimberly Finan, Chief, Project Development Division
Richard Warin, Regional Controller

II. PROJECT RATIONALE

A. Project Background

The countries eligible for assistance under the IEVS Project are Antigua/Barbuda, Dominica, Grenada, St. Lucia, St. Vincent and the Grenadines, St. Kitts-Nevis, the Dependencies of Montserrat and Anguilla, and for regional activities/subprojects, Barbados. All are members of the Organization of Eastern Caribbean States (OECS) or CARICOM, and all have become independent from Great Britain (except Montserrat and Anguilla) within the past twenty years. Since independence, each has had to assume the responsibility and cost of infrastructure construction and maintenance.

The infrastructure of the colonial period was built primarily to develop and serve the needs of traditional agricultural economies based primarily on sugar and bananas. As the governments of the region begin to support policies of diversification into other crops, tourism and light manufacturing, the existing infrastructure network is inadequate in scope and quality.

For example, in one Eastern Caribbean country, a building supplies manufacturer lost 130,000 ceramic tiles that were being fired in an electric kiln because of prolonged power outages and delays in restoring electricity. The manufacturer attributes his problems - high costs, reduced profit, and having to close the factory periodically and let workers go - to erratic electric power service. Each factory closing diminishes the nation's ability to attract new investors.

Despite considerable international donor assistance, new construction has not kept pace with need. At the same time, weather damage and the lack of public funds or maintenance awareness have accelerated deterioration. The absence or deterioration of infrastructure limits a nation's ability to attract investors because unreliable infrastructure raises the cost of start-up, production and delivery. Throughout the Eastern Caribbean, slow transport over bad roads and shutdown of machinery because of electrical outages have impeded productivity and raised prices. As a result, Eastern Caribbean goods are often priced out of the export market or are a costly substitute for imports.

The Caribbean Basin initiative provides access for Caribbean products into the U.S. market and tax incentives for business-related tourism. In order to take advantage of this opportunity, the governments of the region are seeking investment in export-oriented productive enterprise. However, as the Prime Minister of one of the participating countries has noted, duty-free markets and investment opportunities are meaningless unless the Caribbean is assisted in installing the physical infrastructure necessary to produce the goods for exports.

RDO/C in the past has addressed the infrastructure needs of the region through a conventional AID program of engineering and energy projects, each of which requires multiple contracts for analytic, engineering consultant and construction services. RDO/C is often requested to fund small activities that would cost less than \$1 million, such as the procurement and installation of a small generator to provide backup power for a national electric utility. In many cases these small interventions, if provided quickly, would have made the difference in an entrepreneur's decision to invest in the Eastern Caribbean. However, there has been no practical mechanism through which RDO/C could respond to these requests, even though the proposed activity would be consistent with RDO/C's development strategies and the implementation of the Caribbean Basin Initiative.

B. Project Rationale

1. Relationship of the IEMS Project to the RDO/C Action Plan

The objective of American assistance to the Eastern Caribbean is to provide the basis for sound, sustained economic development, and is directed largely at building the infrastructural base essential for the countries of the region to take full advantage of the trade and investment provisions of the Caribbean Basin Initiative. The urgency of the need to attract private investment to the region demands that RDO/C develop a more flexible, rapid response mechanism to provide infrastructure assistance. The IEMS Project will finance engineering and technical services, small infrastructure activities, and large infrastructure subprojects which will stimulate private investment in the productive sectors. With a wider base of private enterprise, the Eastern Caribbean economies will offer more jobs, earn more foreign exchange, and achieve a greater degree of economic independence.

The IEMS Project also implements RDO/C's management objective, which is to streamline project design and implementation by grouping all infrastructure interventions into one major project to be carried out through a single core contractor.

2. Relationship of the Project to Host Countries' Development Goals and Strategies.

The policies of the OECS governments toward the private sector are favorable and pragmatic, and encourage economic development through private investment. However, potential new investors have turned away from investment opportunities in the Eastern Caribbean, in large part because of the lack of adequate infrastructure.

While there are historical, economic and cultural similarities between the nations of the Eastern Caribbean, each island is distinct with particular infrastructure characteristics and problems:

(a) Antigua/Barbuda

Manufacturing is an increasingly important sector, tourism is a major foreign exchange earner, and the island's agriculture, while small, could be much more productive if irrigated agriculture were a possibility. AID's strategy objective is to support the continued expansion of all the productive sectors by providing the water supply and distribution systems required to support private enterprise. A dependable source of potable water is particularly critical to the tourist industry.

A \$10 million RDO/C water supply and distribution project has gone far to improve the water utility as an institution; but water supply, distribution, and quality remain Antigua's most pressing infrastructure need. Much remains to be done before the water facilities can be considered adequate for a major Caribbean tourist destination and light manufacturing center. A follow-on water supply subproject has been tentatively programmed for IEMS loan funds in FY87, and may provide an opportunity for dialogue on water policy, including water conservation, and for other policy dialogue on broader Antiguan policies toward the private sector.

(b) Barbados

The physical infrastructure of Barbados is more complete than the infrastructure of the other islands. AID does not provide bilateral ESF-funded assistance because the island has a relatively high per capita income. However, Barbados participates in some regional AID projects and will benefit from regional maintenance management and training programs which may be funded through the IEMS project.

(c) Dominica

AID's objective is to facilitate the movement of both traditional and non-traditional crops from rural areas to markets. Until several years ago, Dominica's road system was the worst in the region, and the lack of feeder roads and poor road maintenance severely limited Dominica's development. The present Government mobilized funds from AID, CIDA, BDD and IDA for a major road rehabilitation project which has restored the island's major roads. A road maintenance management program has been included in the IDA contribution, although maintenance will likely remain a problem primarily due to inadequate government funding of maintenance costs.

AID is presently financing the procurement and installation of generators and the extension of the national grid to the undeveloped East Coast for DOMLEC, the national electric utility. An island with many rivers and substantial rainfall, Dominica plans a multi-donor financed hydroelectric project to capture waterpower for the generation of electricity. Future RDO/C IEVS subprojects in Dominica have not been identified, but may include participation as a co-financer in the hydropower program.

(4) Grenada

Grenada's potential to create jobs and earn foreign exchange is severely limited by years of neglect of roads, telephones, and water/power supply during the previous governments. The American intervention in October 1983 and the restoration of democratic government marked the end of economic decline and the beginning of recovery. The commissioning of the Point Salines International Airport and RDO/C's infrastructure rehabilitation projects in Grenada's tourism areas have opened a new chapter in Grenada's development history. However, the rest of the island is still plagued with a badly deteriorated road network, a faltering power sector and chronically understaffed infrastructure operations and maintenance institutions. Poor infrastructure has been a major constraint to attracting private investment in manufacturing, and the inadequacy of waste treatment facilities undermines both the manufacturing and tourism sectors.

RDO/C will continue to support Grenada's efforts to attract investment with bilateral infrastructure subprojects/activities financed through the IEVS project, and through regional projects which support the manufacturing sector such as the Infrastructure for Private Investment Project. Other donors will assist the government in rehabilitating the telecommunications, electric power and waste water disposal networks.

(5) St. Lucia

RDO/C's priorities are to expand, diversify and increase the production of export agricultural crops; to expand export manufacturing; and to encourage investment in tourism. The high cost of transport over mountain roads constrains progress in all sectors. AID has provided \$11.4 million since 1982 for roadwork throughout the island, and the Government has requested that this program be continued with additional funding.

Roads and power are required to encourage private investment in the construction of hotels in the untouched but promising tourist areas such as along the southeastern coast of the island. At least one major investment is pending the Government of St. Lucia's installation of primary infrastructure. The government has long encouraged private investment in light industry, and the

National Development Corporation has requested assistance to provide access roads, fencing and electrical generators for the industrial parks and duty-free trade areas at Vieux Fort and Castries.

AID is presently co-financing with the United Nations Revolving Fund for Natural Resources Exploration an exploratory geothermal drilling project to determine the feasibility of developing the island's apparently abundant geothermal resource for the generation of electricity. Private investment will be essential for the construction of a power station. If successful and economical, this project will provide St. Lucia with a dependable source of electric power, thus enhancing the country's attraction of private investment in power-intensive light industry.

(6) St. Vincent

The expansion and diversification of St. Vincent's export manufacturing sector and the increased production of traditional and non-traditional export crops are RDO/C's primary objectives. Costly transport over badly maintained roads, and the lack of packing and storage space and of factory shells have been identified as constraints to investment by foreign and local entrepreneurs.

RDO/C has contributed \$3.25 million for the rehabilitation of sixteen miles of the country's most important road segments and the improvement of the Government's ability to maintain roads. Routine road maintenance to protect the capital investment continues to be a major problem in all the islands and is a primary focus of the IEMS project.

VINLEC, St. Vincent's electrical utility, is presently being assisted through the \$31 million Cumberland Hydroelectric Project, coordinated by the World Bank, in which AID is a major participant. The project finances the construction of a 3.3 MW power plant, the provision of management consulting services, the upgrading of transmission/distribution systems, and a watershed management program in the Cumberland Valley. VINLEC is presently undertaking substantial institutional and operational changes which are intended to put the utility on a sound financial and institutional footing.

Tourism is potentially a major foreign-exchange earner. The Grenadine islands from Bequia to Petit St. Vincent are among the most attractive tourism and yachting areas in the world. Insularity, difficulty in communications, and small populations have limited the economic development of the Grenadines. The improvement of inter-island communications is one of the Government's priorities, and a request for assistance may be anticipated.

(7) St. Kitts-Nevis

The twin-island nation of St. Kitts-Nevis is seeking to diversify its economy through expansion of non-sugar agriculture, extension of its tourism facilities to the Southeast Peninsula, and consolidation of its light manufacturing industry. Presently there is only a major ring road around the central island, since the sugar industry is served by a narrow gauge railroad. Improvements and extensions to the road network are essential if there is to be substantial economic growth. Export crop production may require feeder roads, the Southeast Peninsula where the island's most attractive tourist beaches, requires access by land. In Nevis, the lack of an adequate port capable of handling containers severely constrains marine transport of cargo. The construction of an improved port facility is essential if Nevis is to develop its potential for light industry.

(8) Montserrat/Anguilla

Montserrat and Anguilla are small island dependencies of Great Britain and members of the OECS, with significant tourism potential. They receive AID assistance under regional projects such as the Basic Needs Trust Fund and the Alternative Energy Project.

(9) Region-wide Infrastructural Needs

The lack of maintenance is the most pressing infrastructural deficiency in the Eastern Caribbean. It is an IEMS project priority to ensure that local operations and maintenance institutions receive the necessary training and instruction for the improved effectiveness of their operations to protect the capital investment and assure the long-term adequacy of the region's infrastructural systems.

C. Project Strategy

Economic growth and self-reliance led by export earnings, as measured by significant increases in gross domestic production and employment, are two of AID's goals in the region as set forth in the Action Plan and the Regional Development Strategy Statement Revision. The IEMS Project is based on the assumption that economic growth requires support from delivery networks such as roads, water and power supply, safe harbors and airfields, and from human support systems such as potable water and waste disposal. If equipment, labor and management are mobilized effectively, the investment in infrastructure will benefit all productive sectors. Adequate physical infrastructure will reduce the costs of delivery of goods and services to the market and will contribute to economic growth and self-reliance.

III. PROJECT OBJECTIVES: GOAL AND PURPOSE

A. Goal and Purpose

The goal is to accelerate the development of productive enterprise in the Eastern Caribbean.

The purpose is to create an infrastructure environment that will stimulate investment and productive activity.

B. IEMS Project Targets

The IEMS Project will enable RDO/C to reach the performance indicators in the FY87 Action Plan. The output targets for each small-scale activity and large-scale subproject will be established during activity/subproject design.

IV. PROJECT DESCRIPTION AND COMPONENTS

The project will finance three elements: the Engineering and Technical Services contract (E/TS), the Small-scale Activity Fund (SAF), and the Large-Scale Subproject Program (LSP). The first project element to be funded will be a level-of-effort Engineering and Technical Services contract with an engineering firm.

A. The Engineering and Technical Services Core Contract

The E/TS contractor will assist RDO/C in the identification, feasibility assessment, and development of documentation of new activities/subprojects; the design and construction supervision of small-scale activities; the management and oversight of implementation of all IEMS Project-funded activities/subprojects; and the support, as needed, for ongoing RDO/C infrastructure projects which predate the IEMS Project. This will enable a more comprehensive and rapid response to the many requests which RDO/C receives for infrastructure assistance.

1. E/TS Scope of Work

The E/TS contractor will assume the major responsibility for the development and management of the IEMS program from the design of the activity/subproject through implementation. The long-term E/TS core staff will consist of four full-time consultants. The complete scope of work for each of the contract engineers is included in Annex I.

(a) The E/TS Contract Project Manager-Engineer, resident in Barbados, will report to the Chief Engineer of RDO/C's Infrastructure Division, manage up to \$10 million in activities, and provide technical advice and management/implementation services to RDO/C Infrastructure Division as required.

(b) The Contract Engineer, resident in Barbados, will review requests for assistance in the preparation of project documentation and documentation for the procurement of engineering and technical assistance services; and assist in the management/oversight of activity/subproject implementation.

(c) The Contract Engineer, resident in Grenada, will have essentially the same tasks as the Contract Engineer (Barbados). In addition, he will monitor the implementation of the \$5 million infrastructure project which was authorized in 1985.

(d) The Engineer/Contracts Specialist, resident in Barbados, will bring specialized expertise in contracting for engineering services and the administration of contracts, and in the appraisal and analysis of activity/subproject proposals.

The E/TS core staff will be assisted as required by short-term specialists who will provide specific technical assistance for the preparation of technical feasibility studies and analyses. The ability to call on short-term specialists from the home office is one of the specific advantages of the E/TS contract concept. The E/TS contractor will be encouraged to sub-contract tasks to women and minority-owned firms.

2. E/TS Contract Implementation and Relationship to RDO/C

Upon receiving notice to proceed, the E/TS contractor will mobilize and establish an office in Barbados. RDO/C will review specific requests for assistance and specific requirements for activity/subproject documentation with the contractor.

At the beginning of each quarter the contractor will prepare/update a work plan including project development, site visits and progress reports. RDO/C will assess the infrastructure requirements of agriculture and private sector projects, and plan assistance through the IEMS project. The contractor will prepare feasibility studies, activity/subproject papers, specifications and bid documents as part of the project development function. As part of the project monitoring function, the contractor will make site visits to inspect material and equipment, inspect construction and to appraise progress toward policy level goals such as institutional development, training, and host country contributions. The contractor will prepare trip reports, financial management reports, briefing material and progress reports.

The Contract Project Manager-Engineer will work closely with the Chief of the RDO/C Infrastructure Division, who will also administratively approve contract vouchers and other documents, and evaluate contract performance periodically. The Contract Engineer (Grenada) will receive technical direction from the responsible RDO/C Grenada USDH officer. Vouchers for activity/subproject implementation will be administratively approved by the responsible RDO/C officer.

B. Small-scale Activity Fund (SAF)

The Eastern Caribbean governments frequently request donor assistance for small grants for specific infrastructure installations such as a generator or fencing for an industrial park. The SAF provides financing for up to \$10 million for small-scale activities, each not to exceed \$1 million in LOP funding. Activities for which assistance has been requested will be reviewed by RDO/C and the E/TS contractor for funding eligibility and inclusion in the E/TS Contract work plan. Requests which have been received to date are described in Annex C. No small-scale activities will be obligated from the SAF in FY86, however, activities will be identified and reviewed for FY87 funding.

1. SAF Development Process.

The IEWS Project Authorization will be the authorizing document for the SAF, and the obligating documents will be bilateral grant agreements with the host countries. The E/TS contractor will consult with the host countries and RDO/C to identify possible eligible activities, and will prepare an action memorandum identifying the activity, its eligibility for funding, its conformance with the CDSS, and its priority vis-a-vis other eligible activities. RDO/C will review the submission and advise Mission determination. The Director will indicate approval to proceed to develop the activity.

RDO/C will issue a work order to direct the E/TS contractor to prepare the "activity paper," which will be a simplified project paper-type document outlining activity objectives, the technical and financial analyses, an initial environmental evaluation (IEE), and any other analyses such as economic, social or institutional that are deemed essential by RDO/C. The host country implementing agency and the method of implementation will be specified in the activity paper.

The IEE will be certified by RDO/C and transmitted to the Environmental Officer of AID/W's Latin America and Caribbean Bureau for approval. If required, an Environmental Assessment will be prepared by a short-term environmental specialist funded under the E/TS contract.

All relevant divisions of RDO/C will review the "Activity Paper", which will be approved by the Director through an Action Memo. The E/TS contractor will assist the Regional Legal Advisor to prepare the bilateral grant agreement with the host country government.

2. SAF Implementation

The E/TS contractor will then prepare or assist in the preparation of the technical design/bid documents and the bid documents for the procurement of construction services, either for AID direct or host country contracting. The E/TS contractor will also assist in the evaluation of proposals and preparing the construction contract and provide the engineering services including construction supervision.

Given the significant mobilization costs for undertaking construction on the islands of the Eastern Caribbean, it was determined at the AID/W review of the IEWS PID that U.S. firms would not be likely to bid on activities of less than \$1 million. The PID guidance cable (State 336199, Annex A) constitutes approval of the waiver of advertising for the construction contracts for small infrastructure activities. Informal competitive procurement will be required.

In summary, the following steps are required for the development and implementation of small-scale activities and will be drafted by the E/TS contractor:

- An activity identification-feasibility study.
- An action memorandum summarizing the RDO/C review of the feasibility study and requesting the Director to approve the issuance of a work order for activity paper preparation.
- An activity paper including technical analysis, cost estimates, the IEE, and the logical framework; and other analyses as requested by RDO/C.
- An action memorandum summarizing RDO/C review of the activity paper and recommending that the Director approve the activity.
- A bilateral agreement between RDO/C and the host country.
- Assistance provided to the host country for the final technical design of the activity and the bid documents, the informal competition for a construction contractor.
- Supervision and monitoring documentation including quarterly reports.

The following steps are not required:

- No Congressional Notification is required for individual activities
- No AAP level inclusion is required.
- No Project Authorization Amendment is required.

C. Large-scale Subproject Program (LSP)

The LSP will provide funds for subprojects of greater than \$1 million LOP which have been approved by AID/W for development through the Annual Action Plan or as an AAP-level cable if subproject identification is made too late for inclusion in the AAP. It is expected that AID/W will concur with RDO/C's request to authorize and obligate each subproject. AID/W has approved the development of the St. Kitts Southeast Peninsula Road. This and other subprojects which have been proposed for AAP review are described in Annex H.

Except for subprojects in Grenada, it is expected that most subprojects will be loan funded as determined according to the Terms of AID. Grant funds may be available on a case by case basis.

1. LSP Subproject Development

The contractor will prepare a short description of the proposed subproject for the Annual Action Plan or an AAP-level cable. With AID/W concurrence, RDO/C, through the issuance of a work order, will request the E/TS contractor to prepare a brief (e.g. ten pages) mid-course decision document which will describe the perceived problem, and the subproject goal and purpose. The logical framework will indicate the expected inputs, outputs and method of verification. The mid-course decision document will include the precise description of the developmental problem, the alternative approaches considered, and the approach selected, and a preliminary economic justification in sufficient detail to provide a clear development rationale for the subproject and to demonstrate that its implementation should take priority over other investments. The mid-course decision document should also indicate how the subproject will satisfy the eligibility criteria, and provide an identification of policy issues and how they might be solved through conditionality and other means. The mid-course decision document is, in effect, an outline of the subproject paper.

The mid-course decision document will be reviewed by RDO/C and approved by the Director. The E/TS contractor will, through the issuance of a work order, be instructed to prepare a supplement to the IEVS Project Paper, called the "Subproject Paper," incorporating RDO/C's modifications and amplifying the analyses. Documentation for each Subproject Paper will be prepared in accordance with the guidelines in AID Handbook 3, Chapter 3.

The obligating document for a subproject will be the subproject agreement with the host country.

2. LSP Subproject Implementation

The E/TS contractor with the approval of RDO/C will (1) assist the Host Country to solicit expressions of interest; (2) prepare and issue the RFTP, and (3) evaluate technical proposals. The consultant selected as a result of the evaluation will be responsible for engineering design, preparation of construction bid documents, review of bids, recommendation of award of contract and construction supervision. The E/TS contractor will conduct periodic site inspections, monitor the engineering and construction contracts, and assist the Host Country to resolve problems which may arise.

In summary, the following documentation is required for subproject design and implementation and will be drafted by the E/TS contractor.

- A description of the subproject for the Annual Action Plan, or an interim cable for concurrence of AID/W for subproject development.
- A Mid-Course Decision Document (approximately 10 pages) including a preliminary cost estimate, economic justification and IEE is required, with a logical framework.
- An Action Memorandum, cleared by RDO/C, in which the Director is advised to approve the work order for preparing the Subproject Paper.
- The Subproject Paper, or IEMS Project Paper Supplement, written to Handbook 3 standards with all required HB 3 analyses including an EA if necessary, and including the preliminary design for the subproject construction and the bid documents.
- An amendment to the IEMS Project Authorization (assisted by the RLA) to be signed by the Director.
- A bilateral subproject agreement (assisted by the RLA) between AID and the host country
- If host country contracting procedures are used, assistance to the Host Country in the formal competition for the engineering design consultant.
- If host country contracting procedures are used, assistance to the Host Country in the formal competition for the construction contract.
- If AID direct contracting procedures are used, all bid documentation and evaluation.
- Supervision and monitoring of engineering design and construction contracts.
- No Congressional Notification is required unless the loan or grant amount shown in the Congressional Presentation needs to be modified.

V. ACTIVITY/SUBPROJECT NOTIFICATION, SELECTION, ANALYSIS AND EVALUATION/AUDIT

A. Congressional Notification

The Congressional Notification for the first \$40 million tranche covers the CN requirement for the E/TS contractor, the SAF, and any LSP Subprojects to be included in the first \$40 million. The CN showed an indicative grant/loan split of \$20 million grant and \$20 million loan. Technical notifications may be required in any fiscal year where either the grant or loan amount shown in the Congressional Presentation for that year is to be exceeded. A notification will be required if and when it is determined that the actual grant/loan split of the first \$40 million is other than \$20 million/\$20 million. Once the initial tranche of \$40 million has been fully authorized, a CN for the remaining \$40 million will be submitted and AA/LAC will be requested to redelegate the authority to the Director to authorize the remaining \$40 million.

B. Criteria for Selection

All eligible activities and subprojects must meet the following criteria:

1. The activity/subproject must support the goals of the Action Plan and the IEMS Project. The activity/subproject must be essential to the development or expansion of productive activity in agribusiness, manufacturing or tourism.

AID's goal in the Eastern Caribbean is to stimulate investment and to raise productivity, thus creating jobs, raising income and earning additional foreign exchange. Financing the development of a nation's infrastructure is a means to that end, but not the end itself. Building a road, pipeline or electrical transmission line creates jobs only in the short-term construction phase; and installing or maintaining infrastructure expends, not earns, scarce foreign exchange for imported materials and technical services. Thus, the cost of investment in infrastructure must be offset by the benefits to be gained in the attraction of new investment and increased productivity.

The principle criterion for eligibility for funding is, therefore, that the infrastructure activity/sub-project must be essential to the development or expansion of productive activity in agribusiness, manufacturing or tourism. A typical eligible activity is the construction of roads, power and water to service an industrial park in which factory shells will be rented to new enterprises which will employ local labor to produce products for domestic and export sale. A typical eligible subproject is the construction of a penetration road to open an undeveloped area with marked potential for productive development.

This criterion excludes financing for activities/subprojects which only support basic human needs. However, a project with a primarily productive purpose may well have secondary basic human needs aspects. A project proposing to bring infrastructural services to unserved communities or undeveloped parts of an island which are not markedly ripe for productive development would not generally qualify for funding through this project. However, RDO/C will continue to meet humanitarian needs for infrastructure through the Basic Needs Trust Fund.

2. The Activity/Subproject must contribute to the implementation of the Host Country's development strategy. The host countries must set priorities for physical development. AID may finance, when necessary, the updating of the national physical plan or the development of a land use management plan, in order to assist the host country to establish the parameters and priorities of infrastructure development, and the priorities for investment. The project will only finance discrete parts of the infrastructure system or an infrastructure maintenance institution which can be costed accurately in advance and can be completed within three years.
3. The Host country must be committed to, and participate in, the activity/subproject. Host country support is shown through its willingness to contribute counterpart funding to assure that the government budget will cover all recurrent costs, to obtain right of way for construction activities, to write or revise enabling legislation for utilities, to undertake the institutional reform of its public institutions, to institute environmental safeguards, to hire and train capable implementing personnel, to collect user fees, to pay fees owed by the government to the utility, and to expend funds from its national budget for the physical maintenance of the investment. One of the primary objectives of the IEMS Project is to increase Eastern Caribbean awareness for the need for maintenance, and to provide the technical capability to repair equipment and manage maintenance activities.
4. The economic justification and analyses for all activities/subprojects must demonstrate an adequate economic rate of return. The methodology for economic analysis is described in Annex H.3.
5. Activities/subprojects which present the opportunity for linkage to host government policy reform should be encouraged. In the larger theater of structural adjustment the commitment of the host country to substantive policy changes becomes significant. The willingness of the host country to undertake economic policy reforms will be an important measure of host country commitment, not only to the project and to the goals which the project serves, but to the entire economic arena in the host country. The overall efficient performance of the economy as expressed through its exchange rates, budgets and monetary policy is

important to the nation's ability to derive the maximum benefit from any given effort, such as the rehabilitation of a road. Furthermore, infrastructure projects are often inputs into other sectors, or use outputs from other sectors and the "correct" prices/policies are important for getting optimal resource use. The real difficulty in policy dialogue is leading host country governments to recognise the second or third-stage-removed connections between their economic policies and to act on the necessary measures.

The bilateral agreements for activities/subprojects will provide the opportunity to effect policy reform, institutional development and the establishment of maintenance strategies through conditionality and covenants negotiated with the host country. Project related considerations which may be included in the agreement include the institutional development of an implementing agency, cost recovery and the tariff schedules of the implementing utility, and maintenance both through scheduled inspections and allotments from the National Budget. On the larger level of policy change, conditionality which does not necessarily relate to the project may include aspects of structural economic issues, fiscal policy, and privatization.

C. Analyses Required for Activities/Subprojects

All activities/subprojects will meet the relevant selection criteria noted in the previous section, and both activities and subprojects will require complete AID Handbook 3 analysis prior to the preparation of the engineering design or preliminary design. However, activities will require less exhaustive documentation as indicated in Handbook 3, Chapter 4. The specific methodology used by RDO/C for AID-financed infrastructure interventions in the Eastern Caribbean, which is based on Handbook 3 but emphasizes specific factors, has been summarized in Annex I.

In summary, activities require:

- Criteria for Eligibility
- Technical Analysis
- Cost Estimate
- Financial Analysis
- Economic Assessment
- Initial Environmental Evaluation
and Environmental Assessment if necessary

and subprojects require:

- Criteria for Eligibility
- Technical Notification
- Criteria for Eligibility
- Technical Analysis
- Cost Estimate

Financial Analysis
Economic Analysis
Initial Environmental Evaluation and
Environmental Assessment if necessary
Institutional Analysis
Social Soundness Analysis

D. Evaluation and Audit Procedures

There will be two evaluations of the IEMS project, one mid-term after thirty months, and an end of project evaluation six months before the PACD. Both evaluations will assess the Project's potential and actual contributions to improving infrastructure maintenance capabilities and to accelerating the development of productive enterprise, at both micro and macro levels, in the Eastern Caribbean.

The mid-term evaluation will examine the project's potential for contributing to the Mission's strategy and quantify the extent to which improved infrastructure stimulates investment in manufacturing, agriculture and tourism in the region. It will also assess the adequacy and efficiency of the implementation arrangements including the performance of the core contractor and other contractors, the appropriateness of the selection criteria, the timeliness of the disbursement of inputs, and the progress made toward strengthening the maintenance capabilities of individual host country governments through institutional/policy reform and training. The mid-term evaluation will also recommend whatever modifications are necessary to assure the project's meaningful contribution to the achievement of the Mission's overall program goals and objectives, and to improve project implementation. The level of effort for this evaluation will not be more than three person months and would require an evaluation team comprised of consultants with specialities in evaluation, engineering, management and economics. The mid-term evaluation will also provide the basis of the Mission's request for the redelegation of authority for the second \$40 million tranche.

The final evaluation will be a full-impact evaluation. It will assess not only the Project's contribution to the Mission's program but also its impact at the subproject level on the development of productive enterprise. It will also assess the extent to which infrastructure maintenance in individual countries has been institutionalized, and the performance of the contractors. The level of effort for the final evaluation is up to six person months for a team including expertise in macro economics, evaluation and engineering.

Activities/subprojects under the IEMS project will be evaluated of the need for audit coverage. Funds will be included in each obligating document as deemed necessary for AID, to provide independent audits unless adequate audit coverage by the host country is reasonably assured or an audit by third parties is not warranted.

VI. COST ESTIMATES AND FINANCIAL PLAN

A. Project Component Costs

Each project component cost within the IEMS Project is summarized as follows:

Engineering Technical Services Contract	\$ 8,000
Small Activities Fund	10,000
Large Subproject Program	62,000
Total	<u>\$80,000</u>

1. E/TS Contract Cost Estimate

The estimated cost of the E/TS contract for the total seven years is as follows:

(In \$000,000's)

1. Salaries	\$1.9
2. Benefits and Overhead	2.0
3. Travel and Transportation	.5
4. Allowances	1.2
5. Equipment	.2
6. Sub-contractors	1.5
7. Fixed fee	.4
8. Contingency	.3
Total	<u>\$8.0</u>

2. Small Activities Fund Cost Estimate

Because of the lack of availability of FY86 funding for the SAF, no activities are planned for obligation in this fiscal year. However, the E/TS contractor will be tasked with designing the following activity and others to be identified for FY87 funding:

Maintenance and Common Services Facility	\$1.0
--	-------

3. Large Subproject Program Cost Estimate

The St. Kitts Southeast Peninsula Road has been approved by AID/W for FY86 authorization subject to the development of a supplement to the IEMS Project Paper with Handbook 3 level analysis. Other subprojects have been included in the Annual Action Plan for AID/W review and approval in FY 87. A description of each of these subprojects and a preliminary budget for FY87 and FY88 funding is included in Annex H. Feasibility studies, handbook 3 analysis including conformance with IEMS Project criteria, and preliminary design will be undertaken by the E/TS contractor.

\$ millions

St. Kitts Southeast Peninsula Road	7.0
Nevis Port Improvement	2.8
Antigua Water II	1.9
Grenada Infrastructure Subproject (538-0138.03)	5.0
St. Lucia Southeast Coast Tourism Development	2.0

B. Financial Plan

The following chart projects the expenditure of funding for the entire \$80 million over a five year obligation period and a seven year disbursement period.

	<u>Financial Plan</u> (in \$000,000's)						
	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 7</u>
E/TS	.7	1.30	1.30	1.30	1.30	1.30	.80
SAF		-0-	2.0		2.0		2.0
	2.0		1.0	1.0			
LSP		<u>1.0</u>	<u>19.0</u>		<u>12.0</u>		<u>12.0</u>
	<u>10.</u>		<u>6.0</u>	<u>2.0</u>			
Total	1.7	22.3		15.3		15.3	13.3
	8.3	3.8					

C. Methods of Implementation and Financing

The E/TS contract, valued at approximately \$8 million over seven years, will be financed through an AID direct competitively negotiated cost reimbursable plus fixed fee contract. There is no single host country institution involved with the E/TS contract, which precludes the use of host country contracting procedures for this contract.

The activities to be funded through the SAF will be designed and supervised by the E/TS contractor under the terms of the E/TS contract. Construction services and commodities will be procured using host country contracting procedures.

The subprojects to be funded through the LSP will be developed by the ET/C contractor and the preliminary engineering will be done by them. However, the engineering consultant and the construction services contracts will be awarded according to host country or possibly AID direct contracting procedures, depending on the requirements of the subproject.

Methods of Financing

<u>Activity</u>	<u>Method of Financing</u>	<u>Amount</u>
E/TS Contract	AID Direct Contract Cost Reimbursable plus fixed fee	\$8.0
Small Activity Fund	Construction: Host Country or AID Direct Contract Unit Price	10.0
Large Subproject Program	Engineering: Host Country or AID Direct Contract Cost Reimbursable plus fixed fee Construction: Host Country or AID Direct Contract Unit Price	62.0

D. Host Country Capability and Contribution

RDO/C has undertaken infrastructure projects (including the Basic Needs Trust Fund Project) in each of the participating countries. Each country has the capability to undertake RDO/C projects and to manage a host country contract, and has successfully managed AID resources. The ability to construct infrastructure efficiently by force account varies from island to island and between ministries. A case by case analysis will be required to determine whether a particular subproject or activity can and should be handled by force account.

While no host country contributions are anticipated for technical services to be provided through the E/TS contract, the host countries will be expected to contribute (normally, in kind) for both activities and subprojects. Significant counterpart cash contributions to infrastructure projects is not the norm in the region. In fact, most of the capital budget for the OECS countries is provided by donors. No fixed minimum counterpart will be required under this project.

VII. IMPLEMENTATION, MONITORING AND PROCUREMENT PLAN

A. Implementation Plan

The PACD of the IEMS Project is September 30, 1993. The E/TS Contract component, which covers six and a half years of consultant services, will be implemented immediately after Project Authorization. The SAF component will be authorized in FY86 but funds will not be obligated until FY87 when additional ESF funding is expected to be available. The first subproject of the LSP component will be authorized in FY86 through an amendment to the IEMS Project authorization, and partially funded in FY86.

1. Engineering/Technical Services Contract

The IEMS Project paper will be the authorizing document for the \$8 million E/TS contract. AID will obligate funds through the award of a Direct Contract, using competitive Federal Acquisition Regulations Procedures, in May 1986, to an engineering firm. The contract will be funded incrementally depending on the availability of AID funds. The first obligation will be for \$700,000 in FY86. The next obligation will be in FY87.

The home office coordinator will mobilize the contract office in Bridgetown in May, and the first two contract engineers will begin activity/subproject design in May. One of these will be assigned to develop the St. Kitts Southeast Peninsula Road Subproject. The remaining two contract engineers will be assigned to Grenada and Barbados six to twelve months after contract execution. Short term technical assistance will be assigned immediately to assist with the St. Kitts Road, and other activity/subproject analyses. Work orders, approved by RDO/C and sent to the E/TS home office for personnel assignments, will be prepared for specific tasks.

2. Small Activities Fund

Upon mobilization in FY86, the E/TS contract engineers will begin to prepare the identification, analysis and design of activities to be funded in FY87. Activities will continue to be identified and designed, and project agreements to effect obligations will be signed as funding becomes available.

3. Large-scale Subproject Program

The contract engineers will prepare the St. Kitts Southeast Peninsula Road Subproject immediately upon mobilization. Unless the full subproject funding becomes available later in FY86, the subproject will be incrementally funded and the construction

contract will not be awarded until the subproject has been completely funded. The Nevis Port subproject will be designed for FY87 funding. Other subprojects will be developed for inclusion in the Action Plan for funding in later years.

B. Monitoring Plan

1. RDO/C Responsibilities

The Infrastructure Division of RDO/C will manage the IEMS project through the E/TS contractor. The Chief of the Infrastructure Division will directly monitor the actions of the E/TS contractor and receive the activity/subproject feasibility documentation prepared by the contractor. The Chief/INFRA will chair an Activity/Subproject Review Committee comprised of the relevant divisions and the E/TS Team Leader. If this committee finds the documentation to be complete and acceptable, the Chief/INFRA will forward an action memorandum to the Director requesting the approval of a task order for the preparation of the activity/subproject Paper. If the Review Committee finds the subsequent Activity/Subproject Paper satisfactory, the Chief/INFRA will forward another action memorandum to the Director requesting the approval of the obligation of funds.

The Chief/INFRA will also process the Initial Environmental Examination (IEE) reports for AID/W approval. Preliminary IEE's will be submitted to the Chief/INFRA by the E/TS contractor as one component of the feasibility stage of activity/subproject design. IEEs will then be forwarded to LAC/DR/EO for a review of environmental threshold decisions.

The Chief/INFRA will administratively approve contractor vouchers and other documents, and evaluate contract performance periodically. The Chief/INFRA will monitor progress of the SAF and the LSP from quarterly progress reports submitted by the E/TS contractor.

2. E/TS Contractor Responsibilities

At the beginning of each quarter the contractor will prepare/update a work plan including activity/subproject development, site visits and progress reports in general terms for the subsequent twelve months, and will prepare progress reports describing the status of work, to the Chief/INFRA for review and approval. The quarterly reports will indicate progress toward the plans submitted, and revisions and new plans for the upcoming monitoring period.

The E/TS will also maintain a data base of past, present and future infrastructure projects in the region in order to avoid duplication of effort and waste of funds, and to assist RDO/C in coordinating efforts with other donors.

B. Procurement Plan

1. Services

AID will award a direct contract to the E/TS contractor which is chosen according to Federal and AID/AR procedures for competitive procurement. The E/TS contractor will subcontract for specialized services.

For LSP Subprojects, the E/TS contractor will prepare all subproject identification, feasibility and preliminary design work, but the engineering consultant services and construction services will be acquired under separate contracts using Handbook 11 Host Country or FAR/AID/AR contracting procedures.

2. Gray Amendment Opportunities

The wide variety of activities/subprojects likely to be designed and implemented during the life of the IEMS Project will require technical assistance from specialists of many different disciplines. It is expected that the E/TS contractor will acquire these services through subcontracts, and that women-owned and minority-owned firms will submit proposals to provide them. RDO/C will be directly involved in the review and approval of all activities/subprojects, and will assure that full competitive consideration will, of course, be afforded. When appropriate, RDO/C will limit competition for certain work to "8(a)" firms only.

3. Commodities

The E/TS contractor will procure all commodities needed for support for the contract subject to AID procurement regulations.

(a) Geographic Code

The project authorization will specify that, except as AID may otherwise agree in writing;

- Goods and services financed by AID under this project, except for right-hand drive vehicles, shall have their source and origin in AID Geographic Code 000 or participating countries.

- Ocean shipping financed by AID under this project shall be on flag vessels of the United States.

(b) Waivers

The PID Guidance cable (State 336199) included the approval of a waiver of advertising in the Commerce Business Daily for small-scale activities of less than \$1 million.

D. Implementation Schedule

May 1986	Project Paper authorized by RDO/C Mission Director
May	E/TS Contract awarded
May	E/TS Contractor Mobilizes in RDO/C
June	E/TS Contractor completes final road design for St. Kitts Southeast Peninsula Road Subproject and begins development of SAF FY87 activities
June	E/TS Contractor coordinates the previously designed components of the St. Kitts SPR Subproject into a PP supplement.
July	RDO/C authorizes St. Kitts SPR Subproject
October	E/TS contractor completes development of activities to be funded from SAF in FY87
December	RDO/C authorizes SAF FY87 Activities through an amendment to the IEVS Project Authorization.
January 1987	E/TS - 4 contract engineers - complete development of LSP Subprojects scheduled for FY87 Funding.
March 1987	1st LSP FY87 Subproject is authorized.

ANNEXES

- A. PID Approval Cable
Resolution of Issues Raised in the DAEC
- B. Mission Director's Gray Amendment Certification
- D. Mission Director's 611(e) Certification
- E. Project Checklist
- F. Requests for Small Activity Fund Assistance
- G. Requests for Large Subproject Program Assistance
- H. IEVS Project Specific Methodologies for HB 3 Level Analysis
 - 1. Technical
 - 2. Financial
 - 3. Economic
 - 4. Institutional
 - 5. Social
 - 6. Environmental
- I. Request for Proposals for E/TS Contract

ACTION AID-7 INFO AME DCM P/E CERON 1E

VZCZCWN0274

OO RUEEWN

DF RUFHC #6199/01 3E51749

ZNR UUUUU ZZB

O 211743Z NOV 85

FM SECSTATE WASEDC

TO AMEMBASSY BRIDGETOWN IMMEDIATE 1694

BT

UNCLAS STATF 336199

OFFICIAL COPY

LOC: 212

921

01 NOV 85

1749

CN: 2E553

CERG: AID

DIST: AID

ADM AID

E.O. 12356: N/A

TAGS:

SUBJECT: INFRASTRUCTURE EXPANSION AND MAINTENANCE
SYSTEMS (PROJECT 538-2138)

1. SUMMARY. THE DAEC REVIEWED THE PID AND APPROVED A PRESENT LIFE OF PROJECT (LOP) FUNDING LEVEL OF UP TO DOLS. 40 MILLION. A/AID WILL BE REQUESTED TO: APPROVE AN AD-HOC DELEGATION OF AUTHORITY TO AUTHORIZE THE MISSION DIRECTOR TO APPROVE THE PP FOR UP TO DOLS. 40 MILLION; AND DELEGATE TO AA/LAC THE AUTHORITY TO AUTHORIZE FURTHER INCREASES IN LOP FUNDING OF UP TO DOLS. 80 MILLION. FOR PURPOSES OF CONGRESSIONAL PRESENTATION THE PLANNED LOP LEVEL OF DOLS. 80 MILLION WILL BE USED. THE BUREAU APPRECIATES RDO/C'S INNOVATIVE APPROACH TO PROGRAMMING, DEVELOPING AND MANAGING A MULTI-COUNTRY INFRASTRUCTURE ACTIVITY. GUIDANCE TO ASSIST MISSION IN FINALIZING DESIGN, INCLUDING AGREED UPCN MODIFICATIONS OF SOME KEY ASPECTS, FOLLOWS.

2. CLUSTER APPROACH. THE MISSION'S PROPOSAL UNDER THE CLUSTER, FOR THE ELIMINATION OF THE PID FOR MAJOR

UNCLASSIFIED

SUBPROJECTS, WAS MODIFIED AT THE DAEC. WHERE NO PID IS PRESENTED TO AID/W, THE MISSION SHOULD CARRY OUT A MID-COURSE REVIEW FOR EACH MAJOR INFRASTRUCTURE SUBPROJECT, WHICH COVERS THE TOPICS NORMALLY ADDRESSED IN A PID LEVEL ANALYSIS. THE DECISIONS AND RESULTS OF THIS REVIEW SHOULD BE FULLY DOCUMENTED. IF DURING ACTION PLAN REVIEW, AID/W HAS CONCERNS ABOUT A PROPOSED SUBPROJECT THE MISSION MAY BE REQUESTED TO SUBMIT A PID AMENDMENT. PP DEVELOPMENT MAY PROCEED AS PROPOSED IN THE PID, SUBJECT TO THE FOLLOWING:

A. ORIGINAL PP APPROVAL. THE APPROVED LOP FUNDING OF DOLS. 40 MILLION IS INTENDED TO COVER THE ESTIMATED COSTS OF PLANNED ACTIVITIES SPECIFICALLY IDENTIFIED IN THE PID. THEY ARE: SMALL INFRASTRUCTURE PROJECTS (DOLS. 10 MILLION GRANT); A PORTION OF THE ESTIMATED COST OF THE FIVE-YEAR A&E CONTRACT (DOLS. 3.9 MILLION GRANT); GRENADA INFRASTRUCTURE (DOLS. 9.5 MILLION GRANT); ST KITTS ROAD/NEVIS PORT (DOLS. 9 MILLION LOAN), AND THE ANTIGUA

WATER SYSTEM II (DOLS. 7.5 MILLION LOAN). FOLLOWING PP APPROVAL, THE MISSION DIRECTOR MAY APPROVE PP SUPPLEMENTS AND AUTHORITY FUNDING FOR THE SMALL INFRASTRUCTURE PROJECTS (DOLS. 10 MILLION) AND UP TO DOLS. 3.9 MILLION FOR THE A&E CONTRACT.

B. PID AMENDMENT/PP SUPPLEMENT PROCEDURES. THE MISSION IS REQUESTED TO INCLUDE IN AN ACTION PLAN, OR TO CABLE, A SHORT DESCRIPTION AND DISCUSSION OF THE GRENADA INFRASTRUCTURE AND ANTIGUA WATER SYSTEM SUBPROJECTS. A PID AMENDMENT AND PP SUPPLEMENT MAY NOT BE APPROVED FOR THE ST. KITTS ROAD - NEVIS PORT UNTIL THE REVISED CDSS STRATEGY HAS BEEN APPROVED BY AID/W. IT IS SUGGESTED THAT PID AMENDMENTS AND PPS (CALLED PP SUPPLEMENTS IN THE PID) BE PREPARED ACCORDING TO THE GUIDANCE IN EB3, AND THAT SUBPROJECTS FOR SMALL INFRASTRUCTURE PROJECTS BE PREPARED IN ACCORDANCE WITH EB 3 CHAPTER 4. A DOCUMENT IN LIEU OF A PID (AS DISCUSSED IN PARAGRAPH 2, ABOVE) AND PPS (CALLED PP SUPPLEMENTS IN THE PID) ARE TO BE PREPARED FOR ALL MAJOR INFRASTRUCTURE ACTIVITIES AND FOR THE MAINTENANCE PROJECT.

C. PROGRAMMING PROCEDURES. AS PROPOSED IN THE PID, THE MISSION SHOULD INCLUDE IN EACH YEAR'S ACTION PLAN A DESCRIPTION OF EACH MAJOR ACTIVITY PLANNED FOR IMPLEMENTATION IN THE SUBSEQUENT TWO FISCAL YEARS. PID AND PP APPROVAL AUTHORITY FOR EACH ACTIVITY WILL BE DETERMINED AT THE ACTION PLAN REVIEW. AA WOULD REDELEGATE AUTHORITY FOR MISSION DIRECTOR TO INCREASE

AUTHORIZED LOP FUNDING LEVEL AS APPROPRIATE IN THE ACTION PLAN GUIDANCE CABLE.

D. CONTENTS OF THE UMBRELLA PP. THOUGH NOT DISCUSSED FULLY IN THE DAEC, IT WAS AGREED IN SUBSEQUENT DISCUSSIONS WITH THE MISSION STAFF THAT THE PP SHOULD CONTAIN:

(1) A PRELIMINARY DESCRIPTION OF THE MAJOR INFRASTRUCTURE SUBPROJECTS IN THE PID AND THE MAINTENANCE ACTIVITY PREPARED IN THE PID, THE ENGINEERING CONTRACT, AND A SCHEDULE FOR PREPARATION OF PIDS OR PID AMENDMENTS AND PP SUPPLEMENTS (PER HB3, CHAPTER 13) FOR THESE ACTIVITIES;

(2) A MORE COMPLETE SET OF ACTIVITY SELECTION CRITERIA. THE CRITERIA INCLUDED IN THE PID WERE TOO BROAD. THE MISSION AGREED THAT THE FOLLOWING SHOULD ALSO BE INCLUDED: RELATION OF THE ACTIVITY TO THE PROJECT GOAL AND TO THE COUNTRY'S DEVELOPMENT STRATEGY; LEVEL OF PERMANENT JOB CREATION; LEVEL OF ECONOMIC BENEFITS; LEVEL OF COUNTERPART FUNDING; RECURRENT COSTS, AND; WILLINGNESS OF THE COUNTRY TO UNDERTAKE RELATED AND UNRELATED POLICY REFORMS. THESE CRITERIA SHOULD BE QUANTIFIED WHEREVER

BT

#6199

NNNN

32

POSSIBLE.

(3) A DESCRIPTION OF THE ECONOMIC ANALYSIS METHODOLOGY THAT WILL BE APPLIED TO DIFFERENT TYPES OF SUBPROJECTS, AND QUANTITATIVE THRESHOLDS FOR ECONOMIC BENEFITS, I.E. THE MINIMUM BENEFIT/COST RATIOS OR IRR'S NECESSARY FOR SUBPROJECT APPROVAL. IT IS SUGGESTED THAT A LEVEL OF 15 PERCENT IRR BE USED AS THE MINIMUM.

(4) THE PROCESS THROUGH WHICH A COMPLETE TECHNICAL AND COST ANALYSIS WILL BE COMPLETED FOR EACH OF THE SMALL INFRASTRUCTURE PROJECTS.

F. CONTENTS OF PID AND PP SUPPLEMENTS. THE MID-COURSE DECISION DOCUMENTS PREPARED IN LIEU OF THE PID SHOULD CONTAIN:

(1) A PRECISE DESCRIPTION OF THE DEVELOPMENT PROBLEM BEING ADDRESSED, THE ALTERNATIVE APPROACHES CONSIDERED, AND THE APPROACH SELECTED, IN SUFFICIENT DETAIL TO PROVIDE A CLEAR DEVELOPMENT RATIONALE FOR THE SUBPROJECT AND DEMONSTRATE THAT ITS IMPLEMENTATION SHOULD TAKE PRIORITY OVER OTHER INVESTMENTS;

(2) HOW THE SUBPROJECT SATISFIES, OR AFTER FURTHER ANALYSIS IS EXPECTED TO SATISFY, THE SUBPROJECT SELECTION CRITERIA;

(3) AN IDENTIFICATION OF PROJECT RELATED AND UNRELATED POLICY ISSUES AND HOW THEY WILL BE RESOLVED (I.E. THROUGH PROJECT RELATED CONDITIONALITY OR THROUGH OTHER MEANS);

(4) THE APPROACH THAT WILL BE USED TO ASSESS THE SUBPROJECT'S ECONOMIC WORTH.

THE MISSION'S PROPOSAL TO HAVE THE PP SUPPLEMENTS BE PREPARED AT A LEVEL OF DESCRIPTION AND ANALYSIS REQUIRED BY HANDBOOK 3 FOR A PP WAS ACCEPTED. OF PARTICULAR CONCERN ARE THOROUGH AND COMPLETE TECHNICAL DESIGNS AND ECONOMIC ANALYSES, AS WELL AS A DISCUSSION OF ANY POLICY REFORMS TO BE CARRIED OUT IN RELATION TO THE PROJECT.

3 GRANT VS LOAN FUNDING. THE PID PROPOSED THAT THE ENTIRE DOLS. 80 MILLION PROJECT BE GRANT FUNDED. HOWEVER, GRANT FUNDING FOR REVENUE GENERATING INFRASTRUCTURE PROJECTS IS NOT GENERALLY APPROPRIATE AND IS CONTRARY TO THE GUIDELINES OF THE TERMS OF AID RECENTLY APPROVED BY A/AID.

IT WAS RECOGNIZED, HOWEVER, THAT SOME OF THE ECS COUNTRIES FACE UNUSUAL SITUATIONS THAT WOULD MAKE LOAN FUNDING, EVEN OF REVENUE GENERATING PROJECTS, UNDESIRABLE. CONSEQUENTLY, THE BUREAU IS PREPARED TO SUPPORT A REQUEST, IF SUBMITTED BY THE MISSION, THAT GRANT FUNDING BE APPROVED FOR SAINT VINCENT AND DOMINICA, ON ECONOMIC GROUNDS. A WAIVER REQUEST FOR GRENADA IS CURRENTLY BEING PROCESSED. BUREAU AGREES THAT GRANT FUNDING IS APPROPRIATE FOR NON-REVENUE GENERATING

INFRASTRUCTURE AND IS PREPARED TO SUPPORT A REQUEST TO THE ADMINISTRATOR FOR AN OVERALL WAIVER OR ON A CASE BY CASE BASIS IF MISSION PRESENTS A STRONG CASE, PER THE TERMS OF AID GUIDELINES.

4. ADVERTISING WAIVER FOR SMALL INFRASTRUCTURE PROJECTS. IT WAS CONCLUDED THAT US FIRMS WOULD NOT BE LIKELY TO BID ON PROJECTS UNDER DOLS. 1 MILLION IN THE CARIBBEAN. ACCORDINGLY, IT WAS AGREED THAT AA/LAC WILL BE REQUESTED TO APPROVE, PER HANDBOOK 11, CHAPTER 2, SECTION 2.4.2A, A WAIVER OF ADVERTISING IN THE COMMERCE BUSINESS DAILY FOR THE SMALL INFRASTRUCTURE PROJECTS TO AVOID SERIOUS DELAY IN PROJECT IMPLEMENTATION. THIS CABLE CONSTITUTES APPROVAL OF THE WAIVER.

5. FUNDING OF A&E CONTRACT. THE AGREEMENT WITH THE A&E FIRM SHOULD TAKE INTO CONSIDERATION THE EVENTUALITY THAT THE FULL DOLS. 80 MILLION REQUIRED FOR THIS PROJECT MAY NOT BE MADE AVAILABLE. A CLAUSE MUST BE INCLUDED ALLOWING AID TO CANCEL A PORTION OF THE CONTRACT IF PLANNED FUNDING IS NOT MADE AVAILABLE. THIS CLAUSE WOULD PREVENT THE CONTRACTOR'S FIXED COSTS FROM BECOMING EXCESSIVE IF THE OVERALL PROJECT VALUE IS CUT BACK.

6. WE REGRET THE DELAY IN PROVIDING THIS CABLE RESPONSE TO YOUR PID SUBMISSION. SHULTZ

BT
#6199

NNNN

UNCLASSIFIED

STATE 336199/02

Resolution of Project Issues Raised by AID/W

The following concerns were raised in the DAEC review of the Project Identification Document (PID) and in subsequent discussions with AID/W. Guidance was provided in State 336299. These issues have been addressed in the Project Paper as follows:

1. Selection Criteria. AID/W requested that the selection criteria for activity/subproject eligibility presented in the PID be expanded to include: a) the relationship of the activity/subproject to the project goal and to the country's development strategy, b) the level of economic benefits, c) the level of counterpart funding, d) recurrent costs, and f) the willingness of the host country to undertake related and unrelated policy reforms. These considerations have been included in the selection criteria for all activity/subproject eligibility, and are described in Section V.

2. Economic and Financial/Cost Analysis Methodology. AID/W requested an explanation of the methodology for economic and financial analysis. The methodology for the economic and financial/cost analysis of the various types of project funded activities/subprojects has been described in Annex H.

3. Programming Procedures, and Decision Document/PP Supplement Review Procedures.

AID/W requested that the Mission include in each year's action Plan a description of each subproject planned for implementation in the subsequent two fiscal years. PID-level and PP supplement approval authority will be determined at the Action Plan review. The Mission will describe more fully the Antigua Water II and Nevis Port Improvement subprojects in the FY87-88 Action Plan.

For the large scale subprojects which were specified in the IEMS PID, a mid-course decision document, reviewed and approved at the Mission, will be prepared, and sub-project Paper development will proceed as proposed in this Project Paper. However, LAC/DR may request a PID for AID/W review if there is sufficient concern about a specific subproject at the Action Plan Review.

4. Contents of the Mid-course Decision Document and PP Supplements.

It was agreed that a mid-course decision document will be prepared instead of a PID for subprojects. The mid-course decision document will describe the developmental problem, the alternatives considered, and the approach selected, in order to provide a clear development rationale for the subproject and demonstrate that it should take priority over other investments. The mid-course document shall also indicate how the subproject will satisfy the selection criteria, and identify related and unrelated policy issues

to be addressed through conditionality or other means. RDO/C will document the issues and their resolution. These considerations have been included in Section IV-C.

5. Grant Vs Loan Funding.

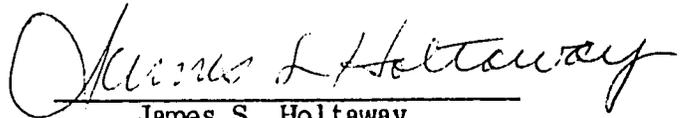
It was noted that while grant funding for revenue-generating infrastructure projects is not generally appropriate, some of the countries of the Eastern Caribbean face unusual economic and political circumstances. A/AID has approved a waiver of loan funding for activities/subprojects in Grenada, and RDO/C will prepare justifications for case-by-case waivers for sub-projects in the other participating countries according to guidelines on the terms of AID established by AID/PPC, as the need arises. AID/W has agreed in principle that the Small Activities Fund should be grant funded in all participating countries in order to facilitate implementation.

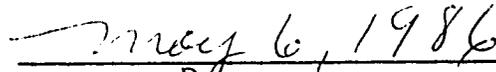
6. Incremental Funding of Core Contract.

In response to the PID guidance, the RFP for the engineering core contract states specifically that there is a possibility that the entire \$80 million may not be available for the project. The E/TS Contract includes a clause allowing AID to cancel a portion of the contract if the planned funding is not made available.

MISSION DIRECTOR'S GRAY AMENDMENT CERTIFICATION

"I, James S. Holtaway, as Director of the Regional Development Office/Caribbean, hereby certify that the procurement plan was developed with the full consideration of maximally involving Gray Amendment organizations in the provision of required good and services and that the Infrastructure Expansion and Maintenance Systems Project is appropriate for Gray Amendment organization contracting or subcontracting.


James S. Holtaway
Director

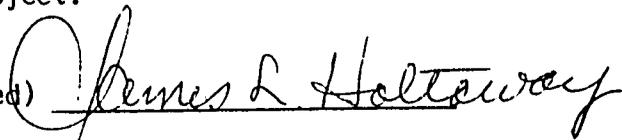

Date

Certification Pursuant to Section 611(e) of the
Foreign Assistance Act of 1961, as Amended

I, James S. Holtaway, as Director of the Regional Development Office/Caribbean of the Agency for International Development, having taken into account, among other things, the maintenance and utilization of projects in the Eastern Caribbean region, do hereby certify that in my judgement the governments which will participate in the Infrastructure Expansion and Maintenance Project have the financial capability to use effectively and to maintain the goods and services to be procured under the proposed capital assistance Project.

This judgement is based upon the implementation record of externally financed projects, including AID-financed projects, in the region, the commitments from the participating governments, and the quality of planning which has gone into this Project.

(Signed)



James S. Holtaway
Director

(Date)

5/6/86

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

November 19, 1985

NOV 20 2 22 PM '85

ACTION MEMORANDUM FOR THE ADMINISTRATOR

THRU : AA/PPC, Richard *Richard Bernheim*

FROM : DAA/LAC, Malcolm Butler *MB*

SUBJECT: Regional Infrastructure Expansion and Maintenance Systems Development, 538-0138

Action: You are requested to approve: (1) an ad hoc delegation of authority to the Mission Director RDO/C to approve the PP and authorize \$40 million for this project, (2) delegation of authority to the AA/LAC to allow him to redelegate, to the Mission, authority to approve additional funds up to a total of \$80 million for the entire project, and (3) grant funding of \$9.5 million in infrastructure projects for Grenada.

Background: A consistent theme in both the RDSS and the individual country strategies of RDO/C is the need for basic infrastructure to support the development of tourism and productive enterprise while improving market access for both the agriculture and manufacturing sectors. Unfortunately, a number of factors have contributed to the deterioration of infrastructure in most of the eastern Caribbean LDCs. In the past ten years, the decline in U.K. involvement coupled with increased energy costs, has reduced the funding available for maintenance and replacement of infrastructure. The situation was exacerbated by severe hurricanes in 1979 and 1980. The result has been a marked deterioration of transportation networks, inadequate electricity generation and distribution, poor water and sewer services, and poor facilities for handling of import/export material; all of which militate against the attraction of the local and foreign investments that promote growth and create employment opportunities. In short, without substantial improvement in the basic infrastructure, success of the regional strategy of economic growth led by the productive sectors of tourism, agriculture and manufacturing will be compromised.

The widespread and critical need for greater efficiency in delivering development assistance led to the evolution of the "cluster" approach.

Discussion: A cluster is a group of related activities (currently defined as projects) under one project number. Under this approach, a PID and PP would be developed, as in any project, but would not describe, in any detail, the activities themselves. Rather, the mechanisms for project identification, design, and implementation would be fully addressed.

Once this cluster's PP is approved, a CN would be sent to Congress notifying an \$80 million LOP with \$40 million to be authorized in

RECORD COPY

2/1

- 2 -

FY86. Individual activities to be carried out under the cluster would be first described in the Action Plan. If the Bureau expresses any concern regarding one of the cluster's subprojects, a PID for that project would be sent up for AID/W review. If, on the other hand, an AID/W review is not required, the Mission would prepare a PID-like document, tailored to its design and evaluation needs, to assist in assessing the subproject's feasibility. (The cluster design as presented by the Mission did away with the preparation of project specific PIDs, but during the bureau review it was felt that the PID is an important element in project planning and the above procedure was adopted). Finally a PP supplement would be prepared for each major infrastructure activity, describing it in detail. Each year a CN would be prepared notifying for that year's activities.

RDO/C will contract in FY86 with a broad based A&E firm to perform feasibility studies, assist in PID and PP supplement preparation, design facilities, and, where appropriate, supervise construction of infrastructure projects to be approved by RDO/C over the next five years. Furthermore, the contractor will be tasked to integrate with information and management systems already in place, and provide much of the country-level interface between RDO/C programs and those of other donors and working-level host country officials. These are tasks which are normally accomplished by contractors, but the letting of a single contract, where many were traditionally used, and the resulting long-term nature of the contractor's assignment would enable its personnel to become familiar with AID procedures helping assure quality work and smooth coordination with the Mission and to develop a greater familiarity with the region. The cluster contractor will free RDO/C personnel for policy analysis, project monitoring and correction, and program coordination and review. This mechanism, in addition to providing better AID/Contractor continuity, allows greater programming flexibility as it enables the Mission to develop several sub-project activities and fund most expeditiously those that will yield the greatest return to our economic assistance program in the Caribbean. This cluster approach is particularly suited to a regional Mission such as RDO/C, with a diverse, complex, infrastructure portfolio.

Early on the issue of a potential conflict of interest on the part of the cluster contractor was addressed. The cluster contractor will be involved in the initial feasibility work on major infrastructure projects, but his contract will provide that he will not be eligible to compete for advanced design or construction supervision work on such projects. Thus he will not be in the position of recommending the feasibility of a project when he might have a financial interest in doing so because of follow-on work. The cluster contractor will help to develop the projects in the small project fund, but as they are not yet all identified with

- 3 -

specificity, the contractor's exact role in each cannot be defined. Mission staff, which includes a legal advisor and contracting officer, will review each activity prior to its implementation to insure that a conflict of interest does not arise, and that proposed implementation methods are appropriate.

The Mission had originally requested an ad hoc delegation for an \$80 million project. However, only \$40 million worth of activities were sufficiently described to warrant an authorization request; consequently it is that figure that we are asking you to approve. The breakdown of the \$40 million request for FY 86 is as follows:

1. Small sub-projects (under \$1 million each), \$10 million grant.
2. A&E contract, \$3.9 million, grant. 7.6
3. Grenada Infrastructure, \$9.5 million, grant.
4. St Kitts/St Nevis Road/Port, \$9 million, loan.
5. Antigua Water Systems II, \$7.6 million, loan.

Grant funding is being requested for the infrastructure projects in Grenada in view of the political importance of those projects to the U.S. and the Government of Grenada.

~~In the cases of both the small and major infrastructure projects under this cluster, funds will be obligated on an individual basis after each project has been developed.~~

The Mission may determine, on the basis of the Terms of Aid Guidelines, whether an infrastructure project is to be loan or grant financed. Any deviation from these guidelines would have to be approved by you.

AID delegation of authority No. 133.3 gives AA/LAC the authority to authorize projects which do not exceed \$20 million over the LOP, and to amend project authorizations which do not result in a total LOP amount of more than \$30 million. All of this authority has been re delegated by AA/LAC to the Director of RDO/C. RDO/C could authorize all the activities contained within the cluster, under the Mission present authority, if they were authorized as individual projects. Since the entire cluster is to be dealt with as one project, however, the initial LOP will be \$40 million: thereby exceeding the Mission's authority. In later years, as activities are developed, the cluster project will be amended so that total LOP funding will result in total funding of more than \$30 million. Thus we are requesting that the AA/LAC be given the authority to redelegate to the Mission authority to authorize the initial \$40

million project, and to increase the LOP funding for this project up to \$80 million, as documentation of the activities to be carried out with these funds is approved.

Recommendation: That you approve: (1) an ad hoc delegation of authority to the Mission Director RDO/C to approve the cluster PP and authorize \$40 million for the subject project (2) delegation of authority to the AA/LAC to allow him to redelegate to the Mission, authority to approve additional funding, up to a total of \$80 million for the entire project, and (3) grant funding of the \$9.5 million of infrastructure projects proposed for Grenada.

Approve *[Signature]*

Disapprove _____

Date Nov. 25, 1985

Clearances:

PPC/PDPR: ARosenberg *AR* Date 11/10/85
GC: HFry *MHF* Date 10/15/85

Drafter: LAC/DR: *AS* Steelman: 6329174:1258N

5C(1) - PROJECT CHECKLIST

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

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

A. GENERAL CRITERIA FOR PROJECT

1. FY 1986 Continuing Resolution
Sec. 524; FAA Sec. 634A

Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project;

Congressional Notification sent forward and expired on March 8, 1986.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

Yes; also, prior to financing each activity or subproject, a technical and financial design document will be approved by RDO/C.

Yes

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

Although none is anticipated, if further subproject designs indicate that legislation is required, it will be a condition precedent to disbursement.

4. FAA Sec. 611(b); FY 1986 Continuing Resolution Sec 501 If for water or water-related land resource construction, has project met the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See AID Handbook 3 for new guidelines.)
- Not applicable (N/A).
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?
- Yes, the Mission Director has certified that participating countries in the project have the capacity to use and maintain the project.
6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.
- While construction activities and subprojects will be bilateral by necessity, when it is possible there will be maintenance and/or common services activities/subprojects implemented regionally. The project also permits AID's participation in other donor projects.
7. FAA Sec. 601(a). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives, and credit
- The project provides the infrastructure base for foreign and local investment in private sector enterprises.
- 44

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.

8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
9. FAA Sec. 612(b), 636(h); FY 1986 Continuing Resolution Sec 507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?
11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

The Project will encourage trade by improving the infrastructure base.

Not applicable.

No.

The core contract, estimated at \$8.0 million was formally advertised. Contracts for subproject activities will be let according to the Federal Acquisition Regulations as amended to reflect AID special circumstances.

12/8

12. FAA 1986 Continuing Resolution Sec. 522. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? Not applicable.
13. FAA 113(c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16. Does the project or program take into consideration the problem of the destruction of tropical forests? (c) Detailed environmental guidelines will be followed in the preparation of each activity and subproject.
(d) Not Applicable.
14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)? Not applicable.
15. FY 1986 Continuing Resolution Sec. 536. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution? None.
16. ISDCA of 1985 Sec. 310. For development assistance projects, how much of the funds will be available only for activities of economically and socially disadvantaged enterprises, Not applicable. This Project is ESF funded.

historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FAA Sec. 102(a), 111, 113, 281(a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions;

Not applicable.

(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, (e) utilize and encourage regional cooperation by developing countries?

- b. FAA Sec. 103, 103A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used? Not applicable.
- c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)? Not applicable.
- d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed country)? Not applicable.

- e. FAA Sec 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth? Not Applicable.
- f. 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? Not Applicable.
- g. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government. Not Applicable.

2. Development Assistance
Project Criteria (Loans Only)

Not Applicable.

a. FAA Sec. 122(b).
Information and
conclusion on capacity
of the country to repay
the loan, at a
reasonable rate of
interest.

Not Applicable.

b. FAA Sec. 620(d). If
assistance is for any
productive enterprise
which will compete with
U.S. enterprises, is
there an agreement by
the recipient country to
prevent export to the
U.S. of more than 20% of
the enterprise's annual
production during the
life of the loan?

3. Economic Support Fund Project
Criteria

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

Yes, and potential stability will be
enhanced by better job opportunities
which will result from this Project..

b. FAA Sec. 531(c). Will
assistance under this
chapter be used for
military, or
paramilitary activities?

None.

- c. ISDCA of 1985 Sec. 207. None
Will ESF funds be used to finance the construction of, or the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such country is a party to the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (the "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States?
- d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? Not Applicable.

Small Scale Activity Fund Requests for Assistance

The following requests for assistance for small-scale activities have been received by RDO/C.

(1) St. Lucia Commercial and Free-Zone Infrastructure

The St. Lucia National Development Corporation, with the assistance of the PDAP advisor, has requested a number of small specific infrastructure improvements for the following commercial and free-zone sites. Not all of these activities will be funded, but the complete request list is as follows:

(a) Industry Free Trade Zone in Vieux Fort - The activity would comprise the construction of internal access roads, the procurement and installation of generators and transformers, and the installation of a water supply and sewerage. These improvements would facilitate the development of the Vieux Fort Free Trade Zone and the expansion of trade in St. Lucia.

(b) Port Facilities at Vieux Fort - The required improvements include chain link fencing, transformers and distribution lines, and potable water supply for the port facilities in Vieux Fort, which would make the port more attractive to the shipping companies who are presently servicing St. Lucia..

(c) Air and Sea Port Authority at Pointe Seraphine - The activity would consist of the construction of a hard standing area and a roll-on/roll-off berth, and the refurbishing of the existing berth in order to develop the facilities for servicing and turnaround location for cruise ships, including duty free provisioning and shopping.

(2) NRECA Common Services/Training Facility for Regional Electricity Utilities

The National Rural Electricity Cooperative Association has proposed a program to provide training and common services to each of the eight electricity utilities in the Eastern Caribbean. Barbados Light and Power has been proposed as a possible coordinating office for a three year pilot program in which training would be provided to electricity utility personnel by West Indian and expatriate specialists.

(3) Montserrat Water Authority

The sources of water for Montserrat are two fresh water springs, the Mefraimy or Upper Spring and the Lola Spring. Phase I of the proposed activity would harness the springs for exporting bottled water, requiring the construction of intake structures and small reservoirs. Phase II would connect the two springs to the existing island water distribution system.

52

Large Scale Subprojects Requests for Assistance

The following requests for subprojects with funding requirements estimated to exceed \$1 million have been made. AID/W has approved the project design and subsequent authorization of the St. Kitts Southeast Peninsula Road.

(1) St. Kitts Southeast Peninsula Road

Tourism as a productive sector has significant potential for St. Kitts. Predesign analysis indicates that providing access to the peninsula will strengthen and diversify St. Kitts as a tourism center. The subproject is expected to produce economic returns in the form of increased occupancy at existing and proposed hotels, increased cruise ship visits and increased visitor expenditure. The proposed subproject will finance the construction of an 18 foot wide penetration road on the Southeast Peninsula from Frigate Bay to Majors Bay. Construction of the road will open up some 4500 acres of new land for development, approximately 15% the total land area of St. Kitts. The peninsula includes some of the island's finest beaches and a number of sheltered bays for tourism development, and other areas appropriate for wildlife and nature reserves.

The estimated cost of the project is \$7 million, \$5.5 of which will finance the construction of the road, \$1 million to preserve environmental resources, and \$.5 million for contingencies.

(2) Charlestown Port, St. Kitts-Nevis

The lack of a port facility capable of handling roll on/roll off containerized cargo has discouraged private investment in small-scale export oriented industry in Nevis. The subproject will include engineering design, construction and construction supervision services required to rehabilitate and expand the existing port at Charlestown, and the procurement of port handling equipment. Engineering and construction services will be provided by U.S. and/or local firms. Specific improvements will likely include widening and extending the existing pier, construction of a transit shed and port administration building, and land reclamation for parking and container storage.

Preliminary Budget

Engineering/Construction Supervision	\$ 320
Construction Services	2,280
Procurement of Port Handling Equipment	200

Total	\$2,800

52

(3) Grenada Infrastructure

During the years prior to the military intervention of October 1983 the infrastructure deteriorated to an unusable state. Despite considerable AID assistance since 1983, the lack of basic infrastructure remains a major constraint to developing Grenada's economic potential. A subproject will be developed for obligation in FY87 and FY88 to address a broad spectrum of infrastructure deficiencies.

The major investments to be financed are: feeder road and farm access road rehabilitation, bridge repair and construction, retaining wall construction, school rehabilitation, Carriacou airport resurfacing, port rehabilitation, tourism support, and the Frequente Industrial park development. Once the priorities have been established, the core contractor will be tasked with the design of a multi-year construction program to be implemented through a host country contract. The estimated LOP is \$13.5 million.

Preliminary Budget for FY87 and FY88
(\$ Millions)

	<u>FY87</u>	<u>FY88</u>	<u>LOP</u>
Feeder Road Rehabilitation	1,000	2,500	4,800
Farm Access Road Rehabilitation	400	0	900
Bridge Repair and Construction	800	1,500	3,000
Retaining Wall Construction	500	840	1,340
School Rehabilitation	0	1,000	160
Carriacou Airport Resurfacing	0		160
Port Resurfacing	0	300	300
Tourism Support	300	200	1,000
Frequent Industrial Park Development	<u>2,000</u>	<u>0</u>	<u>2,000</u>
Total	\$5,000	\$6,500	\$13,500

(4) Antigua Water II

The proposed subproject will finance the construction of transmission and distribution lines necessary to ensure adequate service to users. The subproject also includes a major transmission line and related storage facilities required to integrate the new planned desalinization plan with the rest of the water system. The subproject will ensure that St. John's has adequate water service and that the island's numerous tourist developments do not experience water shortages during the seasonal droughts which have had adverse impact in the past.

This subproject is a continuation and expansion of the Antigua Water Supply Project. One of the primary objectives was to assist the Antigua Public Utilities Authority (APUA) to become

financially self-sufficient through a program of fiscal and management reforms. The new proposed subproject will continue and expand this effort by promoting metering and other reforms, and by developing an awareness of the need to conserve water. The Life of Project funding is expected to be \$7.8 million, \$1.9 of which will be provided in FY 87.

Preliminary Budget for FY87 Funding

Transmission Main	\$1,000
Tank and Water Main improvements	400
Other tanks and interconnection	100
Contingency	<u>100</u>
Total FY87	\$1,900
FY88	<u>\$5,900</u>
Total LOP	7,800:

(5) St. Lucia Southeast Coast Infrastructure

The Government of St. Lucia has requested assistance for the construction of primary infrastructure on the southeast coast in order to attract foreign investment in the development of a hotel at Honeymoon Bay. The southeast coast of St. Lucia lacks the infrastructure necessary to develop hotels and other tourism facilities. The Government of St. Lucia has received proposals for the construction of major hotels, but all of the proposals have been conditional upon the provision by Government of a full network of infrastructure. Because of the high cost of the primary network, the Government has not been able to respond and the hotel developments have not materialized. The Government is presently holding discussions with a developer who is prepared to construct a 350 room hotel immediately upon receiving a commitment that the required road, water and electricity services will be put into place. This hotel investment is critical to the growth of tourism. The subproject will consist of the feasibility study, design, construction management and construction of roads, and the extension of the national water and electrical distribution system to the site.

Preliminary Budget

Construction supervision and management	\$ 250
Construction	<u>1,750</u>
Total	\$2,000

67

Methodologies for Activity/Subproject Analysis

The following sections describe the analyses required for activity/subproject development. This guidance is based on Handbook 3, but includes issues and considerations which are specific to infrastructure activities/subprojects in the Eastern Caribbean.

Technical Analysis Methodology

The identification, development, and management of activities/subprojects will be the task of the E/TS Contractor as instructed by the Chief of RDO/C's Infrastructure Division. The E/TS contractor will also be responsible for the design and construction supervision for small-scale activities. While the preliminary design of subprojects will be provided by the E/TS Contractor, the design and construction supervision of subprojects will be done by other consultants contracted specifically. Both host-country and AID-direct contracting procedures may be used.

All IEVS activity/subproject designs will conform to US standard engineering practice, taking into account local conditions and cultural practices. The contractor will consider the use of indigenous resources, including local private sector engineering and construction firms. All due care will be taken to insure that designs are compatible with existing conditions, equipment, and skill levels of operators.

Sub-project paper presentations will state clearly the current level of project design -- pre-feasibility, feasibility, and final design, and will discuss in detail what is required to complete the design phase as well as to implement the construction phase. All remaining design and implementation tasks will be shown in the implementation schedule. Maintenance requirements of the completed facility, including a detailed estimate of the annual maintenance costs, will be fully discussed.

Three alternatives may be considered for the construction of activities/sub-projects: force account (the use of local institution forces for construction), construction contractor (US or local), and construction management. Selection of a construction mode will follow careful consideration of the following:

- managerial and administrative capabilities of local institutions;
- capabilities of local construction contractors;
- practicality of inviting US contractors to bid on the project; and

probable benefits to local institutions, e.g. improvement of maintenance or construction capabilities.

Should force account be the selected construction mode, adequate provision must be taken to insure that construction quality is assured and that costs are reasonable. The utilization of US contractors will usually result in higher costs due to the relatively small size of the projects compared to the mobilization and administrative costs. Nonetheless, in some cases, e.g. large civil works subprojects, this may be the only viable alternative. Although it may be possible to use local construction contractors for some projects, the capabilities of firms on most of the islands is very limited. This would be the preferred alternative, however.

A. Planning

It is anticipated that much of the IEMS contractor's early work will be in activity/subproject identification and development. All IEMS-funded activities/subprojects must meet the IEMS project criteria. Furthermore, there is a definite need to identify the real infrastructural needs of the islands; a brief but comprehensive review of current conditions, the status of operation and maintenance institutions, and planned interventions by AID and other donor institutions, is in order. Only in this manner will the interventions required for the long term improvement, commensurate with projected economic growth, be identified and prioritized.

The plans of other donors in the region must be ascertained. This is particularly urgent due to the many recent political changes in the region: most of the islands have gained independence only within the last ten years; while the British have quietly reduced their assistance to the region, other donors, e.g. Canada and the World Bank, have substantially increased assistance, and others, e.g. the CDB, have maintained their role over the past several years. At the same time, coordination amongst the donors has been inadequate. Given the size and encompassing nature of the IEMS Project, AID should assume a leading role in the coordination of infrastructural projects in the region. The RDO/C Infrastructure Division, working closely with the E/TS contractor, should maintain an up-to-date inventory of past, present and planned infrastructure efforts in the Eastern Caribbean.

B. Roads and Highways

Feasibility studies for road projects will determine the anticipated traffic, define the appropriate geometric criteria, determine optimum route location and geotechnical conditions largely from available geological and soils maps, and provide a preliminary estimation of the cost of construction. Design life for the road projects will be ascertained based upon the structural criteria and limitations of project funding.

Following preparation of project designs, selection of a construction mode will be made. AID experience in the region indicates that three alternatives for construction may be viable for roads -- force account, construction management, and major construction contractor. Governments' capabilities to construct quality roads efficiently vary considerably, and the local institutional capacity should be carefully investigated when force account construction is being considered. In many instances it may be advisable to bolster local staffing with a U.S. construction management team; in this manner it may be possible to obtain the institutional benefits associated with force account, and to maximize technology transfer while maintaining a reasonable cost.

C. Water supply and Distribution

Feasibility studies for water supply sub-projects will establish when, where, and what quantity/quality of water is required. Alternative water sources will be identified, and economic, environmental, and social consequences of development taken into account. Field studies will include mapping and analyzing any existing water systems and facilities and their present operating characteristics. Other considerations will include related planning data, seasonal and short-term peaking characteristics, population projections, land use planning, and other pertinent indicators to determine future water requirements. A preliminary cost estimate will be prepared along with an implementation/construction schedule.

Construction of extensions of or modifications to water supply/distribution systems will generally be done either by US construction contractor or, for smaller projects where institutional capacity is adequate, by the water supply agency under force account.

D. Ports

Technical feasibility studies for port projects will determine the present and future traffic forecasts; the present and future trends in vessel characteristics and type; constraints on capacity, and identification of structures that have deteriorated to a condition requiring repair; identification of constraints that exist between the port and the service areas; identification of navigational problems and deficiencies in port equipment buildings, yards, and access facilities; and identification of alternative plans for physical improvements to reduce or eliminate present operational constraints and/or constraints on future development.

E. Airfields

CIDA is currently implementing a region-wide airports improvement project, and all IEMS sub-projects in this sector will be coordinated with them.

F. Power

Feasibility studies and activities/subprojects in the power sector will generally be of two types -- generation or transmission/distribution -- or a combination of the two. Feasibility studies for generation expansions should take into account size and condition of existing generation plant; current and projected demand, including system losses; alternatives for generation expansion, e.g. hydro, geothermal, alternative systems or diesel; the ability of the institutions to properly operate and maintain the plant; and, ultimately, the economics of the alternatives.

With regard to transmission/distribution subprojects, studies will determine the extent and nature of projected demand for newly-electrified areas; line losses from the generation station to the service area; current practices of the utility for the design of similar installations; and the cost of alternatives.

Methodology for Financial Analyses

The purpose of financial analysis is to ensure that an activity/subproject can be paid for and to determine the profitability to the individual public or private entity for whose benefit it is undertaken. Financial analysis will normally be the responsibility of the ET/S contractor, in consultation with the technical staff.

Detailed guidelines for financial analysis are contained in Appendix 3D of AID Handbook 3 and will be closely followed in the financial analysis of infrastructure activities/subprojects. Infrequent exceptions to the use of these guidelines may be warranted, as for example when an activity is so small that the benefits of a full-scale financial analysis would not outweigh the costs of the analysis. In these cases, methods for an alternative and abbreviated financial analysis will be worked out in consultation with the RDO/C Program Economist and the Project Development Division. Revised Handbook 3 guidance will be published in 1986. Where that differs from the following, the revision will take precedence.

The financial analysis attempts to determine whether the proposed activity/subproject is financially viable in that the discounted stream of revenues is larger than the discounted stream of expenses. Further, the analysis determines whether the stream of projected expenses can actually be financed by the participants (as shown in the Schedule of Sources and Uses). The analysis will contain tabular presentations of all cost, revenue and/or other resource flows relevant to the activity/subproject, including projections over the economic life of the specific infrastructure being analyzed. Project inputs are categorized as labor and nonlabor, and nonlabor inputs are further categorized into traded (imported) and nontraded (local) items. More detailed breakdowns are helpful, but not necessary. Since the outputs of infrastructure activity/subprojects are not likely to be exported, a similar breakdown into traded and nontraded components will usually not be required for them.

Some infrastructure activities/subprojects (e.g., electric power generation) augment the ability of an entity or agency to produce services for which user charges are levied. In these and in some other cases, several standard methods of financial analysis are employed to discounted revenue and expense flows to determine the Financial Rate of Return. The analysis will also include an appraisal of the financial condition of the executing agency, including a review of its capital structure, financial history and future operations. The financial analysis will include an assessment of the effect of the activity/subproject on major participating institutions, including projections of the future.

For entities which are financially autonomous (e.g., a self-financing utility), the analysis will attempt to document the entity's ability to meet its obligations and to show a reasonable profit in the past, and will determine whether projections indicate that it will be able to continue to do so. If the entity generates revenue, but is still essentially financially dependant on non-sales revenue, the analysis will assess how well the entity uses the money it receives, whether it will continue to receive money on a timely enough basis to implement the activity/subproject on schedule, whether reporting systems and financial controls are appropriate, and whether the record shows that host country budget contributions to the entity are likely to continue on a timely basis.

For infrastructure activities/subprojects which do not generate sales revenues, profitability measures are not appropriate for the financial analysis. In these cases, the analyses employed will be: budgetary analysis, institutional analysis, and cost effectiveness analysis.

Budgetary analysis indicates the amount and timing of financial resources required for the activity/subproject, including an analysis of the implementing and operating expenses and an evaluation of the local entity's ability to finance such expenditure after AID financing has ended.

Institutional analysis assesses the ability of the entity to manage and discharge its responsibilities during activity/subproject implementation and after completion and should recommend any management changes that may be necessary.

Least cost financial analysis estimates the monetary value of inputs required to achieve specific outputs. Alternative means of producing the given output are specified, and the least cost alternative identified. At this stage unit cost of outputs (e.g., cost per mile, per KWH) can often be identified. Comparisons with similar ongoing or historical projects can be made to test the reasonableness of aggregate costs compared to alternative activities/subprojects.

The Financial Analysis will assess the financial effect on participants. Where appropriate, this will include examination of Income Statements and Balance Sheets, for at least three prior years. As appropriate, Current Ratio and other familiar tests may be applied to the Balance Sheet. In other cases, the assessment will include the Statement of Sources and Uses of Funds.

Financial projections. For financially autonomous and revenue-generating activities, and where data permit, projections will be made of the Income Statement, the Balance Sheet and of the Source and Application of Funds statement, showing capital expenditures, working capital and loan requirements, and showing how

these costs will be financed. For financially dependant and government agencies, the analysis will focus on the financial control and reporting systems, as noted above. In these cases, the effect of channeling significant funds into the institution will be evaluated in light of the following questions. Is the entity capable of handling additional funds without adding staff? Will the control system accomodate the larger cash flows? What are the management strenghts and weaknesses that affect the entity's ability to manage project resources? Is the role of the institution in this activity/subproject different from its historical role?

62

Methodology for Economic Analyses

The economic analysis derives directly from, and presumes the completion of, a thorough Financial Analysis. Data from the Financial Analysis are the input to the Economic Analysis. Normally, Appendix 3E of AID Handbook 3 should govern the economic analysis of infrastructure activities/subprojects. Modifications of Handbook 3 will be published in 1986 and, where they differ from the following guidance, will take precedence. Where exceptions seem warranted, alternative approaches may be developed in cooperation with RDO/C Program Economist and the Project Development Division.

General Considerations

Economic analysis of infrastructure activities/subprojects will be concerned with the social profitability as measured by the costs incurred and the benefits obtained by the society as a whole. Whereas financial analysis uses actual and projected market prices, the economic analysis includes constructed values such as shadow prices and opportunity costs. Whereas the financial analysis will include all expenses related to a activity/subproject, including taxes, tariffs and subsidies, the economic analysis will exclude all expenses which are merely transfers from one member of the country to another, such as subsidies and taxes.

All benefits and costs will be evaluated in terms of their real value to the economy. The full benefits of the activity/subproject, including external benefits, will be identified and wherever possible, quantified with the use of appropriate shadow prices. The analysis will focus on the incremental impact of the activity/subproject, so "with project" and "without project" evaluations will be made and compared.

Full social opportunity costs, including external costs, should be measured in terms of appropriate shadow prices. Drawing from the Financial Analysis, as data permit, activity/subproject costs will be broken down into labor and non-labor components. Labor will be evaluated at its shadow wage rate. Nonlabor costs are to be separated into traded (imported) and non-traded (local) inputs. Either of two approaches may be used to value nonlabor inputs. In the first, a shadow exchange rate will be calculated and used to convert the foreign exchange price of the traded input into domestic currency. Alternatively, domestic currency values of nontraded items may be adjusted (usually lowered) by a conversion factor, following Squire and van der Tak, Economic Analysis of Projects. Capital will be evaluated at its social opportunity cost.

Social profitability will be calculated by discounting cost and benefit streams with an appropriate discount rate. The preferred measures of social profitability are the Net Present Value (NPV) and the Internal Rate of Return (IRR). Where possible, both will be

presented in the analysis. The Benefit/Cost ratio may be used, but is not preferred. Wherever possible, sensitivity analyses will be performed to determine the robustness of the NPV or IRR calculations in light of changing assumptions or parameters. Generally, an IRR of 15 percent (or equivalent NPV) will be used as the minimum threshold for net economic benefits. If a lower threshold is used, appropriate justification will be provided, for example if the opportunity cost of capital in the economy is significantly lower than 15 percent.

If most of the benefits of an activity/subproject are not measurable, a least-cost analysis of producing the given output will be substituted for a benefit-cost analysis. Where only a portion of the benefits are immeasurable, these benefits will be identified and discussed as a supplement to the benefit-cost calculations.

Additional Special Considerations

The general approach outlined above will be applied to all activity/subprojects. However, each type of infrastructure raises specific issues which can be addressed in the economic analysis (for more details, see, for example, G.A. Bridger and J.T. Winpenny, Planning Development Projects, London: ODA, 1983).

1. Road Activity/Subprojects The economic analysis of road activities/subprojects will examine alternatives to road construction, for example improved traffic management, or upgrading versus new construction.

Benefits will usually be measured as the monetary value of:

- a. Vehicle costs savings in terms of maintenance, fuel consumption, repairs, parts, and other expenses, calculated for existing users, for users diverted to the new mode from existing modes of transport, and for new traffic generated.
- b. Economies of road maintenance. Savings in maintenance costs induced by the new or upgraded road. Where other data are absent, maintenance costs may be estimated as a percentage of initial capital cost.
- c. Time savings. While this measure is frequently used for urban commuter roads, caution will be used in applying it to island roads where the opportunity cost of travel time may be low. Some emphasis may be placed on time savings for farm to market roads, especially where the transport of perishable commodities is important.

- d. Reduction in accidents. While this is a frequently cited benefit of road improvement, it is difficult to measure, and will not be emphasized unless adequate documentation can be produced.
- e. Induced benefits. These will also be measured in terms of reduced maintenance, time savings, etc., and may be especially important for rural access roads, which expand the area devoted to cultivation.
- f. Forecasting demand. Wherever feasible, forecasts will be based upon traffic counts.

Where suitable benefit data are not available, an alternative approach will be to set a target IRR and then determine the level of benefits necessary to produce that return. The analysis will then focus on whether it is reasonable to assume that level of benefits can be attained.

- 2. Ports. Economic benefits of reducing port bottlenecks accrue in the form of time savings, lower costs and turnaround time, reduced breakage and cargo loss, lower foreign exchange losses from export delays, and more ready access to consumer and capital imports. The economic analysis of port facilities will devote special attention to:
 - a. Assessment of the productivity of existing facilities, and exploration of the scope for increasing the productivity of these facilities.
 - b. Analysis of the port in the context of the entire transportation system. This methodology will include assessment of all constraints, such as policies, management practices, bureaucratic procedures, storage facilities, roads, and other parts of the throughput network, and exploration of these for alternative solutions to port congestion.
 - c. Traffic forecasts, which are critical to the analysis. Where appropriate, queuing models or other analytical tools will be employed.
 - d. Determining whether transportation savings are passed on, and the distribution of benefits between foreign and domestic beneficiaries.
 - e. Assessing whether management capability is suited to the proposed infrastructure changes.

65

3. Airports. Economic considerations will be similar to those connected with seaport infrastructure, including careful examinations of alternatives to infrastructure enhancement, such as rescheduling of flights, improved productivity, and estimation of the distribution of benefits among potential beneficiaries. In general, benefits of improved airport facilities will be measured in terms of:

- a. Increased capacity to handle passengers and freight, and the enhancement of service to existing traffic. Benefits will be measured as the value of aircraft and crew savings accruing from reduced turnaround time and in the value of time saved to passengers. If data permit, the latter may be measured by willingness to pay extra for time saved, or by a suitable proxy.
- b. Improved safety. While the "value of lives saved" may be used to estimate this benefit, the rather arbitrary nature of this measure indicates that an alternative measure should more often be used. Generally, this will involve establishing a target Internal Rate of Return, and then calculating the absolute, or per capita, levels of benefits that would have to be generated in order to produce that IRR. The criterion of reasonableness will then be applied to the estimated benefit levels.
- c. Induced benefits. When an airport is likely to enhance the productivity of another sector, for example tourism or vegetable production, an effort will be made to value the induced benefits. When these can be measured accurately, they will be incorporated directly into the benefit stream. In other cases, for example, safety, the level of benefits necessary to produce a target IRR will be calculated, and the reasonableness criterion applied.

Where appropriate, the economic analysis will attempt to determine the ability of the authority to recover from airport users a portion of the cost of new services. It will also evaluate the financial and management capabilities of the authority to operate and maintain the facility after the project is completed.

4. Electrical Power. The economic analysis of infrastructure activities/subprojects in the power sector will investigate the relative costs and benefits of various alternatives to new generating or transmission capacity. In addition to different energy sources and technologies, this will include consideration of improved maintenance of existing

capacity, load spreading through peak and off peak pricing differentials, and other means of increasing system efficiency. The cost breakdown will be that described in "General Considerations", above. Special attention will be given to:

- a. Demand forecasts. In general, future peak load and average energy consumption projections will be generated in the technical analysis. The economic analysis will examine these forecasts in terms of assumptions about pricing and other variables that would influence demand, before proceeding to the cost-benefit assessment.
- b. Benefits. The minimum measure of the value of increased generation or distribution capacity is the electricity tariff charged to users. Where appropriate, consumers' surplus may be used as an estimate of benefits.
- c. Assessing needed capacity. Where an activity/subproject involves adding generating capacity, a multiple-step analysis will be undertaken, including: (1) forecasting peak demand and time profiles of consumption, (2) determining the rated capacity of the system, (3) subtracting an allowance for maintenance, to obtain, (4) available capacity, from which is subtracted, (5) the capacity of the largest unit (or other measure of reserve plant margin), to calculate, (6) firm capacity. (7) firm capacity is projected over the relevant time period and, (8) the difference between peak demand and firm capacity is calculated, to yield an estimate of, (9) new firm capacity needed including an allowance for system loss, and the latest year in which new capacity should be installed.
- d. Determining a cost-effective solution. For generation projects, the analysis will emphasize the means of obtaining the most cost effective means of providing capacity from various alternative technologies and energy sources, to minimize total system cost, including transmission and distribution costs.
- e. Cost-benefit analysis will be used to test the least-cost analysis.
- f. For distribution systems, the economic analysis will determine which alternative system reaches consumers at the least total system cost, where costs will be

67

calculated from a basis of the Economic Bulk Tariff, with additions for the costs of installing and servicing poles, transformers, switching gear, and other facilities.

- g. Rural electrification activity/subprojects will require that the analysis include particular consideration of cases where the marginal cost of serving an area exceeds the ability of the rural poor to pay. Careful scrutiny should be given to the issues surrounding any proposed or implied cross-subsidization of some classes of users by others.
5. Water Supply. In addition to the usual considerations, attention will be devoted to alternative systems for delivering the desired supply. Specific issues to be addressed include:
- a. Demand estimation. Future demand will be estimated by projecting past trends, with adjustments for expected changes in tariffs, incomes, user composition, and other factors that would change historical patterns of consumption.
 - b. Benefits. Convenience benefits can be measured in terms of the value of time saved in acquiring water. Health benefits may derive from improved water supply, but are difficult to measure and identify. When these can be identified, they will be valued by accepted techniques of health economics. Productivity gains to industrial and other users can be estimated from expected increases in value added in occupations or industries using the water.
 - c. Cost recovery. The economic analysis will examine, on a case by case basis, the feasibility, timing, and advisability of attempts to achieve full cost recovery, and the mechanisms that exist for cost recovery.
 - d. Cost effectiveness. This will be determined on a case by case basis. The economic analysis will focus particularly on alternative systems and on determining whether the proposed solution is within the financial and management capacities of the authority that must manage and maintain the system.

6. Water Supply. Where data permit, costs of non-water borne systems may be estimated for purposes of cost comparison.
 - a. Projected usage. Usage estimates will be made, commensurate with expected water consumption trends.
 - b. Benefits. Health benefits may be difficult to identify, so that the target rate of return methodology may frequently need to be employed. Amenities benefits are assumed to be captured by increases in property values. Financial savings, if any, may accrue from centralized systems that replace individual treatment units.
 - c. Measures for recovering costs. The economic analysis will examine measures, levies, taxes, or combinations thereof, which might be used to recover the costs of constructing and/or maintaining the system.

Methodology for the Institutional Analysis

The implementing institutions for infrastructure activities/subprojects in the Eastern Caribbean are government ministries and utility agencies, all of which were established by the British colonial government, but whose administrative and technical capabilities vary. The consultant should prepare an institutional analysis to assess the strengths and weaknesses of the relevant institution as a first step in planning in order to determine the most appropriate steps in activity/subproject implementation. For example, the degree to which the activity/subproject can be undertaken locally, or must be undertaken by outside consultants, is central to the planning of time and budgets. The financial health of the institution may indicate the need for RDO/C to engage in constructive policy dialogue on tariffs or divestment if the institutional beneficiary is to maintain the value of the capital investment. If the activity/subproject is to be loan-funded, a realistic picture of the loan repayment capability of the government/institution as a borrower is crucial.

1. Organizational Structure

A. Legal status of Ministries and Utilities

Commonality of British colonial history has impressed a basic structural similarity on all the ministries of public works and utility agencies of the English-speaking Caribbean. The political nature of ministries is a factor in project implementation; the minister is a politician and a member of the cabinet of the party in power which is led by the prime minister. Major decisions, such as utility rate increases, are ratified by cabinet. Important aspects of activity/subproject implementation thus are directly influenced by the head of government. As a result, RDO/C works closely with the office of the prime minister during the planning stage of infrastructure projects.

In the Eastern Caribbean a ministry is in charge of the utility agencies, assuring more or less constant government involvement. The Caribbean Development Corporation, a British company, has been a majority shareholder in several Eastern Caribbean utilities, but has been divesting its interests to the host country governments, thus bringing several more utilities under direct government control.

B. Financial Status of Ministries and Utilities

The National Budget estimates for ministries of public works in the Eastern Caribbean are rudimentary, with most of the budget allocations marked for salaries. Maintenance of public works is of low priority and generally amounts to less than 1% of the

ministry budget. Thus the first obstacle in AID's efforts to include a maintenance component in infrastructure activities/subprojects in the Eastern Caribbean is to assure adequate government budgetary support for maintenance.

AID and the other funding agencies in the Eastern Caribbean have required an examination of the tariff structures of utilities in order to determine their financial capacity to undertake and continue expansion projects. In many cases, tariff increases have been required (as a condition precedent to disbursement), or recommended (as project covenants). Often better metering and tariff collection, including the collection of delinquent government accounts, is also required. The implementation of financial management reforms will be an important component of many new activities/subprojects and may absorb considerable attention from RDO/C.

C. Management

Government ministries in the English-speaking Eastern Caribbean are a West Indian experiment on the Westminster model. That is, the executive branch of government is a ministerial system whereby the leader of the majority party in the legislature is appointed prime minister. In turn, the P.M. selects from among the members of parliament ("M.P."s) a cabinet with responsibilities for various government functions such as health, education, etc. Cabinet sets policy for the administration. The size of cabinet varies from country to country, e.g. in some countries non-cabinet ministers are also given ministry responsibilities as parliamentary secretaries and ministers without portfolio.

The Minister and the parliamentary secretaries are assisted by a Permanent Secretary, a career civil servant, whose role and power varies depending on the personality of the minister and the attention or priority given by the government to that particular ministry. "Who has the Power?" is a compelling question for the consultant to answer, as it may at the least determine to whom action correspondence should be addressed, and at best may tell who in the host country is held accountable for the success of the project.

The Permanent Secretary is a career bureaucrat and a manager, rarely a technical officer. In a ministry of works, the chief technical officer is the Chief Engineer. Ministries in the Eastern Caribbean are characterized by an overburdened senior management which manages directly, in a hands-on, open door manner, lacking either a formal management system or qualified middle managers.

The absence of capable middle management is endemic in the Eastern Caribbean. Emigration to the UK, Canada and the USA tends to siphon off those potential candidates who are ambitious and intend to better themselves. Many of those who would like to return to their countries do not, because midlevel managers in government ministries receive low pay and few perquisites. Locally trained ministry staff generally have only attained "O-levels," which in the British secondary education system is approximately equivalent to a diploma from an American high school, with passing grades.

D. Staff

The civil service staff of all government agencies in the Eastern Caribbean belongs to a Civil Service Union which negotiates staff wages with the government every three years or so. Civil servants, comprising an estimated 20% to 30% of the labor force, are "established" workers whose entry into the service is determined through an examination, and once tenured their jobs are secure. A tenured civil servant tend to regard his position as a lifetime possession.

"Non-established" workers are patronage employees, not civil servants. These generally semi- or non-skilled, daily-paid workers, such as road laborers, may be a substantial part of the Ministry's payroll. Friction between management supervisory civil servants, the politically appointed non-established workers, and the expatriate project manager consultant/contractor can contribute to construction delays. In order to budget time and funds, the consultant should be aware of the particular character of the staff of the implementing ministry, particularly if force account labor is used.

The General Managers of most of the Eastern Caribbean utilities are technically and politically sophisticated administrators. However, utility middle management suffers from the same constraints as the middle management in the Ministries; low pay, few perks, and the emigration of the best qualified.

2. Institutional Development

The consultant may find it essential to include in activity/subproject design an institutional development component. The development of an organizational chart by the Ministry or Utility, of job descriptions and lines of accountability, of simple pay charts to expedite payroll processing, may succeed in improving the morale of the implementing agency and assuring the success and continuation of the more technical accomplishments of the activity/subproject.

As the capital investment in infrastructure is high and the lack of budgeting for the maintenance of it is chronically low, technical assistance should be provided for the planning of a preventive maintenance program.

While the ministries of public works generally have a central garage for the control and repair of ministry vehicles and other equipment, inventory control in the Eastern Caribbean is generally poor. Formal control of the equipment and materials procured for activities/subprojects must be established and monitored.

In summary, the institutional analysis should describe the organizational structure of the implementing institution, including its legal structure and financial status and analyse any projected change in the legal status and the possible future financial status. The consultant should describe the management of the implementing institution and analyse the capability of its managers and the degree to which the institution does and can make its own decisions. Finally the consultant should describe the staffing pattern of the institution and assess the need for training or different personnel practices.

The relevant ministries and utility agencies for each country are as follows:

<u>Antigua</u>	Ministry of Public Works Ministry of Public Utilities Antigua Public Utilities Agency (APUA) (Water, electricity, telephone)
<u>Barbados</u>	Ministry of Transport and Works Ministry of Natural Resources The Barbados Light and Power Company, Ltd. Barbados Water Authority Barbados External Telecommunications, Ltd. Barbados Telephone Company, Ltd.
<u>Dominica</u>	Ministry of Communications and Works Dominica Electricity Services, Ltd. (DOMLEC) Central Water Authority Cable and Wireless
<u>Grenada</u>	Ministry of Construction Grenada Electric Services, Ltd. (GRENLEC) Central Water Commission Cable and Wireless

St. Lucia Ministry of Communication and Works
St. Lucia Electric Services, Ltd. (LUCELEC)
Water and Sewer Authority (WASA)
Cable and Wireless

St. Kitts Ministry of Communication, Works and Public Utilities
Central Water Authority
Cable and Wireless

St. Vincent and the Grenadines
Ministry of Communications and Works
St. Vincent Electric Services, Ltd. (VINLEC)
Central Water Authority
Cable and Wireless

Montserrat Ministry of Public Works
Central Water Authority
Montserrat Electric Services, Ltd.

Anguilla Ministry of Communication, Works and Public Utilities
Central Water Authority
Cable and Wireless

Methodology for Social Analyses

The Eastern Caribbean nations are small islands. Anguilla is the smallest with 91 square kilometers; Dominica is the largest with 750 square kilometers. Anguilla is the least populated with 7,000 people; Barbados is the most populated with 252,000 people. The cumulative population of the participating countries and associated states is approximately 775,000.

All are former English colonies with physical quality of life standards which are high compared to AID's host countries elsewhere. There are no major diseases or widespread hunger and most people have adequate shelter and basic education. Yet, since independence the countries of the region have not prospered. Falling prices for sugar and other commodities, insecure markets, high fuel costs, intraregional trade disputes, and lack of productivity for a variety of reasons but particularly a lack of management expertise at all levels, have stagnated the growth of the island economies.

While the economic, political and social crises of the Eastern Caribbean are partly the result of external factors, they are also the result of the high aspirations and expectations that have come with independence. Proximity and emigration to the United States and Canada have raised West Indian aspirations for a North American lifestyle to a level of social and political expectation which has not been met by either the government or the private economy. Many people cannot find jobs or increase their incomes; enterprises find it difficult to identify and respond to opportunities; and the island nations find it increasingly difficult to earn foreign exchange to import goods and services.

Political dissension has toppled several governments. Dominica, St. Lucia and particularly Grenada have regained political stability only recently. Social problems which were virtually unknown twenty years ago such as juvenile delinquency and crime, prostitution, alcoholism, and drug trafficking, all exacerbated by endemic unemployment, undermine the fragile balance of these small societies.

Thoughtful West Indian social critics have said that their societies are at a critical moral and economic turning point; that it is the main task of their countries to put their people to work in meaningful ways. Inequitable distribution of opportunity, wealth and particularly land, persists despite the efforts of governments which have made redistribution a political and social credo since national independence. Unemployment is at least 20% in every country and may be as high as 40% in some, and is highest among unskilled young men. White collar (clean hands) civil service jobs are preferred to physical labor including construction or artisanship. For these reasons, the attainment of the objectives

15

of the RDO/C Action Plan, which emphasizes structural change, investment in the productive sectors and productivity in order to promote growth and opportunity, is crucial to the recovery, stability and development of the Eastern Caribbean islands.

Infrastructure projects and the accompanying signing ceremonies, publicity and construction are highly visible in these aspiring but small societies, and the lack of modern reliable physical infrastructure is perceived to be both the cause of a stagnant economy and a symbol of ineffective government. Thus, Eastern Caribbean governments invest considerable political as well as financial capital in donor-financed projects, and they demand fast results in order to provide short-term construction jobs, solicit investors in hotels or factories, and win elections.

AID must avoid nourishing a cargo cult mentality which would encourage the host country to expect that physical infrastructure alone leads to economic growth. At the same time, AID has the opportunity to assure the long-term success and effect of infrastructure projects through policy reforms, institutional development and maintenance strategies.

The optimal newly-repaired road benefits the farmers walking to the fields and the market women carrying produce to the city market as well as the investor who would otherwise not build the agroprocessing factory and the people employed in the factory. But the long range effects of the improved infrastructure must also be considered. Will the government acquisition of rights of way displace small farmers without adequate compensation? Will a hydroelectric facility divert water from a small village? Will the villagers be able to afford hook-ups to the new electricity distribution line? These and other ramifications of infrastructure construction should be anticipated and mitigated with provisional engineering arrangements, local cooperative institutions, and government information service programs.

The most pressing social challenge, however, is the lack of interest in, or planning capability for maintenance. The lack of political will to spend the time, effort and money to maintain the physical infrastructure undermines their efforts to build a productive economy. The Civil Service mentality, the biodegradable, fast-recovery tropical environment, and a subtle but pervasive fatalism that Things Fall Apart must be overcome through education and sensible project design.

Methodology for Environmental Analyses

A. Introduction

Included in these guidelines are steps required to prepare and submit the appropriate documents in compliance with USAID Environmental Procedure, specific guidance on ways to analyse activities/subprojects for potential impacts, and format for these documents. These were prepared for use in any AID project by the Regional Environmental Management Specialist/Caribbean.

B. Basic Steps to File an Environmental Report

- Step 1: Project identification
- Step 2: Preparation of project description
- Step 3: Scoping of environmental issues
- Step 4: Examination of the data and information base
- Step 5: Analysis and report writing
- Step 6: Preparation of Face Sheet for attachment to IEE or EA signed by the preparer
- Step 7: Presentation to RDO/C and review by Mission Environmental Officer
- Step 8: Concurrence of Mission Director by signature on Face Sheet
- Step 9: Submission to LAC Chief Environmental Officer for approval
- Step 10: Notification of approval/disapproval
- Step 11: Modification/clarification to document
- Step 12: Discussion of remedial measures to be applied, including costs and responsibilities for implementation
- Step 13: Finalization of document
- Step 14: Submission of copies to all involved people and institutions
- Step 15: Implementation of remedial measures

C. Project Decisions: IEE, EA, or Categorical Exclusion

1. Definitions

The Initial Environmental Examination (IEE) is a "first look" at the project to determine if any significant effects could occur. It provides a brief statement for the LAC Chief Environmental Officer, his designee, and the Regional Environmental Management Specialist on the factual basis for a Threshold Decision and whether or not an Environmental Assessment is required.

Positive Threshold Decision: Terminology used by AID referring to the finding that the proposed action will have a significant effect on the environment.

Negative Threshold Decision: Finds no significant effects on the environment.

Significant Effects: Defined as (a) significant changes in the biological diversity within an affected area; (b) loss of endangered species or their habitat (refuge area, nesting sites, feeding grounds, etc.); and loss of aesthetic, recreational, archeological, scientific, or economic value which is unreasonable in direct relationship to the proposed activity, as well as "irreparable harm," i.e., significant undesirable effects occurring once the project is implemented.

An Environmental Assessment (EA) is a detailed evaluation of project impacts on the environment whose general requirements are found in AID Handbook 3, Appendix 2D, 22 CFR Part 216 Environmental Procedures, and which are intended to implement the requirements of the National Environmental Policy Act of 1970 as they affect the AID program. These regulations are usually referred to within AID as Reg 16 (copy of regs - Attachment 1).

2. Methodology

The following general rule of thumb should be applied in decisions about what to file with AID - IEE or EA?

IEE Required For:

1. Projects involving the use or procurement of pesticides where the pesticide is registered for same or similar use, but restricted in use by USEPA.

2. All other projects, except as indicated in Reg. 16, Section 216.2 (b) Exemptions and (c) Categorical Exclusions. In the LAC Bureau with regard to the issues of exemptions, a disclosure statement signed by all responsible parties must be submitted in lieu of an IEE with a statement to the effect that "a categorical exclusion is pertinent to this project" with the appropriate citations within Reg 16 and justification for such an exemption. Usually the AID Project Officer prepares the exemption statement and the Mission Director signs off on it. The statement is then submitted to the Chief Environmental Officer, LAC, who at the moment is Mr. James Hester, LAC/DR/EST, Room 2239, NS.

EA Required For:

1. Projects involving threats to biological diversity, which could include projects involving exotic species introductions or export to other areas, impacts to endangered species or their habitats, aggravation of deforestation of primary or secondary tropical forests or woodlands. AID is now required to

adhere to the International Environmental Protection Act of 1983 as indicated in Section 119, Amendments to the Foreign Assistance Act, dealing with endangered species and preservation of existing natural diversity of plant and animal life.

2. Pesticide use and procurement for those pesticides (herbicides, fungicides, insecticides, molluscicides, rodenticides, etc.) other than those registered for general use or one registered for restricted use on the basis of user hazard. The detailed requirements for this pesticide analysis are found in Reg 16, Section 216.3 (b) (i).

3. All other projects indicated in Section 216.2 (d) as special classes of actions having a significant effect on the environment. The general requirements of EA's with respect to purpose, scoping of issues, content and form are found in Section 216.6 of Reg 16.

The IEE requires a face sheet in a format indicated in Attachment 2. The EA also requires a similar face sheet with changes in the above to denote that an EA, not an IEE, is being submitted.

Reference is made at this time to cable STATE 055633 on "Revisions to AID Programming System-Project Review in LAC Bureau", paragraph 6 which states the following: "Environmental Procedures. Please note that responsibilities under regulation 16 have not been redelegated. Initial Environmental Examinations (IEE) and Environmental Assessments (EA) will still need to be submitted to and approved in writing by the LAC Chief Environmental Officer in AID/Washington prior to authorization of funds for all projects and substantive amendments. IIEs should therefore be prepared for all PIDs and be directly forwarded along with the PID to the Chief Environmental Officer. Should an EA be required this will allow time for it to be done concurrently with PP design and submitted to the Chief Environmental Officer prior to authorization."

Categorical Exclusions

Projects for which an IEE or EA are not required are detailed in Reg 16 (Section 216.2 (c) Categorical Exclusions). These generally include projects such as:

- 1) Research and controlled experimentation of a limited scope;
- 2) Education, technical assistance and training;
- 3) Meetings, studies, seminars;
- 4) Document and information transfer;
- 5) Contribution to international organizations;

and any other stipulations elaborated in the above referenced section of Reg 16.

D. Key Elements of the Environmental Analysis

Given the requirements for form and content of IEEs and EAs mentioned in the regulations, there are a number of basic elements that should be included in each report. These are elaborated here in order to reiterate the need to be thorough, professional, and concise in the presentation of the report. The following components are pertinent:

1. Description of the proposed project/activity and any alternatives: Where? When? How? Why?

2. Description of the affected environment: requires site selection to have been completed prior to preparation of the report.

3. Scoping of issues: a bilateral, participatory, dialogue with the affected population and about the affected environment; a comprehensive review of the data and information base on which decisions can be made; a review of the "with" and "without the project" scenarios to assess better any potential effects on resources.

4. Assessment of effects: detailed analysis of conditions on-site "with" and "without the project" with respect to duration, location and magnitude of impacts expected or anticipated; application of "best estimates" in absence of quantitative data or information.

5. Recommended environmental protection package: detailed listing of remedial measures or mitigation activities and their costs (if possible) which should be applied through the project in order to minimize negative impacts on the environment.

6. Report write-up: a plain English version, suitable for a lay audience; complete listing of references and documentation used in support of recommendations and findings; a Summary and Recommendations section, included in the front of the report, which highlights issues, findings, impacts, and remedial measures.

A word of caution is noteworthy at this time: the use of simple checklists, as frequently done by preparers of these environmental reports for AID are not acceptable. If the preparer is not qualified to render an authoritative decision on impacts, someone qualified in environmental impact assessment should be contracted to perform these analyses. In fact, the core contractor should demonstrate the ability to retain such a person to perform these very analyses.

E. Project Specific Guidance for Environmental Analysis of Projects

The following kinds of project interventions require the employment of environment protection measures or require decisions about suitability for AID funding:

1. Threats to Biological Diversity such as:

a. Exotic species introductions or export to other regions: organisms which are not indigenous to a particular area pose a competitive threat to the native species if introduced either knowingly or unknowingly (escaped) to a habitat. There are numerous examples of economic schemes to bring bigger or better life forms from one region to another in order to increase productivity, profits, and the like. Impacts result not only from disruptions in the natural equilibrium of a habitat, but may cause dislocations to people who have depended on the traditional life forms for food and fiber.

b. Direct or indirect impacts on endangered species or their habitat: project sites must be careful to evaluate the presence/absence of endangered plants and animals, referring to standard lists such as the IUCN Red Data Book and the U.S. Fish and Wildlife List of Endangered Plants and Animals. Equally significant are impacts to locally important species, which not endangered in the context that their populations worldwide are so low that they would cease to exist as a species if threatened by the activity. For example, use of habitat or resources may cause them to decline resulting in loss of an aesthetic resource or loss of a food or fiber source to the local population.

c. Deforestation of sites which result in a decline in numbers of species present in a habitat or on an island. Protection of biological diversity is promoted through the International Environmental Protection Act of 1983, to which AID must adhere in the implementation of its foreign assistance program.

2. Changes in Land Use such as:

a. Land clearing for new infrastructure, agricultural, or industrial activities: No projects should be supported which promote or aggravate the clearing of forested land in these islands. The amount of forested land needed to maintain watersheds in a healthy state with respect to production of clean water, to regulate base flows for potable water and hydroelectricity, and to ensure the availability of wood and wildlife resources is estimated to fall somewhere between 10 and 25% of total land area in the small islands. Pressures to reduce this forest cover through new economic activities should be reviewed by respective governments, but avoided at all costs because of the diminishing nature of the forest resource.

b. Introduction of soil and water management technology: Careful analysis should be made of projects involving use of new techniques or technologies, especially on slopes greater than five degrees. Prime agricultural lands (USDA Classes I, II, and III) usually account for less than 25% of the land area of the Eastern Caribbean islands. If soil erosion is to be prevented and soil fertility is to be maintained on most remaining lands on steeper slopes, the use of special soil and water management techniques will be required. Crop diversification on steep slopes should be reviewed with respect to appropriateness of technology, soil capability, and ability of farmers to understand and apply necessary resource protection measures. Farm plans for individual landowners, which incorporate this appropriate technology, should be required and reviewed by the core contractor or some suitable review body.

c. Use of sensitive habitats for economic activities: Sensitive habitat is defined as: (1) ecologically important, based on its relative productivity and on its significance to the support of life-history functions of constituent organisms (reproduction, migration, feeding, dispersal); and (2) susceptible to disturbance. Four criteria are used to determine susceptibility: (1) excessive reliance on nutrients stored in the biomass, e.g. coral reefs; (2) dependence on a biological (key or foundation species) or physical (e.g., tidal flushing) controlling factor; (3) capacity to withstand a disturbing influence (resistance); and (4) capacity to recover from a disturbance (resilience).

How to Determine Sensitive Habitat?

A decision-making series of steps are recommended to be followed in making the above determinations of whether or not to locate a project in a particular area, remembering that AID would discourage projects in such sensitive areas:

Stage 1 - Prepare project description and describe habitat where project will occur.

Stage 2 - Assess ecological sensitivity by determining level of productivity and life history significance; e.g. mangroves are highly productive and serve as nursery areas for many species of finfish and shellfish.

Question 1: Ecologically important?

- NO - No biological concern.
- YES - Assess community response criteria using above four criteria, each examined independently to avoid confusion.

22

Question 2: Ecologically sensitive?

- NO - no biological concern; do the project
- YES - Assess geographic importance

Stage 3 - Assess geographic importance by determining relative areal extent and degree of prior encroachment. This tactic de-emphasizes widespread habitat types unlikely to be materially affected by the development.

Question 3: Geographically important?

- NO - No biological concern; do the project
- YES - There is some biological concern

Stage 4 - For habitats of biological concern, the degree of concern is estimated by determining the time required to recover from a disturbance.

Stage 5 - Recommend remedial measures necessary to limit or preclude development in the sensitive area. In order to complete this decision-making exercise a good data base is required and may not be available for the island or site on the island. If such a data or information is not available, the following areas would be considered as "off-limits" for project activities, i.e. sensitive habitats where projects should not be sited:

- Primary or secondary humid tropical forest
- National parks and reserves
- Mangrove wetlands, unless multiple use management concepts are attempted
- Coral reefs
- Salt marshes

3. Use and/or Procurement of Pesticides

Decisions about the use and procurement of specific pesticides are not easy for a lay person to make but a system of review is provided for in Reg 16 and technical assistance is available regarding product decision and safe handling, storage and disposal of pesticides.

23

a. AID Assistance for Use/Procurement Not Provided: AID will not provide assistance for procurement and use of DDT, aldrin, dieldrin (except for restricted use), 2,4,5-T, chlordane, or heptachlor; use of chlorinated hydrocarbons are generally discouraged; nor for pesticides which are not registered by the USEPA for the requested use or which are under any other restrictive regulation.

b. Exceptions: Could be made if it was shown that the benefits of using the pesticide outweigh the potential adverse effects and that no preferable alternative is available (difficult to prove to ST/AGR Pesticide Management Specialist). Additional exceptions such as in the cases of human and animal health, emergency situations, and in the instance of controlled experimentation of limited scope, are provided in Reg 16. It is very difficult to have exceptions to the regulations approved at present.

c. AID Assistance for Use/Procurement Provided: In order to have use of pesticides approved by AID the project must be subjected to an IEE, which is used as a screen to determine if use may result in significant environmental impact. Among the factors included in the examination are registration status of the pesticide(s), basis for selection, extent of involvement in an integrated pest management program, method of application, toxicological hazards, effectiveness of the proposed pesticide(s), compatibility with the ecosystem, conditions of use, alternative methods of control, ability of the requestor (or country) to regulate the pesticide, provisions available for training applicators of such chemicals, and provisions for monitoring the pesticide both in the environment and in field workers.

Depending on the registration status of the proposed pesticide, various alternatives must be followed. Where the pesticide is registered by USEPA for same or similar use, without restriction, no further action is required if the IEE indicates that a potentially unreasonable risk is not likely to arise from the pesticide use. When the proposed pesticide is registered for the same or similar use, but is restricted by USEPA, the IEE will also include evaluation of the user hazards and incorporate provisions for making the recipient government or firm aware of such hazards. In addition, specific provisions will be made in the project for the training of persons applying restricted-use pesticides. Under these conditions, a Negative Threshold Decision is recommended. If funding is to be provided for the procurement or use of any pesticide other than one registered for general use, or one registered for restricted use on the basis of user hazard, the factors identified above will be incorporated into an EA. Other factors which must be considered in the EA are listed in Reg 16.

24

Consultant services are available to prepare IEEs and EAs for pesticides through a centrally-funded ST/AGR project with the Consortium for International Crop Production. LAC usually prefers to have such a consultant prepare the environmental analysis. AID's policy guidelines also attempt to implement the following objectives in its broad program of pesticide use in developing countries:

a. To establish wherever possible, programs aimed at assisting developing countries in designing and operating economically and environmentally sound integrated pest management systems and procedures in which pesticides will be used only when necessary.

b. To help develop infrastructures in developing countries for pest and pesticides management.

c. To exert a greater degree of international leadership by communicating U.S. policies and experience on pest control and pesticide problems to other nations and international organizations.

d. To discourage requests for pesticides unless they are to be used in economically and environmentally sound integrated pest management systems.

e. To promote the use of available supplementary methods of vector control as well as development of new and improved supplementary or alternative methods which do not depend on the use of persistent pesticides, including such methods as source reduction, water management, larviciding, and biological control.

F. Support Services Available to Mission, Contractor, Institution

In order to prepare accurate and complete environmental reports for submission to AID for approval, a number of support services are available in addition to the contractor's in-house expertise and any local individuals or institutions subcontracted to assist.

1. Environmental Planning and Management Project: A cooperative agreement between USAID and the International Institute for Environment and Development, to respond to needs in the environmental sector. Requests should be cabled to:

James Hester
LAC/DR/EST
Chief LAC Environmental Officer

2. Forestry Support Program: An AID-funded program managed jointly by OICD and the U.S. Forestry Service to apply the

experience of the professional forestry community to development problems. To request assistance cable either:

James Hester, LAC/DR/EST
or
Chief, Forestry Staff
ST/FNR, Room 503 SA-18

3. Consortium for International Crop Protection Support
services in crop protection and pesticide analysis. To request assistance cable:

Carroll Collier
ST/AGR

For all three of these support services some cost sharing is required, or all costs are borne by the project. A Scope of Work should be provided by the Mission or core contractor in the cable request outlining duties and responsibilities and the time frame in which the work must be done.