

PD-AAZ-099

AGENCY FOR INTERNATIONAL DEVELOPMENT  
PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add  
 C = Change  
 D = Delete

60596  
Amendment Number

DOCUMENT CODE  
3

COUNTRY/ENTITY  
SRI LANKA

3. PROJECT NUMBER  
383-0109

4. BUREAU/OFFICE  
ASIA  04

5. PROJECT TITLE (maximum 40 characters)  
Natural Resources & Env. Policy

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)  
MM DD YY  
01 6 29 9 17

7. ESTIMATED DATE OF OBLIGATION  
(Under "B" below, enter 1, 2, 3, or 4)  
A. Initial FY  90 B. Quarter  C. Final FY  93

8. COSTS (3000 OR EQUIVALENT \$) =

A. FUNDING SOURCE	FIRST FY 90			LIFE OF PROJECT		
	B. FX	C. LIC	D. Total	E. FX	F. LIC	G. Total
AID Appropriated Total	1725	825	2550	6975	5025	12000
(Grant)	(1725)	(825)	(2550)	(6975)	(5025)	(12000)
(Loan)						
Other U.S. 1.						
U.S. 2.						
Host Country		450	450		4000	4000
Other Donor(s)						
<b>TOTALS</b>	<b>1725</b>	<b>1275</b>	<b>3000</b>	<b>6975</b>	<b>9025</b>	<b>16000</b>

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	660	850				2550		12000	
(2)									
(3)									
(4)									
<b>TOTALS</b>						<b>2550</b>		<b>12000</b>	

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

090	610	840	210	920
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11. SECONDARY PURPOSE CODE  
760

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

A. Code	ENV	RDEV	RGEN	INTR	PVON	TNG
B. Amount						

13. PROJECT PURPOSE (maximum 180 characters)  
To improve public and private institutional performance in formulating and implementing effective environmental policies and developing sustainable and environmentally sound development programs.

14. SCHEDULED EVALUATIONS

Interim	MM YY	MM YY	Final	MM YY
	0 9 9 2	0 6 9 5		0 3 9 7

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

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

17. APPROVED BY  
Signature: *George Jones*  
Title: George Jones, Acting Director, USAID/Sri Lanka  
Date Signed: MM DD YY  
0 6 2 7 9 0

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

CONTROLLER'S CONCURRENCE: I have reviewed and concur with the assessment of methods of implementation and financing procedures included in this Project Paper as well as the evaluation of the need for audit coverage.  
*Wayne Butler*  
Wayne Butler, CTR

PROJECT AUTHORIZATION

Name of Country: Sri Lanka  
Name of Project: Natural Resources and Environmental Policy  
Number of Project: 383-0109

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Natural Resources and Environmental Policy Project for Sri Lanka (the "Cooperating Country") involving planned obligations of not to exceed Twelve Million United States Dollars (U.S. \$12,000,000) in grant funds over a seven (7) year period from the date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the Project. The planned life of project is seven years from the date of initial obligation.
2. The project consists of support for technical assistance, training and research with the objective of improving public and private institutional performance in formulating and implementing effective environmental policies and developing sustainable and environmentally sound development programs.
3. The Project Agreement, which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.
4. a. Source and Origin of Commodities, Nationality of Services  
  
Commodities financed by A.I.D. under the Project shall have their source and origin in the United States or the Cooperating Country except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the United States or the Cooperating Country as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the Project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

'u'

b. Conditions Precedent

(1) Prior to any disbursement or the issuance by A.I.D. of the documentation pursuant to which disbursement will be made under the Grant Agreement, the Cooperating Country will, except as the Parties otherwise agree in writing, furnish to A.I.D. in form and substances satisfactory to A.I.D.:

(a) A statement of the name of the person holding or acting in the office of the representative of the Cooperating Country named in the Grant Agreement, and of any additional representatives, together with a specimen signature of each person specified in such statement; and

(b) Evidence that the Cooperating Country has established a Coordinating Committee comprised of the government agencies that will participate in Project activities; the information provided shall include, inter alia, a list of participating agencies, the name of the respective representatives of each agency and minutes of the first meeting of the Committee.

(c) The Cooperating Country shall covenant as follows:

(1) Project Evaluation. The Parties agree to establish an evaluation program as part of the Project. Except as the Parties otherwise agree in writing, the program will include, in years two and five of implementation of the Project and at one or more points thereafter:

(a) evaluation of progress toward attainment of the objectives of the Project;

(b) identification and evaluation of problem areas or constraints which may inhibit such attainment;

(c) assessment of how such information may be used to help overcome problems; and

(d) evaluation, to the degree feasible, of the overall development impact of the Project.

b.

(2) Work Plans. The Cooperating Country agrees to submit, in form and substance satisfactory to A.I.D., annual work plans prepared under the guidance of the Coordinating Committee for implementation of Project activities. Such plans shall include information concerning the budget allocations requested by and approved for the participating government agencies. The first work plan shall be submitted to A.I.D. not later than 120 days after the date of the Grant Agreement. The second and subsequent work plans shall be submitted to A.I.D. at least three (3) months prior to the end of the period covered by the preceding annual plan.

(3) Staffing, Training and Institutional Development Plans. Commencing in the second year of project implementation, the Cooperating Country shall ensure that each participating government agency prepares and submits to the Coordinating Committee for review (a) a staffing plan relating to the work plan for such agency and (b) a training plan and an institutional development plan that take into consideration such agency's staffing and work plans. The Cooperating Country shall ensure that the Coordinating Committee submits such plans to A.I.D. for review and mutual concurrence of the Parties. The dates on which such plans shall be submitted to the Coordinating Committee and then to A.I.D. shall be subject to the mutual agreement of the Parties. Each participating agency shall review and update such plans annually and submit to the Coordinating Committee written updates not later than three (3) months prior to the period covered by the work plans to which such plans relate.

(4) Coordinating Committee. The Cooperating Country shall ensure that the Coordinating Committee meets not less than quarterly to discuss project implementation issues.



George Jones  
Acting Director

6/27/90

Date

C

Clearances:

DZvinakis, PRJ	<u>[Signature]</u>	Date	<u>6/35/90</u>
JFlynn, AGR	<u>[Signature]</u>	Date	<u>6/26/90</u>
WButler, CTR	<u>[Signature]</u>	Date	<u>6/27/90</u>
UErnst, PRM	<u>[Signature]</u>	Date	<u>6/27/90</u>
DGarms, DD	<u>[Signature]</u>	Date	<u>6/27/90</u>
KTURNER, RLA	DRAFTER	Date	<u>6/10/90</u>

AID: PRJ: [Signature] MJANSEN: 6:15:90

[Signature]

NATURAL RESOURCES AND ENVIRONMENTAL POLICY PROJECT

PROJECT PAPER

(383-0109)

JUNE 1990

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## ACRONYMS

ADB	Asian Development Bank
CCD	Coastal Conservation Department
CEA	Central Environment Authority
CEQ	Council on Environmental Quality
CISIR	Ceylon Institute of Scientific and Industrial Research
DWLC	Department of Wildlife Conservation
ECC	Environmental Coordinating Committee
EFL	Environment Foundation, Ltd.
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency (US)
FD	Forest Department
FWS	Fish and Wildlife Service (US)
GCEC	Greater Colombo Economic Commission
IEE	Initial Environmental Examination
IQC	Indefinite Quantity Contract
LUPP	Land Use Policy and Planning
MC	March for Conservation
MEP	Mahaweli Environment Project
MEPA	Ministry of Environment and Parliamentary Affairs
NARA	National Aquatic Resources Agency
NAREPP	Natural Resources and Environmental Policy Project
NARESA	Natural Resources, Energy and Science Authority
NBRO	National Building Research Organization
NEA	National Environment Act
NGO	Non-Governmental Organization
NORAD	Norwegian Development Cooperation
PIP	Public Investment Program
PSC	Personal Services Contractor
SLIDA	Sri Lanka Institute of Development Administration
UDA	Urban Development Authority
UNDP	United Nations Development Program
WNPS	Wildlife and Nature Protection Society

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## NATURAL RESOURCES AND ENVIRONMENTAL POLICY PROJECT

### 1. PROJECT RATIONALE

In Sri Lanka, as in other developing countries, failure to manage natural and environmental resources efficiently not only mortgages the future, but also stymies development in the short run. Areas of greatest environmental stress -- coastal regions, marginal lands, flood plains, urban slums -- are typically also areas of most severe poverty. Improved management of natural and environmental resources is therefore critical to accelerate economic growth now, and to lay the foundations for future growth.

The interventions planned by the Natural Resources and Environmental Policy Project (NAREPP) seek to aid Sri Lanka's economic development by strengthening the technical and analytical capabilities of public and private institutions concerned with natural resource management, improving public understanding of environmental issues, and increasing the public accountability of public and private entities' controlling natural resources.

1.1. Relationship to USAID and GSL environmental strategies: NAREPP's interventions respond to the USAID's development strategy by addressing critical constraints on economic growth in Sri Lanka. (A summary of the analyses followed that have led to NAREPP is presented below.) At the same time, the project responds to the Government of Sri Lanka's evolving environmental strategy by strengthening its most critical institutions, processes, and substantive needs, as identified in the government's National Conservation Strategy.

1.1.1. Importance of natural resources to Sri Lanka's economic growth: Sri Lanka's economic growth depends for the foreseeable future on stability and increased productivity in the agricultural sector, substantial growth in its industrial and service (tourist) sectors, and rational management of its slow but steady urban growth. It also depends on a coherent and successful population strategy which will hold population growth within acceptable limits. Since the oil price rises of the 1970s, Sri Lanka has maintained energy use trends heavily dependent on its biomass and watersheds. Approximately 70 percent of Sri Lanka's primary energy comes from biomass, 10 percent from hydroelectric dams, and 10 percent from oil. About 94 percent of Sri Lankan households depend on biomass for cooking fuel. Of Sri Lanka's 17 million population, the vast majority live in villages where 90 percent depend on agriculture.

The mixed economy existing since independence promises to continue through the 1990s led by exports of tea, rubber, and coconut, although industrial growth will increase shares of

employment and GDP. Tourism, sharply up in 1990, should increase rapidly if peaceful conditions prevail. (See Appendix on Natural Resource Management Constraints on Economic Growth for a more extensive discussion of these issues.)

1.1.2. Natural resource constraints on growth: Mismanagement of Sri Lanka's natural resources constrains future development of agriculture, energy, urban areas, industry, and tourism. Symptoms of environmental degradation that have been evident in previous and ongoing USAID natural resource projects (see Technical Analysis) document past and present mismanagement.

Ignorance about proper treatment and use of land and water, and about ecosystems linking them results in agricultural practices that deplete the country's endowment at alarming rates. Within the past few decades, slash and burn cultivation, overuse of pesticides and fertilizers, overcutting of forests, and unmanaged gem mining have depressed the economic welfare of Sri Lankan families. Observable, but largely unmeasured, effects include reductions in water availability and quality, declining soil productivity, scarcity of fuel wood, loss of homes and other assets in floods and landslides, and human health problems.

Water represents perhaps the principal example of a natural resource crucial to the country's growth via agriculture-led industrialization. Waters that begin in the hill country provide hydroelectric energy, raise agricultural production through irrigation, enable inland fisheries, and ensure water supply to the population. Erosion and sedimentation have affected the quality of major Sri Lankan rivers and may reduce planned lifetimes of multipurpose reservoirs. Industrial and domestic pollution threatens human health as well. Floods and landslides are, in many cases, a costly result of watershed mismanagement. The cumulative effects of unreclaimed gem mining include increased sedimentation and malaria infestation.

The country, with USAID/Sri Lanka's support, has made tremendous progress in moving toward more efficient management of irrigation resources, primarily through greater reliance on private management through farmer organizations. Other efforts are underway to manage individual watersheds, but on a small scale. Failure to manage the water resource system more efficiently as a whole will jeopardize these accomplishments.

Sri Lanka's coastal resources present a similar problem. The coast is the location for fisheries, industrial and human settlement sites, and magnificent beaches for tourism. Although pollution and other effects of industrial development have been contained in some areas, elsewhere in the coastal zone industrial water pollution has killed fish and poisoned domestic water supplies. Steady destruction of coral reefs for industrial purposes gradually robs many tourist sites of their greatest attraction.

Likewise, wildlife in the country's forests and parks proved to be a magnet for tourism in the early 1980s. With peaceful conditions, nature-related tourism offers substantial growth opportunities. To realize that potential, however, Sri Lanka needs healthy forests and sound management of the parks that now constitute over 10 percent of the country. Poaching of timber and wildlife, and squatter settlement in parks deplete these resources and steadily diminish recognized opportunities for sustainable tourism.

1.1.3. Needs for policy and implementation responses: To address these problems over the next ten years the GSL has recognized in its 1988 National Conservation Strategy that actions must be taken to ensure adequate biomass for energy, sustained productivity and protection of catchment watersheds, maintenance of water quality, efficient economic and biological use of soil, forest, and wildlife resources, and coastal resources managed for fisheries, tourism, industrial use, and healthy human settlements. (See Appendix on Natural Resource Management Constraints on Economic Growth.)

Sri Lanka has the necessary environmental laws and institutions. About 80 statutes enacted over the past 100 years address some aspect of environmental management or protection. (See Institutional/ Administrative Analysis, and Baldwin Report, USAID/Sri Lanka, 1988.) In 1988, Parliament required environmental impact assessments and public participation before approval of major development projects, and it established comprehensive pollution controls. Thus, Sri Lanka has emerged as a Third World leader by creating the basic legal framework for comprehensive pollution control, impact assessments, and public involvement in government proposals for economic development projects.

Making the laws work: Roughly two-thirds of the approximately 30 ministries in the government have significant resource management roles. This fact and the extensive legal framework indicate the administrative complexity of natural resource management in Sri Lanka. (See Institutional/Administrative Analysis.) In fact, as discussed below, government machinery is poorly designed to address cross-cutting environmental problems. Agencies also lack the necessary capabilities of analysis, management, and enforcement to grapple with a growing backlog of problems. Environmental groups representing the general public or specific interests have only begun to help agencies consider alternative uses of natural and environmental resources. Their effective contribution depends on open participatory framework that brings informed private groups and participants in the economic subsystems into the decision making process.

Similarly, private decision makers in agriculture, industry and in the household sector often lack necessary understanding of the most productive use of natural resources, or they are allowed to shift the costs of inappropriate decisions to

others. To improve the overall efficiency of natural and environmental resource management, both public and private decision makers need to know more, analyze better, and be held accountable for their actions to society at large.

Searching for more effective, efficient approaches: Natural resource management and environmental policies have proved ineffective when perceived as the sole responsibility of government institutions charged to safeguard particular resources. Many actions in the private as well as the public sector shape overall patterns of natural resource use. Sri Lankans appear highly aware of the problems caused by public and private environmental activities but they are less knowledgeable about the appropriate public and private remedies. (see Social Soundness Analysis). Wise resource management decisions hinge on how well the public and its policy makers understand the consequences of different alternatives and the effective rewards or penalties for action or inaction. Sound policies to improve natural and environmental resource management seek to encourage better, that is, more efficient, decisions and actions by improving knowledge, creating rational and equitable incentives based on the enforcement of ownership rights and essential resource regulations.

1.1.4. Institutional constraints on natural resource management: Insufficient skills, knowledge, and information, not lack of laws and institutions, are the major constraint on efficient natural resource and environmental management in Sri Lanka. In sum, effective natural resource management policy formulation and implementation suffer from four major constraints. (See Appendix on Institutional Analysis.)

- o weak institutional capacities for natural resource management in the public and private sector, including abilities to analyze problems and alternative solutions, establish management plans and programs, implement them, and enforce basic standards and regulations needed for sustainable natural resource use;
- o limited on-the-ground experience with alternative approaches to public-private partnerships in natural resource management;
- o insufficient numbers and quality of personnel, in and out of government, trained in basic skills of impact assessment, economic resource analysis, and other basic technical skills;
- o limited opportunities for public review of government plans and decisions and for informed public participation that will hold decision makers accountable for resource management.

NAREPP responds to these constraints in its four component parts.

1.2. Donor coordination: NAREPP was designed to complement and build on continued support by other donors of Sri Lanka environmental initiatives by the GSL and private parties. These other actions, described in the Project Description section below include environmental programs concerned with energy use and development (ADB), watershed management (many donors), and aspects of pollution control. NAREPP will closely monitor results and experiences of these and other donor programs through continued donor coordination, including regular donor coordination meetings, as discussed below. USAID/Sri Lanka, with the funding of a long-term senior advisor expects to take the lead in assisting the Government of Sri Lanka coordinate the various environmental activities of other donors. The workplan exercises should be a useful forum for this collateral coordination, and the Government has indicated that they would be agreeable to this approach. (Annexed to this project paper is a detailed list of all known environmental activities now being carried out by other donors as of December 1989.)

## 2. PROJECT DESCRIPTION

### 2.1. Project goal and purpose

The goal of this project is to sustain economic growth in Sri Lanka by efficient management of the island's forests, wildlife, soils, waters, and other coastal and inland natural resources. The project's purpose is to improve public and private institutional performance in formulating and implementing effective environmental policies and developing sustainable and environmentally sound development programs. By strengthening institutional capabilities, the project will enhance the contribution of Sri Lanka's natural resources to sustainable growth. More efficient management means greater technological and analytical capability and heightened accountability for public as well as private sector entities controlling these resources.

### 2.2. Project approach

NAREPP is designed to improve management performance by strengthening capability and accountability in both the public and the private sector through technical assistance, training, and research support, focused on the critical needs identified above. The Project is conceived to run for seven years, with a total budget of \$16 million (USAID: \$12 million; GSL: \$4 million). NAREPP will focus its assistance on and work closely with the major environmental policy, research, and natural resource management agencies and private sector educational entities of Sri Lanka. Specifically, it will comprise four major components:

- o development of techniques for natural resource planning and management, supported by research on and development of new policies and institutional mechanisms for resource management;

- o support for special projects on policy formulation and implementation to test private-public management partnerships;
- o training in environmental and economic resource impact assessment and natural resource management for the public and private sector;
- o support for more effective public education and participation.

The Ministry of Environment and Parliamentary Affairs (MEPA), which oversees government budget plans and priorities, will serve as secretariat to NAREPP's Environmental Coordinating Committee of government and non-governmental project participants. NAREPP will provide technical assistance to MEPA in carrying out its role as chief coordinator of environmental development policies and projects, NAREPP will assist the National Planning Department (NPD) in its role as chief economic analyst of development policies. It will also assist the Central Environmental Authority (CEA), lead agency for the impact assessment training program, in developing its impact assessment and resource management programs in cooperation with private entities. It also will help the Natural Resources, Energy and Science Authority (NARESA) to develop the natural resource analyses, technical data, and information services needed by natural resource policy and management entities in and out of government.

At the operating level NAREPP will help coastal, tourist, wildlife, and other agencies concerned with land and water resources, to develop management and analytical capabilities, and effective cooperation with private businesses and nongovernmental entities. NAREPP will focus most of its public educational and public participation assistance on the development of nongovernmental programs and capabilities.

### 2.3. Description of NAREPP components

#### 2.3.1. Natural Resource Management -- Appraisal, Planning, and Implementation:

Agencies charged with responsibilities for meeting the requirements of the National Environmental Act concerning pollution control, impact assessment, public education, and environmental policy will be engaged in a pioneering endeavor. Their task is to reshape the role of the public sector in managing natural resources of air, water, land, and biological resources by establishing policies, plans, and procedures for efficiently allocating public and private sector responsibilities. To help in this endeavor, the project will seek to enhance natural resource planning and management capabilities in core environmental agencies and to stimulate development of these capabilities in the private sector. Initiatives in the first few years are described below.

In promoting the design and implementation of effective natural and environmental resource management in the private and public sector, the project seeks to encourage and enable reliance to the fullest practicable extent on open market processes and incentives. The necessary research and development supported by the project will include the identification of opportunities to reduce market distortions that exacerbate biases and inefficiencies in the use of natural and environmental resources. Major initiatives to be carried out in the first three years of the project include:

o Technical assistance and training in resource management, impact assessment, and economic analysis for policy makers: Technical assistance and training in impact assessment, resource economic analysis, and natural resource management will be provided to MEPA, NPD and CEA staff to help them analyze development programs and projects and alternative strategies. Staff will be assisted in making more effective use of existing feasibility plans and environmental impact assessments by improving skills in analyzing agency development projects for costly externalities, operating and maintenance costs, incentives for private sector resource management, and needs for further research, project monitoring, and enforcement.

o Technical assistance to CEA for development of natural resource management guidance to line agencies: Short-term TA will be provided to CEA to support its development of management strategies and guidance documents on specific natural resource management and environmental pollution control problems, such as highway construction, waste treatment facilities, industrial pollution monitoring, or energy development impacts and alternatives.

o Connecting information and research to policy formulation needs: Technical and commodity assistance will develop capabilities of NARESA and CEA to meet natural resource management implementation requirements of policy makers, other government research agencies concerned with economic development, line agencies, private sector businesses and NGOs.

-- Assistance to NARESA will make essential technical information on natural resource management available to NGOs, other private entities, and public research and management agencies. TA and commodity support to NARESA will help it expand its technical library on natural resources with a core body of up-to-date technical information on management and environmental policy for use by the public and private sector. This assistance will also allow NARESA to expand its existing links with university and other libraries in Sri Lanka and abroad, and to develop an active information and research service for users.

-- CEA will receive commodity assistance in developing technical information on environmental impact assessment theory and practice that will be available to public and private entities.

-- Technical assistance and commodity support will also be provided to allow NARESA to distribute its assessment of Sri Lanka's natural resource conditions and trends, and hold information workshops on findings and research/management priorities for government, business, and NGOs. NAREPP will provide technical and commodity assistance to build on this experience for preparation and distribution of a second, updated profile in the third or fourth year of the project.

-- The project will provide technical assistance and support for workshops, conferences, guest lectures, and other similar activities on natural resource policy development sponsored by NARESA in cooperation with other agencies, the private sector, and the university community. These activities will follow up NARESA's report on natural resource conditions and trends in Sri Lanka with specialized programs for public and private resource managers on natural resource economics, appraisal, planning, and management techniques.

o Public and private coastal resource management. TA and staff training will be provided to the Coastal Conservation Department (CCD) to help it implement and improve the GSL's recently approved Coastal Resource Management Plan. Assistance will help CCD develop staff planning and analytical skills, information on coastal resource conditions and trends, private incentives for coastal conservation, and public education materials, and local community involvement in coastal resource monitoring and management.

o Developing and applying information on aquatic resource management: Technical, commodity and operating assistance will help the National Aquatic Resources Agency (NARA) develop essential information on inland and coastal aquatic resource management that other agencies (including CCD) and the private sector can apply. TA for NARA will include:

-- TA for a central unit in NARA for project management, development of information for other agency use in EIAs, better coordination and application of NARA work to meet other agency management needs.

-- Help design marine park pilot program at Hikkaduwa, with private sector involvement. Possible evolution into special area project.

-- TA on wetlands, marine parks (economic analysis, legal analysis).

-- TA to help develop Aquatic Resources Management Plan (inland particularly) and research priorities. (NARESA and CCD)

o Establishing sustainable wildlife resource management: TA, training, and commodity assistance will help the Department of Wildlife Conservation (DWLC) develop staff skills, information, educational materials, and other management activities for wildlife parks that promote sustainable tourism, sustainable management of biological resources, compatible local use, and effective enforcement. NAREPP assistance will help the DWLC apply relevant training, research, educational, and other experiences available from regional and US (local, state, and federal) wildlife management institutions.

o Building technical capabilities and skills in the public and private tourist sector. Limited technical, commodity, and training assistance will be provided to the Ceylon Tourist Board in cooperation with private tourist associations, hotels, and other private sector tourist interests. Interventions will address needs for technical assistance for Tourist Board management requirements (including pollution control), and for audio visual equipment and educational material for Tourist Board training programs for private sector tourist businesses.

### 2.3.2. Special Projects -- resource management through private-public partnerships:

More efficient management of natural and environmental resources will depend on new ways of cooperation between the public and the private sector. Much of that cooperation will have to occur at the local and regional level. The project will therefore support special projects designed to develop and test such new forms of public-private partnerships as will contribute to more effective and comprehensive natural resource management at the local or regional level and faster growth at the subnational and national level. This component will address geographically specific natural resource and economic development problems, like those in a particular economic growth area, that require a combination of NAREPP assistance and government and private actions to achieve desired objectives.

o Developing field-level experiences in resource management: The Special Project component will support resource management projects in specific geographic areas that require more integrated private and public sector cooperation. Projects selected according to NAREPP criteria (see Technical Analysis) will be carried out with regular reporting to provide NPD, CEA, and the

environmental coordinating committee with field information on the impacts of current natural resource management policies (economic, legal, or administrative), and implications for policy change. Candidate sites are discussed in the implementation section below. Participating agencies in the early years of the project may include CCD, NARA, DWLC, the Tourist Board, the Forest Department, and others.

Special projects under NAREPP will also support action-oriented research to identify needs and opportunities for new public-private natural resource management policies.

o Targeted research capabilities for policy makers: The Special Projects component will allow NPD and CEA, and other agencies to obtain the benefits of specific policy research. Some research projects will analyze critical national policy problems and alternative solutions concerning adverse economic and environmental effects of economic subsidies, taxes, enforcement practices, or government agency contracting practices. Other studies will examine the socioeconomic and environmental problems and remedies of important resource problems like illegal coral mining, or gem mining, that require integrated policies and multiple agencies to address.

2.3.3. Impact Assessment and Management -- training for sustainable capability:

The project seeks to improve government and private sector investment decisions as well as operating policies by ensuring better analysis of alternative uses of natural resources and a better understanding of how decisions can affect environmental resource endowments. For this purpose, the project will provide regular training, largely in Sri Lanka, in specialized areas such as environmental management and assessment for government and private sector personnel. Private sector participation will include environmental public interest groups, business and professional associations, tourist businesses, and financial institutions such as banks, merchant banks, and public interest groups to anticipate, avoid, or minimize costly impacts of new economic development projects. Training will also be provided to support the specialized resource and organizational management needs of particular agencies and nongovernmental organizations.

o General training in impact assessment, environmental management: NAREPP will provide TA for training of personnel from line agencies, banks, major industries, consulting companies, and NGOs. A primary activity will be support for approximately 65 one-day to two week training courses to provide immediate upgrading of impact assessment and management training in Sri Lanka. Longer term (3-6 month, and 6-9 month) in-country training programs in cooperation

with universities will be implemented within the first project year to address needs of professionals requiring more detailed EIA and environmental management training. Training will be complemented by study tours, short-term study programs and degree programs abroad for personnel who need it to assume new responsibilities on their return to work. Existing GSL and private training facilities and programs exist will be supported to improve public and private training. No new training facilities or entities will be required to carry out this project component.

o Agency-specific training: As discussed above, agency-specific training will be provided in the early years of NAREPP, largely in-country and on-the-job, to personnel of the NPD, CEA, CCD, NARA, DWLC, Tourist Board, and other agencies, supplemented by study tours, and short-term study and limited degree training. Limited degree-training will be provided for the CCD.

o Training programs for NGOs to improve substantive and management skills: NGOs will participate in NAREPP's general training programs to improve knowledge and analytical skills. NAREPP will also support specialized programs for NGOs including study tours (within the region or to the US) on specific legal, scientific, media use, organizational management, or research needs and in country training in organization management, fund-raising, project management, and similar topics.

#### 2.3.4. Public education and participation -- developing an informed citizenry:

The basic framework for effective public participation in natural and environmental resource planning and management is in place. To make it work calls for citizens at the local and national level to become educated in environmental matters and avail themselves of opportunities to participate in the decision process. This component of the project, NAREPP's primary initiative to develop democratic pluralism, will build on the participatory framework for environmental and economic decision making that exists in Sri Lanka. It will support programs of private voluntary or non-governmental organizations (PVOs/NGOs), civic groups, and business and professional organizations to inform the public about environmental problems and solutions directly and through the media, and to present their concerns effectively to government institutions through legal procedures and opportunities for participation in decision-making.

o Grants to nongovernmental organizations (NGOs): NAREPP will provide grants to NGOs through an umbrella organization to conduct public environmental education and awareness programs, and training programs to improve professional

skills of particular local or disciplinary audiences. Each grant may also include funds to build NGO institutional capabilities in such fields as resource economics, law, and science, and organizational management.

#### 2.4. Basic design requirements:

NAREPP's ambitious environmental policy and implementation goals requires project involvement with public and private institutions, close interrelationship of all project components, and effective coordination with other donor activities, as described below.

##### 2.4.1. Involvement of public and private entities

Given substantial government involvement in all aspects of natural resource management, each component was crafted to address the institutional constraints of counterpart agencies according to their legal mandates and the nature of the resource problems they confront. However, actions to strengthen private sector institutions form integral parts of each component. Project interventions therefore include assistance in natural resource management that will broaden government agency understanding of private sector incentive mechanisms for efficient resource management. The project will also support private as well as public sector training and participation in resource management in special areas. All components will augment opportunities for public involvement, particularly the component supporting nongovernmental programs.

##### 2.4.2. Interrelationship of NAREPP interventions and components:

NAREPP will provide assistance to several agencies or entities involved in more than one project component, such as CEA, CCD, and various NGOs.

In addition, the results of each project component relate to needs and results of others. For example, policy development assistance, largely contained within the natural resource management component, will need input from special studies on particular policy issues (for example, on costly economic subsidies) or implementation findings (geographic area studies). Public education materials and results of special projects will provide material and information for the training program. Resource management information on wildlife resources or coastal resources, for example and establishment of management priorities developed by agencies will feed the information needs of NGO education programs. Results of the NGO grant program (on law enforcement needs, local resource management requirements) will provide implementation and policy guidance to government agencies. Successful NGO educational programs in specific areas may also help NAREPP decide where to initiate geographically-oriented special projects. NAREPP's implementing contracts will recognize these interrelationships.

#### 2.4.3. Relationship of NAREPP to other donor projects:

NAREPP was conceived to address the environmental policy and implementation needs of Sri Lanka more comprehensively and strategically than the project-level or agency-specific interventions of other donors. These are displayed in the Annex on Other Donor Activities and include projects of NORAD, Dutch, OCD, World Bank, ADB, DANIDA, GTZ.

#### 2.5. End of Project Status: Project Outputs:

At the end of the project period NAREPP expects substantial improvements in natural resource management, impact assessment practices, and public education and participation, as described below.

##### 2.5.1. Natural resource management

- o Substantial increase in percentage of public investment projects meeting EIA-specified standards;
- o Up-to-date technical environmental information center for public/private use.
- o Quantitatively based indicators of impacts of economic and social development actions on national natural resource and environmental conditions, trends;
- o National natural resource management strategy for budget and capital investment.

##### 2.5.2. Impact assessment development

- o Domestic capabilities in public/private sector to conduct all basic aspects of natural resource appraisals, environmental protection analysis and implementation;
- o Local personnel conducting regular environmental and natural resource management training programs in Sri Lankan institutions;
- o Significant increase in numbers of government agencies with trained and operating environmental units;

##### 2.5.3. Public education/participation

- o Substantial increase in attendance at environmental NGO meetings and government public hearings.

Expected End-of-Project Outputs

	<u>Existing Levels (Est.)</u>	<u>Expected Levels (Approx.)</u>
o <u>Trained personnel</u> in the public and private sector:		
environmental impact assessment	20	950
economic resource analysis	10	50
environmental law	15	75
coastal resource management	30	100
wildlife resource management	15	100
pollution control	30	100
o Sri Lankan institutions with environmental training programs and local personnel		
	0	3
o Numbers of government agencies with trained/operating environmental units		
	3	20
o Percent of public investment projects meeting EIA specified standards		
	5%	80%
o Up-to-date technical libraries on natural resource management and environmental policy		
	0	1
o Attendance at environmental NGO meetings and government public hearings on environmental topics		
	-	3-fold increase
o Quantitatively based indicators of environmental conditions and trends		
	0	3 - 5
o National Natural Resource Strategy		
	0	1

2.6. Project inputs

2.6.1 Technical assistance: USAID input to NAREPP technical assistance will require a wide range of skills from US and Sri Lankan consultants to address the needs of many different public and private entities. Included will be long-term foreign resident TA (impact assessment and natural resource management training, resource economics, project activity coordination and management) focused on needs of the NPD, CEA, other natural resource management agencies, and the private sector. Short-term TA, will include Sri Lankan and foreign consultants, in specific technical fields of natural resource and environmental management (concerning tourist management, pollution control procedures and technology, and

coastal, watershed, wildlife, forest management). TA will be provided from the US or Sri Lanka to enhance substantive and organizational management capabilities of public and private institutions, to support in-country training programs, and to address task-oriented analytical or institutional needs.

2.6.2 Formal training assistance: Approximately 65 one-day to two-week courses are expected to be given to a total of about 950 government and private sector personnel in the technical components and practical value and techniques of comprehensive cost-benefit analysis, environmental impact assessment, coastal management, wildlife, and other natural resource management issues. Longer-term diploma courses will be supported in cooperation with Sri Lankan universities. Study tours will be supported in the early project years, and limited degree training programs in US and regional institutions. Participating agencies include all agencies that approve economic development projects (approximately 20 ministries), and the National Planning Department, CEA, NARA, and the DWLC. Participating private organizations will include environmental public interest groups, business and professional associations, tourist businesses, and consulting organizations.

2.6.3 Commodity, facility support: USAID input to the project will include support for procurement of audio visual, computer, printer, copier and similar equipment needed by government agency and nongovernmental training, educational, and publication programs, primarily, and some field equipment for operational programs. All such equipment will support NAREPP's activities. NAREPP will also support construction, physical plant and procurement of library and commodity facilities to expand the environmental information center of NARESA.

2.6.4 Special projects: USAID input to NAREPP will include a combination of support for data gathering, analysis, local and US consultants, educational programs, publications, and limited commodities primarily to support geographically-oriented special projects. Participating agencies will include the CEA, CCD, NARA, the DWLC, the Forest Department, and other agencies concerned with the local area or the natural resource issue selected. Participating private organizations will include local NGOs, private businesses and social support groups.

2.6.5. GSL inputs: As noted above, GSL's major contribution to NAREPP will be operational support for agencies and programs. In addition, GSL will (under CEA's lead) provide two full-time staff for coordination and management of the impact assessment development training program, and provide all training facilities.

### 3. FINANCE AND BUDGETING PLAN

#### 3.1. Budgetary Objectives

As the project rationale and project implementation sections make clear, an overriding objective will be to bring together the various participating agencies in a way which makes policy formulation and implementation more effective. Given the participation of the many agencies involved, that same objective applies equally to the chosen style of budgetary management. If the project is to succeed, it is critical that the various participating agencies provide sufficient host country counterpart contributions throughout the life of the project. In this regard project budgetary management of the project will be closely coordinated with the annual budgetary procedures of the Government of Sri Lanka and the monitoring of those procedures that is done for all of the Mission's projects by the Projects Office annually.

Secondly, host counterpart agencies will need to provide their respective contributions in a timely manner. In this regard per the implementation section of this project paper, we will look to the Environmental Coordinating Committee to take on an intergovernmental monitoring role.

Finally, host government contributions must be provided in a way supportive of the other activities being carried out by other agencies. Again it will fall to the Environmental Coordinating Committee to ensure that this is done.

Since GSL funding would come primarily from the operational budgets of a number of different Ministries and agencies, it will be important for the Mission to monitor these contributions more carefully than normally since host country counterpart funding would not be fully fungible across the entire project budget. Particular care will have to be taken to ensure elements of each of the four major project components have sufficient monies to carry out activities. The approach to that will be via the consolidated workplan approach which should get in full swing in the second year of the project.

It is anticipated that some of the components will be able to disburse and commence implementation relatively faster than others. The Public Education and Participation Component and the Impact Assessment and Management Component as well as some elements of the Natural Resources Management Component, for example, should be able to begin in advance of the Special Projects Component.

#### 3.2 Contracting, Disbursement and Audit Procedures

Given the overall audit responsibilities of AID, three major areas of audit activity require attention:

Technical Assistance: Technical assistance financed by AID is subject to audit by AID/IG. To minimize vulnerability, the Mission Controller will conduct periodic examination of records in support of disbursements and as part of its voucher examination program, and will review GSL accounting procedures. This should be a relatively straightforward exercise given that the major technical assistance contract under the project is anticipated to be an institutional AID direct contract with vouchers submitted to the Mission.

All TA Contracts will be negotiated and signed by the Regional Contract Officer in close coordination with the AID Mission. Monitoring and audit will be done by the Mission. Given the availability of a Regional Contracting Officer, we anticipate no problem in successfully negotiating contracts. Disbursement should follow standard procedures. Principal areas of attention will be those associated with similar contracts, i.e., completed vouchers for support costs, random checking on per diem, etc. The Mission has established set certification statements to be used when approving vouchers, and these will apply to the direct contracts under this project.

Procurement: Procurement under this project is moderate. The bulk of it supports developing the institutional capacity of the participating agencies. (Illustrative lists have been estimated for budgeting purposes but actual procurement lists will be done with the assistance of a permanent technical assistance team.) The large majority of procurement for these materials will be done under the technical assistance contract. That part of procurement, which requires local servicing i.e., computers, will be done through local agents.

Monitoring and control of equipment procured will follow the procedures established by the Government of Sri Lanka and the Mission. Equipment will be checked yearly by the Government and confirmation will be received that the equipment is being used for the intentions of the project. This will be recorded in the project files for future reference and certification. Disbursement of funds for procurement again should follow standard procedures. We anticipate using Letters of Commitment for international procurement and direct billings to USAID for local procurement.

Training: Since we anticipate that the bulk of training will be done by the technical assistance team, audit and control procedures described for technical assistance will apply to training as well.

Research Support: Research support refers to special pilot projects and studies that will be funded under the project. All will need to be approved by the Environmental Coordinating Committee. Monitoring of the study efforts, largely local currency expenditures, will be one of the responsibilities of the technical assistance team as well as the particular supporting technical agency. To minimize vulnerability in this

component, the Mission Controller will conduct periodic examination of records in support of disbursements and as part of its voucher examination program and will review GSL accounting procedures both with respect to any format approved and requirements for future reimbursement procedures.

Evaluation: Evaluation will be done under IQC Contracts either by a expatriate contractor and/or in combination with local PSCs. As such, the same audit procedures which would apply to technical assistance would be applied to evaluation.

### 3.3. GSL Budget Contribution:

The GSL has agreed to a host country contribution equivalent to 25 percent of total project costs, i.e., the equivalent of US \$4,000,000. Because the activities of the project are closely integrated with the on-going activities of the entire environmental establishment, in-country tracking of this contribution will be done with as part of the annual workplan review exercise.

### 3.4. Methods of Implementation and Financing

The proposed implementation and financing procedures are given below.

#### METHODS OF IMPLEMENTATION AND FINANCING

Item	Method of Implementation	Method of Financing	Approximate Amount (\$'000)
Technical Assistance	AID Direct Contract	Direct Payment	4,150
Technical Assistance	Buy-In	Direct Payment	200
Technical Assistance	PASA	Direct Payment	350
Training: Foreign	Through T.A. Contract	Direct Payment	800
	PASA	Direct Payment	250
	AID Direct	Direct Payment	150
Local	Through T. A. Contract	Direct Payment	280
Construction	Host Country Agency Contract	Direct Payment	200
Commodities:			
Foreign Exchange	Through T.A. Contract	Direct Payment	880

Item	Method of Implementation	Method of Financing	Approximate Amount (\$ '000)
Local Currency	Through T. A. Contract	Direct Payment	400
Local Currency	Through Co-op. Grant Ag. with NGO	Advance Method of Payment	150
Research Support: Special Projects	Implementing Agency	Direct Reimbursement	2,000
	Implementing Agency Contract	Direct Payment	450
Grant to Umbrella NGO	Co-operative Grant Agreement	Advance Method of Payment	800
Evaluation & Audit	Direct AID Contract, Buy-in to Centrally Funded Project, or PSC	Direct Payment	200
Contingency	NA	NA	740

### 3.5 Implementing Agency Assessment

The total cost is estimated at \$16 million of which the AID contribution will be a Grant of \$12 million and the GSL contribution \$4 million.

The project will be coordinated by the newly created Ministry of Environment and implemented by seven GSL environmental agencies, a NGO and others not identified as yet.

Section 3.4 includes the methods of implementation and financing for each project input. The Direct Pay method will be used for Technical Assistance, Training and most part of the commodities as these components will be included in an AID Direct Contract with the Technical Assistance Contractor. Direct Pay will also be used for special projects and construction components to be carried out by an Implementing Agency Contract due to liquidity constraints of the Implementing Agency.

The advance payment method will be used as a method of financing for the cooperative agreement to be entered into with a NGO and for the local currency commodity procurement included in the said cooperative agreement.

The main implementing Agencies of the project are as follows:

- (i) Ministry of Environment and Parliamentary Affairs
- (ii) Central Environmental Authority
- (iii) Coast Conservation Department
- (iv) National Aquatic Resources Agency
- (v) National Planning Division
- (vi) NARESA
- (vii) Department of Wildlife Conservation
- (viii) NGO

An assessment of the Ministry of Environment and Parliamentary Affairs contracting, commodity procurement, inventory control and payment verification capabilities was not carried out as this Ministry was formed only very recently and as it will mainly be the coordinating agency of the project.

The USAID Controller's Office carried out reviews of the Central Environmental Authority, NARA, CCD and NPD, financial management procedures in relation to the above mentioned areas. These reviews revealed that the contracting, commodity procurement and payment verification capabilities were adequate. The only area they were weak in was inventory control. Copies of these reports are included in Annex XIV.

A financial review of NARESA and the Department of Wildlife Conservation was carried out by a private firm of Chartered Accountants during the latter part of last year and this too revealed that the implementation of the Inventory Control procedures of these two agencies were also weak. Copies of relevant sections of those reports are also contained in Annex XIV.

Taking into consideration the above it is intended to issue at the commencement of the project a Project Implementation Letter setting out guidelines of implementing a proper Inventory Control System.

In addition, USAID's current practise of monitoring project commodities end use, coupled with periodic visits to commodity storage sites will compensate for the inherent GSL weaknesses in maintenance of their inventory control systems and provide us with reasonable assurance that there are no serious problems associated with it.

The NGO which will be involved in the implementation of the project has not yet been identified. Once the NGO is selected and prior to entering into a Cooperative Agreement the Controller's Office will carry out a financial management review in order to ascertain the adequacy of the above procedures.

### 3.6. Audit

A sum of \$200,000 is provided for Evaluation and audit during the life of project and is considered to be adequate. The perceived audit coverage needs and costs involved are given in the following Analysis.

NATURAL RESOURCES & ENVIRONMENTAL POLICY PROJECT  
ANALYSIS OF AUDIT REQUIREMENTS

COMPONENT	AMOUNT AT RISK \$( '000)	METHOD OF IMPLEMENT.	RESPONSIBLE HOST COUNTRY AGENCY	VULNERABILITY ASSESSMENT	RECOMMENDED AUDIT COVERAGE	PROPOSED DATE	COST TO PROJECT FOR AUDIT COV. \$
TECHNICAL ASSISTANCE	4,700	AID DIRECT CONTRACT	NONE	GOOD	VOUCHER REVIEW/RIG/A/S/ (DCAA AUDIT)	06/30/94	-
TRAINING	800	AID DIRECT CONTRACT	NONE	GOOD	RIG/SINGAPORE AUDIT		
	250	PASA	NONE	GOOD	RIG/WASHINGTON AUDIT	06/30/94	-
	150	AID DIRECT	NONE	GOOD	RIG/SINGAPORE AUDIT		
	280	AID DIRECT	NONE	GOOD	RIG/SINGAPORE AUDIT		
CONSTRUCTION	200	HOST COUNTRY AGENCY CONTRACT	NARESA	WEAK	NON FEDERAL AUDIT	06/30/92	5,000
COMMODITIES							
(A) PROCUREMENT	880	AID DIRECT CONTRACT	NONE	GOOD	RIG/SINGAPORE AUDIT		
	400	AID DIRECT CONTRACT	NONE	GOOD	RIG/SINGAPORE AUDIT	06/30/94	5,000
	150	CO-OPERATIVE AGREEMENT PVO		TO BE ASSESSED	CTR. REVIEW/VR. REVIEW/ NON FEDERAL AUDIT		
(B) INVENTORY CONT	-		MEPA, CEA, DWLC, CCD, NARA, NARESA, NPD, PVO AND OTHERS	WEAK	PROC. REVIEW/ NON FEDERAL AUDIT/ RIG/SINGAPORE	06/30/94	"
RESEARCH SUPPORT	2,000	IMPLEMENTING AGENCY REIMBURSEMENT	MEPA, CEA, DWLC, CCD, NARA, NARESA, NPD, PVO AND OTHERS	FAIR	CTR. REVIEW/ VR. REVIEW/ NON FEDERAL AUDIT	06/30/94	10,000
	450	IMPLEMENTING AGENCY CONTRACTS	MEPA, CEA, DWLC, CCD, NARA, NARESA, NPD, PVO AND OTHERS	FAIR	CTR. REVIEW/ VR. REVIEW/ NON FEDERAL AUDIT	06/30/94	"
GRANT TO NGO	800	CO-OPERATIVE AGREEMENT PVO		TO BE ASSESSED	CTR. REVIEW/VR. REVIEW/ NON FEDERAL AUDIT	03/31/93	AVAILABLE ABOVE
CONTINGENCY	740	NA	NA	NA	NA	NA	NA

### 3.7. Component Breakdown

The principal categories of inputs which NAREPP will fund are technical assistance, training, special studies, and research support. The budgets which follow the present overall breakdown by these categories. Budgetary estimates are based on historical costs in Sri Lanka and detailed Mission budgetary guidance combined with analysis on file:

Table 1

## NATURAL RESOURCES & ENVIRONMENTAL POLICY PROJECT

### LIFE OF PROJECT BUDGET (in US\$ '000)

	NATURAL RESOURCE MANAGEMENT	SPECIAL PROJECTS	IMPACT ASSESSMENT	PUBLIC EDUCATION & PARTICIPATION	TOTAL
<b>AID CONTRIBUTION</b>					
TECHNICAL ASSISTANCE	2725	0	1900	75	4700
TRAINING	630	0	750	100	1480
COMMODITIES	860	50	370	150	1430
FACILITY SUPPORT	200	0	0	0	200
RESEARCH SUPPORT	0	2450	0	800	3250
EVALUATION	50	50	50	50	200
CONTINGENCY	240	200	200	100	740
<b>SUB TOTAL</b>	<b>4705</b>	<b>2750</b>	<b>3270</b>	<b>1275</b>	<b>12000</b>
<b>GSL CONTRIBUTION</b>					
TRAINING	150	0	50	0	200
COMMODITIES	50	25	0	15	90
FACILITY SUPPORT	10	0	0	0	10
OPERATIONAL SUPPORT	2700	0	300	0	3000
RESEARCH SUPPORT	0	550	0	0	550
CONTINGENCY	100	50	0	0	150
<b>SUB TOTAL</b>	<b>3010</b>	<b>625</b>	<b>350</b>	<b>15</b>	<b>4000</b>
<b>TOTAL</b>	<b>7715</b>	<b>3375</b>	<b>3620</b>	<b>1290</b>	<b>16000</b>

(all local currency costs converted at US\$1=Rs40)

Table 2

### NATURAL RESOURCES & ENVIRONMENTAL POLICY PROJECT

#### ESTIMATED DISBURSEMENTS (US\$'000)

	CY 1990	CY 1991	CY 1992	CY 1993	CY 1994	CY 1995	CY 1996	TOTAL
<b>AID CONTRIBUTION</b>								
TECHNICAL ASSISTANCE	50	650	1250	1200	1100	300	150	4700
TRAINING	75	400	425	220	155	115	90	1480
COMMODITIES	0	250	500	425	190	65	0	1430
FACILITY SUPPORT	0	50	150	0	0	0	0	200
RESEARCH SUPPORT	0	625	600	650	625	550	200	3250
EVALUATION	0	0	100	0	0	100	0	200
CONTINGENCY	40	50	140	140	140	140	100	740
<b>SUB TOTAL</b>	<b>165</b>	<b>2025</b>	<b>3165</b>	<b>2635</b>	<b>2210</b>	<b>1270</b>	<b>540</b>	<b>12000</b>
<b>GSL CONTRIBUTION</b>								
TRAINING	15	35	40	50	40	15	5	200
COMMODITIES	0	20	20	25	25	0	0	50
FACILITY SUPPORT	0	5	5	0	0	0	0	10
OPERATIONAL SUPPORT	200	450	450	475	475	475	475	3000
RESEARCH SUPPORT	20	105	105	80	80	80	80	550
CONTINGENCY	0	30	30	30	30	30	0	150
<b>SUB TOTAL</b>	<b>235</b>	<b>645</b>	<b>650</b>	<b>660</b>	<b>650</b>	<b>600</b>	<b>560</b>	<b>4000</b>
<b>TOTAL</b>	<b>400</b>	<b>2670</b>	<b>3815</b>	<b>3295</b>	<b>2860</b>	<b>1870</b>	<b>1100</b>	<b>16000</b>

(all local currency costs converted at US\$1=Rs40)

Table 3

## NATURAL RESOURCES & ENVIRONMENTAL POLICY PROJECT

### PROJECT BUDGET (in US\$ '000)

	EXPECTED LOP AID CONTRIBUTION	AID CONTRIBUTION UNDER THIS AGREEMENT	GOVERNMENT OF SRI LANKA CONTRIBUTION
TECHNICAL ASSISTANCE	4700	1200	0
TRAINING	1480	400	200
COMMODITIES	1430	400	90
FACILITY SUPPORT	200	0	10
RESEARCH SUPPORT	3250	450	550
OPERATIONAL SUPPORT	0	0	3000
EVALUATION	200	0	0
CONTINGENCY	740	100	150
<b>TOTAL</b>	<b>12000</b>	<b>2550</b>	<b>4000</b>

(all local currency costs converted at US\$1=Rs40)

Table 4

<b>NATURAL RESOURCES &amp; ENVIRONMENTAL POLICY PROJECT</b>			
<b>ESTIMATED TYPE OF EXPENDITURE</b>			
<b>(US\$'000)</b>			
	<b>TOTAL</b>	<b>LOCAL CURRENCY</b>	<b>FOREIGN CURRENCY</b>
<b>AID CONTRIBUTION:</b>			
TECHNICAL ASSISTANCE	4700	275	4425
TRAINING	1480	380	1100
COMMODITIES	1430	550	880
FACILITY SUPPORT	200	200	0
RESEARCH SUPPORT	3250	3200	50
EVALUATION	200	50	150
CONTINGENCY	740	370	370
<b>SUB TOTAL</b>	<b>12000</b>	<b>5025</b>	<b>6975</b>
<b>GSL CONTRIBUTION:</b>			
	0	0	0
TRAINING	200	200	0
COMMODITIES	90	90	0
FACILITY SUPPORT	10	10	0
OPERATIONAL SUPPORT	3000	3000	0
RESEARCH SUPPORT	550	550	0
CONTINGENCY	150	150	0
<b>SUB TOTAL</b>	<b>4000</b>	<b>4000</b>	<b>0</b>
<b>TOTAL</b>	<b>16000</b>	<b>9025</b>	<b>6975</b>

(all local currency costs converted at US\$1=Rs40)

Table 5

## NATURAL RESOURCES & ENVIRONMENTAL POLICY PROJECT

### LIFE OF PROJECT BUDGET (in US\$ '000)

#### ESTIMATED BUDGET ALLOCATIONS ACROSS AGENCIES

	MEPA	CEA	DWLC	CCD	NARA	NARESA	NPD	NGO	OTHERS	TOTAL
<b>AID CONTRIBUTION</b>										
TECHNICAL ASSISTANCE	1510	1975	310	140	140	75	185	75	290	4700
TRAINING	50	530	255	140	115	40	90	100	160	1450
COMMODITIES	100	335	250	155	75	175	60	150	130	1430
FACILITY SUPPORT	0	0	0	0	0	200	0	0	0	200
RESEARCH SUPPORT	150	450	400	400	350	250	150	750	350	3250
EVALUATION	45	60	20	20	20	10	10	10	5	200
CONTINGENCY	100	200	105	80	50	40	60	40	65	740
<b>SUB TOTAL</b>	<b>1955</b>	<b>3550</b>	<b>1340</b>	<b>935</b>	<b>750</b>	<b>790</b>	<b>555</b>	<b>1125</b>	<b>1000</b>	<b>12000</b>
<b>GSL CONTRIBUTION</b>										
TRAINING	0	100	25	20	10	25	5	0	15	200
COMMODITIES	10	30	20	10	10	0	0	0	10	90
FACILITY SUPPORT	0	0	0	0	0	10	0	0	0	10
OPERATIONAL SUPPORT	50	650	500	500	400	150	150	100	500	3000
RESEARCH SUPPORT	25	75	75	50	75	50	25	75	100	550
CONTINGENCY	10	50	10	35	15	5	0	5	20	150
<b>SUB TOTAL</b>	<b>95</b>	<b>905</b>	<b>630</b>	<b>615</b>	<b>510</b>	<b>240</b>	<b>180</b>	<b>180</b>	<b>645</b>	<b>4000</b>
<b>TOTAL</b>	<b>2050</b>	<b>4455</b>	<b>1970</b>	<b>1550</b>	<b>1260</b>	<b>1030</b>	<b>735</b>	<b>1305</b>	<b>1545</b>	<b>16000</b>

(all local currency costs converted at US\$1=Rs40)

#### 4. IMPLEMENTATION & MONITORING PLAN

##### 4.1. Overall Project Coordination and Management

Given the diverse agencies participating, project coordination is certainly the most formidable problem facing the project in the first few years of implementation. In this regard the Ministry of Environment and Parliamentary Affairs (MEPA) will play the key role in coordinating overall implementation, institutional development, and project objectives are met. It will establish an Environmental Coordinating Committee (ECC) made up of participating NAREPP agencies. The task of the Committee will be to achieve a degree of commonality in implementation planning to achieve a shared environmental and natural resources strategy. Besides the general responsibility of coordinating project implementation and consolidating the individual agencies' budgets, the Coordinating Committee will have the broader responsibility for articulating a National Environmental and Natural Resources Strategy. While not a direct implementor of the project, the committee will have responsibility for setting overall implementation guidance. This will include:

4.1.1. Formulating Yearly Project Objectives: To insure that longer term project objectives are met, it will be necessary for each participating agency to establish formal workplans. The Committee should establish review procedures for each of the participating agencies in NAREPP. Early in the project the Ministry of Environment will establish the broad outline for the workplans required from each participating Ministry. These workplans will relate the human, financial and administrative resources of each participating institution to the overall objectives of the project. Among other things, the workplans would be expected to include:

- a) specific development objectives for a particular institution,
- b) strategies to achieve those objectives,
- c) special management or policy studies proposed during the coming year,
- d) training plans of each agency,
- e) temporary and permanent staffing requirements arrayed against agreed upon staffing objectives at the beginning of the project, and
- f) agency budgets for the coming year.

4.1.2. Review of Project Implementation: After the Coordination Committee has been established, with designation of specific project representatives from participating Ministries, the Ministry of Environment will have the task of overall monitoring and assessment of project performance. We

expect that meetings of the Coordinating Committee will be held four times a year to reach consensus on workplans, monitor project implementation, and assess achievement of project objectives. The Ministry of Environment will schedule, chair, and report conclusions of these meetings.

4.1.3. Budgetary Allocations: Meetings of the Coordinating Committee will be held in conjunction with the national budget exercise. Because AID funded expenditures may be reimbursable items of individual agency budgets, and because counterpart contributions under the Project are expected to come out of the operational costs of participating agencies, a clear understanding of individual budgetary contributions is essential. Any costs for implementation of any components of the Project, for example host country support for special projects or studies, should be part of this review. The Ministry of Environment/National Planning will be responsible for leading this effort and providing supplementary program and budgetary guidance to each participating Ministries near February each year so that review and assessment of plans can precede the formal budgetary reviews commencing in March.

4.1.4. Natural Resources and Environmental Strategy Formulation: As experience is gained early in the project, the Ministry of Environment / National Planning will take the lead in preparing a practical environmental strategy that will address the economic development needs and decisions of Sri Lanka. Data on environmental conditions and trends from the Natural Resource Profile now being completed with NARESA and analyses from other project activities will form the starting point to develop a practical strategy. Development and expansion of the study will be carried out in cooperation with CEA and other agencies involved in the environmental and natural resource sector. The intent here is to develop a shared vision of overall environmental and natural resource strategy which will shape government and private sector action agenda's during the decade.

#### 4.2. USAID Implementation System

Within USAID/Sri Lanka, responsibility for implementing the project will rest with the Project Development/Environmental Officer in the Projects Office. In addition to prime implementation responsibility, he will monitor the activities of other donors involved in the environmental sector, most especially the World Bank, ADB, UNDP, Dutch and NORAD to help ensure a high level of complementarity and coordination and to share findings.

The Project Officer will be supported by the head of the Division to whom he reports as well by the Project Committee which will include the Mission economist and a representative from the Agriculture Office. The Project Officer will chair bimonthly meetings of the Project Committee. Members of the project committee have been closely involved to date in project design. In addition, as needed, the staff of our Housing,

Irrigation and Private Sector offices as well as the Regional Legal Advisor and the Area Contracting Officer will be available. The Project Development Officer will also be supported by a personal services contractor for approximately the first six months of the project for the conduct of a pre-implementation seminar and planned orientation trips to counterpart agencies in the United States.

#### 4.3. Implementation of Specific Components

##### 4.3.1. Implementation of the Natural Resource Management Component:

4.3.1.1. Ministry of Environment and Parliamentary Affairs: The project will provide MEPA with technical assistance and commodity support to carry out NAREPP coordination and improve the planning and management of natural resource development projects. NAREPP will provide short-term assistance to help MEPA improve its own emerging environmental review process. NAREPP will also support efforts of the MEPA to inform government policy makers about natural resource conditions, trends, and policy needs, based in part on the outcome of the NARESA environmental profile. Project actions will include support for a series of environmental and economic policy workshops, and support for on-going information exchange and policy dialogue between MEPA, NPD, CEA, other natural resource agencies, and the private sector. This subcomponent will be a priority for the first two years of NAREPP.

4.3.1.2. National Planning Department technical assistance: The project will provide the NPD with limited technical assistance and commodity support to improve the planning and management of natural resource development projects. NAREPP will provide technical assistance to help NPD develop skills needed by operating agencies for economic evaluation of environmental costs and benefits of proposed projects sent to NPD for approval. NAREPP will provide short-term assistance from natural resource economists to help NPD improve its economic review process. Project actions will include support for a series of economic policy workshops. This subcomponent will also be a priority for the first two years of NAREPP.

4.3.1.3. Central Environmental Authority technical assistance and commodity support: Technical assistance and commodity support will be needed for the Central Environmental Authority. Short-term on-the-job training programs and technical assistance will help develop better analysis and management of water resource, water quality, forest, and other natural resources. Technical assistance will be provided for natural resource economic analysis, including analyses of resource management through regulatory or market mechanisms, and to help CEA to meet analytical needs of the NPD and other agencies. Technical assistance will also allow CEA to develop specific guidance documents for agencies and the private sector on environmental problems in all sectors, and to help them

address economic and environmental impacts of new projects, such as shrimp ponds, highway construction, industrial facilities, water treatment plants, municipal waste disposal projects, and forestry and water resource development projects. The NPD will assist in setting the agenda for this work in the context of the annual planning meetings and workplan. Commodity support will be provided to CEA to meet its need for up-to-date reports and other materials from the US and elsewhere on natural resource management, pollution prevention and control, and impact assessment. This subcomponent will be a priority for the first two years of NAREPP.

4.3.1.4. NARESA technical assistance and commodity support: NAREPP will provide limited training and technical assistance and commodity support to NARESA. In the first year of the NAREPP, technical assistance will be provided to enable NARESA to review environmental research progress and needs to support economic development priorities in Sri Lanka. The first appraisal will follow completion, in December 1990, of NARESA's profile of natural resources conditions and trends. If necessary, subsequent appraisals may be supported later in the project. Based on experience gained from the profile, NAREPP will support a series of workshops and development of supporting materials on natural resource appraisal, planning, and management techniques for resource managers in the government and private sector. NAREPP will also provide training support and technical assistance for staff engaged in publication of natural resources management research. Technical assistance and commodity support will help NARESA to augment its existing research library by developing a strong natural resource library, including a building, computer facilities and up-to-date reports and documents on natural resources that can be available to meet practical needs of the government and private sector. This subcomponent will be a priority for the first two years of NAREPP.

4.3.1.5. Coastal and aquatic resources: In the first two years of the project, the NAREPP will focus on provision of training, technical assistance, and commodity support for the CCD and NARA as follows:

- o NAREPP will provide training, technical assistance for CCD and to implement the coastal resources management plan, adjust it in the light of implementation experience and monitor its progress. Short-term foreign and Sri Lankan consultants will provide CCD personnel with on-the-job training and technical assistance in the fields of planning and implementation, pollution monitoring and control, habitat evaluation, and impact assessment. The project will also support CCD training programs for government staff, the private sector, and village level groups concerning how they can benefit from the plan, and how they can help implement it.

- o NAREPP will provide technical assistance for information exchange between CCD and NARA on coastal management issues arising out of experience from implementing and monitoring the coastal management plan to be approved by the Cabinet. NAREPP will also provide technical assistance and commodity support for CCD and NARA to cooperate in preparing maps and other materials on specific coastal areas appropriate for local action and educational programs (see special projects component below).

- o NAREPP will provide NARA with commodity support and short-term technical assistance on specialized topics such as water pollution monitoring, and waterway use classification to meet pollution management needs of CEA and other agencies and information needs of the public. It will provide technical support to augment the program of NARA's environmental management unit and help NARA apply its research, information, and technical capabilities to the water quality research and policy needs of other agencies.

4.3.1.6. Wildlife Management: The project will provide management training, commodity support, and technical assistance to the DWLC to sustain and enhance the environmental and economic resources under its jurisdiction.

- o The project will work with the DWLC to support short-term training workshops in country for staff personnel concerning park maintenance, enforcement, planning, resource assessment, and related fields. Consideration will be given to participation of other land management and private sector personnel.

- o In addition to these programs, NAREPP will support more advanced short-term study tours and courses abroad will be arranged for mid-level personnel, in the region (for example, India), and in the United States.

- o To fill the critical need for degree training in wildlife management, NAREPP will support Master's degree programs abroad for a limited number of individuals toward the end of the project period.

- o NAREPP will provide technical assistance and commodity support for efforts of the DWLC, in cooperation with the Tourist Board and private businesses, to develop guidelines, training programs, and materials for sustainable nature tourism on Sri Lanka's coasts, where coral reefs or coastal sanctuaries offer economically attractive possibilities, and inland.

- o NAREPP will provide technical assistance for wildlife management research through small grants and the development of library materials and a data base to meet management needs of DWLC staff. Links to US researchers and others in the region will be established.

#### 4.3.2. Implementation of the Special Projects

Component: Implementation of the special projects component will be carried out in the context of the annual workplan and budgetary approval process conducted by the Environmental Coordinating Committee of the Ministry of Environment. The Committee will assist NAREPP in identifying key topics of study for the coming year. Criteria for selection of a special project or study by the NAREPP will include:

- o demonstrated local interest in resource management;
- o a geographical or ecological resource important to economic development in Sri Lanka either in its own right or as an example for other places;
- o the interest in participation by the agencies or private sector organizations ultimately responsible for implementing the results of the proposed project;
- o existence of necessary scientific and administrative research that provides a promising basis for study and innovative management;
- o strong private sector interest in resource management and opportunity for private capital investment;
- o market-based solutions appear to exist to help solve the problems addressed.

On these bases, and subject to the review of the Environmental Coordinating Committee and implementing agencies, it is anticipated the following activities would be considered and, if approved, conducted in the first few years of the project:

- a) Special Area Management Projects (SAMs) for specific localities, such as a coastal estuary or lagoon, or a catchment area watershed which are critical to the economic welfare of the resident population. NAREPP will select these areas on the basis of local or regional initiatives in cooperation with a lead GSL agency. It will support a Sri Lankan consultant familiar with the area and its socio-economic and environmental dynamics who will conduct educational and training programs with villagers, help identify critical information needs for action programs, and lead efforts to develop a

community structure and resource management plan, and an implementation program. Each management plan would be developed and completed within two years. We expect that approximately 5 of these will be carried out during the NAREPP, at an estimated cost of \$200,000 per program. Initial choices for Special Area Management projects will be in the coastal region. Examples include Negombo Lagoon, where fishery management, local community interest, research, and strong local organizations exist. Government agency involvement and cooperation is also likely to be strong under the CCD and NARA. Another example is Hikkaduwa, where tourism, coral reefs, and fisheries are significant economic resources, and where coastal management is essential for long term economic sustainability.

b) NAREPP would support small-scale research studies and action-oriented recommendations concerning specific resource management problems and remedies. Studies would address national and local natural resource management problems, including problems of enforcement and needs for local natural resource management incentives. NAREPP would support such studies upon recommendations of GSL agencies or solicitations for assistance from the private sector. Studies would be carried out by a GSL agency or appropriate private entity. Approximately 8 study projects would be supported per year during the NAREPP, at about \$15,000 per project. An example of one such study is an economic analysis of pollution problems and prevention options along tourist beaches in the south. Other studies might address aspects of watershed management, gem mining, forest use, horticultural business opportunities, and other topics that require environmental, economic, and legal analyses.

Implementation of individual efforts under Special Projects component of the NAREPP would be managed on case by case basis depending on the topic under investigation. Because the Environmental Coordinating Committee would not be able to function at full capacity during the first few months of the NAREPP, initial discussion would need to be held to determine which special activities are most pressing and possible in the first year of the project.

4.3.3. Implementation of the Impact Assessment and Management Component: The impact assessment training component will have three parts, with a total estimated cost of \$3.62 million. The three elements of this component are:

a) In country training: The project will work with the Central Environmental Authority to provide impact assessment training in Sri Lanka over the life of the project. Large numbers of personnel, estimated at about 900 in government agencies, the private sector,

and other institutions, will receive training in Sri Lanka in specific topics such as environmental impact assessment, economic evaluation and cost-benefit analysis, water and air pollution impacts, and other subjects appropriate to the targeted group. The project will support approximately 37 two-week and 3 three to six-month in-country training sessions during the first three years of the project, carried out in cooperation with Sri Lankan training institutions.

b) Study tours: The program will be supplemented by study tours primarily in the first two years. Senior agency leaders directly concerned with implementation of the EIA process in Sri Lanka will be given an intense program in the United States, focusing on small scale projects subject to national, state, or local impact assessment requirements.

c) Short-term training and degree programs abroad: Opportunities for short term study in Thailand (e.g., Kasetsart University, Asian Institute of Technology) and elsewhere have been identified as necessary supplements to in-country EIA training. In addition, NAREPP will support a limited number of master degree programs in the US and the region that fit within agreed manpower development programs of the sponsoring agency. The project will work toward the development of training programs in cooperation with business and banking organizations and with Sri Lankan universities.

The EIA training program will be carried out under the direction of the CEA. CEA will designate an assistant director responsible for all EIA training. During the first two years of the NAREPP, a full-time training advisor from the US will work with CEA in developing training materials, organizing immediate study tours to the US and in the region, and establishing degree training programs that will produce trained personnel later in the NAREPP term. The training programs during these two years, at a minimum, will concentrate on immediate needs for agency and private sector skills in socio-economic impact analysis, water quality impacts, and vegetative/wildlife impact analysis.

#### Recommendations for Master's Level Training

Field	Location	
	U.S.	Regional
Natural Resource Management	-	2
Resource Economics	3	-
Env. Tech. & Mng.	-	2
Marine Affairs/Coastal Res.	1	-
Geo./Hydrol./Soil Sc.	1	-
Aquatic Res. Mng.	1	-
Wildlife Mng.	2	-
	8	4

Recommendations for Study Tours and Short-term Training

Course	Year						Total	
	90	91	92	93	94	95		96
<u>Study Tours</u>								
Env. Mgt., Nat. Res. Mgt. EIA (US)	5							
Watershed & Forest Mgt. (ASEAN)		4						
Marine Prot. Areas (ASEAN)		4						
EIA & Env. Mgt. (ASEAN & India)		3	3					
Wildlife Mng. (Regional)		4	3		3			
<b>Total</b>	<b>5</b>	<b>15</b>	<b>6</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>29</b>
<u>Short Term</u>								
Env. Info. Ser.		2	1					
Dispute Res.		1	1					
Env. Tourism		2	1					
Course in EIA		3	2	2				
Coastal Prot. Areas		3	2	2				
Symp. on Coast. Mng.			2	2	2			
Wildlife Mng.		2	2	2	1	1		
Undetermined			1	3	2	2	1	
<b>Total</b>	<b>0</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>45</b>

## Frequency of In-Country Training Courses on EIA

Course Topic	YEAR					
	91	92	93	94	95	96
<u>Research Institutions, Universities, and CEA</u>						
<u>Technical Courses</u>						
Socio-economic Impact Analysis	1	1	1	1		
Water Quality Impact Analysis	1	1	1	1		
Air Quality Impact Analysis		1		1		
Noise Impact Analysis		1		1		
Energy Impact Analysis	1		1			
Vegetation and Wildlife IA	1		1			
<u>Project Approving Agency Courses</u>						
<u>Policy Level</u>						
(General course for all PAAs)	1	2	2	2	2	1
<u>Implementing Level</u>						
Indust., Infra & Urban Projects		2	2	2	2	1
Land Settlement, Ag., Irr. & Forest Projects		2	2	2	2	1
<u>Financial Course</u>						
(General Program for All)			1	1	1	
<u>NGO Course</u>						
(General Program for All)	1	1	1	1	1	
<u>Legal Course</u>						
(By Province)	1	2	2	1	1	1
<u>Coastal Course</u>						
(By Province)	1	1	1	1		
(Including Harbor & Aqua. Projects)						
<b>Total</b>	<b>8</b>	<b>13</b>	<b>16</b>	<b>15</b>	<b>9</b>	<b>4</b>
<b>Diploma Course</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

As part of the training program the NAREPP training advisor will also train Sri Lankan teachers. Beginning in approximately the third year of the NAREPP and thereafter, Sri Lankan teachers will conduct the training programs. At that point also, CEA staff will be responsible for all coordination and management of training programs supported by the project.

4.3.4. Implementation of the Public Education and Participation Component: The NAREPP will support environmental education and institutional development activities of the PVOs and NGOs -- national level business and professional

organizations, private voluntary organizations and nongovernmental environmental groups. Based on institutional development plans and compliance with grant criteria (described below), the project will operate through a program of grants under management from a larger PVO. Estimated project budget over the life of the project: \$1.29 million.

The educational support grant program will provide PVOs and NGOs with funds for national and local level educational programs, purchase of essential commodities, and training to establish staff expertise. These grants will be based on the preparation of development plans in which each participating NGO will define its long term objectives and strategy for achieving desired objectives. Over time each private group will establish expertise in its particular natural resource and environmental area that will be valuable to the public and private sector alike.

All grant awards will need to meet program and organizational criteria. Grant criteria will include such factors as:

- o economic, social, or legal policy research on an environmental problem or issue important to the economic, social, or political development of Sri Lanka;
- o development and dissemination of public environmental education materials, including audiovisual, on common environmental problems;
- o educational programs focused on environmental information needs of targeted audiences, including agricultural, fishery, or business groups;
- o public awareness and technical training programs for targeted audiences on business opportunities to support sustainable development;
- o public education programs and technical training in natural resource management and enforcement, including environmental law;
- o technical assistance to build public interest group institutional capabilities in resource economics, pollution control, natural resource management or organizational management;
- o commodity support for developing organizational capabilities in carrying out educational programs, such as computer, duplication, and other facilities;

The NAREPP will entertain proposals from NGOs listed with the Central Environmental Authority. The size of the grant will depend on the demonstrated capabilities of the organization. However, small organizations without an established track record will be eligible for small seed grants to develop

institutional capabilities if the proposed project has merit and prospects for implementation appear sound. NAREPP will encourage cooperative grant proposals from public interest groups and business and professional organizations. Individual grants are expected to range from small seed grants of up to \$5,000, to \$50,000 per organization per year. The total budget for small grants may increase if extensive use of videos for television and other commodity and technically demanding programs develop. An average grant to a particular PVO or NGO is estimated at \$30,000 for a three-year period.

The project will focus on building up a base core of resources -- communications equipment, library resources, educational materials, and qualified, well-paid staff -- as quickly as possible in the early years of the project. Support for commodities and staff training will be particularly important in the early years. Funding support will be gradually phased down as the project nears completion.

#### 4.4. Implementation of Project Inputs

The problems of effective coordination also determine the configuration of technical assistance. As much as possible, technical assistance will be provided under a master technical assistance contract. The Mission believes that a master technical assistance contract with subcontracts would serve as a unifying factor for project activities. We anticipate that only a limited amount of technical assistance would also be provided outside the context of the master technical assistance contract. This would be 1) a Title XII University for the Coast Conservation Department, 2) the U.S. Fish and Wildlife Service for the Department of Wildlife and Conservation and 3) a contract with a NGO in Sri Lanka to administer the NGO grant program. Thus the types of assistance needed include:

4.4.1. Technical Assistance for Natural Resource Management, Pilot Projects, and Supporting Research: Technical assistance from the US, augmented by local assistance, will be directed to GSL agencies and the private sector in all fields of natural resource management and environmental pollution management. Short term TA will be provided to MEPA, core environmental agencies, and private industry. Assistance in developing supporting research will be made available as required. The contractor will provide:

- long term foreign resident technical assistance in environmental policy and management to assist MEPA and USAID with coordination of NAREPP and the work of the Environmental Coordinating Committee, provide environmental policy assistance to CEA and other participating agencies, and help public and private entities in developing and carrying out special projects;

-- long term foreign resident technical assistance in natural resource economics to work closely with NPD staff, to provide TA to CEA, CCD, NARA, NARESA, and other participating agencies in resource economic analysis, and to assist in the development of NAREPP training curricular on resource economics for public and private sector entities;

-- short term TA from the US and Sri Lanka to address problems of pollution control, and coastal, watershed, and forest management.

-- assistance with information and research to public and private sector participants as required.

4.4.2. Training for Natural Resource Management and Impact Assessment: This assistance will provide a full-time resident training advisor, and necessary short-term foreign and Sri Lankan training consultants to work with the GSL. The training consultant will be responsible for:

-- managing training programs, in cooperation with CEA, that focus on GSL needs for public and private sector capabilities to conduct in-country economic and environmental impact assessments and to develop natural resource management programs, as required by the National Environmental Act, the Coast Conservation Act, other major statutes, and the national planning process;

-- managing study tours and short-term and degree programs associated with the impact assessment and natural resource management development training;

-- managing local level natural resource management training required under the special projects component, and

-- managing organizational management training required by natural resource management agencies and private sector organizations receiving grants under the public education component.

4.4.3. Training and Technical Assistance in Wildlife Management. To help the DWLC improve its management of parks, refuges, and reserves, sustain their resources and enhance tourism: A Participating Agency Service Agreement (PASA) is anticipated with the U.S. Fish and Wildlife Service. This arrangement will establish long-term training and technical assistance services to the DWLC and informational linkages between DWLC, the GSL Tourist Board, private sector tourist businesses, and other regional and international entities. Under this PASA, FWS will:

- provide long-term training and technical assistance services to the DWLC;
- develop educational materials on wildlife management needs and opportunities in Sri Lanka;
- establish informational linkages between DWLC and the GSL Tourist Board, private sector tourist businesses and other regional and international entities;
- establish sustainable professional linkages between DWLC personnel and personnel in the USFWS and other national and international wildlife and professional organizations.

4.4.4. NGO Grant Management Contract: An NGO in Sri Lanka will administer the grant program for environmental NGOs. The contracted NGO will:

- participate with USAID in reviewing grant proposals and work plans for selecting grantees;
- monitor grantee performance and provide administrative guidance to grantees on request;
- provide USAID with required reports on grantee performance and annual evaluation reports on the NGO grant program;
- provide information on grantee problems and needs to the NAREPP training consultant as required for the NGO training program.

4.4.5. Training and technical assistance in coast conservation management to help the CCD improve its management of coastal resources, sustain their resources and enhance tourism: A buy-in through a centrally funded project is anticipated with a Title XII University to establish long-term training and technical assistance services to the CCD.

4.4.6. Implementation of Commodities: Per the project budget, only limited project commodities are anticipated under the project. The master technical assistance contractor will be responsible for commodity procurement while the Fish and Wildlife Service will be responsible for limited commodity procurement under the assistance to the Department of Wildlife. Commodity requirements for the NGO grant program will be the responsibility of the NGO administering the grant. The equipment to be procured is tentatively listed out below. It is anticipated that the master financial assistance controller will undertake a commodity needs assessment of the participating GSL agencies early in the project.

		A I D (\$)	
		Foreign	Local
1.	Microcomputers		
	(a) Desktop Publishing Units	20x\$12,500	250,000
	(b) Microcomputers	25x\$7,000	175,000
2.	Photocopiers	10x\$4,000	40,000
3.	Overhead Projectors	20x\$750	15,000
4.	Slide Projectors	25x\$500	12,500
5.	Electronic typewriters	26x\$1,250	32,500
6.	Video Cameras	11x\$3,000	33,000
7.	Cameras	15x\$1,500	22,500
8.	Stencil Cutters	12x\$2,000	24,000
9.	Video recorders plus monitors	12x\$1,250	32,500
10.	Steel Cabinets	25x\$75	
11.	Steel Cupboards	20x\$125	1,875
12.	Magiboards	20x\$200	2,500
13.	Projection Screens	10x\$80	4,000
14.	Lettering Sets	10x\$300	800
15.	Drafting Equipment	5x\$300	3,000
16.	Binoculars	50x\$200	1,500
17.	Movie Projectors	11x\$2,000	10,000
18.	Duplicating Machines	4x\$2,500	22,000
19.	Office Equipment		10,000
20.	Miscellaneous Field Equipment		19,000
21.	Library Books		50,000
22.	Undetermined		75,000
23.	Educational Material Publication		66,700
	(a) Films/Videos	18x\$12,000	30,625
	(b) Other Materials		216,000
			<u>275,000</u>
		Total (U.S. \$)	880,000
			545,000

4.4.7. Implementation of Research Support: Research and special projects studies support under the special studies component will be disbursed on the basis of the pre-defined workplans and study subjects. These will be determined during the meeting of the project steering committee which will be held three times a year. To be eligible for research support a participating agency not only must meet the criteria which are described in the implementation of the special projects component but it also must provide a budget together with an implementation schedule. AID policies would be followed with respect to eligible items for financing. Occasionally it may be necessary to provide specific support for the holding of workshops and dissemination of research results.

#### 4.5. Pre-Implementation Seminar

Shortly after the project agreement is signed, USAID will organize a series of pre-implementation meetings to optimize coordination between USAID and GSL coordinating and implementing officials. Participants will include:

- members of the USAID project committee
- members of participating agencies
- the State Minister of the Ministry of Environment
- other donors working in the environment
- the PVOs

Key agenda items for the seminar will include:

1. Drafting of an initial workplan.
2. An explanation of the coverage and limitations of the USAID assistance package for each sector.
3. Discussion of how the USAID assistance fits into the broader GSL environmental strategy.
4. A discussion of the relationship between USAID assistance and other donor participation in environmental activities.
5. A review of USAID monitoring and evaluation requirements, including reimbursement procedures.
6. A description of planned USAID technical assistance and final composition of the technical assistance team.
7. A review of immediate actions needed to begin preparation of the first workplans.

#### 4.6. Monitoring Plan

Monitoring under this project will concentrate on institutional performance with attention as well to financial management of inputs. Core information from the GSL on training status, budget and performance of mandated objectives should provide the bulk of the information. Particular care will be given to requiring the project consultant team to design into their reporting system periodic reports that serve our monitoring needs and the accountability needs of the GSL. It is anticipated that for each of the four major project components the consultant will be asked to report on the status of the indicators as listed in the logframe of the project paper.

At the same time the Ministry of Environment has only been recently established and is just beginning to think through in a more systematic way its monitoring and oversight responsibilities. Technical assistance provided under the project will assist the Ministry in defining a specific implementation plan for their more objective-oriented corporate plan now under development.

Reliance on information from the Ministry of Environment, supplemented by the consultant team, should provide AID with most of the monitoring information needed. It would be inefficient and largely duplicative for AID to superimpose its own monitoring system. Nonetheless, there maybe some broader questions dealing with special concerns such as the role of

women in environmental-related activities that may benefit from special analysis outside the regular monitoring system. Issues such as these would largely fall under the planned evaluations(see evaluation section).

Within USAID/Sri Lanka itself primary USAID responsibility for monitoring the project will be with the Project Development/ Environmental Officer in the Projects Office. He will be supported by the head of the division to whom he reports and the technical assistance team. In carrying out his responsibilities, the Project Development Officer will be assisted by USAID staff who have been active in project design.

#### 4.7. Implementation Schedule

<u>ACTIVITY</u>	<u>ESTIMATED DATE</u>
NAREPP Project Grant Agreement Signed	6/90
Request for Proposals for Master TA contract issued	8/90
Agreement with Umbrella NGO for managing NGO	8/90
Pre-Implementation Seminar conducted	9/90
PASA Agreement with USFWS for TA to DWLC signed	9/90
Agreement with Title XII on buy-in to centrally-funded project	9/90
Conditions Precedent met	9/90
Study tour to US for senior GSL officials conducted	10/90
TA Proposals reviewed	11/90
Annual Workplans for CY 91 received	11/90
Proposals received for NGO Grants (CY91)	11/90
Proposals received for special project/studies	11/90
TA for DWLC by USFWS commences	12/90
Annual Workplans evaluated and finalized	12/90
TA Proposal evaluated	12/90
District/Provincial level Coastal Resources Management conducted	12/90
TA on Coastal Program commences	1/91
Master TA Contract signed	1/91
Grants to NGO for CY91 awarded	1/91
Limited Special Project/Studies commence	2/91
Master TA Contractor mobilized	3/91
EIA training activities commence	5/91
First Project Evaluation	5/92
Second Project Evaluation	5/95

#### RECURRENT EVENTS

Meetings of the Environmental Coordination Committee	4 times
NGO grant reviews	yearly

## 5. EVALUATION PLAN

Successful project implementation depends on the development of individual project agencies, better coordination between them and an increased role for public participation in environmental decision-making. The evaluation plan will concentrate on seeing whether or not those objectives are being met. Since the project has four distinct components, which will be implemented differently, it would be quite possible that the need for evaluation will be much more important for one component than another.

The role of evaluation in the project will be primarily to determine the effectiveness of the different components in achieving purpose level impacts and what, if any, corrective measures are necessary. An important aspect of any overall interim evaluation would also be to recommend whether redirecting resources from one component to another would be more effective in achieving the project purposes and goal.

The project will be carefully monitored from government, TA, and AID sources (see monitoring section). Any special evaluation needs or reassessment of project functioning would be identified through this monitoring. Two formal evaluations, one in 1992 and one in 1995, are anticipated during the life of the NAREP Project. In addition to scrutiny of work plans and project reports by contractors, midterm analyses of institutional, economic, and political constraints on NAREPP and the underlying assumptions of the project will be critical to its ultimate success. The financial plan includes \$150,000 for evaluation, in addition to the TA funds available for monitoring, giving some flexibility in responding to evaluation needs that become apparent.

### 1992 Evaluation

The initial evaluation will take place around the middle of FY 1992, by which time it should be possible to assess the development potential of participating agencies and the coordination mechanisms established. The primary goal of this evaluation will be to inform Mission and GSL staff of necessary and beneficial adjustments to improve the effectiveness of the project through its remaining life. The findings also will feed into the FY '93 annual workplan. Additionally, information from this evaluation should be of timely assistance to the National Planning Division and the Ministry of Environment in its management of the overall GSL environmental activities.

Exactly how this evaluation will be focused and what expertise would be included on the evaluation team will depend on the different performance of the components in the first two years. Quite likely an overall evaluation would be done including all components. If there are one or more components having unusual problems, project and Mission Management may decide that special emphasis should be given to that component (or even that it be evaluated separately).

If possible, the interim evaluation should be conducted by Mission personnel (including the TA-funded Project Coordinator), supplemented by expatriate and locally-contracted experts.

Major objectives for the interim evaluation will be to:

analyze results to date of project outputs and assess NAREPP's administrative and institutional arrangements and identify constraints likely to affect project goals;

assess changes in government priorities affecting environmental programs, donor support for environmental activities, and other economic or political changes affecting bases project assumptions regarding economic growth and the role of the private sector;

assess government hospitality to NGO actions, and the effectiveness of legal processes and the media in addressing government or private abuse of authority affecting environmental management.

Thus, an interim evaluation will focus on the timing, quality, and effectiveness of project inputs to date in each sector of activity. It also will examine implementation arrangements. The evaluation will analyze problems, delays, and discrepancies from the plan and recommend necessary input or implementation adjustments. It may also assess the accuracy of key assumptions underlying project strategy. Examples of such an assumption includes an underlying administrative reform framework that is progressing smoothly, the infusion of planned GSL and other donor resources into the program and the ability of the coordinating structure to perform adequately.

#### Phase two Evaluation:

A second evaluation would take place in mid 1995. This evaluation will attempt a more comprehensive analysis of the impact of the project's efforts to date. Like the first phase evaluation, it will examine the project's effectiveness in achieving project outputs, but also will focus on whether the project has attained its stated purpose and on the effectiveness of specific inputs in achieving project objectives for each sector of activity. Specific targets and measurement indicators for use by evaluators are detailed in the overall logframe contained as an annex to this PP. The second evaluation will likely be undertaken through an independent AID contract for a mixed expatriate-local team containing social scientists and technical experts in the relevant project sectors. The effort put into a final evaluation will most likely depend on the extent that the project may have "lessons learned" useful for the approximately two years remaining in the project, for the government and for other interested donors.

## 6. CONDITIONS AND COVENANTS

The project will be negotiated with the External Resources Division of the Ministry of Finance and Planning. They in turn will consult with the Ministry of Environment and Parliamentary Affairs, National Planning Division and the lead participating agencies such as DWLC, CCD and CEA.

Given the institutional development focus, NAREPP will not be a discrete effort, but instead will be supportive of the Government of Sri Lanka's own efforts to more clearly define, staff and manage environmentally-related roles and responsibilities across the public and private sectors. The conditions precedent and covenants, therefore, have been tailored to help assure the government supports and develop resources to do that. The specific areas that will need to be emphasized in the Project Agreement are:

- A GSL coordinating mechanism is established;
- Agencies will establish and meet the requisite staffing requirements to carry out planned programs;
- Agencies will establish long term training and institutional development programs;

Prior to disbursement, the Mission must determine to its satisfaction that a coordination mechanism has been established and is sufficiently detailed to allow coordination of the project. The Mission, therefore, will be including a condition precedent to additional disbursement which says that prior to disbursement the GSL will establish and staff a coordinating committee which will review plans and budgets of each of the participating agencies.

The Mission also must determine to its satisfaction that individual institutional plans have been developed for each of the participating agencies. This is as much an objective throughout the life of the project as it is immediately at the beginning. A Covenant, therefore, will be added which says that the Government of Sri Lanka will undertake to establish institutional development plans for each of the participating agencies together for each of the participating agencies and that throughout the life of the project. These will be updated regularly.

Finally, given that close consultation will be successful to get the project moving, a covenant will be added which will require that the GSL furnish an annual consolidated workplan and individual workplans for each agency beginning in the second year of the project. Technical assistance will be provided to assist agencies fulfill this condition.

NATURAL RESOURCES AND ENVIRONMENTAL POLICY PROJECT  
ANNEXES

**ANNEXES:**

- Annex I - PID Approval Cable
- Annex II - Response to PID Review/Approval Cable
- Annex III - Statutory Checklists
- Annex IV - Logical Framework
- Annex V - GSL Request for Assistance
- Annex VI - Technical Analysis
- Annex VII - Economic Analysis
- Annex VIII - Natural Resource Management Constraints to  
Economic Growth Analysis
- Annex IX - GSL Project and Budget Process Analysis
- Annex X - Social Soundness Analysis
- Annex XI - Institutional/Administrative Analysis
- Annex XII - Environmental Analysis
- Annex XIII - Other Donor's Environmental Activities
- Annex XIV - Implementing Agencies Assessment

UNCLASSIFIED  
AID 09/05/89  
FROM: SECSTATE WASHDC  
TO: AMEMBASSY COLOMBO

AIDAC

E.O. 12356: N/A

TAGS:

SUBJECT: NATURAL RESOURCES AND ENVIRONMENT POLICY  
PROJECT (383-0109) - PID REVIEW

1. PROJECT COMMITTEE MEETING FOR SUBJECT PID, CHAIRED BY ANE/PD RONALD VENEZIA, WAS HELD APRIL 18, 1989. PID WAS APPROVED FOR PP DEVELOPMENT AND AUTHORIZATION BY MISSION DIRECTOR SUBJECT TO THE FOLLOWING GUIDANCE.

2. ISSUES:

A. PERFORMANCE INDICATORS: OF PRIMARY CONCERN TO THE PROJECT COMMITTEE WAS THE NEED FOR THE PP TO IDENTIFY SPECIFIC TARGETS THAT THE PROJECT WILL WORK TOWARDS, OUTPUTS AND EXPECTED ACCOMPLISHMENTS ARE BROADLY EXPRESSED IN THE PID MAKING IT POTENTIALLY DIFFICULT TO MEASURE PROGRESS TOWARDS MEETING THE PROJECT'S POLICY AND INSTITUTIONAL OBJECTIVES. THE PP SHOULD SPECIFY INTERMEDIATE AND END-OF-PROJECT INDICATORS AND QUANTIFIABLE OUTPUTS AGAINST WHICH PROGRESS CAN BE PERIODICALLY ASSESSED.

B. INSTITUTIONAL FRAMEWORK AND CAPABILITY: THE PROJECT WILL BUILD THE CAPACITY OF THE CENTRAL ENVIRONMENTAL AUTHORITY (AS THE LEAD ENVIRONMENTAL AGENCY) AND ASSIST SEVERAL OTHER EXISTING ORGANIZATIONS. THE INSTITUTIONAL ANALYSIS WILL OBVIOUSLY BE AN IMPORTANT PART OF THE PP AND SHOULD INCLUDE A DISCUSSION OF THE STRENGTHS AND WEAKNESSES OF THE CURRENT ORGANIZATIONAL ARRANGEMENT, ANY GAPS OR OVERLAPS IN THE CURRENT DIVISION OF RESPONSIBILITIES OF THE VARIOUS ORGANIZATIONS, THE RELATIONSHIP OF THESE ORGANIZATIONS TO NATIONAL ECONOMIC PLANNING ORGANIZATIONS AND INSTITUTIONAL CONSTRAINTS TO POLICY ENFORCEMENT AND MONITORING. SUSTAINABILITY OF INSTITUTIONS' CAPABILITIES TO FORMULATE AND IMPLEMENT EFFECTIVE ENVIRONMENTAL POLICIES AND ENVIRONMENTALLY SOUND DEVELOPMENT PROGRAMS SHOULD BE DISCUSSED INCLUDING RECURRENT COST IMPLICATIONS. PP SHOULD DISCUSS USAID'S EXPERIENCES UNDER THE REFORESTATION AND WATERSHED MANAGEMENT AND THE MAHAWELI ENVIRONMENTAL PROTECTION PROJECTS THAT ARE RELEVANT TO THIS PROJECT'S INSTITUTIONAL STRENGTHENING OBJECTIVE AND THE OBJECTIVE OF CREATING AN ENVIRONMENTAL ASSESSMENT CAPABILITY. BOTH PROJECTS ENCOUNTERED STAFFING AND INSTITUTIONAL PROBLEMS AND MAY OFFER SOME LESSONS FOR CONSIDERATION IN DEVELOPING THIS PROJECT.

SPECIFIC TOPICS FOR FURTHER INVESTIGATION DURING PP DESIGN RELATED TO BUILDING INSTITUTIONAL CAPACITY INCLUDE: TRAINING IN ENVIRONMENTAL AND NATURAL RESOURCES ECONOMICS (INCLUDING DEGREE PROGRAMS) FOR GOVERNMENT EMPLOYEES AND NGOS, CURRICULUM DEVELOPMENT IN ENVIRONMENTAL EDUCATION FOR SCHOOL CHILDREN,

NAREPP Design Response to PID Review Cable of May 10, 1989  
(State 145232)

This annex is written to address the specific issues raised as part of AID/Washington's approval of the project and authorization to the Mission to negotiate it in the field. The detailed description of the project and reference to the concerns raised is, of course, contained in this Project Paper. However, this annex specifically highlights those major areas of attention AID/Washington noted in State 145232.

A. Need for intermediate and end-of-project indicators:

End-of-project indicators have been developed and included in the project design. These same indicators will serve as benchmarks for determinations of progress during evaluations and in annual reports of NAREPP's major contractors.

B. Institutional framework and capability: These factors have been analyzed in the Institutional Analysis. The project will include technical assistance to the National Planning Department for integrating environmental policies into economic planning, and this is also a priority of the new GSL Ministry of Environment and Parliamentary Affairs. Other specific issues raised by cable:

- o Relevant experiences of previous and ongoing USAID environmental work in Sri Lanka: The project paper and its backup analyses (Technical, and Natural Resource Constraints Analyses) discuss these experiences and the design builds on them. NAREPP responds to the experiences gained from the USAID reforestation and agricultural development projects (showing needs for broader environmental, social, and institutional responses to deforestation and soil erosion issues and reforestation strategies), coastal resource management project (indicating needs for substantially more private sector and other public sector training and management involvement), and the Mahaweli Environment Program (showing needs for vastly increased wildlife management training, private sector tourist and village involvement in park protection).
- o Training and other institution-building activities: The Technical analysis and project paper build on extensive analysis of training and educational needs and approaches developed in the project design phase (McCrae and Crawford reports).
- o Pesticide issues: The issue of pesticide monitoring and enforcement discussed in the Baldwin report, 1988 is recognized. These needs, and needs for training in integrated pest management were examined in project design (Tarrant report). Problems with the agricultural extension program in Sri Lanka, subjects

EXTENSION SERVICES FOR THE GENERAL PUBLIC, SUPPORT FOR LIBRARY FACILITIES IN CENTRAL ENVIRONMENTAL AUTHORITY (CEA) AND COAST CONSERVATION DEPARTMENT AND STUDY TOURS FOR CEA OFFICIALS TO COUNTERPART AGENCIES IN THAILAND, INDONESIA, ETC. IN ADDITION, SPECIAL CONSIDERATION SHOULD BE GIVEN TO IMPROVING THE CAPABILITY OF THE GSL TO REGISTER, REGULATE, MONITOR AND ENFORCE EXISTING LAWS REGARDING PESTICIDES. THIS MAY REQUIRE ANALYTICAL WORK DURING PP PREPARATION AND/OR POLICY ANALYSIS OF THE EFFECTIVENESS OF THE LEGAL FRAMEWORK DURING PROJECT IMPLEMENTATION.

C. ROLE OF THE PRIVATE SECTOR: IN ADDITION TO STRENGTHENING PUBLIC SECTOR INSTITUTIONS, PP DESIGN SHOULD ALSO EXPLORE THE POSSIBILITY OF EXPANDING AND STRENGTHENING THE ROLE OF THE PRIVATE SECTOR. ONE POSSIBILITY MIGHT BE TO INVOLVE THE PRIVATE SECTOR (UNIVERSITIES OR CONSULTING FIRMS) IN CONDUCTING ENVIRONMENTAL ASSESSMENTS ON A CONTRACT BASIS. MISSION DIRECTOR DISCUSSED THE SIGNIFICANT INVOLVEMENT OF NGOS (AS RECIPIENTS OF TECHNICAL ASSISTANCE AND TRAINING AND THEIR ABILITY TO HELP PUSH THE GOVERNMENT TOWARDS MORE RESPONSIVE ENVIRONMENTAL POLICY). THE ROLE OF PRIVATE SECTOR CONSTITUENT GROUPS AS A KEY COMPONENT IN DEVELOPMENT AND EFFECTIVE IMPLEMENTATION OF ENVIRONMENTAL AND NATURAL RESOURCE POLICIES SHOULD BE ENCOURAGED TO THE EXTENT PRACTICAL. PROJECT COMMITTEE RECOMMENDS THE PP ELABORATE ON THIS INVOLVEMENT AND THAT EQUAL OPPORTUNITY BE GIVEN TO BUILD AND STRENGTHEN THE CAPABILITY OF PRIVATE AS WELL AS PUBLIC SECTOR INSTITUTIONS IN AREAS OF ENVIRONMENTAL RESOURCE MANAGEMENT, POLICY DEVELOPMENT, TRAINING, ETC. (SEE ALSO PARA 3B BELOW.)

D. ENVIRONMENTAL RESEARCH AND POLICY ANALYSIS: THE PID MENTIONS A RANGE OF ENVIRONMENTAL AND NATURAL RESOURCE ISSUES OF IMPORTANCE TO SRI LANKA. THE PROJECT COMMITTEE RECOMMENDS THAT THE PROJECT ADDRESS THOSE ISSUES THAT ARE JUDGED TO BE OF CENTRAL IMPORTANCE FROM AN ECONOMIC GROWTH AND EMPLOYMENT PERSPECTIVE IN ORDER TO FIT WITHIN THE MISSION'S CORE STRATEGY WHICH IS FOCUSED ON INCOME AND GROWTH. THE MISSION DIRECTOR RESPONDED THAT THIS WOULD BE DONE MAINLY THROUGH THE SPECIAL PROJECTS COMPONENT WHICH WOULD CONCENTRATE RESOURCES ON PARTICULAR INSTITUTIONS AND PROGRAMS TO DEVELOP GSL STAFF CAPABILITIES AND INFORMATION TO MANAGE ENVIRONMENTAL PROGRAMS THAT ARE CRITICAL TO THE COUNTRY. IN ADDITION, THE PROJECT COMMITTEE RECOMMENDED THE POLICY RESEARCH BE EXPANDED TO INCLUDE WORK THAT ADDRESSES THE EFFECTS OF PRESENT MACRO-ECONOMIC POLICIES ON ENVIRONMENTAL DEGRADATION INCLUDING THEIR IMPACT ON DEFORESTATION, A CRITICAL CONGRESSIONAL CONCERN. THE LINKAGE WITH AGRICULTURE AND ENERGY SHOULD ALSO BE BETTER DEVELOPED. THIS WOULD BOLSTER THE MISSION'S ANALYTICAL AGENDA AS WELL AS PROVIDE THE BASIS FOR POLICY DIALOGUE WITH THE GSL ON POSSIBLE CHANGES IN FORESTRY AND OTHER KEY POLICIES.

E. DONOR COORDINATION: THE WORLD BANK AND OTHER DONORS ARE INTERESTED IN NATURAL RESOURCE ISSUES. THE POTENTIAL FOR A COORDINATED EFFORT WOULD SEEM TO MAKE SENSE TO MAXIMIZE THE IMPACT ON KEY ENVIRONMENTAL POLICY ISSUES AND BUILD CAPABILITIES IN ENVIRONMENTAL ASSESSMENT PARTICULARLY, AS THE

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WORLD BANK IS IN PROCESS OF ADOPTING ENVIRONMENTAL ASSESSMENT PROCEDURES SIMILAR TO THOSE OF A.I.D. IN ADDITION, DONOR COORDINATION WOULD ALSO BE BENEFICIAL IN DISCUSSING WITH THE GSL THE NEED FOR AN ENERGY DEVELOPMENT STRATEGY THAT WILL SUPPORT CONTINUED ECONOMIC GROWTH WITH MINIMUM IMPACT ON THE ENVIRONMENT. THE MISSION DIRECTOR NOTED THAT A.I.D. IS THE MAJOR DONOR IN THE NATURAL RESOURCE AND ENVIRONMENT AREA AND THAT OTHER DONORS COME TO A.I.D. FOR ADVICE AND ASSISTANCE; HOWEVER, THERE ARE OPPORTUNITIES FOR GREATER DONOR COORDINATION. ADB IS CONSIDERING STATIONING A REPRESENTATIVE IN COLOMBO AND MISSION REQUESTED PPC'S ASSISTANCE IN PUSHING THIS DECISION AS AN IMPORTANT STEP TO ENHANCE COORDINATION WITH THE ADB ON ENVIRONMENTAL AND NATURAL RESOURCE ISSUES. IT WAS SUGGESTED THAT PERIODIC DONOR MEETINGS MAY BE USEFUL TO TALK ABOUT ISSUES AND POLICIES TO BE ADDRESSED WITH THE GSL AND THAT AN ENVIRONMENTAL ACTION PLAN COULD BE A VEHICLE FOR THE GOVERNMENT TO USE IN GETTING AND FOCUSING DONOR SUPPORT.

3. CONCERNS:

A. LENGTH OF PROJECT: AGENCY EXPERIENCE HAS SHOWN THAT INSTITUTIONAL STRENGTHENING PROJECTS GENERALLY REQUIRE MORE TIME TO ACHIEVE THEIR OBJECTIVES THAN ONCE WAS ORIGINALLY THOUGHT. MISSION SHOULD NOT RULE OUT THE POSSIBLE NEED FOR A LONGER TERM INVOLVEMENT IN THIS AREA TO ACHIEVE DESIRED OBJECTIVES AND PROJECT SHOULD BE PRESENTED TO ALLOW FOR THIS POSSIBILITY. HOWEVER, GIVEN THIS POSSIBILITY, CLEARLY DEFINED OBJECTIVES AND PERFORMANCE INDICATORS, PER PARA 2A ABOVE, BECOMES INCREASINGLY IMPORTANT IN MEASURING PROJECT IMPACT AND DETERMINING NEED FOR AN EXTENDED OR FOLLOW-ON EFFORT IN THIS IMPORTANT AREA. PLANNED EVALUATIONS SHOULD LOOK AT THIS OPTION.

B. THE PID MENTIONS USING EPA IN IMPLEMENTATION. LIKE OTHER FEDERAL AGENCIES, EPA COULD HAVE PROBLEMS IDENTIFYING/ASSIGNING IN-HOUSE STAFF WITH THE APPROPRIATE BACKGROUNDS AND SUBCONTRACTING, IF NECESSARY, TO OBTAIN ADDITIONAL EXPERTISE. OTHER OPTIONS FOR TECHNICAL ASSISTANCE TO BE CONSIDERED SHOULD INCLUDE THE PRIVATE SECTOR (INCLUDING GRAY AMENDMENT ORGANIZATIONS), AND STATE AND LOCAL GOVERNMENT AGENCIES. BUREAU WILL BE GLAD TO ASSIST IN IDENTIFYING SUITABLE TECHNICAL ASSISTANCE IF NEEDED. EAGLEBURGER

of ADB and other donor studies, complicate pesticide enforcement. So does general lack of understanding of pesticide impacts. Educational and training concerning pesticide impacts will be part of NAREPP's program. As discussed in the appendix on Natural Resource Management Constraints, specific actions to strengthen the pesticide monitoring and enforcement program will be an appropriate subject for analysis under the special projects policy component.

C. Role of private sector: As described in the project paper and the Technical Analysis, NAREPP involves the private sector explicitly in each component. The private sector needs for technical information and training will be addressed in the Natural Resource Management, Training, and Special Projects components, which will specifically address technological and procedural needs of industrial and commercial concerns for cost-effective environmental requirements, and the potential for new consulting, tourist, and other business. NGOs will be the focus of NAREPP's environmental education program.

D. Environmental Research and Policy Analysis: As explained in the Technical Analysis, the development of GSL and private sector capabilities for research and policy analysis should result directly from several project components. The natural resource management component will help NARESA, and GSL to build on its natural resource profile and to develop a second such report by midterm. This report and NARESA's enhanced informational capabilities will directly support environmental research in universities and policy analysis in and out of the government. Support for resource economic analytical capabilities within the National Planning Department through technical assistance and training will similarly enhance research and policy analysis in the GSL. The Special Projects component will allow further policy analysis, including macro-economic policy and resource-specific levels.

E. Donor Coordination: This is recognized as essential throughout NAREPP, and began early in project design. Close coordination with the Dutch and NORAD was conducted to develop initiatives, particularly training, with the Central Environmental Authority. Similarly, donor coordination has been and will remain particularly necessary in working with DWLC, CCD, NARA, Forest Department, and the new Ministry of Environment and Parliamentary Affairs generally. World Bank involvement in forestry and ADB and other donor involvement in energy development will be closely monitored. .

NAREPP's involvement in energy development strategies will be strong because of the importance of GSL's environmental impact assessment procedures, which are now being invoked for the proposed coal thermal plant in the south. CEA's need for technical assistance on energy impact issues, and NGO energy/environment education programs are likely to require

NAREPP involvement. NAREPP's support for continued public review and discussion of the natural resource profile of NARESA, including its analysis of energy conditions and trends, is another point of involvement.

F. Other concerns:

- o Length of project: The Mission agrees with AID/Washington guidance that sufficient recognition must be given to the fact that institutional strengthening projects generally require more time to achieve their objectives than earlier thought. This has been particularly true for the design of this project where the government agencies which will be supporting environmental efforts have themselves undergone reorganization and restructuring. The design of this project paper presents NAREPP as a long-term institutional development project conceived to extend up to seven years after GSL approval. The design recognizes that many activities will not be able to begin until either late in the first year of the project or early in the project's second year and that real sustainable environmental management capacity is very much a long term proposition.

It will be important, however, for NAREPP to make early and direct impacts--on institutional capabilities through training, on public education and NGO strength and impact through its grant program. NAREPP's interventions will, therefore, emphasize work to begin and conclude in the first six to seven years of the project.

- o EPA, private sector, and state and local assistance: As a result of work in during project design, NAREPP will rely primarily on private technical assistance from US and Sri Lankan contractors and specific wildlife-related assistance from the USFWS. Relevance of state and local experience is understood, particularly concerning environmental assessment, pollution control, and land use management for industrial, urban, and tourist growth.

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**ANNEX III : STATUTORY CHECKLISTS**

NATURAL RESOURCES AND ENVIRONMENTAL POLICY  
PROJECT NO. 383-0109

5C(1) - COUNTRY CHECKLIST

Listed below are statutory criteria applicable to: (A) FAA funds generally; (B)(1) Development Assistance funds only; or (B)(2) the Economic Support Fund only.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FY 1990 Appropriations Act Sec. 569(b).  
 Has the President certified to the Congress that the government of the recipient country is failing to take adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully? No
  
2. FAA Sec. 481(h); FY 1990 Appropriations Act Sec. 569(b). (These provisions apply to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, narcotics education and awareness, or the provision of food or medicine.)  
 If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tons of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly affecting the United States, through which such drugs are transported, or through which significant N/A

sums of drug-related profits are laundered with the knowledge or complicity of the government): (a) Does the country have in place a bilateral narcotics agreement with the United States, or a multilateral narcotics agreement? and (b) Has the President in the March 1 International Narcotics Control Strategy Report (INCSR) determined and certified to the Congress (without Congressional enactment, within 45 days of continuous session, of a resolution disapproving such a certification), or has the President determined and certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (1) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to satisfy the goals agreed to in a bilateral narcotics agreement with the United States or in a multilateral agreement, to prevent illicit drugs produced or processed in or transported through such country from being transported into the United States, to prevent and punish drug profit laundering in the country, and to prevent and punish bribery and other forms of public corruption which facilitate production or shipment of illicit drugs or discourage prosecution of such acts, or that (2) the vital national interests of the United States require the provision of such assistance?

3. 1986 Drug Act Sec. 2013.

N/A

(This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or "major drug-transit country" (as defined for the purpose of FAA Sec. 481(h), has the President submitted a report to Congress listing such country as one: (a) which, as a matter of government policy, encourages or facilitates the production or distribution of illicit drugs;

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(b) in which any senior official of the government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d) which fails to provide reasonable cooperation to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control and criminal prosecution efforts of that country?

4. FAA Sec. 620(c). If assistance is to a government, is the government indebted to any U.S. citizen for goods or services furnished or ordered where: (a) such citizen has exhausted available legal remedies; (b) the debt is not denied or contested by such government; or (c) the indebtedness arises under an unconditional guaranty of payment given by such government or controlled entity? No
5. FAA Sec. 620(e)(1). If assistance is to a government, has it (including any government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? No
6. FAA Sec. 620(a), 620(f), 620D; FY 1990 Appropriations Act Secs. 512, 548. Is recipient country a Communist country? If so, has the President: (a) determined that assistance to the country is vital to the security of the United States, that the recipient country is not controlled by the international Communist conspiracy, and that such assistance will further promote the independence of the recipient No

- country from international communism, or  
 (b) removed a country from applicable  
 restrictions on assistance to Communist  
 countries upon a determination and report to  
 Congress that such action is important to the  
 national interest of the United States?  
 Will assistance be provided either directly  
 or indirectly to Angola, Cambodia, Cuba,  
 Iraq, Libya, Vietnam, South Yemen, Iran  
 or Syria? Will assistance be provided to  
 Afghanistan without a certification, or will  
 assistance be provided inside Afghanistan  
 through the Soviet-controlled government of  
 Afghanistan?
- None of the listed countries will receive assistance under this project
7. FAA Sec. 620(j). Has the country permitted or failed to take adequate measures to prevent the damage or destruction, by mob action, of U.S. property? No
8. FAA Sec. 620(l). Has the country failed to enter into an investment guaranty agreement with OPIC? No
9. FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec.5.  
 (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (a) No  
 (b) If so, has any deduction required by the Fishermen's Protective Act been made? (b) N/A
10. FAA Sec. 620(q); FY 1990 Appropriations Act Sec. 518 (Brooke Amendment). (a) Has the government of the recipient country been in default for more than six months on interest or principal of any loan to the country under the FAA? (a) No  
 (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the FY 1990 Appropriations Act appropriates funds? (b) No
11. FAA Sec. 620(s). If contemplated assistance is development loan or from N/A

the Economic Support Fund, has the Administrator taken into account the percent of the country's budget and amount of the country's foreign exchange or other resources spent on military equipment? (Reference may be made to the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

12. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? No
13. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? (Reference may be made to the "Taking into Consideration" memo.) Sri Lanka is in arrears but this has been taken into account by the Administrator at the time of approval of Agency OYB.
14. FAA Sec. 620A. Has the President determined that the recipient country grants sanctuary from prosecution to any individual or group which has committed an act of international terrorism, or otherwise supports international terrorism? No
15. FY 1990 Appropriations Act Sec. 564. Has the country been determined by the President to: (a) grant sanctuary from prosecution to any individual or group which has committed an act of international terrorism, or (b) otherwise support international terrorism, unless the President has waived this restriction on grounds of national security or for humanitarian reasons? (a) No  
(b) No

16. ISDCA of 1985 Sec. 552(b). Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures? No
17. FAA Sec. 666(b). Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA? No
18. FAA Secs. 669, 670. Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state or, if such a state, either received or detonated a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.) No such actions are known to have occurred.
19. FAA Sec. 670. If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device? No

20. ISDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on September 25 and 28, 1981, and did it fail to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the "Taking into Consideration" memo.)
- Sri Lanka was not represented at the meeting and subsequent to the meeting entered a written reservation to the communique.
21. FY 1990 Appropriations Act Sec. 513. Has the duly elected Head of Government of the country been deposed by military coup or decree? If assistance has been terminated, has the President notified Congress that a democratically elected government has taken office prior to the resumption of assistance?
- No
22. FY 1990 Appropriations Act Sec. 539. Does the recipient country fully cooperate with the international refugee assistance organizations, the United States, and other governments in facilitating lasting solutions to refugee situations, including resettlement without respect to race, sex, religion, or national origin?
- Yes
- B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY
1. Development Assistance Country Criteria
- a. FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy?
- No

b. FY 1990 Appropriations Act Sec. 535.  
Has the President certified that use of DA funds by this country would violate any of the prohibitions against use of funds to pay for the performance of abortions as a method of family planning, to motivate or coerce any person to practice abortions, to pay for the performance of involuntary sterilization as a method of family planning, to coerce or provide any financial incentive to any person to undergo sterilizations, to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?

No

2. Economic Support Fund Country Criteria

a. FAA Sec. 502B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the President found that the country made such significant improvement in its human rights record that furnishing such assistance is in the U.S. national interest?

N/A

b. FY 1990 Appropriations Act Sec. 569(d).  
Has this country met its drug eradication targets or otherwise taken significant steps to halt illicit drug production or trafficking?

N/A

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## 5C(2) 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; B(2) applies to projects funded with Development Assistance loans; and B(3) applies to projects funded from Economic Support Fund.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP-TO-DATE? Yes.

HAS STANDARD ITEM CHECKLIST  
BEEN REVIEWED FOR THIS PROJECT? Yes.

A. GENERAL CRITERIA FOR PROJECT

1. FY 1990 Appropriations Act Sec. 523; FAA Sec. 634A. If money is to be obligated for an activity not previously justified to Congress, or for an amount in excess of amount previously justified to Congress, has Congress been properly notified? A description of this project was included in FY 1990 Congressional Presentation
2. FAA Sec. 611(a). Prior to an 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? (a) Yes  
(b) Yes
3. FAA Sec. 611(a)(2). If legislative action is required within recipient country with respect to an obligation in excess of \$500,000, what is the basis for a reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the assistance? No legislative action within Sri Lanka is required for project to proceed.
4. FAA Sec. 611(b); FY 1990 Appropriations Act Sec. 501. If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.) N/A

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5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability to maintain and utilize the project effectively?
- Construction financed by AID will not exceed \$1 million; therefore no certification is needed.
6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.
- No
7. FAA Sec. 601(a). Information and conclusions whether projects will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
- (a) No significant effect;  
 (b) Project will enhance ability of private institution to develop commercial projects which are environmentally sound and to develop approaches to influence the government to implement and enforce environmental policies;  
 (c) no significant impact;  
 (d) no significant impact;  
 (e) project will enhance environmental standards applied by industry and other components of the private sector; and (f) no significant impact.
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).
- Minimal effect although U.S. goods and services will be procured to the maximum extent practical.

9. FAA Secs. 612(b), 636(h).  
Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.
- The Project Grant Agreement will specify the financial obligations of the host country, both in cash and in kind.
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?
- The U.S. owns no excess local currency in Sri Lanka.
11. FY 1990 Appropriations Act Sec. 521.  
If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?
- Assistance is not for the production of any commodity for export.
12. FY 1990 Appropriations Act Sec. 547.  
Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807", which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel?
- No
13. FAA Sec. 119(g)(4)-(6) & (10). Will the assistance: (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient
- (a) Project will finance training and education of public and private sector entities and individuals to improve formulation and implementation of broad-based environmental policies

country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

and programs; these efforts should, inter alia, improve capacity to prevent loss of biological diversity; (b) no; (c) yes; (d) no.

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 (either dollars or local currency generated therefrom)? N/A
15. FY 1990 Appropriations Act, Title II, under heading "Agency for International Development." If assistance is to be made to a United States PVO (other than a cooperative development organization), does it obtain at least 20 percent of its total annual funding for international activities from sources other than the United States Government? N/A
16. FY 1990 Appropriations Act Sec. 537. If assistance is being made available to a PVO, has that organization provided upon timely request any document, file, or record necessary to the auditing requirements of A.I.D., and is the PVO registered with A.I.D.? N/A
17. FY 1990 Appropriations Act Sec. 514. If funds are being obligated under an appropriation account to which they were not appropriated, has the President consulted with and provided a written justification to the House and Senate Appropriations Committees and has such obligation been subject to regular notification procedures? N/A

18. State Authorization Sec. 139 (as interpreted by conference report). Has confirmation of the date of signing of the project agreement, including the amount involved, been cabled to State L/T and A.I.D. LEG within 60 days of the agreement's entry into force with respect to the United States, and has the full text of the agreement been pouched to those same offices? (See Handbook 3, Appendix 6G for agreements covered by this provision.)
- Since planned LOP funding is less than \$25 million, the reporting requirement is not applicable.
19. Trade Act Sec. 5164 (as interpreted by conference report), amending Metric Conversion Act of 1975 Sec. 2. Does the project use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate?
- To the maximum extent feasible, metric measurements will be used for procurements, grants and other project activities.
20. FY 1990 Appropriations Act, Title II under heading "Women in Development." Will assistance be designed so that the percentage of women participants will be demonstrably increased?
- There is no specific project activity addressed to the participation of women; however, in the course of implementation AID will ensure women are given a fair opportunity to participate.
21. FY 1990 Appropriations Act Sec. 592(a). If assistance is furnished to a foreign government under arrangements which result in the generation of local currencies, has A.I.D.: (a) required that local currencies be deposited in a separate account established by the recipient government, (b) entered into an agreement with that government providing the amount of local currencies to be generated and the terms and conditions under which the
- N/A

currencies so deposited may be utilized, and (c) established by agreement the responsibilities of A.I.D. and that government to monitor and account for deposits into and disbursements from the separate account?

Will such local currencies, or an equivalent amount of local currencies, be used only to carry out the purposes of the DA or ESF chapters of the FAA (depending on which chapter is the source of the assistance) or for the administrative requirements of the United States Government?

N/A

Has A.I.D. taken all appropriate steps to ensure that the equivalent of local currencies disbursed from the separate account are used for the agreed purposes?

N/A

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

N/A

## B. FUNDING CRITERIA FOR PROJECT

### 1. Development Assistance Project Criteria

- a. FY 1990 Appropriations Act Sec. 546.  
(as interpreted by conference report for original enactment).  
If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or

N/A

training), are such activities:  
 (1) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (2) in support of research that is intended primarily to benefit U.S. producers?

- b. FAA Sec. 107. Is special emphasis on use of appropriate technology (defined as relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small business, and small incomes of the poor)?
- The purpose of the project is not to provide technology, therefore no special emphasis is made in this area.
- c. FAA Sec. 281(b). Describe extent to which the activity recognizes particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental processes essential to self-government.
- The purpose of the project is to train public and private sector individuals and entities to analyze environmental issues and make sound environmental decisions; private individuals and environmental advocacy groups will also be included in project activities.
- d. FAA Sec. 101(a). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?
- The project should ensure that Sri Lanka's future development is environmentally sustainable and that its natural resources are used efficiently and effectively in support of future growth.

- e. FAA Secs. 102(b), 111, 113, 281(a).  
Describe the extent to which activity will: (1) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions; (2) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward a better life, and otherwise encourage democratic private and local governmental institutions; (3) support the self-help efforts of developing countries; (4) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (5) utilize and encourage regional cooperation by developing countries.
- (1) No significant impact;  
(2) Project will enhance ability of private individuals and entities to participate in formulation and implementation of environmental policies and programs by the government and the private sector;  
(3) Project will help to ensure that Sri Lanka's future economic growth is environmentally sustainable and its natural resources are efficiently utilized in achieving economic growth;  
(4) no significant impact;  
(5) not suitable for regional cooperation since objective is to develop Sri Lanka's institutional capabilities in the environmental area; to the extent opportunities for regional cooperation arise they will be pursued.
- f. FAA Secs. 103, 103A, 104, 105, 106, 120-21; FY 1990 Appropriations Act, Title II, under heading "Sub-Saharan Africa, DA." Does the project fit the criteria for the source of funds (functional account) being used? Yes
- g. FY 1990 Appropriations Act, Title II, under heading "Sub-Saharan Africa, DA." Have local currencies generated by the sale of imports or foreign exchange by the government of a country in Sub-Saharan Africa from funds appropriated under Sub-Saharan Africa, DA been deposited in a special account established by that government, and are these local currencies available only for use, in accordance with an agreement with the United States, for development activities which are consistent with the policy directions of Section 102 of the FAA and for necessary administrative requirements of the U.S. Government? N/A

- h. FAA Sec. 110, 124(d). Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)? Yes
- i. 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? The poor, as well as all other citizens of Sri Lanka, should benefit from environmentally sustainable economic growth and efficient use of Sri Lanka's natural resources.
- j. FY 1990 Appropriations Act, under heading "Population, DA," and Sec. 535. No  
 Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions?
- Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations? No
- Are any of the funds to be made available to any organization or program which, as determined by the President, supports or participates in the management of a program of coercive abortion or involuntary sterilization? No
- Will funds be made available only to voluntary family planning projects which offer, either directly or through referral to, information about access to, a broad range of family planning methods and services? N/A

In awarding grants for natural family planning, will any applicant be discriminated against because of such applicant's religious or conscientious commitment to offer only natural family planning?

N/A

Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization, as a means of family planning?

No

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

Yes

l. FY 1990 Appropriations Act Sec. 579.

What portion of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, colleges and universities having a student body in which more than 20 percent of the students are Hispanic Americans, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)?

There is no set-aside in the Project; however, as specific procurements are developed, efforts will be made to identify contracting opportunities for such entities and contractors will be encouraged to utilize such entities as sub-contractors.

m. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth in A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (1) stress the importance of conserving and sustainably managing forest resources; (2) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help

Yes; project activities primarily involve education, technical assistance and training for which a categorical exclusion is available under Reg. 16. For those as yet undetermined special projects, when they are identified, action will be taken to ensure that Reg. 16 requirements are satisfied.

The objective of the Project is to ensure the formulation

countries identify and implement alternatives to colonizing forested areas; (3) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (4) help end destructive slash-and-burn agriculture by supporting stable and productive farming practices; (5) help conserve forests which have not yet been degraded by helping to increase production on lands already cleared or degraded; (6) conserve forested watersheds and rehabilitate those which have been deforested; (7) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal and processing; (8) support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (9) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (10) seek to increase the awareness of U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (11) utilize the resources and abilities of all relevant U.S. government agencies?

and implementation of broad-based environmentally sound policies and programs, including those related to preservation of forests. Therefore the topics referred to items (1)-(9) will be addressed, as relevant, to the situation in Sri Lanka; (10) the project activities will be coordinated with those of other donors involved in Sri Lanka; (11) yes, if determined to be appropriate.

- n. FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including projects
- N/A

involving the planting of exotic plant species), will the program or project: (1) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land; and (2) take full account of the environmental impacts of the proposed activities on biological diversity?

- o. FAA Sec. 118(c)(14). Will assistance be used for: (1) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (2) actions which will significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas? (1) No (2) No
- p. FAA Sec. 118(c)(15). Will assistance be used for: (1) activities which would result in the conversion of forest lands to the rearing of livestock; (2) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands; (3) the colonization of forest lands; or (4) the construction of dams or other water control structures which flood relatively undegraded forest lands, unless with respect to each such activity an environmental assessment indicates that the (1) No (2) No (3) No (4) No

activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?

- q. FY 1990 Appropriations Act Sec. 534(a). If assistance relates to tropical forests, will project assist countries in developing a systematic analysis of the appropriate use of their total tropical forest resources, with the goal of developing a national program for sustainable forestry? N/A
- r. FY 1990 Appropriations Act Sec. 534(b). If assistance relates to energy, will such assistance focus on improved energy efficiency, increased use of renewable energy resources, and national energy plans (such as least-cost energy plans) which include investment in end-use efficiency and renewable energy resources? N/A

Describe and give conclusions as to how such assistance will: (1) increase the energy expertise of A.I.D. staff, (2) help to develop analyses of energy-sector actions to minimize emissions of greenhouse gases at least cost, (3) develop energy-sector plans that employ end-use analysis and other techniques to identify cost-effective actions to minimize reliance on fossil fuels, (4) help to analyze fully environmental impacts (including impact on global warming), (5) improve efficiency in production, transmission, distribution, and use of energy, (6) assist in exploiting nonconventional renewable energy resources, including wind, solar, small-hydro, geo-thermal, and advanced biomass systems, (7) expand efforts to meet the energy needs of the rural poor, N/A

(8) encourage host countries to sponsor meetings with United States energy efficiency experts to discuss the use of least-cost planning techniques, (9) help to develop a cadre of United States experts capable of providing technical assistance to developing countries on energy issues, and (10) strengthen cooperation on energy issues with the Department of Energy, EPA, World Bank and Development Assistance Committee of the OECD.

- s. FY 1990 Appropriations Act, Title II under heading "Sub-Saharan Africa, DA." (as interpreted by conference report upon original enactment). If assistance will come from the Sub-Saharan Africa DA account, is it: N/A
- (1) to be used to help the poor majority in Sub-Saharan Africa through a process of long-term development and economic growth that is equitable, participatory, environmentally sustainable, and self-reliant; (2) being provided in accordance with the policies contained in section 102 of the FAA; (3) being provided, when consistent with the objectives of such assistance, through African, United States and other PVOs that have demonstrated effectiveness in the promotion of local grassroots activities on behalf of long-term development in Sub-Saharan Africa; (4) being used to help overcome shorter-term constraints to long-term development, to promote reform of sectoral economic policies, to support the critical sector priorities of agricultural production and natural resources, health, voluntary family planning services, education, and income generating

opportunities, to bring about appropriate sectoral restructuring of the Sub-Saharan African economies, to support reform in public administration and finances and to establish a favorable environment for individual enterprise and self-sustaining development, and to take into account, in assisting policy reforms, the need to protect vulnerable groups; (5) being used to increase agricultural production in ways that protect and restore the natural resource base, especially food production, to maintain and improve basic transportation and communication networks, to maintain and restore the renewable natural resource base in ways that increase agricultural production, to improve health conditions with special emphasis on meeting the health needs of mothers and children, including the establishment of self-sustaining primary health care systems that give priority to preventive care, to provide increased access to voluntary family planning services, to improve basic literacy and mathematics especially to those outside the formal educational system and to improve primary education, and to develop income-generating opportunities for the unemployed and underemployed in urban and rural areas?

- t. International Development Act Sec. 711, FAA Sec. 463. If project will finance a debt-for-nature exchange, describe how the exchange will support protection of: (1) the world's oceans and atmosphere, (2) animal and plant species, and (3) parks and reserves; or describe how the exchange will
- N/A

promote: (4) natural resource management, (5) local conservation programs, (6) conservation training programs, (7) public commitment to conservation, (8) land and ecosystem management and (9) regenerative approaches in farming, forestry, fishing and watershed management.

- u. FY 1990 Appropriations Act Sec. 515. N/A  
 If deob/reob authority is sought to be exercised in the provision of DA assistance, are the funds being obligated for the same general purpose, and for countries within the same region as originally obligated, and have the House and Senate Appropriations Committees been properly notified?

2. Development Assistance Project Criteria  
(Loans only)

- a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan at a reasonable rate of interest. N/A
- 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 or has the requirement to enter into such an agreement been waived by the President because of a national security interest? N/A

- c. FAA Sec. 122(b). Does the activity give reasonable promise of assisting long-range plans and programs designed to develop economic resources and increase productive capacities? N/A

3. Economic Support Fund Project Criteria

- a. FAA Sec. 531(a). Will this assistance promote economic and political stability? To the maximum extent feasible, is this assistance consistent with the policy directions, purposes, and programs of Part I of the FAA? N/A
- b. FAA Sec. 531(e). Will this assistance be used for military or paramilitary purposes? N/A
- c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? N/A

## 5C(3) - STANDARD ITEM CHECKLIST

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. PROCUREMENT

- |  |  |
|--|--|
| 1. <u>FAA Sec. 602(a)</u> . Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?  | Yes; all U.S. procurements will be advertised in accordance with AID policy. |
| 2. <u>FAA Sec. 604(a)</u> . Will all procurement be from the U.S. except as otherwise determined by the President or determined under delegation from him?   | Yes  |
| 3. <u>FAA Sec. 604(d)</u> . If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?   | N/A  |
| 4. <u>FAA Sec. 604(e)</u> . If non-U.S. procurement of agricultural commodity or product thereof is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)   | N/A  |
| 5. <u>FAA Sec. 604(g)</u> . Will construction or engineering services be procured from firms of advanced developing countries which are otherwise eligible under Code 941 and which have attained a competitive capability in international markets in one of these areas? (Exception for those countries which receive direct economic assistance under the FAA and permit United States firms to compete for construction or engineering services financed from assistance programs of these countries.) | Yes  |

6. FAA Sec. 603. Is the shipping excluded from compliance with the requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 percent of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates? No
7. FAA Sec. 621(a). If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? Will the facilities and resources of other Federal agencies be utilized, when they are particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs? Yes; Yes
8. International Air Transportation Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available? Yes
9. FY 1990 Appropriations Act Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States? Such a clause will be included in any AID direct contracts.
10. FY 1990 Appropriations Act Sec. 524. If assistance is for consulting service through procurement contract pursuant to 5 U.S.C. 3109, are contract expenditures a matter of public record and available for public inspection (unless otherwise provided by law or Executive order)? N/A

11. Trade Act Sec. 5164 (as interpreted by conference report), amending Metric Conversion Act of 1975 Sec. 2. Does the project use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impractical or is likely to cause significant inefficiencies or loss of markets to United States firms? Are bulk purchases usually to be made in metric, and are components, subassemblies, and semi-fabricated materials to be specified in metric units when economically available and technically adequate?

Metric measurements will be used to maximum extent practicable in all procurements.

12. FAA Secs. 612(b), 636(h); FY 1990 Appropriations Act Secs. 507, 509. Describe steps taken to assure that, to the maximum extent possible, foreign currencies owned by the U.S. are utilized in lieu of dollars to meet the cost of contractual and other services.

AID owns no rupees that can be used in lieu of dollars.'

13. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

No.

14. FAA Sec. 601(e). Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes.

#### B. CONSTRUCTION

1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services be used?

Although some construction will be financed, it is minimal under the Project and Sri Lankan engineering and professional services will be used.

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

Yes.

- 3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the CP), or does assistance have the express approval of Congress? N/A

C. OTHER RESTRICTIONS

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

- 2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? N/A

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

- 4. Will arrangements preclude use of financing:

- a. FAA Sec. 104(f); FY 1990 Appropriations Act under heading "Population, DA," and Secs. 525, 535. (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice abortions; (2) to pay for performance of involuntary sterilization as method of of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (3) to pay for any biomedical

The Grant Agreement will provide that project funds may only be used for approved project activities. No specific provisions will be included in the Grant Agreement to preclude the uses referred to in Items a-1; however, AID will have the right to approve

research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; or (4) to lobby for abortion?

project activities and to request a refund for impermissible expenditures.

- b. FAA Sec. 483. To make reimbursements, in the form of cash payments, to persons whose illicit drug crops are eradicated?
- c. FAA Sec. 620(g). To compensate owners for expropriated or nationalized property, except to compensate foreign nationals in accordance with a land reform program certified by the President?
- d. FAA Sec. 660. To provide training, advice, or any financial support for police, prisons, or other law enforcement forces, except for narcotics programs?
- e. FAA Sec. 662. For CIA activities?
- f. FAA Sec. 636(i). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained?
- g. FY 1990 Appropriations Act Sec. 503. To pay pensions, annuities, retirement pay, or adjusted service compensation for prior or current military personnel?
- h. FY 1990 Appropriations Act Sec. 505. To pay U.N. assessments, arrearages or dues?
- i. FY 1990 Appropriations Act Sec. 506. To carry out provisions of FAA section 209(d) (transfer of FAA funds to multilateral organizations for lending)?

- j. FY 1990 Appropriations Act Sec. 510.  
To finance the export of nuclear equipment, fuel, or technology?
- k. FY 1990 Appropriations Act Sec. 511.  
For the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?
- l. FY 1990 Appropriations Act Sec. 516; State Authorization Sec. 109. To be used for publicity or propaganda purposes designed to support or defeat legislation pending before Congress, to influence in any way the outcome of a political election in the United States, or for any publicity or propaganda purposes not authorized by Congress?
5. FY 1990 Appropriations Act Sec. 574. Yes  
Will any A.I.D. contract and solicitation, and subcontract entered into under such contract, include a clause requiring that U.S. marine insurance companies have a fair opportunity to bid for marine insurance when such insurance is necessary or appropriate?
6. FY 1990 Appropriations Act Sec. 582. No  
Will any assistance be provided to any foreign government (including any instrumentality or agency thereof), foreign person, or United States person in exchange for that foreign government or person undertaking any action which is, if carried out by the United States Government, a United States official or employee, expressly prohibited by a provision of United States law?

LOGFRAME

DIAGNOSTIC SUPPORT	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																		
<p><b>Goal:</b></p> <p>To sustain economic growth in Sri Lanka by efficient management of the island's forests, wildlife, soils, coastal, and other natural resources.</p>	<p>Increased incorporation of sustainable environmental actions into public and private investments and decisions.</p>	<ul style="list-style-type: none"> <li>• ESR budgets, staff levels, programs and facilities increased to manage and monitor natural resources, environmental pollution.</li> <li>• Increased private sector investment in pollution control.</li> <li>• Increased use of EIA in public &amp; private decisions in effecting development programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Economic policies favoring growth and political stability.</li> <li>• Continued political support for environmental programs.</li> <li>• Continued levels of donor support for environmental program.</li> </ul>																		
<p><b>Project purpose:</b></p> <p>To improve performance by public and private entities in formulating effective environmental policies, developing sustainable environmentally sound programs.</p>	<p><b>Conditions indicating achievement:</b></p> <p><b>Natural Resource Management</b></p> <ol style="list-style-type: none"> <li>1. Public and private programs for efficient pollution control and environmental impact assessment as required by the 1988 NEA amendments.</li> <li>2. Substantially improved natural resource information on environmental and economic conditions, trends, and choices to meet policy and program priorities.</li> </ol> <p><b>Special Projects</b></p> <ol style="list-style-type: none"> <li>2. New public-private partnerships in environmental protection, resource management.</li> </ol> <p><b>Training</b></p> <ol style="list-style-type: none"> <li>4. Substantially enhanced public/private capabilities to assess natural resource management alternatives, and plan/implement natural resource programs.</li> </ol> <p><b>Public education/participation</b></p> <ol style="list-style-type: none"> <li>5. Substantially increased numbers of programs, materials on priority problems for public environmental education.</li> <li>6. Substantial increase in public participation in economic development programs affecting the environment.</li> </ol>	<ol style="list-style-type: none"> <li>1. ESR and MGO reports and project analyses of EIA and pollution control programs.</li> <li>2. ESR (MARESA, CEA, MFD) reports and project evaluation.</li> <li>3. ESR reports and project evaluation reports.</li> <li>4. ESR reports and project training evaluation reports.</li> <li>5. ESR reports, MGO grant reports, and project evaluation reports.</li> <li>6. ESR reports, MGO grant reports, and project evaluation reports.</li> </ol>	<ul style="list-style-type: none"> <li>• Continued level of ESR information.</li> <li>• Continued trends toward economic growth and privatization.</li> <li>• Effective leadership of ESR, MGO organizations.</li> <li>• A strong, free press.</li> </ul>																		
<p><b>INPUTS (ACTIVITIES)</b></p> <ol style="list-style-type: none"> <li>1. Technical Assistance</li> <li>2. Training</li> <li>3. Commodity</li> <li>4. Facility Support</li> <li>5. Research Support</li> <li>6. Evaluation &amp; Contingencies</li> <li>7. Operational Support</li> </ol>	<p><b>BALANCE (Millions US\$)</b></p> <table border="1"> <thead> <tr> <th>USAID</th> <th>ESR</th> </tr> </thead> <tbody> <tr> <td>\$4.70</td> <td>1.0</td> </tr> <tr> <td>1.48</td> <td>0.70</td> </tr> <tr> <td>1.43</td> <td>0.69</td> </tr> <tr> <td>0.20</td> <td>0.01</td> </tr> <tr> <td>2.25</td> <td>0.55</td> </tr> <tr> <td>0.94</td> <td>0.15</td> </tr> <tr> <td>0</td> <td>3.00</td> </tr> <tr> <td><b>12.00</b></td> <td><b>6.00</b></td> </tr> </tbody> </table>	USAID	ESR	\$4.70	1.0	1.48	0.70	1.43	0.69	0.20	0.01	2.25	0.55	0.94	0.15	0	3.00	<b>12.00</b>	<b>6.00</b>	<p>USAID and ESR records</p>	<ul style="list-style-type: none"> <li>• ESR counterpart funding</li> </ul>
USAID	ESR																				
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<p><b>Outputs</b></p> <p><b>Training</b></p> <ol style="list-style-type: none"> <li>1. Increased number of public/private sector personnel skilled in all aspects of natural resource, environmental protection analysis, implementation;</li> <li>2. Local Personnel conducting regular environmental training</li> <li>3. Significant increase in numbers of government agencies with trained/sponsoring environmental units;</li> </ol>	<p><b>Replicate of Outputs</b></p> <ol style="list-style-type: none"> <li>1. Approximately 10 fold increase in number of skilled personnel overall, in fields of EIA, economic resource analysis, environmental law, pollution control, coastal wildlife.</li> <li>2. Three institutions, versus none at project outset.</li> <li>3. Approximately 2 fold increase over the three existing units.</li> </ol>	<ol style="list-style-type: none"> <li>1. ESR staff and evaluation records and project evaluation reports.</li> <li>2. ESR reports and project evaluation reports.</li> <li>3. ESR staff and evaluation and budget records</li> </ol>	<ul style="list-style-type: none"> <li>• Continued ESR commitment to and support for environmental policy and programs</li> <li>• Continued university functions and strengthened scientific, English programs.</li> <li>• Enforcement of basic pollution control, EIA requirements under NEA amendments of 1988.</li> <li>• ESR support for public participation and cooperation with NGOs.</li> </ul>																		
<p><b>Natural Resource Management</b></p> <ol style="list-style-type: none"> <li>4. Substantial increase in percentage of public investment projects meeting EIA-specified standards;</li> <li>5. Up-to-date technical environmental information center for public/private use.</li> <li>6. Quantitatively based indicators of national environmental conditions, trends;</li> <li>7. National natural resource management strategy for budget and capital investment.</li> </ol>	<p><b>Natural Resource Management</b></p> <ol style="list-style-type: none"> <li>4. From estimated 5 percent to approximately 80 percent of projects meeting EIA standards.</li> <li>5. From none at outset to one active network;</li> <li>6. From none at outset to pollution field, establish reliable indicators for inland water quality, ambient air quality (Columbo). (??)</li> <li>7. Establish one.</li> </ol>	<ol style="list-style-type: none"> <li>4. ESR staff, budget records, EIA records, and project evaluation reports.</li> <li>5. ESR staff and evaluation records.</li> <li>6. ESR reports and project evaluation reports.</li> <li>7. ESR staff and evaluation and budget records.</li> </ol>																			
<p><b>Public education/participation</b></p> <ol style="list-style-type: none"> <li>8. Substantial increase in attendance at environmental MGO meetings and government public hearings;</li> </ol>	<p><b>Public education/participation</b></p> <ol style="list-style-type: none"> <li>8. Three fold increase. (??)</li> </ol>	<ol style="list-style-type: none"> <li>8. ESR, MGO, and project evaluation reports.</li> </ol>																			

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 நிதி அமைச்சு  
 DEPARTMENT OF EXTERNAL RESOURCES  
 Ministry of Finance

ලිපි ලේඛන අංශය (3වන මහල)  
 செயலகம், (3ம் தளம்)  
 The Secretariat. (3rd Floor)  
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 அ. பெ. இல. 277, கொழும்பு 1  
 P. O. Box 277, Colombo 1  
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OFFICIAL FILE COPY

Mr. George Jones,  
 Acting Director,  
 USAID Mission.

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Dear Mr. Jones,

On behalf of the Government of Sri Lanka I wish to make a formal request for USAID assistance, on a grant basis, for undertaking a National Resources and Environmental Policy Project in accordance with the Amplified Project Description mutually discussed and agreed upon.

The primary objective of the Project will be to improve public and private institutional performance in formulating and implementing effective environmental policies and developing environmentally sound development programmes. The Project will be co-ordinated by the Ministry of Environment and will be implemented by a Steering Committee consisting of representatives from the National Planning Department, Central Environmental Authority, NARA, NARESA, Coast Conservation Dept., Buildings Dept., and the External Resources Dept.

It is anticipated that the total USAID contribution for this Project would be approximately US \$ 12 million in grant assistance.

Yours sincerely,

*S. L. Kuruppu*  
 (Mrs. S. L. Kuruppu)  
 Director, External Resources

REFERENCE NO. 90/1280  
 DATE RECEIVED. 06.25.90  
 ACTION.....

- 81

**NAREPP TECHNICAL ANALYSIS**

This is an analysis to determine whether the appropriate project interventions have been selected to achieve the purpose of the Natural Resource and Environmental Policy Project (NAREPP). It investigates whether the project will work and whether the actions planned most efficiently respond to what we know about natural resource management needs, failures, and successes in Sri Lanka.

**1. Summary of rationale for technical approach**

The project purpose is to improve public and private institutional performance in formulating and implementing effective environmental policies and developing sustainable and environmentally sound development programs. The interventions proposed are intended to strengthen technical and analytical capabilities of numerous public and private institutions and increase accountability of public and private entities controlling natural resources. Interventions are based on the following findings:

1.1. Sri Lanka's economic growth path, including energy production and use, depends for the foreseeable future on stability and increased productivity in the agricultural sector, substantial growth in its industrial and service (tourist) sectors, and physical and social management of its slow but steady urban growth. (See Annex on Natural Resource Management Constraints on Economic Growth.)

1.2. A significant constraint on this economic growth is Sri Lanka's management of its natural resources and environment, which affects agricultural development, energy production, urban growth, and industrial and tourist development. Management actions required to over the next ten years include programs to ensure adequate biomass for energy, sustain productivity and protection of catchment watersheds, maintain water quality, make efficient economic and biological use of forest and wildlife resources, and manage coastal resources for productive fisheries, increased tourism, appropriate industrial sites, and healthy human settlements. (See Annex on Natural Resource Management Constraints on Economic Growth.)

1.3. Insufficient skills, knowledge, and information have become the major constraint on efficient natural resource and environmental management. Sri Lanka has sophisticated legal and institutional frameworks for management (see Institutional/Administrative Analysis.), but government machinery is poorly designed to address cross-cutting environmental problems. Sri Lankans appear highly aware of environmental problems (see Social Soundness Analysis), but do not appreciate needs to change individual behavior. Effective management policy and action suffers from four major constraints:

- o weak institutional capacities for natural resource management in the public and private sector, including abilities to analyze problems and alternative solutions, plan for implementation, implement plans, and enforce basic standards and regulations needed for natural resource management;
- o limited on-the-ground experience with alternative approaches to public-private partnerships in natural resource management;
- o insufficient numbers and quality of personnel, in and out of government, trained in basic skills of impact assessment, economic resource analysis, and other basic technical skills;
- o limited opportunities for public review of government plans and decisions and for informed public participation that will hold decision makers accountable for resource management.

(These constraints are discussed in the Annex on Natural Resource Management Constraints on Economic Growth.)

1.4. In response to these institutional constraints the project has designed four administrative components:

- o Natural resource management: to improve natural resource management performance by technical assistance in policy appraisal, formulation, and implementation.

This element requires project assistance to improve resource policy analysis by policy level agencies (the CEA, the Ministry of Environment and Parliamentary Affairs, and NPD); targeted research capabilities to help policy makers (for example, through work of NARESA) analyze effects of alternative natural resource policy approaches for economic growth; field-level activities to help policy makers identify private-public resource management approaches that work.

To address needs of implementing and policy-making agencies alike, the project will help develop a natural resource management information network and outreach programs to meet needs and enhance capabilities of public and private sector technical personnel. Specific technical information actions will support agency (CCD, DWLC, NARA, and others) development of environmental research meeting management needs, management plans, implementation actions, and enforcement.

- o Special projects: to assess and demonstrate private-public partnerships to implement natural resource and environmental policy through geographically and topically specific projects.

This element will support geographically specific pilot projects in natural resource management to give policy makers information on practical, local public and private management experience, and to develop information for public education and training programs. A second element will support specific research for policy makers on pressing resource management problems requiring public and private solutions.

o Impact assessment and management: to train public and private sector personnel in economic and environmental impact assessment and natural resource management.

The project will help implement existing legal requirements and establish cadres of expertise in the public and private sector by in-country training for approximately 1000 people in over 20 different agencies and private sector businesses, banks, consulting firms, and NGOs, supplemented by study tours, short-term studies, and degree programs.

Additional specialized training programs will be carried out for specific agencies and private sector entities to meet particular organizational or substantive needs.

o Public education and participation: to enhance public awareness and participation by developing an informed citizenry and strong nongovernmental organizations.

The project will build the capability of NGOs to become strong educational and public participation forces, capable of reaching citizens at the grass-roots, and will support technical information education programs of NARESA for the public and private sector.

## 2. Technical analysis -- how project components respond to these constraints to achieve project purposes:

The explicit project purpose -- to improve policy formulation, policy implementation, and development of natural resource programs -- requires public and private sector interventions, explained below. Implicit in the project purpose, however, is increased public awareness of resource problems and choices, and public participation in implementation through effective oversight and involvement in decision-making. Without these actions -- major attributes of strong democratic pluralism -- the project's objectives cannot be secured.

For this analysis each major project intervention has been disaggregated from the four administrative components in order to show how it will achieve project objectives -- environmentally sound policy formulation, policy implementation, and effective public involvement in formulation and implementation.

Three design and implementation requirements should be highlighted at this point.

First, targeted entities must be both public and private. On one hand, given substantial government involvement in all aspects of natural resource management, each component was crafted to address the institutional constraints of counterpart agencies according to their legal mandates and the nature of the resource problems agencies confront. On the other hand, actions to strengthen private sector institutions form integral parts of each component. Project interventions therefore must include assistance in natural resource management that will broaden government agency understanding of private sector incentive mechanisms for efficient resource management. The project must also support private as well as public sector training and participation in resource management in special areas. All components are planned to augment opportunities for public involvement, but this is a particular focus of the component supporting nongovernmental programs for public education and participation.

Second, implementation and results of each component must relate closely to the implementation and results of the others. For example, policy development assistance, largely contained within the natural resource management component, will need input from special studies on particular problems. Public education activities and special projects will provide information for the training program. Information and management priorities developed by agencies will feed needs of NGO education programs. NAREPP implementation contracts will ensure that technical advisors for natural resource management, including resource economists, will also participate in the specialized NGO or broader public/private training programs. These and other interactions are explained in more detail below.

Third, all project activities must be carefully coordinated with other donor environmental proposals or initiatives. Given the breadth of NAREPP and extensive project-level or agency-specific interventions of other donors in the environmental arena, donor coordination is essential. The GSL has recognized this need itself; one of the earliest public actions of the Ministry of Environment and Parliamentary Affairs was to host a meeting of donors involved in environmental work. To avoid overlap and strengthen NAREPP's objectives, project management will require regular meetings with other donors concerned with NAREPP counterpart agencies or NGOs. This will be particularly critical regarding degree and short-term training programs abroad, technical assistance in fields of pollution control, coastal management, or catchment area management, and donor assistance to NGOs. Counterpart agencies supported by more than one donor (for example, CEA, CCD, NARA) must be required to schedule and host meetings of their donors on a semi-annual or annual basis.

Cost-effectiveness of the interventions analyzed below can in most instances only be estimated. Information on the economic impacts of natural resource actions, or failures to act, have rarely been assessed in Sri Lanka. These are serious

deficiencies that the project is designed to help remedy. Measurements of increased economic efficiency in resource use will be improved as the project builds the necessary institutional analytical capacity. Management efficiency will improve when policy makers understand and take actions to integrate costs of externalities, and market-oriented approaches to resource management and enforcement, into policies and programs.

### 2.1. Interventions to improve policy formulation

The project will help the Ministry of Environment (MEPA), CEA, NPD, and other agencies as well, to formulate policies for economic development and environmental management that are sustainable and sound.

o Policy, coordination, and institutional assistance to MEPA: To help GSL establish, for the first time, an environmental policy coordinating body, NAREPP will need to provide MEPA, as lead agency, with capabilities to formulate institutional and policy approaches that its environmental coordinating committee can help implement. Experience with policy development and coordination needs to be brought to bear, as well as commodity assistance (computers, etc.). Overlapping sectoral and agency role, costs, and opportunities to reduce them, need understanding by MEPA and the necessarily high-level members of the coordinating committee, based on continuing flow of information from NAREPP and other sources.

o Resource economic analysis and training for policy makers: Technical assistance in resource economics and natural resource sciences will be provided to help the MEPA, NPD and the CEA analyze agency development projects comprehensively at the early plan feasibility stages. Factors analyzed will include costly externalities, operating and maintenance costs, incentives for private sector resource management, and needs for further research, or better project monitoring and enforcement. Alternative strategies will be assessed and compared. These analyses will help CEA review environmental impact assessments on major projects and the NPD's review of line agency submissions of proposed development projects.

It is difficult to assess the costs and benefits of these interventions quantitatively; absence of coordination has resulted in inefficiencies that have not been quantified, and the same lack results from the absence of available comprehensive economic data on present natural resource management or mismanagement. However, evidence from the impact analyses on forestry and a coal-fired power plant suggests that the government is prepared to make rational decisions based on better agency coordination of issues and sound analysis, and that NPD and MEPA/CEA recognize the economic savings of having good coordination and environmental analysis before decisions are reached.

It can be assumed that the effects of more comprehensive policy analysis by NPD and CEA will eventually affect project design procedures and decisions of implementing agencies. Line agencies will begin to design projects and programs with greater environmental and economic awareness as NPD and CEA begin to require it and as agencies learn the economic or budgetary benefits of better analysis.

o Targeted research capabilities for policy makers: The Special Projects component will allow the MEPA, NPD, and CEA, among others, to obtain the benefits of specific policy research. Some research projects will analyze critical national policy problems and alternative solutions concerning adverse economic and environmental effects of economic subsidies, taxes, enforcement practices, or government agency contracting practices (including contracts with other government agencies). Other studies will examine the socio-economic and environmental problems and remedies of important resource problems like illegal coral mining, or gem mining, that require integrated policies and multiple agencies to address.

This intervention is designed to develop policy analyses and institutional responses to specific economic/environmental problems. At the same time it must help agencies like CEA, NPD, and others to improve the methodology used to develop new programs or policies, and to enhance their analytical capabilities. It will help the MEPA identify needs for better coordination among agencies. For example, the need for action to control soil erosion, stop live coral mining or indiscriminate gem pit construction, or regulate pollution from busses and vans has become notorious and much discussed, with few policy results. Economic costs of these problems, benefits of correction, alternative incentives, or "technical fix" solutions have been inadequately assessed. Studies have largely neglected analyses of practical alternative enforcement measures, including opportunities of self regulation in self interest. NAREPP can contribute to economic efficiency by giving policy and implementing agencies the means and methodologies to obtain data and analyses, and to publicize results.

Research topics selected should respond to priority needs as identified by the environmental coordinating committee. An initial guide to the committee will be the results of the Natural Resources Conditions and Trends Profile being developed by NARESA.

o Connecting information and research to policy formulation needs: Technical and other assistance will develop capabilities of NARESA to meet needs of policy and coordination information (MEPA, NPD, CEA) and implementation and management requirements of line agencies and the private sector, including businesses and NGOs.

-- Assistance to NARESA and CEA will help make essential technical information newly available to NGOs, other private entities, and public agencies. TA and commodity support to NARESA will help it expand its technical library with a core body of up-to-date technical information on natural resource management and environmental policy for use by the public and private sector. This assistance will also allow NARESA to expand its links with libraries in Sri Lanka and abroad, and to develop an active information and research service for users. These capabilities will provide important information to the MEPA as well as NARESA's own Ministry of Science and Technology. CEA will receive assistance in developing technical information on environmental impact assessment theory and practice.

-- Technical assistance and grant support will also be provided to allow NARESA to distribute Sri Lanka's assessment of environmental conditions and trends, and hold information workshops on findings and research/management priorities for government, business, and NGOs. NAREPP will provide technical and commodity assistance to build on this experience for preparation and distribution of a second profile in the third or fourth year of the project.

-- The project will provide technical assistance and grant support for workshops, conferences, guest lectures, and other similar activities directed toward policy formulation by NARESA in cooperation with other agencies, the private sector, and the university community. These activities will follow up NARESA's report on natural resource conditions and trends in Sri Lanka with specialized programs for public and private resource managers on natural resource economics, appraisal, planning, and management techniques.

These policy and information initiatives address a gap affecting policy formulation as well as implementation. Sri Lanka lacks a basic and up-to-date technical information center on natural resource management and environmental protection that can serve the needs of policy makers in the public and private sector, or the program development needs of agencies, businesses, and NGOs. The information available presently on all critical topics -- resource economics, impact assessment, pollution control, forest management, coastal resource management, and so forth, especially within the south and east Asia region -- is extremely limited, and where it exists, is scattered.

An information center is essential for efficient allocation of scarce information resources in Sri Lanka to meet user needs concerned with implementing requirements for EIA, pollution licensing, or natural resource management being developed in Sri Lanka. NARESA's existing TECHNET (see Institutional/Administrative Analysis) provides the only strong

information base in or out of government on which to expand; it contains the best, albeit limited, natural resource collection in Sri Lanka, and provides modest information search services to users. Expansion of the center will require new space on NARESA property, as NARESA has proposed, which is conveniently located for public and government use. Technical and commodity assistance will be essential in developing plans and priorities for acquiring new materials, developing links to US public and private institutions, and a fee-for-service program for information searches by NARESA staff. Information and research service clients should include NGOs, private companies, government agencies, Parliamentary committees, Provincial Councils, newspapers, and others.

Preparation and publication of Sri Lanka's first comprehensive and graphic report on natural resource conditions and trends will provide the MEPA, CEA, and NPD, and the public at large with substantially improved information about Sri Lankan resource problems and priorities. It must be carefully and comprehensively presented to the public and private sector. NAREPP will provide technical and commodity assistance to carry out this follow-up through workshops, summary reports, reports on research and management priorities, and other materials. It has a committee structure, staff, facilities, and links with the public and private sector, including NGOs, for effective outreach.

Having made the investment in authors, experience, and analysis, NARESA, working through its committees and staff, will need further TA and commodity support to (a) fill critical research and policy analysis needs of the MEPA, CEA, NPD, and other agencies, and (b) to develop a follow-up conditions and trends report, estimated for completion in the third or fourth year of the project. NAREPP will need to provide technical assistance to NARESA in the field of resource economics, and support of conferences and other programs to increase public awareness of new public and private economic incentive approaches to resource management.

## 2.2. Interventions to improve implementation of policies

The project will address constraints faced by GSL line agencies and private investors in implementing sustainable natural resource management policies through training, and direct technical and other assistance for program implementation.

### 2.2.1. Providing human resources for implementation

Training programs will be carried out to increase as quickly as possible the number of people in the public and private sector who understand basic requirements of resource management and environmental assessment as required by recent legislation. Over time the program will provide training for targeted persons and groups in greater depth.

General training: Personnel from line agencies, banks, major industries, consulting companies, and NGOs will constitute the primary focus of approximately 65 one-day to two-week training courses. Training will be carefully complemented by study tours for those needing that information, short-term courses on impact assessment and resource management in Sri Lankan universities, and short-term study programs and degree programs abroad for personnel who need it to assume new responsibilities on their return to work. A number of existing GSL and private training facilities and programs exist that can be supported and developed to improve public and private training. No new training facilities or entities will be required to carry out this project component, although that may be desirable in Sri Lanka in the future.

Agency-specific training: As discussed under coastal and wildlife interventions, below, additional training will be provided in country to personnel of the DWLC, supplemented by study tours, and short-term study and limited degree training. Training for the CCD will include in-country workshops and limited degree training.

NGO training: As discussed under the public education program initiatives below, the project will provide essential management training to NGO staff to help these organizations sustain fund-raising, manage funds, and manage projects.

Broad environmental and natural resource management training is Sri Lanka's single most critical need in the environmental arena. (See Baldwin, 1988, Crawford 1989, Tarrant, 1989, McCrae, 1989.) This training intervention is essential to broaden the base of expertise quickly and sustainably. The most immediate needs are for public and private sector personnel who can prepare and review EIAs. A comprehensive analysis of training needs, approaches, and rationale was prepared in project design. (See Crawford, 1989.) As discussed in that report, training to fill basic, immediate needs is essential, feasible, and cost-effective. CEA has prepared further elaboration of training needs and designs and the staff help that it will devote to the training program. The training program should be carried out according to the following design criteria:

-- Maximize in-country training using existing institutions. Although local staff will need to be trained, training programs have been identified as appropriate for augmentation. Adequate training facilities are also available in Colombo, including university and government facilities and other private facilities identified in the Crawford report.

-- Support, to the maximum extent possible, short-term study and degree programs in Sri Lanka and the region. Programs within Sri Lankan universities are now possible and ideas are being developed by CEA now that the universities have re-opened and are fully functioning. Within the region,

opportunities include Thailand, e.g., Asia Institute of Technology, now developing a Sri Lankan campus at Kotmale, and Kasetsart University) and India (for the Department of Wildlife Conservation). Degree training in Thailand would be approximately half as costly per student as similar training in the US. (See Crawford, 1989.) Moreover, problems of students not returning to Sri Lanka will also be minimized.

-- Support teacher training programs for Sri Lankans to make the program sustainable. The training program will need to train or support training abroad for teachers. Again, to the maximum extent possible, training should be in Sri Lankan and regional institutions. As Sri Lankan universities normalize, opportunities for supporting and expanding English language degree or other short-term training programs will rapidly expand to train teachers.

-- Support early study tours for key officials to US, regional sites and institutions of appropriate scale. Study tours to the US should focus on impact assessment problems, sites, and resources comparable in scale to those confronted in Sri Lanka. Particularly important and relevant are local and state government natural resource management (parks, refuges, urban and rural development planning and financing activities, industrial and agricultural impact regulation) and EIA experiences; regional federal offices, private sector and NGO resource management activities should be highlighted.

-- Limit degree training abroad, with rare exception, to masters level programs. Even with maximum use of regional institutions, support for degree programs will need to be carefully limited due to high costs. Support must in nearly all cases be limited to masters programs, the most cost-effective approach to obtain the maximum number of adequately skilled people needed.

-- Require manpower assessment and allocation plans from each agency participating in degree or study programs abroad. To assure that even these students are utilized efficiently by their employing institutions, the project will need manpower plans and assurances that there will be job openings and opportunities appropriately matching the newly acquired skills of the students.

The training program will require full-time technical coordination assistance from a U.S. consultant, additional short-term instructors from the U.S., and active management by the CEA, as lead agency. To augment the needs survey and plan developed by the project design consultant, CEA will need to complete a plan (now underway) for technical assistance requirements for developing necessary training materials, scheduling training sessions for the first year, identifying specific participating entities from the public and private sector, and establishing the numbers of people participating in the first year.

### 2.2.2. Policy and program implementation

Interventions to improve implementation focus on institutional needs affecting key resources -- coasts, wildlife, inland watersheds, forests -- and significant economic impacts -- tourism, industrial and municipal pollution. Targeted groups for these implementation interventions include government, private businesses, and NGOs.

- o Public and private implementation of coastal management. TA and staff training will help the CCD identify implementation strategies for its existing coastal resource management plan that include private incentives for coastal conservation, and community education about and involvement in carrying out the program.

TA for the CCD will build on experiences and needs following USAID's centrally-funded coastal program for pilot programs in Sri Lanka, Thailand, and Ecuador. NAREPP assistance will be provided in accordance with project objectives within CCD's five-year program for 1990-1994. Training assistance remains critical (see Institutional/Administrative Analysis) due to continued attrition and rapidly building prospects for coastal management needs in the Northeast Province. Training will be provided for staff degrees (2), short term training, and in-country training workshops for CCD, private sector, and local government staff. Support for educational materials and workshops for NGOs should focus on concerns about implementing the coastal management plan, approved by the GSL Cabinet in April, 1990. Topics will also be guided by priorities developed under the USAID-supported coastal resource management project and its Coastal 2000 report, to be completed in 1990-91. NAREPP will need to support or follow up the Coastal 2000 report dissemination and hold workshops on that report.

During the early years of NAREPP, it will be critical to support regular training programs, information analysis, and materials for provincial and local as well as private sector personnel. TA will be provided for CCD to help staff develop economic resource analytical capabilities, develop economic resource studies, identify and respond to legal and enforcement problems, prepare essential maps and other materials, and conduct workshops for stimulating special area management plans described above.

- o Connecting information and research to implementation needs: NARA. Technical, commodity and other assistance will help NARA develop essential information on coastal resource management, that CCD, DWLC, the private sector, and others can apply. (\*TA will be provided to address the following topics:

- Help design a marine park/tourism pilot program around the coral reef resources at Hikkaduwa, with public and private sector involvement.

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-- TA and operational support for a central unit in NARA for project management, development of information for other agency use in EIAs; better coordination and application of NARA's work to meet other agency management needs.

-- TA for economic, legal, and scientific analysis concerning the functions and values of Sri Lankan inland and coastal wetlands, marine parks, and other aquatic resources.

-- TA to help NARA develop an Aquatic Resources Management Plan and research priorities for inland resources, in particular, that can be provided to MEPA, NPD, CEA, and line agencies as well as the private sector, in cooperation with NARESA, CCD, DWLC, and others.

o Establishing practical wildlife management plans: Technical assistance to line agencies will help them design and apply practical resource management plans. In at least the first two years of NAREPP, this will include TA to help the DWLC develop plans for wildlife parks that promote sustainable tourism, compatible local use, and effective enforcement. Management practices will be strengthened within DWLC based on regional and US (local, state, and federal) wildlife management experiences.

To manage the 12 percent of its land already in wildlife parks, Sri Lanka has begun to invest again in wildlife management after a hiatus in the mid 1980s. GSL has approved a new National Policy for Wildlife Conservation that focuses in particular on needs for attention to resource management in Sri Lanka's wet zone. (See Institutional/Administrative Analysis.) Project interventions will build on the USAID-supported programs underway with DWLC under the Mahaweli Environment Project. New elements will address DWLC needs for economic resource analyses and the development of resource economic analysis methodologies for each of its major parks.

DWLC lacks any economic resource analysis experience or capability, and sustainable economic benefits and needs of Sri Lanka's wildlife resources, including multiple uses, must be analyzed and demonstrated. US experience with economic analysis and multiple use of wildlife resources will provide important insights to develop new management approaches in Sri Lanka. The new national wildlife policy will encourage this development. TA will include focus on private sector opportunities to benefit from and help promote sustainable economic use of parks, including environmental awareness training for tourist guides, businesses, and village communities. Cooperative information and analysis programs may develop from these studies with the Tourist Board and private tourist interests. TA to help develop management plans for parks will be tied to workshop training programs in country, where employees will learn by doing. In at least the first

three years of the DWLC program, all activities will focus on land resources, leaving marine wildlife issues to CCD and NARA as lead agencies.

o Building technical capabilities and skills in the public and private tourist sector. Limited technical, commodity, and training assistance will be provided to the Ceylon Tourist Board in cooperation with private tourist associations, hotels, and other private sector tourist interests. Interventions will address needs for technical assistance, audio visual material, and commodity assistance for Tourist Board training programs for the private sector tourist business. Topics would include hotel site selection, water pollution control (coastal and inland), nature and wildlife tourism.

Tourism was a major growth industry for Sri Lanka in the early 1980s, and trends suggest it may be so again. Recognizing the importance of environmental factors in a sustainable tourist industry, the Ceylon Tourist Board has established awareness programs for controlling beach and inland water and solid waste pollution, has pollution control inspection programs, and a series of training programs for carried out with the Tourist Guide Lecturers Association and other private sector guides on environmental and other topics. Technical assistance in cost-effective pollution control technology and monitoring programs for hotels, designing materials and approaches for private sector, and modest commodity assistance can significantly improve the resource management programs of the tourist industry. Assistance in developing audiovisual and other materials on economically important successes (Costa Rica) and costly failures of the tourist industry to maintain environmental quality (e.g., Pattaya and Phuket, Thailand) is also needed, based on regional and appropriate US experiences.

o Applying field-level experiences to program development: The Special Project component will include resource management projects in geographic areas. Projects selected according to NAREPP criteria will be carried out with regular reporting to provide MEPA, CEA, NPD, and the environmental coordinating committee with field information on the impacts of current natural resource management policies (economic, legal, or administrative), and needs and opportunities for policy change.

Government agencies frequently develop environmental programs without local input on non-regulatory and potential private sector contributions to resource management. In part this has resulted from lack of study, and in part from lack of local initiative. But the impetus toward devolution of political authority to provinces and a more viable private sector makes new approaches necessary and feasible. The point of this intervention is to develop practical experiences with natural resource management at local levels that can substantially improve resource management programs at the provincial or national level.

Selection of special area study projects will require help from the environmental coordinating committee, which should help identify and appraise promising projects. Criteria for selecting a special area study by NAREPP should include:

- o demonstrated local interest in resource management;
- o a geographical or ecological resource important to economic development in Sri Lanka, or important as an example to other important resources;
- o high interest in participation by the agencies or private sector organizations ultimately responsible for implementing the results of the proposed project;
- o existence of needed scientific and institutional research that can provide promising bases for study and innovative management;
- o strong private sector interest in resource management and opportunity for private capital investment;
- o market-based solutions appear to exist to help solve the problems addressed.

NAREPP will need to consider projects throughout the country, coastal and in the critical catchment areas. Initial projects should focus on needs for coastal resource management of lagoons, estuaries, or other areas. A USAID-supported national coastal resource management plan will be approved by the cabinet in 1990. Several active coastal agencies are involved, particularly CCD, Sri Lanka's coastal regulatory and management agency, and NARA, GSL's aquatic research agency. Various private business and individual enterprises actively use coastal resources (industrial shrimp farms, industries, hotels, tourist businesses, fishing) and should be involved in a special study. Opportunities appear promising to address the critical economic/environmental management issues of the North and East (in and around Jaffna lagoon, Batticaloa lagoon), where coastal resource values are high, university involvement is potentially strong, but management largely neglected since the early 1980s.

Projects identified for study and facilitation will need to be stimulated from grass-roots interest, not top-down planning. Education and outreach programs to help stimulate local initiatives will be essential. Candidates sites for coastal areas can be identified on the basis of CCD and other GSL agency information, including the USAID-sponsored coastal resource appraisal to be completed in 1990-91. With technical assistance to CCD from the project, economic resource analyses of these coastal areas can be carried out, to illustrate the economic resources that can be enhanced to benefit the local population. Results of these analyses, and materials on opportunities for efficient resource management, will need to

be disseminated to the localities. Organized local workshops with business, NGO, and the public sector participation may be necessary to help local interests explore how a management program might be developed and (with project technical assistance) facilitated.

Local initiatives for a coastal area management program may develop at this point, supported by project technical assistance, and, if appropriate, an NGO grant. Projects might be small scale (e.g., management approaches to reduce pollution from, and production of, Puttalam shrimp farms) or larger (e.g., Hikkaduwa for coastal tourism). On the other hand, risks remain that local initiatives may falter, for a variety of local reasons. Whatever the outcome, efforts to facilitate local management programs results must be analyzed under NAREPP -- including analysis of institutional or other barriers to local initiatives or any subsequent management failures or successes.

Broader resource management experience will be necessary from the field. After the first two years, projects will need to be facilitated on watershed management in the catchment areas. A lead agency must also be identified -- possibly the Mahaweli Authority, which has broad legal jurisdiction in the Mahaweli catchment and with whom USAID has had a long period of institutional experience.

### 2.3. Achieving Project Objectives through Public Education and Participation

NAREPP's interventions for public education and participation constitute the project's major component to promote democratic pluralism. These interventions have socio-political values beyond the natural resource management objectives of NAREPP, but they are essential elements for securing project objectives. They seek to build self-regulating responses by the public to costly environmental degradation, public impetus for necessary policy reform and efficient resource management, and nongovernmental checks on abuses of authority or incompetence that result in resource misuse.

- o Grants to nongovernmental organizations (NGOs): NAREPP will provide grants to NGOs to conduct public environmental education to increase awareness of environmental problems and opportunities for responding, and training programs for particular audiences to improve professional skills and abilities to address environmental problems. Each grant may, in addition, include funds to build institutional analytical capabilities in such fields as resource economics, law, and science, and organizational and management capabilities of the institution.

- o Training programs for NGOs to improve substantive and management skills: NGOs will participate in NAREPP general training programs to improve substantive skills, specialized programs including study tours within the

region or to the US concerned with specific issues (legal, scientific, media use, organizational management, information development), and in-country training in organization management, fund-raising, project management, and similar topics.

Grant criteria: As described in the Institutional/Administrative Analysis (and see Baldwin 1988), a number of small national environmental organizations have been active in Sri Lanka. The project will provide these and others with renewable grant support based on receipt of project proposals. All grant awards will need to meet one or more of the program and organizational criteria described below:

- economic, social, or legal policy research on an environmental problem or issue important to the economic, social, or political development of Sri Lanka and effective dissemination of results;
- development and dissemination of public environmental education materials, including audiovisual, on common environmental problems;
- educational programs focused on environmental information needs of targeted audiences, such as farmers, fishermen, teachers, journalists, or business groups;
- public awareness and technical training programs for targeted audiences on business opportunities to support sustainable development;
- public education programs and technical training in natural resource management and enforcement, including environmental law;
- actions requiring technical assistance to build public interest group institutional capabilities in resource economics, pollution control, natural resource management or organizational management;
- requirements for commodity support for developing organizational capabilities in carrying out environmental educational programs under an NAREPP grant, such as computer, duplication, and other facilities;

Relationship of grant program to democratic pluralism initiatives: By strongly supporting nongovernmental public education and institution-building programs, the project will help build a window toward the implementation actions -- needs, failures, and successes -- of government bureaucracies and private businesses. Project NGO grants will seek to build Sri Lankans' broader and sharper understanding of public and private responsibilities for natural resource management. Grants will support programs for increased, and more effective, public participation in environmental impact assessment and other legally available opportunities to affect public and

private decisions. NGO activities that build awareness and accountability through effective environmental journalism and use of audiovisual media will also be supported.

Grant and training program management: The grants program will need to be managed by a single umbrella group, such as the Asia Foundation, to review proposals, select grantees in cooperation with USAID project management staff, ensure that all grantees meet legal requirements of USAID and the GSL, and meet USAID accountability and tax requirements.

Working through the grant management group, NAREPP will entertain proposals from NGOs listed with the Central Environmental Authority. The size of the grant will depend on the demonstrated capabilities of the organization. However, small organizations without an established track record will be eligible for small seed grants to develop institutional capabilities if the proposed project has merit and prospects for implementation appear sound. NAREPP will encourage cooperative grant proposals from public interest groups and business and professional organizations. Individual grants are expected to range from small seed grants of up to \$5,000, to \$50,000 per organization per year. The total budget for small grants may increase if extensive use of videos for television and other commodity and technically demanding programs develop. An average grant to a particular PVO or NGO is estimated at \$30,000 for a three-year period.

Annual work plans will be essential, beginning with one contained in the grant proposal. Elements should include provision for establishing program goals, plans for staff development, the role of board and staff, and project management. The NGO grant managing organization will assist the project in developing, early in the project, a base core of resources -- communications equipment, library resources, educational materials, and qualified, well-paid staff. Support for commodities and staff training will be particularly important in the early years. Funding support from AID will be gradually phased down as the project nears completion.

Sustainability issues: When NAREPP concludes, the NGOs will undoubtedly continue to need grant support from major donors. Hence sustainability of NGOs supported by the NAREPP is only feasible if the organizations develop diversified funding sources, and have capabilities to carry out fund-raising, manage funds, and set and achieve program goals. NAREPP training programs will need to build these capabilities through specific management training, support of networking and information exchange with international NGOs in the US and elsewhere, and the development of contacts with regional NGOs and funding sources. Links between grantees and the private sector business community in Sri Lanka may also lead to important funding support in the future. These links will need to be encouraged through the development of educational programs and conferences.

#### 4. Institutions with which NAREPP will work

Are the entities with which the project will work the appropriate ones to achieve project goals? Given project objectives the choices of public sector policy-level agencies are limited; the agencies having the most important legal and institutional responsibilities must be strengthened to achieve objectives through technical, training, and other assistance. The Institutional/Administrative Analysis examines the capabilities of the project's counterpart organizations in more detail. The Implementation Analysis explains the precise links and mechanisms that NAREPP will employ in its work with public and private sector entities.

The major organizations with which NAREPP will work:

MEPA, for overall project coordination and natural resource management and policy: In the spring of 1990 the GSL established a new ministry for Environment and Parliamentary Affairs and a new Project Minister for the Environment to help coordinate GSL environmental programs and the work of CEA. Because of the small size of MEPA (Minister, Secretary to the Minister, Project Minister, and Secretary to the Project Minister) the basic organizational structure of the government has not changed; no single agency has overall environmental jurisdiction. MEPA, however, has an important coordinating function that requires TA and commodity assistance to work properly.

NPD, to help integrate environmental management into its government-wide responsibilities for reviewing capital budget expenditures of all agencies. NPD's links to budget processes and concerns about economic analysis make it the logical entity to integrate resource economic and environmental impact analyses into policy plans and programs. It is also highly receptive to examine opportunities for market-oriented approaches to resource management. With resource economic training and TA, the staff and leadership will have capabilities to integrate practical environmental management techniques into government-wide budgets and plans.

CEA, primarily for training and natural resource management: CEA, now within the Ministry of Environment and Parliamentary Affairs, has the broadest agency statutory responsibilities for environmental policy, pollution control, education, and impact assessment. Yet its small size and limited staff experience make its management goals difficult to achieve. By focusing in the early project years on CEA's role as coordinator of the impact assessment and management training program, NAREPP will help meet one of CEA's most critical, immediate needs. From the US perspective, environmental impact assessment, the heart of this training effort, is a subject in which the US has extensive local, state, federal, and private sector experience. CEA is the only public sector agency structured and able to function as a counterpart organization to achieve the important long-term results of this impact

assessment training: enhanced opportunities for public involvement in and oversight of government project decisions; private sector capabilities to prepare impact assessments for banks, businesses, and the government; and substantially augmented depth of experience in and out of government through the broad, in-country training program.

In the first few years CEA will participate with NAREPP in its capacity as the government link to and registrar of NGOs throughout the country. Support for CEA in the natural resource management arena may be developed in later years of the project.

NARESA, for natural resource management and policy, and information development and outreach: NARESA is Sri Lanka's closest parallel to the US National Research Council/National Academy of Sciences. It is the most active institutional in the public or private sector between university expertise and government and private sector information needs. (See Institutional/Administrative Analysis.) It is preparing a profile of Sri Lanka's natural resources conditions and trends, supported by USAID, and on the basis of this experience with Sri Lankan experts and its ongoing capacity to conduct seminars and workshops, it is the entity best suited to educate the professional community and public on the policy aspects of resource problems and responses. It has strong links to the NGO community, and high respect within the government and private sector as an impartial, factual entity. By supporting NARESA's information network capabilities, including assistance to users for research and technical instruction, the project will help achieve democratic pluralism objectives as NARESA responds to information needs of NGOs, the private sector, Members of Parliament, as well as government agencies.

Other agencies: Although the project will provide training to over 20 major government agencies it will provide technical and other assistance to a much smaller number of operating agencies. During the first few years these include CCD, DWLC, and NARA (See Institutional/Administrative Analysis.). These entities are the only ones capable of operating in their fields, and they have links with the private sector that can be strengthened. After the first year the project will begin assessing proposals and work plans presented to the NPD Environmental Coordinating Committee from other agencies, such as those within the Ministries of Lands, Agriculture, Plantation Industries, and the Mahaweli Authority.

Private sector entities: Within the first year NAREPP will support institutional development and public education programs of the NGO environmental community. Grant award criteria will encourage cooperative projects of NGOs with private sector professional groups and PVOs such as the Rotary Club and others. As the project unfolds it will explore other opportunities for interventions that will support natural resource management objectives through the private sector. Possibilities include educational programs and technical assistance to: help tourist beach hotels appraise and respond

to needs for water pollution and waste management control; develop nature tourism in Sri Lanka; provide industries with up-to-date pollution control guidance; coastal shrimp farming enterprises facing pollution problems from their own activities; and horticultural enterprises sustainable from natural forests. To develop these and other opportunities, however, and private manufacturing entities (in conjunction with impact assessment and management training programs). Many of these opportunities will require preliminary attention to public education about market-oriented mechanisms for sustainable economic and environmentally sound management.

##### 5. NAREPP evaluation of interventions and basic assumptions

The effectiveness of each project intervention will be analyzed at mid-term (after two full years of the project) by the project evaluation team and at various points along the way, as described in the Implementation Analysis.

NAREPP outputs, or end-of-project conditions, can and should be assessed for progress at midterm. In most cases these outputs will be orders of magnitude over existing conditions: for example, very few public investment projects include environmental analyses, no comprehensive up-to-date technical information centers exists, few indicators of environmental conditions and trends exist, and environmental factors have not been integrated into the national budget and capital investment plan. Analyses of these and other indicators of progress developed by the project will be important to develop more quantitative bases for assessing NAREPP progress between years four through six.

Analyses must be made at project midterm of private sector growth opportunities or new constraints affecting environmental programs, or significant changes in donor support for environmental programs. Evaluation results should affect the future design of the project.

Other evaluations will be necessary along the way. In addition to annual scrutiny of work plans and project reports by contractors, periodic analyses of institutional, economic, and political assumptions of the project will be critical to its success. For example, the NGO grant program, which will be evaluated in annual reports of the umbrella grant-administration contractor, should provide NAREPP with information to help it assess government hospitality to NGO actions, and the effectiveness of legal processes and the media in addressing government or private abuse of authority affecting environmental management. Any significant new legal or media constraints will require reevaluation of project interventions and priorities.

## ECONOMIC ANALYSIS (NAREPP)

The economic appraisal of any project that aims, at least in large measure, at improving economic policy appraisal and advice finds itself in the unenviable position of having to anticipate the analysis the project itself is designed to do.

The benefits of better government policies and procedures can often only be estimated on a case-by-case basis. The NAREP project will promote and support the analysis of benefits (averted costs) of different policy options. Divining the outcome of such studies across the full policy range contemplated in this project stretches analytical capability and strains credulity.

In addition, even if we had the necessary information, the economic value of a project as complex and wide-ranging as the NAREPP cannot be summarized in terms of a single performance measure like an internal rate of return, or a cost-benefit ratio. Cost-effectiveness analysis does not offer an out either, since we have no alternatives to compare.

We, therefore, adopt a common subterfuge here, highlighting major prospective economic benefits and assessing the likelihood that their total value will exceed total project costs.

At a broad conceptual level, better management of natural and environmental resources is concerned with raising the total income to be derived from the use of both renewable and nonrenewable resources, and improving the distribution of net incomes. Better management also involves deliberate decisions about "impacts that cannot be evaluated in monetary terms (such as) the effect on income distribution of alternative patterns of resource use, the impact on vulnerable groups such as indigenous peoples, the preservation of antiquities, irreversible effects, genetic diversity, and the welfare of future generations." (Warford [1989], p. 11)

On that conceptual basis, economic benefits of better policies and procedures can be described in terms of aggregate efficiency gains as well as distributional improvements. The discussion here looks first at efficiency gains, and then very briefly at distributional aspects.

### 1. Efficiency gains

The rationale for the NAREP project rests on the notion that Sri Lanka's currently still fairly haphazard management of natural and environmental resources stymies growth now and jeopardizes growth in the future. Given the structure of the country's economy, sustained and broad-based growth will have to come from a strategy of agricultural development-based industrialization of the Mellor-Adelman variety. Two elements make up this strategy: raising the total productivity of all resources (or assets) used in agriculture, and stepping up investment in labor-intensive high-productivity industry,

primarily manufacturing. Increasing industrial employment means increasing urban employment; even in rural areas, industry requires an urban, small-town environment.

Inadequate management of natural and environmental resources slows growth directly through lower productivity of key natural resources in agriculture, especially land and water. It may also constrain urban employment expansion, because inadequate sanitation produces adverse health effects. At the same time, of course, feeble enforcement of environmental regulations may lower production costs by obviating the need for expenditures on pollution abatement measures, thereby boosting industrial growth at least temporarily.

Assessing the efficiency losses in agriculture attributable to environmental degradation is an exceedingly complex task. The pattern of resource use and resource productivity is the result of a myriad of decisions in small-scale operations, interacting with natural events in an intricate network of physical and socioeconomic interdependencies. The sheer complexity of the task has, of course, not stopped economists from developing an appropriate framework for assessing the costs and estimating their magnitude.

#### Adjusting national income accounts

Much of the discussion of the concepts and measurement approaches has taken place in the context of giving some consideration to environmental degradation in national income accounts. Observers have long decried the asymmetrical treatment of man-made and natural assets in national accounting. Investment, the replacement of and addition to man-made assets, counts fully in GDP estimates. In addition, the services of these assets contribute to total income. To obtain estimates of the Net Domestic Product (NDP), depreciation of existing assets - their loss of income-generating ability - is subtracted from GDP.

Natural assets are treated differently. For nonrenewable natural assets, their depletion, the amount sold at effective market prices, is counted fully as income. The degradation of renewable natural assets may or may not translate into increased incomes, and may or may not be counted as part of GDP. The loss of future incomes as a result of this year's depletion or degradation, however, is not considered in calculating the NDP.

Two approaches have been suggested to correct for the asymmetrical treatment. The first simply leaves the GDP estimates unchanged and calculates the value of the depletion or degradation. That is relatively easy for nonrenewable resources, given estimates of the total stock and the amount used that year, valued at current prices. This estimate is then subtracted from GDP, along with depreciation of man-made assets, to generate the NDP estimate. This procedure overstates GDP and understates NDP, since it counts asset

erosion in the former, and does not count the value added (true income) in the latter. For renewable productive resources, application of this concept is a little more complicated. Since there is often no direct market for these resources (and if there is a market, it is subject to all sorts of distortions), the only appropriate valuation method would require estimates of future income streams (properly discounted) at the beginning and at the end of the period. The difference would be net depreciation. Since projections of income streams require assumptions about net degradation patterns in the future as well as in the period under consideration, this approach is impractical.

The alternative approach to estimating the income effects of natural and environmental resource depletion and degradation is the user cost, or more broadly, the marginal opportunity cost, method. To estimate the impact of the depletion of nonrenewable resources, the user cost approach breaks down the net revenues from the sale of the resource into a user cost and true income (value added). The ratio of true income to net receipts, after adjusting for extraction costs, is a function of rate of depletion - described by the number of time periods that the resource can be exploited - and of the discount rate. The difference between this income figure and net receipts is the "depletion factor," which theoretically should be invested to build a financial asset offsetting the loss of the natural asset and yielding a compensating income stream in the future.

#### The marginal opportunity cost (MOC)

For renewable resources, this method needs to be refined somewhat to account for the fact that the resource is unlikely to be totally and irreversibly exhausted ten years from now. For the refinement, we look at an alternative definition of user cost as the discounted value of a (presumably more expensive) substitute that people will have to switch to when the resource is exhausted. The standard example for this concept is taken from energy economics. Suppose that energy from fuelwood costs \$1 per energy unit; suppose further that at the current (non-sustainable) rate of fuelwood use the supplies will dry up in ten years. At that point, fuelwood users will have to switch to the next-cheapest energy source, kerosene, which is projected to cost \$5 per energy unit. At the point of switch-over, when fuelwood supplies are low, prices should equalize, that is, one unit of energy will go for \$5 whether it comes from fuelwood or from kerosene. The present value of the cost of fuelwood ten years from now is, therefore, the "real" value of the resource today. In our example, one energy unit of fuelwood, therefore, has an opportunity cost of \$1.24 (for a discount rate of 15 percent).

In the case of renewable resources, total exhaustion in the foreseeable future may not be an appropriate concept. Instead, we can assume that unsustainable resource use will lead to scarcity, rationing and higher prices. The projected higher price for the resource itself ten years from now will then take the place of the higher price for the substitute in our nonrenewable resource case.

The (marginal) user cost makes up one component of the marginal opportunity cost. The other two components describe the current economic cost of the resource-using activity. That cost is made up of two components. The first is the direct cost, related to the (marginal) cost of using (or harvesting) the resource, such as O&M costs for irrigation water or the labor cost of cutting a tree. What is needed for calculating the MOC is the economic cost, which means that actual costs may have to be adjusted for market imperfections, that is, actual prices may have to be replaced by shadow prices.

The second component is the (marginal) external cost of the resource-using activity. This component summarizes the costs imposed on others as a result of the activity. For example, inappropriate cultivation techniques will result in increased soil erosion and runoff, resulting in the increased silting of canals and other bodies of water with attendant increases in irrigation O&M costs or reduced performance of hydroelectric installations. Pearce and Markandya [1989, p. 47] argue that the external costs of sustainable resource use are negligible, that is, only unsustainable resource use patterns generate significant external costs. In some respects, defining the marginal opportunity cost of a resource-using activity in terms of the marginal external cost begs the question. Enumerating and valuing the external effects of small-scale resource-using activities in agriculture at the margin, for example, presents a challenge. Just tracing the physical effects of certain activity patterns is hampered by the complexity of the system and our often limited understanding of the interactions. Moreover, the external costs in effect are the marginal opportunity costs (with all three components) of using the respective resource indirectly. In other words, we are facing the problem of the picture within the picture within the picture-

In any case, we have in summary:

$$\text{MOC} = \text{MDC} + \text{MEC} + \text{MUC}$$

where

- MOC - marginal opportunity cost
- MDC - marginal direct cost
- MEC - marginal external cost
- MUC - marginal user cost.

#### Order of magnitude estimates

Although economic appraisals of the cost of natural and environmental resource depletion and degradation have been carried out for over a generation now, attempts at obtaining comprehensive estimates of the cost of mismanagement in developing countries are not numerous. For Indonesia, Repetto and others [1987], using the depreciation method, estimated that deforestation and degradation amounted to as much as US\$3 billion per year for the period 1979-82, corresponding to more than 3 percent of GDP. Magrath and Arens [1987] assessed the costs of soil erosion in Java, concluding that it corresponded

to about 4 percent of the total value added in Java's dryland agriculture.

Applying these percentage estimates to Sri Lanka may help in giving us a sense of the order of magnitude of potential impacts. Three percent of the 1989 GDP figure for Sri Lanka, the loss attributed to forest mismanagement in Indonesia, would be about \$171 million. Four percent of the total value added in dry zone agriculture, as estimated for soil erosion, would be in the neighborhood of \$25 million for 1989. While we have no idea at this point what the proper numbers might be for Sri Lanka, the cost of environmental degradation and associated efficiency losses are likely to amount to the tens of millions of dollars each year. With average annual project expenditures of about \$2.3 million over a period of seven years, a relatively small impact in terms of better resource management would be sufficient to yield a satisfactory return on the project.

For a numerical example, let's say that the annual cost of environmental degradation in Sri Lanka is \$50 million (which may be conservative, since it should include deforestation, soil erosion, inland and coastal water pollution, health effects, etc.), and that the effects of the project extend over a period of 15 years (about double the life of project itself). If the project were to achieve a .5-percent improvement in the efficiency of natural and environmental resource use to reduce the annual loss (after a phase-in period) to around \$47.5 million, the internal rate of return for the project would be close to a respectable 15 percent. A 10-percent improvement in resource use would yield an internal rate of return of over 37 percent. These IRR's compare quite favorably with alternative investments. At the same time, our crude numerical example also suggests that for our illustrative figures at least - unless the improvement in resource use exceeds 3 percent, the net present value of the project would be negative. (If the annual cost of environmental degradation were to be closer to the \$100 million mark, a 2-percent efficiency gain would be sufficient to yield a positive NPV, and an IRR of over 9 percent.)

## 2. Distributional gains

Overall efficiency gains are likely to be accompanied by distributional gains, once the principle of "The polluter pays" gains greater validity. Right now, the burden of environmental degradation falls often disproportionately on the poor whose dwellings and land may be affected by flooding and landslides as a result of poor watershed management. In urban conglomerations, the poor are often the ones most affected by water pollution, since they depend on access to open bodies of water (rivers, canals) for their water needs. They are also more exposed to disease vectors because of limited or non-existent waste disposal facilities.

While techniques have been developed to modify estimates of efficiency gains to take distributional gains into consideration, our estimates have hardly the precision warranting such refinements. All we can say, therefore, is that any such adjustments would raise rather than lower the net economic value of the project.

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## ANALYSIS OF NATURAL RESOURCE MANAGEMENT CONSTRAINTS ON ECONOMIC GROWTH

This analysis looks at NAREPP in terms of its response to USAID strategies to focus on economic growth and income interventions. It describes Sri Lanka's chosen economic growth path, the significant natural resource constraints on this growth, and identifies the critical institutional barriers to natural resource management that will enhance sustained growth.

### 1. Sri Lanka's Mixed Economic Growth Path: Dependency on agriculture, industrial development, tourism, and urban growth.

Growth rates: Sri Lanka's "core" economic growth continues to depend on a mixture of agricultural and industrial development. After virtually stagnant growth between 1970 to 1977, the country experienced relatively high per capita GDP growth rates of about 6 percent between 1977 to 1982. Growth stemmed from the accelerated Mahaweli River irrigation, resettlement, and hydroelectric program, stimuli to industrial development in free trade zones, a more liberalized economy, and various urban and housing development programs. Prospects of industrial and tourist development looked promising, but political turmoil curbed chances for economic "take off." The economy sharply declined thereafter and growth is now projected to rise to (2.3) percent per capita GDP by 1992.

The mixed economy existing since independence promises to continue through the 1990s, led by exports of tea, rubber, and coconut, although industrial growth will increase shares of employment and GDP. Between 1978 and 1987, agriculture's share of exports fell by 16 percent (to 41 percent), while manufacturing share rose by 44 percent (to 49 percent) between 1978 to 1987. Since independence, employment in agriculture (including forestry, and fishing) has gone from about 53 percent (1953) to 49.3 percent in 1985/86, and about 75 percent of the population still depends on agriculture in some form. Manufacturing employment from 1953 to 1986 rose from 9.7 percent to 12.7 percent.

Population and employment: Sri Lanka is the second most densely populated country in the Third World. At 244 people per square kilometer, one per acre, is surpassed only by Bangladesh's 717. [Cohen, Population Strategy, USAID/Colombo, 1989.] Population has increased by 130 percent since independence in 1948 to about 17 million today. It is projected to increase to over 20 million by 2000. Natural population increase has lowered to 1.5 percent, down from nearly 3 percent in the 1950s. Net emigration lowered population growth to 1.2 percent in 1988. Although the population is highly literate (87 percent) and long-lived (highest life expectancy in Asia), average annual per capita income is less than \$400. The population is also relatively young, with nearly 45 percent less than twenty years. Young people were particularly hard hit when unemployment reached

unprecedented levels in 1989 of 1.1 million. Under these conditions emigration rates increased, and when the highest foreign exchange earner was receipts from Sri Lankans abroad.

Urban growth: Unlike most other developing countries, Sri Lanka has not experienced rapid urban growth despite high rural unemployment. Urban growth has been relatively slow over the past decade, with the urban population commonly estimated at about 22 percent. The Colombo metropolitan area, population of 1.1 million and the only city over 500,000, dominates the urban sector. Between 1965 to at least 1984, most urban growth occurred in the provincial and district capitals.

Urban and suburban growth in Colombo and elsewhere may have increased more rapidly since the mid 1980s -- one estimate of urban population being about 28 percent -- and growth may increase in the 1990s. Growth in Colombo may exacerbate an already high incidence of squatter settlements and shanties. In the early 1980s more than half the housing stock of Colombo constituted slums and shanties.

Rural development: The vast majority of Sri Lankans live in villages where 90 percent depend on agriculture. Rural areas enjoy an extensive network of roads, and an extraordinary system of (largely subsidized) transportation service by rail and bus. More than half the population lives in the wet zone, where year round water supply is available. In the dry and intermediate zone, where population is significantly less dense, the population depends on irrigation.

Despite declines in plantation acreage, particularly in rubber (down 25 percent since the early 1960s) the 800,000 ha of largely government owned plantations, located mostly in the high country, remain an important employer and foreign exchange earner. Rice production for domestic consumption has increased, as has paddy acreage. The opportunities for rural lands and agriculture to absorb labor are fast-disappearing. In the early 1980s 42 percent of all land holdings were 1 acre or less, which was an increase of 4 percent from ten years before. Fragmentation of land holdings continues. Moreover, although the government is engaged in distributing state lands for private use, the amount of new land available and suitable for cultivation is increasingly limited.

Gem Mining: Mineral exports bring from 3 to 4 percent of Sri Lanka's export earnings, of which gems are the most important part. Economic potential from development of the gemstone industry is far greater than present returns suggest, and the GSL has recognized needs for substantial efforts to improve domestic gem cutting and polishing, quality of gemstones, marketing, and other measures. Gem mining, however, remains largely small scale, predominantly carried out by small entrepreneurs in what amounts to thousands of small pits with lateral tunnels, and mining sites in river beds.

Industrial development: Industries have been unable to take up the slack of rural unemployment; the industrial sector has remained weak and narrow as well as stagnant at between 12 to 15 percent of national output. The country has limited natural mineral resources to exploit except for its extensive gem deposits, which offer potential growth opportunities. The government owns most major manufacturing industries such as cement, steel, paper, tire, and ceramics. Of the 5,000 registered manufacturing units, most are located in the Colombo area, drawn by its infrastructure, employment pool, transportation, market, and free trade zones. Most of the rest lie along the western coast. In late 1989 the government announced a new industrial policy to stimulate private sector industrial development through a variety of incentives and other strategies.

Tourism: From 1978 to 1983 tourist travel to Sri Lanka steadily increased. Thereafter it dropped sharply, due to political unrest. In the peak year of 1982 tourist arrivals totalled over 400,000 -- a four fold increase since 1975. Foreign exchange earnings by tour operators and recreation and other facilities totalled US \$147 million -- seven times the income in 1975. Wildlife in the country's forests and parks and Sri Lanka's beaches proved to be major tourist magnets, in addition to cultural attractions and the overall beauty of the island. Tourists and tourist revenues sharply diminished thereafter, until GSL tourist authorities actively discouraged tourism in 1988-89. But even in 1988 the number of tourists was nearly double the 1975 rate. Tourism has rebounded since the fall of 1989, with one tour company reporting a threefold increase in monthly arrivals in early 1990.

Energy development: Since the oil price rises of the 1970s, Sri Lanka has maintained energy use trends heavily dependent on its biomass and watersheds. Approximately 70 percent of Sri Lanka's primary energy comes from biomass, 10 percent from hydroelectric dams, and 10 percent from oil. (Not counted in the energy budget is solar power for fish and crop drying, salt extraction from sea water.)

Biomass fuel is expected to remain the dominant provider for years to come: about 94 percent of Sri Lankan households depend on biomass for cooking fuel. Rural residents gather it themselves, and most urban users buy it. Industries also use biomass, particularly those producing tea, rubber, tiles, bricks, and desiccated coconut. Supplies come from crop wastes, rubber wood, and other fuel wood that includes plantations, planted forests, and jungle forests. Consumption has risen at about 1.5 percent annually, or about the rate of population increase.

Sri Lanka's hydroelectric dams provide over 90 percent of its electricity. Today most sites around the river catchments have been developed, with installed capacity of 938 MW that provided 2597 GWh of electricity in 1988. The predominant users are industrial and commercial, but rural electrification

reaches about one third of all villages. Approximately 25 percent of all households receive electricity connected to the national grid. Annual growth in electricity demand between 1977 to 1988 was about 7.3 percent.

Looking ahead, a Master Plan for the Electricity Supply of Sri Lanka, prepared for the CEB by GTZ in 1989, presented three demand scenarios, the mid range base case of which (assuming, inter alia, 50 percent household grid connection and 5 percent GDP per annum) projected 8.2 percent annual growth rates to 2000. Such a forecast would require increased generating capacity of about 1 1/2 times 1988 levels. Although sites remain available for small-scale hydro generation, increasing proportions of new generation is expected to come from thermal facilities.

## 2. Natural resource management: a significant constraint on Sri Lanka's economic growth.

The vast majority of Sri Lankans -- urban and rural -- directly depend on biological, water, soil, and other natural resources for economic welfare. Hence Sri Lanka's economic growth strategies depend on balanced efforts: On one hand, actions must establish effective natural resource management of lands, waters, and forests to protect them from the now unsustainable pressures of traditional rural life. On the other hand, actions must relieve these pressures and create new employment from new agro industries, new labor-intensive industrial development, and tourism. Environmental externalities from these new activities must also be efficiently managed.

The major natural resource management requirements to sustain Sri Lanka's economic growth are summarized below.

Managing biomass for sustainable energy: Even with improvements in cooking efficiency rising biomass requirements will require better use of crop wastes, more managed woodlots close to users, and management of natural forests to protect and sustain their multiple values for wildlife, tourism, watershed protection as well as fuel and horticultural use by villagers.

Watershed management: All Sri Lanka's rivers begin in the high rainfall and mountainous central catchment region. The economic impacts of high soil erosion and siltation on downstream irrigation canals of the Mahaweli, reservoirs for flood control, irrigation, and agricultural productivity, are poorly understood but increasingly worrisome. The GTZ energy Master Plan cited increasing needs to protect hydroelectric dams from sedimentation, and to integrate forestry and resettlement policies with small hydro development. A report of Sri Lanka's Land Commissioner notes that the projected 50 year operating lives of the major Mahaweli reservoirs of Victoria and Kotmale may have been underestimated because data on actual sediment and bed loads of rivers in the Mahaweli catchment did not, and still do not, exist. Evidence of high

sediment transport stems from high rainfall, steep slopes, and mismanaged forest, plantation, and agricultural land. Over the long-term, watershed management in the upper and lower catchment areas will be essential to sustain a multiplicity of economic resources.

Direct costs of watershed abuse are rising. Parts of Colombo, and Ratnapura, and Kalutara incur costly periodic floods from torrential rains. Efforts to reduce property damage and save human lives require better delineation of the periodic flood plain zones, land use controls within the flood plain and drainage investment, and improved upstream management.

Managing forests for sustained yield and multiple use: In the central catchment area for all Sri Lanka's rivers, forests that covered 22 percent of the land in the mid 1950s are down to 9 percent. Forest management there and elsewhere is critical for watershed management, timber production, wildlife management and tourism, and other less tangibly economic reasons. Sri Lanka's natural forest cover, roughly estimated at 80 percent by the Dutch in 1794, 70 percent in 1900, and 40 percent in 1956, is about 20 percent today, possibly lower. The average annual deforestation since then, for fuelwood and lumber, ranges between 40,000 and 50,000 hectares, which is a high rate for a country the size of Sri Lanka. USAID's reforestation project recognized this problem and responded with substantial reforestation assistance. However, replanting, was limited to a few species, and after the USAID program wound down replanting was 3,000 hectares in 1988 and far less in 1989, and forest issues remain serious. The extensive forests of tall satin trees and ebony trees found a century ago in the dry zone are gone; two thirds of this region is degraded and natural forest cover is mostly scrub. High quality lumber for furniture is rare. Encroachment, plantation agriculture, and illicit timbering have contributed to the diminution of wet zone forests and their ultimate degradation. Forests there have been broken into small patches -- the 160 km<sup>2</sup> of forests in the Matara District occur as thirty patches, each 50 to 1000 hectares.

Wildlife management for tourism and biological conservation: Forests and other wild lands enrich Sri Lanka biologically, culturally, and from tangible tourist revenue. Sri Lanka's flora and fauna have great diversity. Approximately 815 species of endemic plants are found throughout the island, mostly in the wet zone, and 86 indigenous mammals, although up-to-date fauna inventories are spotty. Its population of Asian elephants has been estimated from 2,000 to 4,000. Leopards are present but rare. Bird populations include 169 migrant species and 20 endemics. Many of these are considered vulnerable or threatened, and can be found only in national parks or preserves. Organized taking of animal flesh and skins, and live birds, as well as timber poaching, has been prolific in protected forests and preserves. Law enforcement has been lax and especially difficult in recent years.

In the early 1980s these wildlife attractions drew thousands of tourists to Sri Lanka's national parks. Bird-watchers from all over the world come to Sri Lanka's nature reserves and coastal marshes. Tourist companies report that their customers are attracted to Sri Lanka because of these and other less specific attributes of Sri Lanka's natural beauty.

Water pollution: Industrial and municipal water pollution of surface and ground water has become a recognized problem throughout the country. Colombo itself has badly polluted canal and drainage systems that fail to flush adequately into the sea. Comprehensive data on municipal and industrial pollution in Sri Lanka is weak, and economic impacts are poorly understood, but anecdotal evidence highlights the problem: fish kills in the Kelani River from a urea plant (now closed); heavy metal pollution in the Walawe Ganga from the paper factory at Embilipitiya; similar pollution from the government paper plant in the Batticaloa lagoon; heavy pollution loads from the Lady Catherine Industrial Estate into Lunawa Lake in the coastal area south of Colombo; pollution of domestic water wells by toxic nitrate from septic tanks in Maharagama; excessive use of nitrogen fertilizer in Jaffna; and pollution from hotels in coastal waters of the Southeast and inland reservoirs in the cultural triangle.

Pesticide use, a problem of soil as well as water pollution, has received increasing public attention, particularly as it has affected health of farmers in Sri Lanka. Again, however, little has been done to analyze and quantify the nature of the problem or the institutional interventions needed to address perceived health and environmental problems.

Gem mining creates water pollution problems from stream bed mining and the run off from the dewatering of gem pits and erosion from unreclaimed sites. Soil erosion is especially severe, in the hill country, where illicit timbering for shoring up pits has also become a problem. In many cases all removed earth, up to 84 cubic meters per year for some mines, is left in heaps around the gem pits. Abandoned mines with their stagnant pools of water contribute to increasing incidents of malaria in Sri Lanka, particularly around Elahera and Ratnapura. Although the law requires reclamation bonds, a large number of mines are illegal.

Inland and coastal fisheries: Fisheries provide over 70 percent of Sri Lanka's animal protein. Near shore coastal fisheries continue to dominate, but as a result of government efforts since the early 1960s, inland fisheries from tanks and reservoirs now contribute 20 percent of total fish catch. Estuarine fisheries have become particularly vulnerable to industrial and municipal pollution, however.

Coastal resource management: Sri Lanka's beaches and coral reefs have been a substantial tourist resource except in the most turbulent periods of the 1980s. Major hotels were built in the early 1980s along the east coast and at Trincomalee.

With peaceful conditions these and others can prosper. However, destruction of coral reefs continues to be a major coastal problem for sustainable fisheries and tourism in the east as well as west. Maintenance of water quality and fishing quality of the 46 lagoons and estuaries covering 40,000 hectares becomes increasingly difficult. Fishing pressures and degradation of mangroves and coastal lagoons of the north and east have been unstudied and unregulated during most of the 1980s. Coastal pollution from industry and resort hotels poses potentially serious risks to tourism as well as to fishing communities in the west and east.

Summary of natural resource management constraints: Natural resource management constraints in Sri Lanka affect each aspect of the country's economic growth path. Based on Sri Lanka's National Conservation Strategy (1988), and USAID/Sri Lanka's own extensive analyses, it can be concluded that:

- o Energy, forestry, and agricultural production in the long run requires long-term watershed management in the catchment areas, and carefully managed sustainable provisions of biomass everywhere for rural and urban energy;

- o Clean water for domestic use, fisheries, and in some cases for industry itself requires controls over pollution of ground and surface waters from industrial, domestic, and agricultural activities;

- o Urban growth needed to relieve rural poverty and natural resource degradation, and to provide industry and the service sector with jobs, requires careful management of all forms of pollution, adequate housing, potable water, sewage, drainage and flood protection.

- o Tourism requires coastal management of pollution, erosion, industrial sites, and human settlements, and well-run, sustainable wildlife reserves and natural forests. Tourists come to Sri Lanka not only for beaches and wildlife but also to enjoy its overall beauty, rich biological, geological, and cultural landscape. These are comparative economic advantages of Sri Lanka that are fast-disappearing elsewhere in the region (e.g., Thailand). Maintenance will require a well-managed Sri Lankan landscape.

### 3. Institutional problems: a major constraint on natural resource management and economic growth.

Sri Lanka's legal and institutional framework offers a secure basis for all project interventions, as discussed in the Institutional/ Administrative Analysis. This framework illustrates Sri Lanka's long-standing awareness of links between national development and natural resource and environmental management. Its development of comprehensive laws and policies has continued up through recent turbulent times. Nevertheless, the array of laws and government

institutions has immensely complicated natural resource management. New laws and institutions have often been simply added to old ones, and efficient operation of each new law has required new skills and actions in policy-making and coordination, technical analysis knowhow, and increased public education and cooperation. NAREPP will focus on these problems as they become significant economic growth constraints.

### 3.1 Institutional constraints:

The discussion below illustrates how removal of natural resource management constraints on economic growth requires concerted efforts to improve public and private institutions and procedures. Otherwise new responses to natural resource management, by government, the private sector, and the public at large, will not come forth. USAID has conducted a comprehensive review of individual GSL agencies and private sector organizations to identify institutional potentials and the significant weaknesses that hold back efficient resource management (Baldwin, 1988). Summaries of these findings, and subsequent findings of the NAREPP project paper development team (Crawford, 1989, Tarrant, 1989, McCrae, 1989), are as follows:

#### Natural resource management

o Policy initiatives have suffered from failure to establish efficient sharing and allocation of data, research, and analytical capabilities: Program coordination needs high-level attention to apply existing resources, staff, and budgets to the most pressing problems of land use, coastal management, forestry and wildlife, and pollution control. These and other problems are obfuscated by frequent overlapping, competing, and uncooperating agencies. For example:

-- Watershed management could not be more important for long-term land and water productivity, but despite a few experiments and years of talk it has not materialized. One major constraint: over 25 government institutions, scattered and uncoordinated, long cited as a problem and most tellingly described by the GSL's Land Commissioner in 1988. No single agency has synthesized the practical lessons learned from on-the-ground watershed management experiences, or the research or action priorities required. Another constraint is agency failure to share common data and analyses on land use and capability, such as the land use information developed by the Land Use Policy and Planning Division program, which should affect decisions of the Forest and Wildlife Departments, and the Ministry of Plantation Industries, among others.

-- Coastal programs: Strong coastal resource management depends on close cooperation between the CCD and NARA. Even when located within the same Ministry of Fisheries (they are now separated) this result did not occur. The result has been inadequate application of NARA's research capabilities

to the heavy regulatory and planning demands of the CCD. Programs of NARA and the NBRO would also benefit from strong, informal exchanges of plans and results concerning their water quality evaluations of coastal lagoons and inland lakes. Development of a master tourist plan by the Ceylon Tourist Board should be carefully integrated with the coastal resource management plan of the GSL.

-- Forestry, wildlife, and private sector programs: The Forest Department and Department of Wildlife Conservation have managed their respective lands with minimal cooperation, to the detriment of the forest ecosystems. Both agencies would benefit from shared environmental planning data and management and enforcement capabilities. Links between wildlife management and sustainable tourism can be explored, including nature tourism opportunities, with tourist fees designated for wildlife management.

-- Pollution testing and analysis: Facilities for testing water quality are found within NARA, GCEC, UDA (NBRO), CEA, CISIR, and the Department of Labor, largely without regard to an overall government plan or assessments of GSL laboratory needs. Given the expense of equipment and expertise, programs for centralizing or sharing facilities appear inadequate and much needed. Similar measures appear necessary for other media testing. (These are concerns shared by other donors with whom USAID has cooperated.)

o Environmental and economic data and analyses to support policy decisions are particularly weak for economically critical issues, and information that does exist, including relevant foreign experiences, is not readily available. Information needs embrace water quality of rivers, tanks and coastal waters, soil erosion and sedimentation, functions and values of natural forests, coastal and wetlands, and quantifiable information on a wide range of natural resource impacts and trends. Data are scant on fishery stocks, pesticide impacts on ground water and soils, and health impacts of industrial practices. These gaps will be highlighted by the natural resources conditions and trends profile being compiled by NARESA under USAID/Sri Lanka support. Management decisions on coastal, forest, wildlife, and pollution control programs consequently suffer from these gaps. Much can be learned from successful efforts to gather, assess, and employ pollution data on industrial facilities in permits, as NARA and GCEC have demonstrated.

o Resource economic and environmental impact analyses have not been integrated into economic development policies and programs: As illustrated by public controversies in Sri Lanka over economic development proposals for national forests, thermal electric power production, and a large coastal marsh region, policy-making institutions like NPD and CEA lack in-depth skills and knowledge in resource economics and environmental impact assessment at the macro level. NPD cannot exploit the opportunities available for comprehensive resource economic analyses of projects proposed for government capital

budget review processes unless more people are trained and experienced in these fields. Both NPD and CEA lack personnel trained in natural resource and resource economic analysis to assess the full costs and benefits of subsidies, costs of environmental externalities (e.g., soil erosion from degraded tea plantations), incentive mechanisms for practical water pollution control enforcement, and other policy issues.

#### Public/private partnerships in natural resource management

o Practical enforcement measures and incentives for the private sector to engage in pollution control, soil conservation, or forest and wildlife management, have been largely neglected. Regulatory approaches to natural resource management have been relied on primarily, but some measures have proved unenforceable (soil conservation), subject to corruption or government complicity with violators (timber and wildlife poaching), lack of political will given limited employment alternatives for violators (coral mining), or lack of adequate numbers of technically skilled extension agents (pesticide regulation). Incentive structures have not been built into basic natural resource and pollution control approaches, such as economic charges for polluters (now subject to a comprehensive pollution control program), incentives to help villagers buy into forest and wildlife management (for horticulture or tourist business), and achieve cost-effective enforcement by citizen groups through administrative and judicial avenues.

#### Impact assessment and management training

o Environmental impact assessment is one of Sri Lanka's major planning and administrative tools, but neither the public nor the private sector has the skills and knowledge to apply it. One immediate need: strong CEA capabilities to guide, monitor, and regularly seek to improve use of the EIA process. CEA staff require specialized EIA training and skills. Major operating agencies need strong "environmental cells." Only a few agencies can implement the basic impact assessment requirements of the NEA. More than 20 major ministries or agencies will be immediately and directly affected by the 1988 legal requirements for EIAs. However, less than 20 people in and out of the government appear to have skills in environmental impact assessment. A number of GSL and private training organizations and facilities exist, some with paid staff, to help carry out impact assessment training programs (see Crawford, 1988), but they lack the necessary background and resources. Lastly, the private sector needs EIA skills of various kinds -- banks to avoid future problems with borrowers, consulting companies to do EIA work for agencies, and NGOs to review EIAs and keep agencies accountable. (Economic costs of this deficiency were evident in 1989 when, as a result of inadequate environmental engineering, tunnelling for a major hydroelectric project breached a water table, substantially delaying the project, raising costs, and necessitating dewatering paddy fields for hundreds of families.)

o Training and education in natural resource and environmental management have not kept pace with brain drain and other forces that have left a thin, vulnerable cadre of natural-resource management-trained professionals in Sri Lanka. In almost every government agency only a few managers may be up-to-date in their field, well-versed in environmental and natural resource assessment concepts, knowledgeable about the environmental policy problems of Sri Lanka, and comfortable with the environmental policy concerns of environmental NGOs. In the private sector, environmental awareness and understanding is often high, including within banks, not to speak of NGOs. But lack of depth is endemic, whether the field is environmental engineering, natural sciences, or resource economics.

#### Public education and participation

o Public participation in environmental planning, management, and enforcement has often been discouraged by government agencies, but opportunities for remedial actions are promising. The NEA amendments of 1988 require new pollution controls that will stimulate new demands for public information and opportunities to comment on regulatory actions. NGO participation in the task force establishing air quality standards is an encouraging sign and shows what can be done. The new NEA amendments of 1988 require opportunity for public comments on EIAs and, perhaps more importantly, IEEs, making agencies open to routine public scrutiny on permit decisions. The government has not accepted the concept of citizen suits to enforce environmental laws, and studies on potential benefits and costs of such actions in Sri Lanka would be helpful.

o Environmental education is spotty and inadequate and suffers from lack of government support and poorly funded NGOs. Until recently environmental education has not been a high priority of the government. Although many government reports have contributed to enhanced public awareness, their value has been diminished by limited availability. Public interest is strong, however, in Colombo and throughout the country at the village level. Environmental NGOs could carry out expanded education programs; for that, they need more funds, organizational and administrative skills, analytical skills and experience, information, and office facilities.

Conclusion: If Sri Lanka intends to develop its economy on an environmentally sustainable basis these constraints must be corrected. The GSL has generally recognized this need in its National Conservation Strategy of 1988. Although the Strategy makes only general recommendations, proposed interventions generally reinforce those proposed under NAREPP. New amendments to the National Environmental Act have filled major gaps in pollution control and impact assessment procedures and highlighted needs for more efficient environmental management by the many agencies involved.

## ENVIRONMENTAL ANALYSIS AND THE GSL PROJECT AND BUDGET PROCESS

## SUMMARY:

The Government of Sri Lanka's project approval process requires analysis of the environmental impact of projects; this analysis has seldom played a significant role in project approval. Nor is it felt that the analysis is sound. It is necessary to improve the quality of the analysis and convince decision makers that this analysis ought to play a major role in project appraisal.

All projects must go through the GSL's project approval cycle. Small projects can use the first stage to receive full approval. Larger projects use the first stage for approval-in-principle but must go through a second stage for final approval. In both stages there is one item dealing with environmental issues. It requires information on the existing environment, an assessment of the environmental impact of the project and mitigating or protective measures that ought to be taken. If the first stage raises issues that cross ministerial or office lines then an Inter-Ministerial Committee ought to be established to assure that these issues are covered adequately in the full feasibility stage.

The National Planning Department (NPD) of the Ministry of Policy Planning and Implementation<sup>1</sup> plays a central role in recommending to the Committee of Secretaries<sup>2</sup> which projects ought to be approved. Seldom does NPD reject a project, however they have been known to delay, defer and request clarifications or additional information. National Planning also is instrumental in analyzing the impact of proposed policy changes and in making recommendations.

The quality of the environmental as well as the economic analysis varies enormously as does the emphasis placed on these concerns in the approval cycle.

Only approved projects can be included in the government's Public Investment Program (PIP -- a rolling five year plan for government capital spending). For a project to be included in the capital budget it must be included in the preceding PIP. The PIP is developed by NPD, which decides the appropriate sector allocations and frequently which projects will be recommended for inclusion in the upcoming capital budget.

Therefore the essential place to assure that environmental concerns are adequately considered is in the project approval process. Since all projects must go through National Planning, it becomes essential that NPD be heavily involved, if not central, in NREPP activities.

## I. Introduction

This paper analyzes two separate activities: (1) the process of developing, analyzing and approving projects and (2) the budgetary process for project funding. The Department of

National Planning of the Ministry of Policy Planning and Implementation is responsible for reviewing all capital projects, giving final approval to smaller ones and forwarding those favorably reviewed to the Committee of Secretaries (formerly the Committee of Development Secretaries) which then decides which ought to be sent to Cabinet for final government approval. NPD's influence comes from its ability to control the project approval agenda of the Committee of Secretaries. While a Ministry Secretary can appeal over the head of NPD, usually, but not always, the Committee of Secretaries will defer to the NPD. The project development process is discussed in section II of this paper.

Section III discusses the budgetary process and will center around the development of the Public Investment Program (PIP) and its relationship to the annual capital budget. Only approved projects can be included in the PIP and only projects in the PIP can be included in the capital budget. This paper does not deal directly with the problems associated with the current budget which provides the operating expenses of government.

The PIP is the government's rolling five-year capital project expenditure plan. It includes donor and GSL-funded activities. As such it does not directly commit the government to any spending but provides indications of plans, priorities and objectives. The annual capital budget, to the extent it is funded, provides the resources for implementation of the PIP.

As with the project cycle, the NPD is central to the development of the PIP and the capital budget. Approving projects and developing the government's capital spending plan are the major activities of NPD.

## II. The Project Development Cycle

The GSL's project development cycles is a two-stage process, with the second step unnecessary for those small projects under Rs.5 million (\$125,000) and having annual recurrent spending of under Rs.500,000 (\$12,500). The project approval process, and the level of justification required increase as the size of the project increases. Some small, simple activities can be a few paragraphs, the average for large projects is around ten pages. The same form is used for final approval of small projects and approval-in-principle for large projects.

Many small projects, especially those which make reference to an approved strategy, can be given final approval by NPD. Large projects are referred to the Committee of Secretaries for both approval-in-principle and final approval. While ministries can bring a project directly to the Committee of Secretaries usually NPD's favorable recommendation is necessary.

After the preliminary approval the project can be listed in the Public Investment Program, however, it will be noted as only having preliminary approval.

An Interdisciplinary Committee may be established if the project cuts across a number of different ministries or appropriate analysis requires input from different offices. Theoretically this would be necessary for projects that have an environmental impact that ought to require input from the Central Environmental Authority.

For large projects the final approval form is essentially the same as the approval-in-principle. However, much greater detail is required with special attention paid to issues raised by NPD or the Committee of Secretaries. Commercial and noncommercial projects have the same first stage but will be required to provide different types of analysis in the second stage.

After receiving final approval from the Committee of Secretaries the project is submitted to Cabinet and then, if it requires donor-supplied resources, to the External Resources Department of the Ministry of Finance for negotiation with donors.

Limited government resources during the past few years has meant that very few GSL-funded capital projects have been approved.

The system is essentially one of flexibility within constraints. There are target dates, decision making points, some recommended procedures but all are flexible. There are alternative approaches and work arounds.

The National Development Bank is supposed to review large private sector projects which involve commercial or development banking institutions. The new combined GCEC/FIAC will review all foreign investment to see whether it is viable. The private sector approaches are roughly comparable with similar types of questions asked about the environment.

#### A. Stage 1: Final Approval for Small Projects and Approval-in-Principle for Large Projects

Ideas for projects can come from almost any source, be it donors, ministries, NPD or individuals. The principles and guidelines for the preparation of projects were developed in 1977 and have been brought together in a two volume report prepared by M. D. Veitch<sup>3</sup>.

NPD recommends that all projects be created within the context of an overall strategy or plan for the sector and that this be updated every five years. Projects that can make reference to being part of an approved plan are more likely to be approved and funded. Strategies that have facilitated project approval are (1) the National Agriculture, Food and Nutrition Strategy, (2) the Medium-term Investment Program for the Plantations Sector, (3) the Power and Telecommunications Master Plan and (4) the Road Rehabilitation Program.

Most projects will either be initiated by donors or ministries. It is the responsibility of the ministry to involve as many other offices as necessary. Because all large projects will eventually be reviewed by the Committee of Secretaries it would be unwise to have another Secretary indicate that the project under discussion affects their work and they have not been involved in design. Similarly the NPD ought to be made aware of the project as early as possible so their continued assistance can be assured and that the activity is likely to fit within established guidelines.

The first stage is designed to provide the preliminary approval for large projects and serve as the approval form for small projects. The document requires information on 25 items. The length of the document for the first stage varies with the complexity. Some small, simple activities will be a page or two. Most are less than ten pages.

This stage asks for preliminary information on:

- description (including project objectives, location and current situation),
- contribution to national and sectoral objectives,
- costs: (both capital and recurrent by component, year, and foreign exchange needs; includes an estimate of secondary costs),
- beneficiaries and benefits, (includes estimates of foreign exchange earnings and secondary benefits, effect on income distribution),
- an internal rate of return or something comparable (where possible),
- technical description,
- sources of funds,
- effect on the environment, and how the project will be implemented and managed.

At present there is one question, with three parts, on the environment. It has received cursory attention and has not had much impact on the project approval process.

#### "Initial Environmental Examination

- (i) Existing Environment. Give a brief description of the present environmental resources of the project area.
- (ii) Evaluation of Impacts. Identify, and make a preliminary evaluation of, the probable beneficial and adverse environmental impacts of the project.

(iii) Mitigation and Protective Measures. List any measures which are proposed for the mitigation of or protection against environmental effects."4

Donor-designed projects are paying attention to developing an initial environmental assessment. GSL-funded activities which are done for political reasons do not do environmental assessments. For the past two years there are very few nonpolitical GSL-funded activities. The analysis can be skipped for programs involving "emergency relief, research activities, training programs, other educational programs, nutritional or health care services, minor legislation, security services etc."

The CEA has issued guidelines for this IEE (adapted from USAID's Guidelines for Preparation of Initial Environmental Examination, August 1976).

Under the discussion of the existing environment the project is supposed to discuss

1. land use (soils, mineral, forest, agricultural potential),
2. water resources (surface and ground),
3. atmospheric conditions and climate,
4. natural resources (vegetation, animals, aquatic species), and
5. people and socioeconomic characteristics including cultural and health status.

The second part is an evaluation of the impact which should identify positive and negative environmental impacts to permit a preliminary determination of the project's net environmental impact. Usually an indication of whether the project has no, little, moderate, high or an unknown effect on the environment is sufficient. The list of possible impacts used to guide the analysis was also adapted from USAID's Guidelines.

The last question of mitigation and protective measures is based on the answer to the previous question on the nature of the impact.

Frequently all that is included in the project form is a paragraph or two assessment of the level of impact the project is anticipated to have on the environment. No or little environmental impact appears to be used more than justified.

The analytical capabilities of personnel at the ministries is limited. Their current skills would not permit them to do the type of environmental analysis needed. Some of the people in the planning department of each ministry will be able to do simple environmental analysis if provided appropriate training.

There has been very little input from the CEA in the assessment of the impact on the environment for either the first or the second stage of project approval. However, the sectoral chiefs at NPD are aware and concerned about the environment. It just does not play much of a role in project approval.5

NPD feels that the concerns about the environment ought to be subsumed within a broadened social benefit-cost analysis which values the full impact of the project on society using, where appropriate, shadow prices. They recognize that ministry staff has difficulties doing traditional benefit-cost work and could do a social benefit-cost analysis.

Although some preliminary information on costs and benefits is requested, it seems that the principal criteria for accepting or rejecting a project at the Approval-in-Principle Stage is the extent to which it agrees with general national and sectoral policies and objectives; financial criteria may also be applied.<sup>6</sup>

NPD can approve small projects for inclusion in the PIP. If NPD approves a large project then it goes to the Committee of Secretaries for approval-in-principle. If NPD does not approve the project they will usually delay, defer or request additional information.

#### B. Stage II: Final Approval for Large Projects

At this stage a distinction is made between commercial and noncommercial projects. For all projects the form is essentially the same but much greater detail is expected. There is greater emphasis on detailed estimates of costs (especially labor needs) and benefits, alternative designs, a detailed implementation plan. Commercial projects need to include information on (a) cash flow (b) credit, marketing and distribution, and (c) public accountability. They will have to do a benefit cost analysis while noncommercial ones usually only need a cost-effectiveness analysis. The typical Final Approval document is around twenty pages.

Most of the large projects are donor-funded and thus the actual economic and environmental assessments are externally done. Seldom do the ministries have the capacity to do this type of analysis. If it is not done by a donor, it will be done by NPD. The government developed a set of shadow prices for mis-priced items like wages, interest rates, foreign exchange, transportation and construction activities in 1978. These have not been updated.

The World Bank and Asian Development Bank developed comparable measures in 1986 for their projects. These involve making percentage changes in the market prices to determine shadow prices. This is done to take into consideration market failures, the effect of government policies, such as subsidies, taxes, an overvalued currency, unemployment, an underdeveloped capital market which results in non-market interest rates. For instance the government pays above market prices for low-skilled labor, so the percentage used to convert to shadow prices is less than 100%. The guidelines are around three years old and have not been updated. They are unlikely to reflect current reality. They are not being used for non-World Bank or ADB activities.

Item 34 for noncommercial projects and item 33 for commercial projects is to contain the required information regarding environmental assessments. The questions and description is the exact same as that required at the Approval-in-Principle stage.

However, CEA's guidelines indicate a five-step process for the assessment of the environmental impact and these can be correlated with steps in the project approval process. Presumably the information requested in the Final Approval Form is a mistake.

The first step is the initial environmental examination which would have been done in Stage I of the project approval process. While CEA expects this to be a ten to fifteen page discussion that has not happened and probably negates the purpose of the work in Stage I where the entire document is seldom over ten pages. It is possible that for complex projects, or projects with an extensive environment impact a 10-15 page preliminary analysis would be necessary.

Some large projects get approval-in-principle but do not have resources. These will be routed to the Ministry of Finance's External Resources Division to seek donor support.

The second step relates to the creation of an Interdisciplinary Committee which will scope the environmental issues and what work will need to be done. This is part of the project cycle, but is seldom done for projects with an environmental impact. The question for the committee are based on the review by NPD and Committee of Secretaries, to meet the design needs of projects whose impact effects a number of different government offices.

I expect that the remaining steps all ought to be included in the final project design. Step three is the development of an environmental assessment of the project, step four is the development of an environmental action plan which indicates how the measures in the assessment will be implemented, and step five is a supplemental environmental report which notes changes that are necessary in the project.

To date these procedures have not been implemented in any comprehensive or effective way. While the process is good, and the information requested is appropriate, there is a need to not only ensure that this type of work is actually done but that it has some influence over the decision-making process in deciding what projects to approve.

Even where there is a known environmental impact, there is seldom any discussion of that impact in the approval process. The assumptions and the analysis are not questioned. Thus it is hardly surprising that a greater effort is not made to improve the quality of the analysis.

The entire Final Approval Document is usually prepared by a donor with NPD involvement. When complete and accepted by NPD the Ministry prepares a 5-6 page summary to be sent to the Committee of Secretaries. The Committee of Secretaries can either ask additional questions or forward it to Cabinet for final government approval. A Ministry can submit a project directly to the Committee of Secretaries but usually the Committee will refer it to NPD for analysis and recommendation.

At this point the project can be listed in the PIP as approved.

If Cabinet approval is received then a project involving a donor will be forwarded to the Ministry of Finance's Department of External Resources for negotiations with the donor.

#### C. Science, Technology, Manpower and Environmental Advisor

Recently the NPD added a Science & Technology, Manpower and Environmental Advisor. How he fits into the project approval system is still being developed. Unlike the other NPD staff he is not responsible for a specific sector, nor is his role in the decision-making process clear. His work will necessitate interaction with all sectors. He will see all projects which are in the environmental sector. Theoretically his approval ought to be required for all projects which have an environmental impact. This is not happening and would require a change in the decision-making process which respect to the sector chiefs.

He is interpreting his role as attempting to strengthen the analytical ability of CEA and the environmental approving agencies. He, and CEA, do not have the staff to do the analysis and thus will have to work with others to ensure adequate analysis.

At present the sector offices are used to making decisions on project feasibility, priorities, etc., on their own and it is not clear how the advisor will relate to the process. It thus becomes important that there be training for NPD sector chiefs and senior technicians as to why environmental issues are important plus providing suggestions as to how to analyze the problems simply but accurately or evaluate the analysis done by others.

It is vital to build up the role of the advisor to heighten attention to the environment. Possibly the first step ought to be checking on some approved projects to ascertain the extent to which the simple assessments are valid, what work is being put into the analysis. This could result in better understanding the training necessary for ministry personnel in environmental assessments.

It is hoped that all projects which indicate that there is at least some impact on the environment will be routed to CEA to coordinate the full environmental assessment.

### III. The PIP and the Capital Budget

The PIP is not the same as a National Development Plan (NDP) in that it lacks the comprehensiveness of a National Plan, it does not include information on the activities of the private sector, parastatals, training, or extensive analysis of the functioning of the economy. Prior to 1977 there were NDPs which were technically impressive but had little impact due to their inability to be translated into action. The advantage of the PIP is that it is more practical, it is used; it is less theoretical and abstract. It is a critical document for government planning of government spending. Because the PIP excludes many activities there are many who feel NPD ought to also develop a NDP, and fold the PIP exercise into the NPD.

The current system was partly an outgrowth of the merger of the Ministries of Finance and Economic Planning which permitted the close collaboration of the budget and the major planning documents. The process has been sufficiently established that the recent movement of National Planning out of the Ministry of Finance and Planning and into the Ministry of Policy Planning and Implementation ought to result in no major alterations.

#### A. Importance of the PIP and the Capital Budget

The budget is probably the most critical document the government has indicating its priorities and intentions. The impact of the capital budget on the economy can be indirect through the provision of infrastructure like roads, or directly through expenditures on directly productive activities. However, the validity of the budget is limited by the extent it is built on sound information, that spending conforms to the levels in the budget and non-budgeted items are excluded from the process.

Because inclusion in the PIP is required for inclusion in the capital budget, the process by which activities are included in the PIP is critical. Control over the process is vested in the Department of National Planning of the Ministry of Policy Planning and Implementation. The impact of environmental analysis depends on the weight given to it by NPD in deciding which projects ought to be forwarded for approval and which projects ought to be included in the PIP. Project proposals are likely to include better environmental analysis only if NPD makes it a requirement.

The relationship of the PIP and the annual capital budget is very close. Projects are generally not considered for inclusion in the capital budget unless they have been in the PIP. Thus the government's 1990 capital budget only includes items included in the 1989 PIP. Similarly the capital budget levels in the 1990 budget will provide the base line estimate for the 1990 PIP. Those items which were considered important but which could not be funded are likely to receive higher priority in the 1990-1994 PIP.

The Department of National Planning is central to the creation of the PIP, just as they are central to the project approval process. They also decide on the sectoral allocations for the capital budget and frequently which projects will be included.

#### B. Structure of the PIP

The PIP includes not only a review of the economy and each sector plus the performance of the economy, but also a discussion of changes in the objectives, policies, goals and project approval process. In the current PIP7 the emphasis is on the need for short-term stabilization to...mobilize the necessary external and domestic resources for investment...maintain budgetary deficits at manageable levels, interest rates and exchange rate...adjusted (to) absorb excess liquidity and encourage exporters.

It had been recommended that new projects should be included in the PIP under one of three categories: core, reserve and tentative, reflecting their relative importance.

However, the current PIP only makes a distinction between ongoing and new projects. However, in the discussion they mention "The Janasaviya Program will be the core program of the government during the next few years."<sup>8</sup> Because of very limited GSL-controlled resources very few non-donor projects have been approved of late. In the past there were internal NPD documents and a published NPD listing, Project Proposals, which made a distinction between core and reserve projects.

#### C. The Process of Developing the PIP<sup>9</sup>

The process of developing the PIP begins in January when the Department of National Planning (NPD) of the Ministry of Policy Planning and Implementation prepares their summary of the objectives, goals and other policy pronouncements of the government. The five sector directors of NPD<sup>10</sup> make a preliminary percentage allocation by sectors and ministries.<sup>11</sup> In the past few years there has been an effort to reduce the allocations for agriculture because of its relative overemphasis while Mahaweli was being developed. There is an effort to increase the emphasis on social infrastructure.

Also during January the Macro-Economic Unit in NPD is developing their first estimate of the projected performance of the economy. The first iteration is generally completed by February. While the World Bank and IMF would like the government to use their econometric models the GSL has retained its own. Details on the model are not publicly available but it is an output-oriented model supplemented by research done on specific sectors including input-output analysis (presumably to be complemented by current research on a Social Accounting Matrix), capital-output ratios and elasticities. Some parts

are discrete, such as the Central Bank providing an estimate for the Balance of Payments, the Budget Division of Treasury providing estimates of likely recurrent spending, the Fiscal Division of Treasury providing an estimate of tax revenue.

The results of the model are discussed within National Planning and with the Central Bank's Research Staff, the World Bank and IMF when they are having their consultations (usually late March, early April). This year the model was projecting growth which was considered unlikely to be realized. Thus the estimates were reduced to 2% and the effect of this traced through the model.

With these results NPD can call for new projects, changes in priorities and other information government offices wish to submit. NPD's call will indicate their reading of government objectives, terms, etc. for this year's PIP. Usually these are exceptionally broad, like the goals of growth, employment creation and more equal income distribution. Negotiations with the World Bank and the IMF will also result in certain objectives on total government spending, inflation and the balance of payments<sup>12</sup>. Detailed sectoral objectives are also developed.

The call will remind the Ministries of what was in last year's PIP's statements on projects to be funded this year, plus the results of the previous capital budget. While the Ministries are supposed to develop their own listing of project priorities within the expenditure ceiling, in practice this occasionally does not happen. The ministries tend to request more money than is available and it falls to NPD to decide which activities can be accommodated and which cannot. Shortages of resources during the past few years has resulted in efforts to rephrase, delay and defer spending. The PIP is likely to go through a number of iterations. NPD makes its recommendations to the Committee of Secretaries and the Cabinet for their approval.

It is the objective of NPD to complete the PIP by the Sinhala/Tamil New Year's (usually mid-April).

The PIP provides the government's analysis of the economy and its program for use at the annual meeting of donors in Paris. This is chaired by the World Bank and IMF. The PIP, together with Bank and Fund analyses of the economy, forms the basis for the discussion. Bank and Fund approval of the PIP is vital to a favorable reception of the government's program. Since just over half the PIP is funded by donors it is not necessary, but increasingly important, that projects have foreign donor input.

If a project is not in the PIP it is unlikely to receive funding in the budget. However, those projects that are very heavily funded by donors may still be included.

#### D. Sectoral Objectives

According to the latest PIP the sectoral objectives are13:

Agriculture, -- rehabilitating existing irrigation facilities...improve land and water resource management...  
 -- strengthen agricultural support services...-- improve efficient of delivery of inputs...emphasis on rural credit...-- promote projects with high employment potential...-- ensure adequacy of producer incentives and marketing support...-- focus... on well delimited regional areas...-- develop self-employment... for Janasaviya participants...  
 -- effective functions of... agricultural development institutions.

Industry the emphasis will be on join ventures between state corporations and foreign firms, commercialize public sector industrial enterprises, privatization, promote foreign investment, expansion of textiles to non-quota countries, support for small industries (specially as they effect Janasaviya) and implementation of the Industrial Policy Statement.

Economic infrastructure will emphasize transport, energy and telecommunication with private sector involvement in road transport. Special attention will be paid to completely existing rehabilitation and modernization activities, expansion of the ports of Colombo and Galle

Social infrastructure has as its core program Janasaviya which in turn has an impact on all sectors including NGOs and the private sector. Other policies include eleven years of basic education, vocational and recurrent (distance) education, training of health staff and improvement in family planning service delivery to reduce fertility.

Human settlements emphasizes the provision of housing (the One Point Five Million Houses Program), develop an urban development policy which would include redevelopment of inner city slums, mobilize private capital, improve environmental sanitation (including generating revenues to meet operation and maintenance expenditures) and prepare detailed project proposals on the basis of priorities outlined in the [National Conservation] Strategy.

#### E. The Capital and Recurrent Budgets

The distinction between the capital and recurrent budget is supposed to be between once only expenditures and regular or repeated expenditures. However, this is implemented differently in each Ministry with the result that some capital items get included in recurrent (World Food Program subsidies) and some recurrent (like infrastructure repair and maintenance) are included in capital.

The capital budget is supposed to be derived from the PIP and to only include items that have been listed there. This is generally followed, but not always.

The budget is based on procedures developed in the 1960's to develop a Program Performance Budget System (PPBS). The budget unevenly attempts to be a project budget that is output oriented. That is, to group items around objectives so as to better measure the impact and effectiveness of programs. The monitoring that was done by the Program Budgeting Unit of Treasury has ended. The demise of this unit, in an economy move, has reduced the impact of project and program monitoring in budgetary allocations.

The negotiations with the World Bank and IMF in late March, early April result in an agreement on the general level of the budget. This is usually ratified at the Aid Group meetings and forms the foundation for the new current and capital budget. The process is the result of a series of meetings between NPD, the Budget Division of Treasury and the various offices. The process begins in January with the circulation of a Treasury Call to all offices giving details on government policy, likely levels and policy changes since the previous year. The capital portion of the budget must be completed for the PIP in mid-April; the macro levels for the recurrent are finished at that time, but the submissions by office must be done by June.

Usually in July a series of meetings are scheduled with the Budget Division to discuss the proposed levels and are key to the allocation process. The levels for each ministry of office are not final at this time, although some rough levels for each ministry have been developed. Levels can, and do change, however, the degree of flexibility is not as great as the ministries expect; Treasury is attempting to fit the budget into their sectoral and NPD's global levels. The levels requested by government offices are usually far in excess of the resources available.

This review attempts to balance off the needs of different programs against the government's overall policy and resource availability.

This process is essentially completed in October when the Budget goes to the printer for presentation to Parliament on November 15. If a project is not included in the budget it can still be funded through a supplemental budget. However, increasingly these have been discouraged in that they reduce the effectiveness and validity of the budgetary process.

In Parliament the Public Accounts Committee (PAC) reviews the previous year's Appropriation Account along with the report of the Auditor-General. Parliament must give its assent which is highly likely when the President and Parliament are of the same party. The process awaits the issuance of budgetary authorizations, warrants, signed by the Minister of Finance which authorize expenditures out of the Consolidated Fund. In

actual practice money is released through imprest funds prior to the issuance of warrants. These are liquidated when the warrants are available.

The budgetary levels then form the base year estimates for work on the following year's PIP.

Monitoring project performance is the responsibility of the Ministry of Policy Planning and Implementation. The Ministry of Finance also monitors, but its monitoring is limited to comparing actual with projected spending. It is felt that output performance monitoring is inconsistent and insufficient to play a major role in effecting new project decision-making<sup>14</sup>. From the environmental standpoint there is also inadequate monitoring of the environmental impact.

What information is available on project and sector performance is supposed to influence future year's allocations for the PIP and the budget. This is not done adequately at present.

#### IV. Recommendations

The recommendations are primarily a result of discussions with decision makers in government. The proposed training activities are not a once-off activity. They will need to be repeated at regular intervals for new staff.

o The people in the ministries who are doing project design do not understand what is needed for an initial environmental examination, why it is important and how to do one. They do not understand what variables ought to be analyzed, what to look for and how to look for it. Nor do they understand how this ought to influence the economic analysis. Training is necessary to change attitudes and abilities. They ought to have sufficient ability to do the initial environmental examination, that is, they ought to be able to indicate which projects are likely to have an environmental impact.

o Central to the work of the NREPP is the NPD. While staff at the NPD indicate that they understand the importance of the environment they do not feel they have received sufficiently clear signals from Cabinet or the Committee of Secretaries to actually require detailed assessments, nor have they seen projects rejected or deferred because of the lack of this analysis. This they interpret as indicating a relative unimportance.

They will not only need some short term training in how to interpret donor-done environmental assessments but some might need long term training to assist in doing the actual assessments. It is possible that a module in a course also ought to proselytize on the importance of the environment and thus result in their active support in ensuring that all approved projects must have a positive environmental impact.

While the Science & Technology, Manpower and Environmental Advisor at NPD does not have much influence now, he is a key person in a key location. Efforts ought to be made to (a) involve him in the project, (b) have NPD route all projects through him for an assessment of their environmental analysis, and (c) have him help design the training programs

o The environmental work of CEA, the environmental institutes and NGOs must be improved. This includes not only assessments they do themselves, but the work of the environmental Approving Agencies. The ministry people do not know much about the work of the CEA, nor have they received help from them. Most of the staff at NPD are unaware of the work of the CEA, nor can they indicate any time anyone requested information from them, nor any time that CEA information played a significant role in project approval.

NPD does not see how they can insist on improved environmental assessments if there is no organization that can do it. The planning staff in the ministries do not know how to do it. NPD considers this the responsibility of CEA.

CEA needs to (a) improve the abilities of the ministries, the environmental approving agencies, and upgrade skills, (b) have well-trained environmentalists assigned to each of the approving agencies who can do the work or (c) do the environmental assessments itself. I recommend having the initial work done by trained staff in the ministries with complete, stage II, assessments coordinated by CEA. The actual stage II work can be done at the ministries if qualified staff are there, otherwise it will have to be done by CEA.

CEA must also work with NPD in improving relations and knowing about all projects, sidetracking those that need additional work before final approval. Unless the staff of NPD are convinced that the environment is important, and further analysis of some projects is vital, and unless the CEA can convince NPD that they can ensure the analysis is done correctly, then the project has a reduced chance of success. Possibly they need to indicate that any projects which have certain characteristics must be reviewed by the NPD environmental advisor.

Similar in depth training is necessary for organizations like NARESA, NARA, CCD and the environmental NGOs to facilitate the incorporation of economic concerns into environmental analysis and environmental concerns into economic analysis.

o I cannot assess to what extent the Committee of Secretaries and Cabinet need to understand better the importance of the environment. Their statements as reported in the newspapers are favorable, however, these do not appear to be translated into action of insisting on adequate environmental assessments.

o Depending on what happens with decentralization additional training for the staff at the Provincial, District or AGA levels will also be necessary.

## Footnotes

- 1 Formerly the National Planning Division of the Ministry of Finance and Planning.
- 2 Formerly the Committee of Development Secretaries. The 1989 government reorganization reduced the number of ministries. The Committee of Secretaries includes the Secretaries of all Ministries.
- 3 Project Planning, Appraisal and Implementation in Sri Lanka, M. D. Veitch, Project Planning Center for Developing Countries, University of Bradford, February 1986.
- 4 Contained in Veitch, ob.cit., Volume II, Appendix 1, page 5.
- 5 When Veitch, ob. cit., Volume I, page 45, summarizes the stage one form he does not mention the environment.
6. Vitch, ob. cit., Volume I, page 45.
- 7 Department of National Planning, Public Investment 1989-1993 Colombo, September 1989, page 2-3.
- 8 ibid, page 3. Only core or political projects are getting funded out of GSL resources currently.
- 9 Much of the information in this and the next section is from: Sri Lanka Institute of Development Administration: Seminar on Government Budgeting, seminar papers and discussion notes, 1986, Colombo, 1986.
- 10 Dr. Lloyd Fernando is in charge of National Planning. RKuruppu is his deputy and Director for Administration and Sector Coordination. The five sector directors are: (1) agriculture (FMohadeen--there are two deputy directors, one for irrigation and one for plantations), (2) industry, trade and construction (KALPremaratne), (3) economic overhead--infrastructure (DMJayasekera, PVarmadevan will be taking over soon), (4) social overhead infrastructure (PALailima), (5) Science, Technology, Manpower and the Environment (RAmerasekera). SAKarunaratne is the Director of the Macro-Economic Unit.
- 11 The 1989-1993 PIP itself is divided into five sectors: agriculture, industries, economic overheads, social infrastructure and human settlements.
- 12 The current PIP lists explicitly some of these: revenue to remain 21% of GDP, overall deficit to decline to 8% of GDP, domestic borrowing to decline to 3.8% of GDP.
- 13 The information is from the 1989-1993 PIP.
- 14 The monitoring is reported in an annual report from the Ministry of Policy Planning and Implementation, Performance.

## NAREPP SOCIAL SOUNDNESS ANALYSIS

This analysis discusses the socio-cultural context of NAREPP, including its direct and indirect beneficiaries and potential losers, the commitment to the project purposes by the government and people, and project participants. It assesses the social feasibility and impacts of the project, including the risks that may be incurred as a result of socio-cultural attitudes, or practices.

Social aspects of the project purpose: The project seeks to improve environmental management throughout Sri Lanka by building capabilities of public and private institutions responsible for a wide range of environmental issues. These issues affect the nation as a whole, such as decisions to establish national plans or to change budget priorities, or vast sections of the nation, such as pollution control, watershed management, or coastal management. Specific areas can likewise be affected by these issues, such as a particular industrial facility, tourist development, or agricultural community. By its very nature, environmental management, or mismanagement, affects nearly all aspects of social life. By improving the capabilities of environmental management institutions the project intends to cause broad, long-term improvements in economic and social conditions.

The socio-cultural impacts, however, will be difficult to measure or attribute directly to the project. Indeed, the present, let alone future cause and effect relationship of socio-cultural conditions and environmental conditions in Sri Lanka, as elsewhere, is difficult to measure. Economic relationships are somewhat easier to determine. (See Analysis of Natural Resource Management Constraints on Economic Growth.) What can be said, however, is that a major component of NAREPP is its intervention to improve Sri Lanka's ability to anticipate the social/environmental impacts of national economic development decisions through targeted research and, in particular, through effective use of Sri Lanka's new environmental impact assessment requirements.

Social context: Regard for environmental resources has deep cultural roots in Sri Lanka. Pre-colonial uses of land, water, and forest resources still affect Sri Lanka's attitudes toward economic development and environmental management. Ancient forms of slash and burn (chena) cultivation continue, and, although once sustainable on flat forest land with long rotations, it now causes severe erosion from sites on steep slopes with short rotations. The Sinhalese hydraulic civilization of the north-central dry zone in the first millennium is seen today as a supreme example of sustainable natural resource use, and it prompted and shaped the post-independence drive to develop the vast Mahaweli irrigation and resettlement program, including its elaborate system of new parks. The traditionally social standing of farmers in the past has strong impacts even today. A dream of poor rural families, with which many politicians strongly sympathize, is

still to own a paddy farm today, although available land is severely limited. Coastal fishing is a long, honorable tradition on Sri Lanka's coasts, and it is reflected in the government's continued subsidized provision of fishing gear.

These ancient past and present uses of natural resources, particularly farming and coastal fisheries, have shaped Sri Lankan's attitudes toward the environment as well as concepts of economic development and social justice.\*\*1. So has the development of plantations, especially tea, by the British, which created a vast change in ecological and socioeconomic conditions in the central highlands in particular.\*\*2. Today these capitalist-based (though largely state-owned) plantations are still often perceived by environmentalists and university scholars as an intrusive element on Sri Lanka's socio-cultural environment. The establishment of the Peak Wilderness area, including Horton Plains, was one recent response to the environmental and cultural change caused by large commercial as well as small farm land use, \*\*3. resembling America's attempts to preserve its wilderness values in the face of other economic uses.

The environmental movement that developed in Sri Lanka in the 1980s responded to the vast and quick changes occurring from tourist and industrial growth and the Accelerated Mahaweli Development program, rather like the American environmental movement's response in the 1960s to highway, dam, and industrial developments of the time. Despite differences in scale, other similarities to American environmental experiences are striking. New groups (March for Conservation) and a rejuvenated old one (Wildlife and Nature Protection Society) based programs on Sri Lanka's age-old and continuing attraction to wildlife. The movement strongly emphasized public participation; March for Conservation began with popular marches, the Environmental Congress fed information to local activist groups, and legal activism was fostered by the Third World's first environmental law group, the Environment Foundation Limited.\*\*4. Strong evidence of grass-roots interest was evident in formation of scores of local environmental organizations. Moreover, dramatic public

N.B.

\*\*1. Bernard Swan, Sri Lankan Mosaic, Marga Institute, 1987.

\*\*2. Asoka Bandarage, Colonialism in Sri Lanka, the Political Economy of the Kandyan Highlands, 1833-1886, Lake House, Colombo, 1950.

\*\*3. The National Heritage Wilderness Areas Act of 1987.

\*\*4. Malcolm Baldwin, "Beyond the Barriers, Environmental Law Activism in Sri Lanka," Environmental Forum, May/June 1988.

environmental controversies, like US plans to dam the Grand Canyon or build a Jet Port in the Everglades in the 1960s, similarly sparked coalition campaigns by Colombo-based environmental groups and substantial press and public interest. The government's proposals for a Trincomalee coal-fired power plant and a major timber production program in the wet zone prompted unprecedented press coverage in the mid 1980s, and environmentalists' use of administrative appeals and procedures. In the end, the government's plans were dropped or changed.

National violence and turmoil, more than any other single factor, curbed the development of environmental organizations and the environmental movement. Groups remain small and poor in resources. (See Institutional Analysis.) The strategy and goals of the environmental movement are often unclear. They are largely unlinked to economic development goals, resource economics, and the stark realities of urban and rural poverty. Among many academics, environmental goals are still absorbed with romantic visions of the past. In these respects too, however, the environmental movement resembles that in America in the early 1970s. With promises of peaceful conditions, and renewed international attention to environment, there appears to be no reason not to anticipate a resurgent environmental movement among the people.

Project beneficiaries: NAREPP will have direct and indirect beneficiaries of its interventions to improve environmental management in Sri Lanka. Direct and immediate beneficiaries will be the personnel in government and private sector (primarily NGO) institutions who receive training in various aspects of environmental management. Their work will be more effective as their institutions (see Institutional Analysis) become better equipped and more empowered to analyze problems, develop plans, or implement programs.

The project will directly affect approximately 1,000 people directly through its training program for project approving and other private sector institutions, and an estimated 500 by specific agency (for example, Department of Wildlife Conservation) and NGO training programs. More will be affected by the intended (but still unquantifiable) development of private sector businesses in environmental assessment and management, and the employment-generating and work-satisfaction effects of the NGO grant program.

Business owners and managers, as well as individuals, will benefit directly from knowledge gained about ways to avoid costs or increase opportunities from better environmental management. Industrialists, shrimp farmers, and hoteliers are expected to gain and apply information on cost-effective waste treatment technologies and operating procedures to control pollution that would otherwise adversely affect their own industrial or tourist business needs for clean water. New business opportunities will also be possible as more people are aware of the benefits of environmental management of Sri

Lanka's coastal, wildlife, and other scenic resources; opportunities include nature tourism and other environmentally grounded tourist and service businesses. NAREPP seeks to provide these benefits through technical assistance to the Coast Conservation Department, Tourist Board, Central Environmental Authority, its training programs, and local area projects in which local businesses and individuals participate.

Indirect project beneficiaries include all those who benefit from the educational programs conducted by NGOs -- school children and adults -- and the educational materials produced and distributed by environmental agencies -- notably the Coast Conservation Department and the Department of Wildlife Conservation. At the national level, of course, beneficiaries include all those who benefit from environmental management programs based on markets that respond more efficiently than before to costly externalities and needs for sustainability.

NAREPP is expected to help curb the opportunities of many who wittingly or unwittingly mismanage the environment and reduce the welfare of the community at large. Local projects of NAREPP may, for example, stimulate actions against coral miners who could, unsustainably but perhaps for another decade or more, thrive on their trade, to the long-term detriment of tourist industry and fishermen, among others. Similarly, a local project in a catchment area watershed may result in actions adverse to the short-term production goals of a farmer failing to take basic soil conservation measures. Less directly, an industrial polluter may be sued or otherwise discouraged by actions of an NGO receiving NAREPP grant support, and he may determine that his business suffers from the increased abatement costs, although downstream communities may benefit considerably. These are losers whose livelihood is most likely to change if they are presented with alternative ways to make comparable short- as well as long-term gains. NAREPP policy analyses and local projects under the Special Projects component will focus on these needs.

No discernible gender specific impacts are anticipated from the project. Significant gender effects of resource management decisions, however, such as those concerning availability and transport of biomass for home cooking fuel, are among the issues appropriate for environmental impact assessments, whose analytical quality NAREPP seeks to improve through training and technical assistance.

GSL commitment to the project and participation in project design: As described in the Institutional Analysis, Sri Lanka's government commitment to environmental management has been strongly evident through its many laws and institutions. Commitment to the project has been evident through the cooperation of all agencies with whom USAID has worked in developing the project design. Project design consultants have worked closely and continuously with the Central Environmental Authority in developing the impact assessment development

training program during the fall of 1989 and winter of 1990. Regular meetings have been held between USAID and project design consultants and the National Planning Department to identify interventions helpful in developing environmental aspects of its capital budget process. Upon creation of the new Ministry of Environment in the spring of 1990, discussions were promptly initiated by the Ministry concerning its interest in assisting with project coordination.

Participation in project design has been close with other agencies as well. NARESA has carried out active discussions with USAID and project design consultants in developing the interventions concerned with its technical information center and follow-up of its natural resource profile. NARA has held numerous staff briefings and discussions with USAID and project design consultants in 1989 and 1990 regarding its program and need for assistance. Agencies with whom USAID has had long-standing relations under other projects -- such as the Coast Conservation Department and the Department of Wildlife Conservation -- have prepared long-range plans and held regular discussions concerning NAREPP's role in meeting their needs for technical assistance and training.

Private sector interest in NAREPP developed through regular and informal discussions of NGO leaders with project design and USAID personnel in 1989 and 1990. A joint USAID-CEA workshop on environmental impact assessment for private sector and government agency personnel was held in January, 1990, which included discussion of the needs and direction of the NAREPP training program.

Socio-cultural feasibility: NAREPP focuses directly on the identified institutional constraints on efficient environmental management. Many of these constraints stem from socio-cultural attitudes that have either been hostile to, or ignoring of, market-oriented solutions to environmental or economic problems. Partly as a result, Sri Lanka has responded to problems of soil erosion, pollution, or watershed management with regulatory, heavily governmental and bureaucratic responses.

On one hand, therefore, these habits may make it difficult to introduce new approaches to environmental problems, such as use of economic incentives and other alternative non-regulatory ways to address costly externalities. On the other hand, once it has been demonstrated that the regulatory approaches have not worked (as in the case of soil erosion), or may not work, these new approaches may become politically attractive. NAREPP's interventions address these problems and opportunities by providing resource economic technical assistance and training for NGOs and government agencies, and by supporting public education programs that address economic aspects of environmental management. The practical feasibility of non-regulatory approaches will be tested to a large degree by NAREPP's local area projects.

Risks and assumptions: Socio-cultural risks to the project are posed on several fronts.

One risk is that NAREPP will be frustrated by political and economic turmoil caused by ethnic or other social strife similar to that which existed in 1988-89. Under such conditions large-scale training programs, requiring participant travel to and boarding in Colombo, and field activities would be difficult to conduct. Other technical and commodity assistance, however, including development of educational materials and research, could largely proceed.

Another risk is that increased knowledge of resource economics will not increasingly rationalize environmental management decisions if the economic approaches appear to flaunt basic egalitarian notions of social justice. Market-oriented approaches may, for example, become less attractive under a socialist government similar to that of the 1970s. On the other hand, lessons learned since then, in Sri Lanka and elsewhere, suggest that these risks can be overcome by careful integration of environmental information on externalities and sustainability into traditional economic analysis. NAREPP's emphasis on education and public participation through NGOs is intended to help depoliticize, as well as make more efficient, the environmental education and policy making process.

Perhaps the most serious risks to the project's success arise from possibilities that the impact assessment process and pollution licensing procedures will become so inefficient and burdensome that business and government will violate or circumvent them, at considerable economic and environmental cost. Such costs would be incurred if administrative requirements for information in impact assessments or pollution licence applications were excessive, agency review and coordination processes drag out, and decisions are delayed. Costs could rise if the government establishes requirements for pollution abatement or environmental management that are neither cost-effective nor within the capabilities of the project proponent's staff to guarantee.

These risks need to be understood by government administrators at the outset, and they are anticipated in the project design. The NAREPP impact assessment development training program will need to include training in the cost-effectiveness of pollution control technologies and impact assessment/licensing administration measures. Experiences in the US (local, state, and federal) and elsewhere with assessment and licensing administration will need to be examined and understood by Sri Lankan personnel in the public and private sector.

# memorandum

DATE: June 8, 1990  
 REPLY TO: Siraj ~~Abdulkere~~ Financial Analyst  
 SUBJECT: Review of the Financial Management System of the Central Environmental Authority  
 TO: J. Wayne Butler, Controller

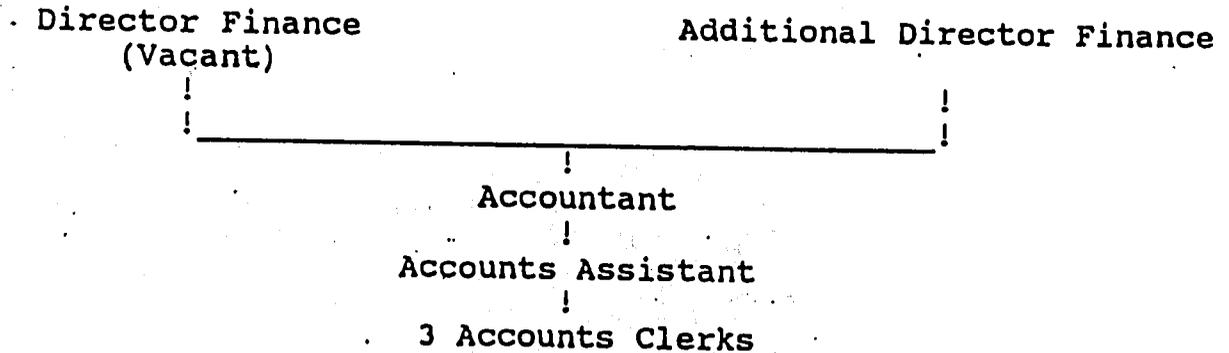
Purpose

The Central Environmental Authority is one of the Host Country agencies which will implement the Nature Resources Environmental Policy Project. The purpose of the review was to assess the adequacy of the procedures used by the Authority for contracting, commodity procurement, Inventory Control and Invoice examination.

Review of the Financial Management System

Organization Structure

The Organization Structure of the Finance division of the Authority is as follows:



In addition there is an Audit Officer who works directly under the Chairman. The duties of the audit officer are, Checking Payroll, Pre-auditing all payment vouchers, Member of the Tender Board, Check Inventory Registers and Annual verification of Stock records.

## NAREPP INSTITUTIONAL/ADMINISTRATIVE ANALYSIS

1. Purpose of this analysis

NAREPP focuses on institution-building as the means to improve natural resource and environmental management. As explained in the Technical Analysis, several public agencies and entities within the private sector agencies will have a key role in achieving project objectives. This Institutional/Administrative analysis examines whether the entities chosen have the legal, organization, managerial, and staffing capabilities to carry out their required role under the project.

2. Environmental laws and institutions

2.1. Environmental laws: About 80 statutes enacted over the past 100 years concern some aspect of environmental management or protection. The most important laws in the natural resources/environmental field are summarized in the report prepared for USAID on environmental laws and institutions (Baldwin, 1988. No significant new acts have been passed since then.) Far-reaching pollution control requirements established in 1988 filled the single-most important gap in this body of laws, which now covers all major aspects of environmental and natural resource management.

2.2. Government institutions concerned with environmental management:

Roughly two-thirds of the approximately 30 ministries in the government have significant resource management roles. Together with the extensive legal framework, this fact indicates to some extent the administrative complexity of natural resource management by the public sector. The description of institutions that follows summarizes and updates the results of USAID/Sri Lanka's analyses of Sri Lanka's environmental laws and institutions (see Baldwin, 1988).

Forests and Wildlife -- Primary agencies: Forest Department; Department of Wildlife Conservation.

Land Use: Primary agencies: Forest Department, Department of Agriculture, State Gem Corporation, Ministry of Plantation Industries, Mahaweli Authority, Ministry of Lands.

Urban and Town Development: Primary agencies: Ministry of Urban Development, Housing Ministry, local and provincial authorities.

Water Development and Irrigation: Primary agencies: Water Resources Board, Irrigation Department, Land Use Policy Planning Department, Mahaweli Authority.

Aquatic and Coastal Resources: Primary agencies: Coast Conservation Department, Sri Lanka Land Reclamation and Development Corporation, National Aquatic Resources Agency, other Ministry of Fisheries agencies.

Tourist Development: Primary agencies: Ceylon Tourist Board, Ministry of Tourism.

Pollution, Pesticides, and Toxic Substances: Primary Agencies: Central Environmental Authority, Greater Colombo Economic Commission, Occupational Health Department, Pesticide Registrar, Ceylon Institute of Scientific and Industrial Research.

Environmental impact assessment: Primary agencies: Project approving agencies, Central Environmental Authority.

Environmental Policy and Education: Primary agencies: Ministry of Education, Ministry of Higher Education, Ministry of Environment and Parliamentary Affairs, Central Environmental Authority, Natural Resources, Energy, and Science Authority.

### 3. Analysis of counterpart institutions in the public sector

The project will provide training to agencies within approximately 20 ministries and specialized technical and other assistance to a more select group. Private sector entities will be included in both categories. Policy agencies with which the project will work most closely throughout the project term are the MEPA, CEA, and NPD. Other agencies during the first few years include CCD, DWLC, NARA, and NARESA. These 6 agencies are discussed in more detail below. Other agencies briefly discussed are the Ceylon Tourist Board, NBRO, and the Forestry Department. (For further analyses of these and other agencies with which the project may work see Baldwin, 1988.)

#### 3.1. The Central Environment Authority (CEA)

Jurisdiction: The CEA was established by the National Environment Act (NEA) of 1980 and, as directed under the NEA amendments of 1988, is primarily responsible for developing national environmental and natural resource policies, public education, implementing air, water, and land pollution licenses, and implementing environmental impact assessment requirements. The NEA directs CEA to conduct and coordinate research on environmental degradation, develop environmental protection criteria and standards, and provide education and information to the public. Natural resource problems for which CEA must recommend policies, such as forestry, land use planning, wildlife, fisheries, and soil conservation, are primary responsibilities of other agencies. The 1988 requirements for pollution licenses and impact assessments are, however, explicitly and primarily CEA's responsibility to oversee line agencies have substantial implementation duties.

CEA is a three-person board, assisted by a small staff of professionals, charged with recommending policies on all aspects of environmental conservation and natural resource management, conducting studies, investigating problems, and reporting on remedies and legislative needs. The CEA functions within the Ministry of Environment and Parliamentary Affairs (since early 1990) and is the only agency within this Ministry (which consists of a Minister, Secretary to the Minister, Project Minister, and Secretary to the Project Minister). CEA was previously under the Ministry of Policy Planning and Implementation.

Staff Structure: A full-time professional staff of 29 includes 15 environmental professionals with university degrees. Total staff is 116. Staff are organized under five divisions: The Secretariat Division (administrative), the Environmental Planning Division (training, analysis, planning, and external relations), the Environmental Management Division (natural resource management), the Environmental Promotion Division (public awareness, publicity, publications), and the Environmental Protection Division (EIA review and pollution monitoring and enforcement). Each division is directly responsible to the Director General, as are the District Environmental Agencies in the field.

Budget: In 1990, CEA's operating budget totalled Rs 13 million, which is the level presently anticipated for 1991.

Other donor support for CEA: CEA will receive approximately Rs 40 million in donor support for capital expenditures in 1990, primarily from the Dutch and Norwegians. During 1990 the Dutch Government will provide technical assistance for wetland impact assessment and management and aspects of industrial pollution control. Continued additional support will be forthcoming from NORAD. NORAD has supported the procurement of water pollution monitoring laboratory equipment by CEA and it is expected to fund development of an air pollution laboratory in the future. For the past several years it has helped CEA strengthen its support of the District Environmental Agencies.

CEA Management of the Environmental Impact Assessment Process: Amendments to the National Environmental Act in 1988 require environmental impact assessments and initial environmental examinations on development projects requiring government approval and opportunities for public comments on these documents. These requirements have far-reaching but hitherto largely unrealized potential for natural resource management and environmental protection, and public involvement in environmental decisions. A CEA Ministerial Order on the EIA and IEE process is expected by mid 1990.

CEA Management of Pollution Control Licenses: The same 1988 NEA amendments require CEA to require and control issuance of licenses for point sources of air, water, and soil pollution. Comprehensive provisions filled a major gap in existing law and established a new and demanding regulatory role for CEA. A Ministerial Order establishing pollution control licenses was

issued in early 1990, and license requirements will take effect by July 1, 1990.

**Management:** The CEA Chairman functions as the agency head. Since CEA's creation, this position has been occupied by a person filling other government positions as well, but the current Chairman spends approximately 90 percent of his time with CEA. The CEA Working Member is a full-time position, without direct administrative responsibilities. The other CEA member is part-time, when filled. Since 1988 the Director General has been a full-time position. Each of the five divisions is headed by an Assistant Director.

CEA is the only agency within the Ministry of Environment. The MEPA's Project Minister recently relocated to the CEA offices.

**Weaknesses:** CEA's major weaknesses include staff deficiencies in technical training and lack of adequate numbers of staff to fill new duties. The 1988 amendments requiring new EIA and pollution licensing responsibilities have added responsibilities similar to those of the US EPA to an entity than has hitherto been a policy, educational, and advisory body. The addition of new staff and training has not kept pace. Of 44 approved professional staff positions in CEA, 29 are in place and 23 are vacant. Most of the vacancies occur in the middle management positions under the Assistant Directors, including environmental scientists, senior environmental officers, research officers, and so forth. (See Crawford, p. 38.) Technical analytical capabilities have been particularly limited in addressing impacts of and alternatives to large energy projects, such as the coal-fired power plant proposed at Trincomalee, and most recently in the South, or the Samanalaweva hydroelectric project (which caused costly and unexpected hydrological impacts during construction).

CEA's plans to hire additional environmental officers and technical assistants have been delayed by a government-wide hiring freeze. CEA has recently strengthened its capacity for EIA and pollution control planning by obtaining assistance from the NBRO.

An overall weakness is lack of experience at all levels in environmental program management, including basic organizational training in management by objectives.

A specific management weakness concerns CEA's difficulty in coordinating and applying the work of existing government entities to achieve key CEA objectives, such as environmental pollution control. Needs include shared use of laboratory facilities and research capabilities of CISIR (the Ceylon Institute of Science and Industrial Research, for technologies on pollution abatement and effluent treatment, among other topics, the NBRO, NARA, NARESA, and others.

### 3.2. Coast Conservation Department

**Jurisdiction:** Although Sri Lanka established a separate coast conservation agency in 1978, the Coast Conservation Act of 1981 established the CCD's mandate and program. CCD exercises regulatory control over the 2.3 kilometre coastal zone through a permit program. It can require EIAs for development projects "within" in the zone. Limitations of the existing authority have proved troublesome in regulating or requiring EIA's on activities outside, but significantly affecting, the coastal zone. As required by the 1981 Act, CCD prepared a Coastal Zone Management Plan, based on resource surveys, in 1988. The three major concerns of CCD are coastal erosion, conservation of natural coastal habitats, and conservation of cultural and recreational areas.

Although the Coast Conservation Act provides for decentralization of regulatory authority to districts, it does not clearly address the new devolution issues posed by the creation of Provincial Councils under the 13th Amendment to the Constitution.

CCD moved from the Ministry of Fisheries to the Ministry of Defense in 1989. In 1990 it moved to the Ministry of Ports.

**Staffing:** The CCD operates under a Director and 3 divisions: the planning division (for all permit actions), the Coastal Engineering Division and the Administrative Division. The Planning Division has been, and would continue to be, the principal entity receiving USAID technical assistance. Its current staffing: a Manager of Planning, 3 Deputies (now vacant but being advertised); 2 Assistant Managers (both abroad on study leave); 2 planning officers (one vacant), 1 chief inspector (assigned to another division); 2 technical assistance (vacant, to be advertised), and 3 clerical.

**Budget and donor assistance:** CCD's annual operating budget has been approximately Rs 200 million. In 1989 foreign aid totalled \$39 million, primarily for shoreline protection engineering under DANIDA. CCD has also received technical assistance from the Danes in preparing its Master Plan for Coast Erosion Management. The Federal Republic of Germany has supported engineering activities in the South. To support CCD's permit and planning program within its narrow coastal zone, CCD received \$448,000 from USAID from 1986 to 1990.

**Regulatory programs:** The Coast Conservation Act requires an EIA on projects in the coastal zone, including the provision for public comments, if determined necessary by the CCD Director. The Act requires that no permit shall be issued by CCD unless it is consistent with the Coastal Zone Management Plan and "will not otherwise have any adverse effect on the stability, productivity and environmental quality of the coastal zone." The Act also requires that an EIA should analyze alternatives less harmful to the coastal zone environment and why these have been rejected. Virtually all of CCD's permit actions -- about 500 annually -- are determined to be environmentally insignificant and have been handled by means of IEEs. EIAs have been required only twice, on the

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Trincomalee energy project and another on an aquaculture project that was dropped before EIA completion. Legal and policy issues concerning the devolution of permit authority to Provincial Councils have not been worked out by CCD.

Management: CCD staff have been given substantial technical training in Sri Lanka and in the US, but continued attrition leaves the agency severely understaffed for its basic planning, regulatory, and educational roles. Hence CCD's Five Year Program (1900 - 1994) focuses largely on needs for technical assistance and training.

Weaknesses/Program Needs: CCD staff has several immediate needs:

- o Greater planning and authority over coastal region. Amendments to the Coast Conservation Act planned to be introduced in Parliament in the near future may give it authority to declare an area, such as an entire lagoon, part of the coastal zone. Additional amendments being considered would give CCD authority to address a nagging coastal problem by allowing it to stop coral reef destruction by confiscating kilns used to convert coral into cement powder.
- o Training in coastal management and impact analysis. This is needed for CCD staff and other government agency and private sector personnel. Agencies like the Sri Lanka Reclamation and Development Authority, which may be required to prepare EIAs, need to know how to organize an EIA, obtain data, procure services, find local consultants, and establish an EIA team. CCD staff need to improve their own capabilities to analyse, or get other experts to analyse, impacts of major developments, such as proposed coastal energy facilities.
- o Professional training for CCD employees. This is increasingly important because CCD has difficulty in hiring personnel experienced in coastal management, planning, and regulation.
- o Data on and analysis of estuarine and coastal wetland functions and values. Such information, needed to classify estuaries, assess trends on coastal pollution and fishery habitat losses, would help CCD and, if devolution of authority proceeds, Provincial Councils, carry out permit responsibilities, especially in the North and East.

### 3.3. Department of Wildlife Management (DWLC)

Jurisdiction: The DWLC manages 12 percent of Sri Lanka -- over 700,000 ha of forests, which includes 541,000 ha of natural high forest and 6,000 ha of forest plantations. Lands are incorporated under the following management categories, roughly arranged from the most to the least protective:

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- Strict Nature Reserves (no disturbance, entry with permit, 60,600 ha);
- National Parks (no disturbance but public visitation, 420,000 ha);
- Nature Reserves (no park development, existing uses, 3,700 ha);
- Sanctuaries (no disturbance, existing uses, 206,400 ha)
- Jungle Corridors (animal pathways, existing uses, 5,800 ha);
- Intermediate Zones (a classification being eliminated, 36,000 ha).

The Department is now situated within the Ministry of Lands, Irrigation and Mahaweli Development, having been moved in 1989 from the Ministry of State.

Staff: DWLC functions under three divisions, just recently established, to be staff under assistant directors: education, research, and training. At present the DWLC has only one Ph.D (the Director), and only a handful of university-trained personnel. The supervisory staff of 11, including the Director, had been approved for expansion to 18 by 1991, until the government-wide hiring freeze.\* The field staff, (including guards and rangers) of 446 in 1988 has been increased, to reach 506 in 1990. In 1989 DWLC was upgraded in the civil service to an A rank.

Management: With the appointment of a well known wildlife specialist (Ph.D) and environmentalist in 1989, the management of DWLC management substantially and dramatically improved. Management policies, objectives, and staffing plans have been established, and links with other agencies and the NGO community have improved.

Weaknesses: The DWLC management recognizes its major weaknesses: It needs:

- A strong professional leadership cadre at the top to serve the Director;
- Professional wildlife and ecosystem management capabilities from top to bottom that can drive DWLC programs and priorities;
- Planning and operational links, formal and informal, with the Forest Department, the land use programs of the Ministry of Lands and Land Development, and tourist programs of the public and private sector;
- A planning process for developing and involving the public and other agencies in new park and habitat protection programs;
- A publications and public education program, which has been limited to a few publications on its parks;
- Involvement in the habitat protection policies of the government, including assessment of the impacts of government actions on parks and reserves, and responsibility for facilitating Sri Lanka's acceptance of the Ramsar (wetland protection) Convention;

-- Capacity to commission and publicize studies of the economic importance of wildlife (to tourism and other activities) as well as the ecological requirements and benefits of wildlife and habitat protection.

#### 3.4. National Aquatic Resources Agency (NARA)

Jurisdiction: NARA was created as a research agency within the Ministry of Fisheries in 1981. Under its statutory charter NARA must "ensure the application and utilization of scientific and technological expertise for the implementation of the national development programme on the subject of aquatic resources." Although fisheries and ocean resources remain NARA's primary concern, it must also promote and conduct research for "the development, management and conservation of aquatic resources, in the inland waters, coastal wetlands and off-shore areas."

NARA functions as a public statutory corporation, headed by a Chairman, operating under a Governing Board. Its budget of Rs 15 million for 1988 has held steady for several years, with additional funds from foreign donors.

Organization and Current Projects: NARA has seven basic programs, most of which were supported by the UNDP project that ended in 1986.

Staff: A total staff of 240 includes 70 scientists, 100 mid level technicians, research assistants, and 100 clerks, secretaries, and others. NARA expects a staff of 300 by the end of 1990, including an increase of 30 more scientific personnel. The scientists receive additional training on the job. Eight have Ph.D.'s and another eight are working on them in Sri Lanka, the U.K., and one with Scripps in the U.S. with UNDP/World Bank support.

Budget: NARA has a small operating budget of Rs 16 million. An additional 5 percent of this comes from service contracts with other agencies and private businesses. Foreign donor funding of NARA's has amounted to approximately Rs 35 million annually in recent years.

Facilities: NARA has a spacious campus setting near the mouth of the Kelani River and a laboratory for research. On-site facilities offer training in cooperation with the Sri Lanka Fisheries Training Institute; NARA provides most of the teaching staff, and the excellent facilities cost about Rs 3-4 million -- a gift of the Japanese -- but are now underused. NARA has a field station at Negombo, where an interpretive center is being set up with NARESA with some World Bank support, and another near Galle. Its station at Trincomalee has not functioned for about five years. It was established in the early 1980s as a tourist exhibit on whales and research center.

**Management:** NARA has strong management under its Chairman. Its impressive group of researchers are organized into divisions along traditional disciplinary lines. NARA's strength lies in its research capabilities, which it has offered to a dozen government agencies (including CCD, CEA, the Tourist Board, CEB, Mahaweli Authority, and GCEC) through service contracts concerning sea bed sampling, hydrologic surveys, water pollution monitoring, siltation rates, and so forth.

**Weaknesses:** NARA's weaknesses concern limitations in applying its strength most effectively to meet national objectives.

It has had limited experience with "hands-on" resource management in the field. Close operational links with other agencies and the private sector need to be developed to build on NARA's technical capabilities. Marine park and tourist development at Hikkaduo offer one immediate possibility for cooperation with private and public (CCD, Tourist Board, DWLC) entities.

NARA has made limited use of its field stations as aids to local management of coastal resources. Its station at Galle was recently rejuvenated, however, and it is exploring possibilities for returning to use its station at Trincomalee, which began to serve in the early 1980s as a center for tourist interest in watching the many whales off the east coast. The stations offer potential for building local and national coastal research programs and Special Area Management plans.

A highly-motivated staff has not as yet been coordinated and mobilized around environmental program objectives. NARA's participation in other CCD Advisory Council meetings has also been limited. Its environmental unit has been weak in organizing interdisciplinary teams around specific issues. NARA lacks links with outside social scientists able to help apply scientific research to policy and program problems.

### 3.5. National Planning Department:

**Jurisdiction:** The National Planning Department (NPD) in the Ministry of Policy, Planning, and Implementation is responsible for reviewing all development, approving small development projects, and forwarding its approval of large ones to a Committee of Secretaries (representing all Ministries) for review and submissions to the Cabinet. Most importantly, NPD prepares the government's Public Investment Programme (PIP) -- a rolling five-year plan for government capital spending. Because development projects in the annual capital budget must generally be included in the PIP (for example, the government's 1990 capital budget only includes items included in the 1989 PIP) NPD has a critical role in determining government development programs and priorities. In short, NPD is central to creation of the PIP, project approval processes, and sectoral allocations for the GSL capital budget.

In developing the PIP and decisions on capital development projects the NPD can apply economic and environmental analyses. The 1988 requirements for EIAs and IEEs give NPD additional authority to disapprove of, or delay, projects until proposing agencies have complied with impact assessment procedures. (See Cohen, "Environmental Analysis and the GSL Project and Budget Process," USAID/Sri Lanka, December, 1989.)

Staff: NPD is organized under a director, deputy director, and five sector directors. The five directorates are: agriculture (with two deputies for irrigation and plantations); industry, trade and construction; economic overhead/infrastructure; social overhead/infrastructure; science, technology, manpower, and the environment. (The 1989-1993 PIP roughly corresponds to these staff divisions with five sector divisions of agriculture, industries, economic overheads, social infrastructure, and human settlements.) In total, the NPD has about twelve professionals, about five of whom are economists.

Management: NPD has recognized its newly important role in applying sound economic resource and environmental analysis to its PIP and project review processes. Responsibility for applying these analyses has fallen to the Division of Industry, Trade, and Construction, which receives most of the major feasibility studies and proposals for environmentally significant development projects. (The director of Science, Technology, Manpower and the Environment was transferred to become Secretary to the Project Minister of the Environment, in the Ministry of Environment and Parliamentary Affairs.) In addition to the director, the division includes a deputy director and two assistant directors.

Weaknesses: NAREPP development analyses and NPD staff have indicated several weaknesses in NPD capabilities and procedures that need attention:

- o Operating agencies need to know what economic/environmental impacts and variables to address in project pre-feasibility and feasibility stages, and how to analyze them. Until they have these capabilities NPD will have difficulty rejecting projects proposals that lack required economic/environmental analyses.

- o NPD lacks capabilities to identify the kinds of environmental impact information needed to determine economic costs and benefits of proposed projects. It has no resource economist on its staff to apply this kind of information to the NPD's PIP process. NPD needs technical and training assistance in resource economic and environmental analyses.

- o NPD needs clear backing and authority from the Committee of Secretaries and the Cabinet to reject development projects that lack the necessary economic and environmental analysis. At present it rarely rejects a project on these grounds, although it may delay its approval.

o NPD needs close links with CEA and environmental research units of public and private institutions regarding impacts of proposed developments, and monitoring of the environmental impacts of approved projects.

### 3.6. Natural Resources, Energy and Science Authority of Sri Lanka (NARESA)

Jurisdiction: In 1968 Sri Lanka founded the National Science Council to give the government advice and support on science and research. It became NARESA in 1981 and, like the Institute for Fundamental Studies, was put under the President, for whom it prepared comments on the Forestry Master Plan and an earlier study of a nuclear plant. In 1988 NARESA was placed within what is now the Ministry of Science and Technology. NARESA focuses, in particular, on the support of natural resource scientific and management research.

Staff: A staff of six at the top, 10-15 in the mid range, and 20 lower level staff serve 10 full committees and 10 technical committees served by over 400 scientists. Major committees in the natural resources field: Man and Biosphere National Committee, which helped establish boundaries for reserves managed by the Forest Department; Natural Resources Working Committee; Technical Committee on Genetic Resource Conservation.

Program: NARESA operates a small grants program to award small supplementary support for long-term projects, and monitors foreign funding grants for committee work. It holds regular seminars and workshops on natural resource topics for NGOs, private sector, and government agencies. Its library, the Sri Lanka Scientific and Technical Information Center, has links with all university libraries in Sri Lanka, and conducts searches of information for users. NARESA recently began to expand its network of technology libraries and information center (TECHNET) and interlibrary retrieval systems for members. NARESA publications include: Journal of Science, Social Sciences Journal, News Bulletins, and ad hoc publications, such as Medicinal Plants Used in Sri Lanka.

Management: NARESA is headed by a full-time Director General. Program management is largely the responsibility of the Assistant Director General, who is also responsible for NARESA's natural resources profile. Until 1989 NARESA functioned within the President's Office, and it held a strong position in providing direct reports and analyses (for example on the Forestry Master Plan) to the President. Since then, however, NARESA's role within and relationships to its Ministry of Science and Technology have not been clarified.

Weaknesses: NARESA has relied on university scientists for its productive work. Its technical management is stretched thin. University experts are often not available immediately

when needed to address difficult technical questions and provide the Cabinet with analyses of pending decisions or projects. Needs are strong for resources and staff to conduct specialized analyses of significant issues, carry out workshops, develop technical materials, and otherwise to develop policy and implementation outreach to public and private institutions.

### 3.7. Other cooperating government institutions

NAREPP will work with a number of GSL agencies concerned with significant private sector economic development activities in Sri Lanka that are affected by environmental constraints:

3.7.1. The Ceylon Tourist Board has mandates to develop and manage tourist activities (Tourist Board Act No. 10 of 1966 and Act No. 14, 1968). It owns and leases property to tourist hotels, regulates hotel siting and construction, establishes and monitors water pollution controls for these hotels, can acquire private land under eminent domain for planned tourist development, and carries out training programs for various types of private sector tourist personnel, including guides and lecturers. Its environmental unit includes the Director General of the Board, Director of Development, Director of Community and Industry Relations, and Assistant Director of Marketing. The last master plan for tourism was developed in the late 1960s. The Board is now working with the World Tourist Organization of the UN to develop a 10 year plan for tourist development.

NAREPP interaction with the Tourist Board will be necessary in at least three project components:

- o Development of the 10 year tourist plan must be consistent with to the Coastal Resource Management Plan approved by the Cabinet in April, 1990;
- o Training programs of the Tourist Board for private sector businesses and individuals on coastal and inland water pollution, wildlife tours, and other environmental topics offer important private sector development opportunities for NAREPP and will require links with NAREPP training programs and activities with DWLC and CCD;
- o Special Project activities concerning specific geographic areas, such as sustainable tourism and coral reef protection at Hikkadua, or Trincomalee, will need to involve the Tourist Board.

3.7.2. National Business Research Organization of the Urban Development Administration (discussed in Baldwin, 1988) carries out extensive environmental pollution analyses, largely under contracts with other agencies. Its environmental division has the capacity to coordinate work of other NBRO divisions (Human Settlements, Building Materials) and to carry out special studies requiring integrated technological, environmental, and

sociological analyses on such problems as coral mining, hazardous area management, or industrial siting. NBRO has been engaged in hazardous area mapping of Nuwara Eliya and Badulla under UNDP support, and in a major air quality monitoring program, under NORAD support, for the Colombo area.

NAREPP will need to work with NBRO in conjunction with training programs to reach local government officials linked with UDA (see Baldwin, 1988), and with NBRO's small but highly qualified staff concerned with air and water pollution control and environmental impact assessment. Special Studies concerned with coral mining, catchment area management, and cost-effective pollution control may need to involve NBRO.

3.7.3. Forestry Department environmental management activities (See Baldwin, 1988, and Tarrant, 1989) have recently been refocused with a Division of Environmental Management. This division, headed by an experienced specialist in watershed management, will address EIA and watershed planning programs in catchment areas, and mangrove management in coastal areas. Since the public debates over the sustainable environmental impacts of the Forestry Master Plan, environmental staff and management capabilities of the Forest Department have developed rapidly under World Bank, UNDP, and IUCN project support.

NAREPP will need to work with the Forestry Department in development of Forest Department EIA capabilities under the training program. Use of facilities at the Department's Nuwara Eliya Forestry College may be desirable for training programs in the catchment area. Forest Department involvement will be essential for any Special Project activities concerning catchment area management, privatization and management of degraded plantation lands (with the Ministry of Plantation Industries), mangrove management, and village use of forest resources.

#### 4. Cooperating private sector entities

4.1. Business and Professional Organizations: Given the fundamental economic and political problems facing business development in Sri Lanka in recent years, their environmental awareness activities have been limited. Nevertheless, Sri Lankan banks have demonstrated significant interest in environmental programs recently, stimulated by World Bank, and other donor needs for environmental assessments, and Sri Lanka's own requirements for EIAs or IEEs.

NAREPP will interact with business and professional organizations on several fronts. Its training program will include staff from commercial banks, many of whom have already participated in USAID-sponsored impact assessment workshops, industries, and the numerous Sri Lankan associations of engineers, business managers, tourist lecturers and others. In addition it will include staff from consulting firms developing capabilities in environmental impact assessment, and pollution control and monitoring.

Opportunities for building environmental capabilities of business and professional organizations will increase as government EIA and pollution control requirements take force within the next two years. Opportunities for their involvement in NAREPP should be reassessed at the project evaluation stage. In the meantime, cooperative activities can be supported under the project's NGO grants program.

4.2. Private Sector -- Non-Governmental Organizations (NGOs): The project's educational component will provide grants to environmental NGOs. A group of nation-wide environmental NGOs in Sri Lanka provide the energy for education and policy intervention that have created strong public interest in environmental affairs.

Each of the five most active groups based in Colombo serves a different but complementary purpose. (For summaries of each organization's work, see Baldwin, 1988.) March for Conservation applies university expertise to provide graphic posters and other exhibit material for needs of small children and up to professionals, and it carries out scientific research and environmental assessments; Nation Builders actively engages in environmental rehabilitation at the village level; the Environment Foundation educates lawyers, counsels citizens in legal remedies, provides public education of legal and policy issues, and litigates; the Wildlife and Nature Protection Society campaigns in and out of government for park and wildlife protection and provides regular publications for schools; and the Environment Congress supports the information needs of numerous small environmental NGOs at the district and village level. The focus and experience of each of these groups are largely complementary, with minimal duplication or overlap.

Their primary strength lies in their environmental education programs and ability to reach general or selected audiences with minimal costs. Each operates on a shoe-string with substantial volunteer support, but collectively they have been largely responsible for sustained environmental education in Sri Lanka, filling needs that formal education programs may eventually, but have not yet, met. All of them have cooperated with government agencies formally or informally in environmental education programs.

Capabilities to promote public participation in environmental management decisions have been demonstrated in recent years. NGOs have held themselves sufficiently apart from government to be critical of government programs. A few of them have cooperated together on major campaigns against the proposed Forestry Master Plan and Trincomalee coal-fired power plant, in 1987-88, with significant effects on government decisions in both cases. Newsletters, work with environmental journalists, and appeals to government on behalf of aggrieved citizens have become regular features of some environmental NGOs.

Weaknesses of the NGOs will need to be a major concern of NAREPP. Since the 1988 USAID analysis, several of the NGOs -- notably March for Conservation and the Environmental Foundation, Ltd. -- have significantly enlarged their staff and range of activities, making them less dependent on the interest and energy of a single NGO leader. Needs for institutional strengthening remain strong, however. Among the most significant needs:

- Basic training for staff and boards in organizational management, long-range planning, staff training and development, preparation of proposals, project management, fund-raising;

- Staff training in environmental impact assessment theory and practice, and basic analytical approaches and tools of resource economic analysis;

- Timely and easy access to technical information on environmental topics in Sri Lanka and abroad, and access to technically qualified analysts;

- Opportunities for professional staff training in environmental management, resource economics, environmental law, environmental journalism;

- Resources and technical skills in audio-visual techniques, computer use, for environmental education programs;

- Working links with regional and international NGOs on topics of mutual interest such as tropical natural resource management, environmental law and law enforcement, environmental journalism, local citizen action programs, oversight of government programs;

- Working links with private sector entities concerned with sustainable economic development and sound environmental programs.

Given the organizational weaknesses, USAID cannot expect these and other NGOs to absorb large infusions of donor funds quickly. Grants will need to be timed to build staff capabilities as well as environmental education programs.

The goal of long-term self-sufficiency of these NGOs on the basis of membership fees is not a realistic possibility; as with most environmental NGOs in the US and elsewhere, continued donor support will be essential. Staff and board training -- substantive and organizational -- will need to be integrated into any grant program. Diversified funding, demonstrated capability to manage programs and funds, and long-range goals and objectives, are among the essential attributes that will help NGOs sustain themselves after USAID support under NAREPP ends.

Environmental DeterminationNatural Resources and Environmental Policy Project383-0109

The purpose of NAREPP is to improve public and private institutional performance in formulating and implementing effective environmental policies and developing sustainable and environmentally sound development programs. To achieve this purpose the project will provide technical assistance, training, commodity assistance, and research assistance. The project is intended to help achieve significant environmental improvements through efficient management of Sri Lanka's forests, wildlife, soils, waters and other coastal and inland natural resources.

Training assistance under the project will be provided for impact assessment and natural resource management. By training public and private sector personnel in ways to carry out impact assessment, resource economic analyses, and natural resource management, it will enhance the capacity of Sri Lanka to avoid significant environmental impacts. It will help Sri Lanka carry out the appropriate analyses of such impacts when they are proposed and before they occur.

Technical assistance provided to individual agencies, the private sector, and non governmental agencies will be directed toward development of skills and knowledge. Assistance related to specific programs or projects will be concerned with analysis of economic and/or environmental planning, policies, and impacts, including assistance to analysis required for formal EIAs under Sri Lankan law and regulations.

Commodity assistance will be in the form of computer, audio visual, books and materials, and similar equipment. Assistance for the development of library connected with NAREPP is envisaged. An IEE will be done on the library once specifics such as proposed site and design are known.

Special project assistance, involving a combination of technical commodity, and training activities, will be directed toward local natural resource management problems as well as specific research topics. Objectives of localized special projects are to improve management skills, understanding of natural resource issues and solutions, public education, and the development of management activities and plans. Any specific impacts on local environments that can be measured are at this stage impossible to predict. At best, with maximum project success, these impacts would include the development of a local natural resource management framework to guide the local actions of GSL operating agencies, private businesses, and citizen groups. As special projects are identified USAID/Sri Lanka in consultation with AID/Washington will determine on a case by case basis whether an IEE must be done to ensure that Regulation 16 procedures are complied with.

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Educational grants and technical assistance to NGOs will not have significant environmental impacts under NAREPP. They are, however, intended to have significant impacts on the ability of non-governmental interests to analyze and participate in government decisions that might significantly improve the quality of the human environment of Sri Lanka.

Accordingly, project activities with the exception of the library and "special projects" fall within the clauses of actions that are categorically excluded from the procedures set forth in Regulation 16, Section 216.2(C)(3). Environmental review of the library construction and "special projects" will be deferred until adequate information is available on their nature and content. The environmental review and assessment, when appropriate will be taken into account prior to financing and implementation of the library and "special projects". USAID/Sri Lanka will ensure that implementation plans will be modified in accordance with the results of any environmental review, if USAID/Sri Lanka in consultation with AID/Washington determines that such modifications are necessary.



George Jones  
Acting Director  
USAID/Sri Lanka

6/27/90

Date

## DONOR FINANCED PROJECTS IN SRI LANKA

(EXCLUDING USAID)

Annex XIII

Project/Activity (Title & No.)	Source of Assistance	Duration	Ministry	Terms Loan/ Grant/Food	Total Assistance (\$000)	Nature of Assistance
<b>HEALTH</b>						
Community Health Services	Canada-CIDA	1983-1990	MOLIMD	Grant	4034	Project is co-financed with UNICEF, to improve the quality of life for settlers in Mahaweli "B"
Village Health	Canada-CIDA	1982-1988		Grant	1396	Co-financed with UNICEF to provide consultant services, equipment & training to improve the quality of life for settlers in System H via enhanced health education, nutrition, water & sanitations
Community Health Project Mahaweli System "C"	UNICEF	1989-1993			597	Assistance for health, nutrition, child care, water & sanitation and skill development
Country Health Programming	WHO/RB	1982-1983		Grant	157	The objectives are to promote National Health Development Policies and programmes towards the goal of HFA/2000
Strengthening of Planning and Management	WHO/RB	1984	MOIWA	Grant	579	Strengthening, health planning and management

Country Health Programming	WHO/RB	1986	MOHWA	Grant	525	To promote national health development policies and programmes towards the goal of HFA 2000 ensuring effective utilization of WHO resources
<u>WATER SUPPLY AND SANITATION</u>						
Drinking Water supply and Sewerage, Phase II Kurunegala District	FRG	1985-1990	MOPAPLHA		3152	Improvement of drinking water supply and sanitation conditions in the Kurunegala District
Water Supply Rehabilitation	AsDB	1986		Grant	75	Feasibility study for improving the quality, quantity, reliability and accessibility of water supplies in selected towns
Rural Water Supply Sector (P)	AsDB	1989	MOPAPLHA	Grant	600	Feasibility study for improvements in rural water supply and sanitation including studies on deepwell groundwater development
Water Supply and Sanitation in Two Districts	DANIDA	1981-1991			6458	Rural water supply and sanitation programme in Matale and Polonnaruwa Districts through a combined programme including primarily health education

Harispattuwa Water supply and Sanitation Project	Finland	1981-1987	MOPAPCIA	Grant	5110	Preparation & Implementation of Water supply and sanitat- ion programme Health education programme
Kandy District Water Supply and Sanitation Project	Finland	1987-1990	MOPAPCHA	Grant	4352	Preparation and Implementation of Water supply and sanitation programme
Mapping section in NWSDB	Norway	1985-1988	MOPAPLHA	Grant	230	Establishment of a mapping section in the National Water Supply and Drainage Board
Rural Water Supply Sanitation and sector study	UNDP/IBRD	1987-1988	MOPAPLHA		107	To carryout a study of the rural water supply and sanitation sector with a view to planning a sound sector plan and policies for investment
Community Water Supply and Sanitation	WHO/RB	1984	MOPAPLHA	Grant	1112	To promote the National Water Supply and Sanitation Programme consistant with IDWSS Decade strategies
Water Supply Sector	AsDB	1986-1993	MOPAPCHA	Loan	3000	Rehabilitate of Water supply schemes, improve operations, maintenance and cost recovery, and consultancies and overseas training

Badulla Water Treatment Plant	France	2 years	MOLGHC	Loan	2500
Negombo Water Treatment Plant	France	1983-1986		Loan	6460
Kurunegala Water Treatment Plant	France	1985-1988		Loan	2580
Mannar Water Supply	Netherlands	1982-1989	MOPAPLHA	Grant	1581

Improvement of drinking water supply to Mannar town and adjacent villages

FISHERIES AND AQUATIC RESOURCES

Marine Resources Information (MARRIS)(Sri Lanka)	Canada-IDRC	1986-1990	MOFAR		113
National Aquatic Resources Agency (NARA)	FRG	1985-1991	MOFAR		1087
Fisheries Sector Study	AsDB	1987	MOFAR	Grant	175

It will provide information services to marine and aquatic researches in the country and will be linked to other national and international information services

To support research in hydrography, oceanography and marine geology

Review of resource management of coastal fisheries and the development of offshore fishing and of credit operations in the sector

Cageculture-Phase II	Canada-IDRC	1982-1987	MOFAR	Grant	203	The project will develop a suitable cage system, determine the economic feasibility of selected cage systems and constraints to their adoption, provide training, conduct preliminary surveys
Victoria Fish Hatchery	UK-ODA	1989-1990	MOLIMD	Grant	89	To establish a Fish Hatchery Research Station in the Victoria Catchment area
Inland Fisheries	Canada-CIDA	1990-1993	MOFAR	Grant	4802	To establish an aquaculture centre, to transfer technology, in fingerling production and to develop an extension system with an efficient distribution and marketing system
National Aquatic Resources Agency	UNDP/UNESCO	1984-1988	MOFAR	Grant	879	Develop scientific and technological knowledge and expertise in regard to renewable marine resources
Fisheries Development	Abu Dhabi	1983-1988	MOFAR	Loan	5410	Funded by the Abu Dhabi Fund
East Coast Fisheries	Netherlands	1980-1988		Loan	2450	Promoting fisheries industry on East coast by constructing a fisheries harbour and providing facilities at Valachainai & supply about 50 fishing boats

COAST CONSERVATION

Coastal Sedimentology	UNDP/IAEA	1978-1985	MOD	Grant	181	To identify different sedimentary problems requiring radioactive tracer studies and for design appropriate activities
Coast Conservation II	UNDP/UNDTCD	1985-1987	MOD	Grant	167	Assess viability of sand nourishment schemes, draw plan for implementating such schemes & integrating into the coastal management plan, train staff in planning and implementating and nourishment schemes
Coast Conservation Project	DANIDA	1987-1989	MOD	Loan	11000	
<u>ENERGY</u>						
Industrial Energy conservation Programme	UNDP/UNIDO	1984-1987	MOHEST	Grant	416	To implement energy conservation measures in the cement, ceramic, steel and Paranthan Chemical Corporations
Establishment of an Industrial Energy Management Unit at the NERDC	UNDP/UNIDO	1984-1989	MOHEST	Grant	254	To strengthen the capabilities of the NERD Centre for energy auditing consultancy and training/demonstration and information dissemination in the field of conservation in industry

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ENVIRONMENT AND NATURAL RESOURCES

Policy Studies	Netherlands	1989-1991	MOPPI	Grant	300	Preparatory studies for environmental policies
Water Resources Management	Canada/CIDA	1984-1989	MOLIMD	Grant	2645	Computer hardware, provision of experts and evaluation
Water Resources IEMP	Italy Netherlands	1988 1989-1990	MOF	Grant Grant	5 3000	Scholarship Integrated environmental management project Ratmalana/Moratuwa
Support to Environment Sector	Netherlands	1986	MOPPI	Grant	650	Project support (P), Consultancies, Institutional support to the Central Environmental Authority
Environmental Projects	Norway	1987-1991	MOPPI	Grant	4131	Support to various environmental projects under CEA
Samanalawewa Environmental Study	UK-ODA	1989-1990	MOPE	Grant	178	Consultancy
Development of Biological Control Methods	UNESCO	1988-1989	MOHEST	Grant	11	

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FORESTRY AND WATERSHED MANAGEMENT

Mahaweli Environmental Rehabilitation Project (P)	Canada/CIDA	1990-1995	MOLIMD	Grant	10080	To rehabilitate northern quarter of Kotmale subcatchment, to change land use practices, provide extension services and provide education and training, support for income generating activities
Mahaweli Forestry (Water Shed Management)	UK-ODA	1988-1991	MOLIMD	Grant	1714	Watershed Management Protection of the Upper Mahaweli area
Participatory Forestry (P)	AsDB	1989		Grant	350	Development of a strategy for participatory forestry and of a detailed project proposal suitable for external financing
Bamboo/Rattan (Phase II)	Canada-IDRC	1989-1990	MOLIMD		151	Project will complete the propagation tests and the pilot plantation trials of bamboo and rattan species in Sri Lanka
Bamboo/Rattan (Phase I)	Canada-IDRC	1984-1988	MOLIMD	Grant	73	This project will develop appropriate methods for propagating the most promising varieties of rattan and bamboo

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Watershed Management	FRG	1986-1991	MOLIMD		2470	Preparatory study for future project of assistance for the planning of water management in areas affected by soil erosion
Forestry Master Plan	Finland	1983-1987	MOLIMD	Grant	1076	Preparation of a Forestry Master Plan and a Five Year Investment Programme as a part of the IBRD financed Forest Resources Development Programme
Forest Resources Development	IDA	1983-1989	MOLIMD	Loan	9000	Strengthening planning capability in the forestry sector, reducing constraints of skilled manpower, improving the management, and strengthening research & trial programmes
Victoria Land Use and Conservation Project (Thematic Mapping Project)	UK-ODA	1988-1991	MOLIMD	Grant	1611	Thematic Mapping of Victoria Catchment area in preparation for forestry project
National Forest Inventory	UNDP/FAO	1980-1987	MOLIMD	Grant	529	Provided land use planning data on current and potential forest production on a nation wide basis and develop management plans for selected wet zone and upland areas

Assistance for Afforestation for Water Catchment Degraded Lands and Established Projects	WFP	1983-1990	MOPI	Grant	510	The project is to provide food as an incentive to marginal farmers for the establishment of 3100 acres of woodlots over 3 year period in 4 districts and the reforestation and maintenance of 3550 acres
<u>AGRICULTURE AND LAND USE</u>						
Integrated Land Use and Conservation Plan for Resource Utilisation and Mgmt	UNESCO/ROST				6	Financial support for a study-Leanwela Mini Catchment - Mahawewa Pannala Area
Conservation Farming Programme	FRG	1985-1990	MOAFC		1714	Replace chena cultivation by better methods of farming, experiments and training in weed control, erosion protection, matching and mixed cultivation
Sri Lanka Swiss Satellite Imagery Interpretation	Switzerland	1976-1991	MILMD		3200	To provide agricultural info. (statistics + maps) based on appropriate interpretation technique of satellite imagery and aerial photography
Land Use Planning II	UNDP/FAO	1985-1988	MOLIMD	Grant	417	Strengthen the landuse planning division of MOLIMD in formulation of landuse planning policy options assembling, processing and analysing data on land use. Provide guideline on district LOP

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National Building Research Organisation (NBRO)	UNDP/UNCHS	1986-1989	MOPPI	Grant	1184	Strengthen NBRO in research in low-cost building materials and land and land-slide hazard mapping
Land Use Planning	AsDB	1986-1993	MOLIND	Loan	16700	Strengthening of land use planning system, land data base and supporting services
Integrated Agricultural Development Demonstration Project in Mahaweli Area	Japan-JICA	1985-1990		Grant	2753	Equipment supply under the project which comes under Agriculture, Forestry and Fisheries Development Cooperation Programme

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Legend

- MOLIMD - Ministry of Lands, Irrigation and Mahaweli Development
- MOHWA - Ministry of Health and Women's Affairs
- MOPAPLHA - Ministry of Public Administration, Provincial Councils and Home Affairs
- MOLGHC - Ministry of Local Government and Housing Construction
- MOFAR - Ministry of Fisheries and Aquatic Resources
- MOD - Ministry of Defense
- MOHEST - Ministry of Higher Education, Science and Technology
- MOPE - Ministry of Power and Energy
- MOAFC - Ministry of Agriculture, Food and Cooperatives
- MOF - Ministry of Finance
- MOPI - Ministry of Plantation Industries
- MOPPI - Ministry of Policy, Planning and Implementation

IMPLEMENTING AGENCIES ASSESSMENT

Budget

The Authority has prepared its preliminary proposed budget estimates for 1991 and submitted to the Treasury in April this year. These budget estimates will be reviewed by the Treasury, adjustments made and the final estimates incorporated in the Government of Sri Lanka budget around the latter part of this year.

The total budget for 1991 is broken up as follows:

Recurrent	-	Rs. 15,000,000
Capital	-	<u>Rs. 91,548,000</u>
Total	-	<u>Rs 106,548,000</u>

The total recurrent budget and part of the capital budget will be met by the Consolidated fund of the Treasury. The other part of the Capital expenditure budget will be funded from foreign AID to be received from NORAD, UNDP and other (expected to be from GDR).

Of the recurrent expenditure budget of Rs.15,000,000, Rs.13,900,000 will be for operational expenditure and the balance Rs.1,100,000 for development programs. Development program activities are classified under 4 categories. They are NR Management, Promotion, Protection and Planning.

The capital expenditure budget of Rs.91,548,000 consists of Rs.11,548,000 from the Consolidated Fund and the balance Rs.80,000,000 from the Foreign AID donors mentioned above.

The NREPP project to be funded by USAID is not included in this year's budget nor in the preliminary budget estimates for 1991 of the Authority.

The proposed budget estimates for 1991 of the Authority is Attachment I to this memorandum.

Cash is drawn down from the Treasury on submission of monthly cash flow statements to the Treasury based on the approved budget. These cash flow statements have to be sent to the Treasury by the 4th of each month and a check is received by the Authority within 5 days of the submission of the cash flow statement.

Accounting Records

The Authority operates two bank accounts for funds received in respect of the NORAD project and funds received from the Consolidated Fund. As per the cash flow requirements NORAD deposits funds with the Treasury and each month the Treasury sends two checks to be deposited in the above two accounts. Income from license fees etc. received by the authority are deposited in the general expenditure bank account.

Checks of the two bank accounts are signed by two signatories from the following:

- 1st Signature - Additional Director Finance or Accountant
- 2nd Signature - Chairman  
Director General  
Director Planning  
Director Secretariat (Administration)

The authority maintains two analytical cash flow books for the two bank accounts and two ledgers to enter its accounting transactions. Upto 1990 NORAD has been the only foreign AID donor. In 1991 it will receive foreign AID from two other foreign AID donors (other than the USAID project) and as such the number of bank accounts, cash books and Ledgers may increase accordingly. A votes register classified according to the General Ledger accounts is maintained (for budgetary control purposes) by the authority recording transactions on a voucher basis. Payment vouchers are prepared for each payment and the analytical cash book is written up at the time the voucher is prepared and checks issued. The ledger is posted in total at the end of each month.

Bank reconciliations are prepared each month for both accounts.

A petty cash book is also maintained for the imprest of Rs.10,000/= maintained by the authority.

#### Payment Procedure

Invoices for services and supplies are received by the Director Secretariat and sent to the accounts department. Other capital and development program invoices are received directly by the accounts department or by respective directors and sent to the accounts department. The accounts clerk checks the invoice with the Purchase Order, Service Order and GRN and prepares a serially numbered payment voucher, which is sent to the director secretariat or the relevant director for authorization. The voucher is then pre-audited by the audit officer and certified by the Additional Director Finance or the Accountant. Once the payment is certified the check is written and the details of the payment are recorded in the cash book. The limits for authorizing and certifying payments set by the board are given in Attachment 2 of this memorandum.

#### Procurement Procedure

The procurement procedure of the authority as adopted by its Board of Directors is Attachment 3 of this memorandum.

## Inventory Control

The authority maintains a Fixed Assets Ledger and a vehicles Inventory Ledger. These two ledgers are written up to date and the folios have columns to record details such as the serial no., description, remarks, cost or valuation, annual depreciation, total depreciation, remarks, cost or valuation, annual depreciation, total depreciation, written down value, sale proceeds and profit or loss on sale.

In addition the authority maintains 12 divisional inventory registers and a Master Inventory register to record details and movements of fixed assets. The master inventory register is still in the process of being printed and some of the divisional inventory registers have not yet been written up to date. The Additional Director Finance agreed to get it done as soon as possible. A folio of a divisional inventory register has columns to record details such as the date, details/description, model/make, chassis no., serial no., GRN no. & cost, date purchased, divisional heads initial, transferred to & date, officer receiving, master inventory folio, auditors remarks, and physical verification.

The rate of depreciation on fixed assets is 20% on vehicles and 10% on any other fixed asset.

## Contracting

At the moment the authority does not enter into contracts other than for service contracts of machinery and equipment. This is done by the issuance of a service order which is similar to a purchase order. However, the additional director finance confirmed that the authority was capable of handling any type of contract management as it had a legal department in addition to the accounts department.

## Audit

The Government audit carries out an annual audit. The last audit that had been carried out was for the year 1988.

## Summary

The Central Environmental Authority records its accounting transactions in accordance with standard accounting practice and procurement procedures, inventory control, contracting and invoice examination procedures are adequate subject to the following recommendation No. 1

## Recommendations

- (1) Updating of the Master and Divisional Inventory registers
- (2) Ensure NREPP project budget for the year 1991 is included in the Central Environmental Authority proposed budget estimates for 1991 prior to the finalization of same by the Treasury.

# memorandum

DATE: June 27, 1990

REPLY TO ATTN OF: Siraj Aneykara, Financial Analyst

SUBJECT: Review of the Financial Management System of the National Aquatic Resources Agency

TO: J. Wayne Butler, Controller *JWB*

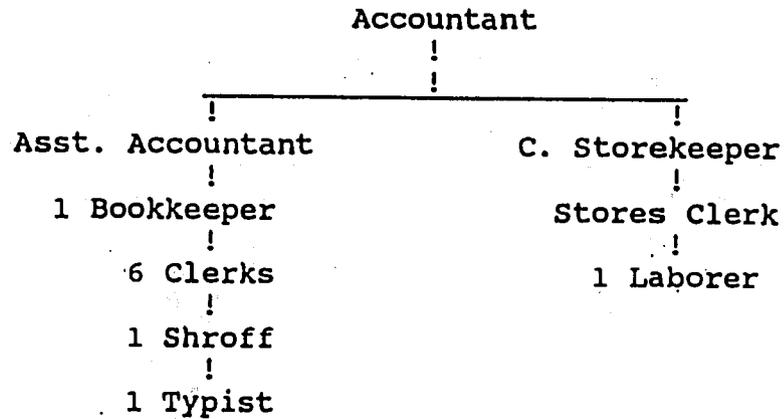
Discussions held with: Mr. Joe Fernando - Accountant

Purpose

The National Aquatic Resources Agency is one of the Host Country Agencies which will implement the Natural Resources Environmental Policy Project. The purpose of the review was to assess the adequacy of the procedures of the Authority for contracting, commodity procurement, inventory control and invoice examination.

Organization

The National Aquatic Resources Agency is a semi government agency. The structure of the accounts department is as follows:



In addition there is an audit officer who reports directly to the Director General.

Budget

The proposed budget estimates of NARA for 1991 are as follows:

Recurrent	Rs. 20,791,135
Capital	Rs. 5,000,000
Counterpart Project Funds	Rs. 10,500,000
Total from Consolidated Fund	Rs. 36,291,000
Reimbursable Foreign AID	Rs. 32,000,000
Total Budget	Rs. 68,291,000
	=====

Accounting Records

NARA operates 2 bank accounts and another two are operated for their UNDP project. Cash is drawn down from the Treasury on monthly cash flow requests submitted by them. Cash flow statements are submitted to the Treasury by the 10th of each month and funds are received by NARA by the 20th.

Checks of the bank accounts are signed by the accountant and the Director General. A proposal to get two more directors to sign checks is awaiting board approval.

An analytical Kalamazoo type receipt cash book, payment cash book and ledger is maintained to record the accounting transactions of the Agency. The ledger is presently being computerized and as such the 1990 ledger was not available for inspection.

Financial performance reports are prepared monthly for the Board and Trial balances are prepared semi-annually.

Bank reconciliations are prepared monthly for all the bank accounts. The agency maintains the following petty cash imprests:-

Head Office	- Rs. 125,000/-
Kuliyapitiya Office	- Rs. 10,000/-
Kappuwatte	- Rs. 750/-

In addition special cash imprests ranging from Rs. 5,000/- to Rs. 10,000/- are given to about 15 individuals as and when required. The Agency maintains a Petty Cash book and petty cash vouchers to record its petty cash transactions.

Payment Procedure

Invoices are received by the accounts department. The voucher clerk checks, prepares the voucher and enters in the voucher register. The voucher is checked by the Assistant Accountant and sent to the Director General for approval. Thereafter, the payment is certified by the accountant, check is written by the cash book clerk, payment register entered and the details recorded in the cash book. Postings are done at the end of the month by the bookkeeper from the cash book and petty cash book to the ledger.

Procurement Procedure

The procurement procedure of the Agency are given in Attachment I to this memo.

### Contracting

Contracting is handled by the services and supplies department. Tenders for construction are called from pre-qualified contractors and selected by the appropriate Tender Board. Contracts for Consultancies etc. are done on a standard agreement form which is used by the agency. The agency does not have a legal department, but uses the services of the Attorney Generals Department if and when necessary.

### Audit

The internal audit officer has a program of work and carries out his duties accordingly. He does not carry out a pre-audit of all vouchers. Quarterly reports are sent to the Auditor General on his findings. In addition the Auditor Generals Department officials are located in the Agency and carries out a continuous audit throughout the year.

### Inventory Control

The stores maintains a stock ledger and bin cards only for some items. They do not issue goods received notes on receipt of items at the stores. However, they do maintain requisitions for issues out of the Stores. The accountant stated that he was in the process of implementing proper Stock Control procedures.

### Fixed Assets Inventory

The Agency does not have a Fixed assets Inventory. The accountant stated that he was in the process of preparing a Fixed Assets Inventory and that this will be done shortly.

### Summary

The National Aquatic Resources Agency records its accounting transactions in accordance with standard accounting practice and procurement procedures, contracting and invoice examination procedures are adequate. The Inventory Control procedures of the Agency are weak. However, the accountant has confirmed that these will be strengthened shortly.

### Recommendations

- (i) Ensure that proper stock control procedures are implemented and an Inventory of all Fixed Assets prepared.
- (ii) Ensure the NREPP project is included in the budget estimates for 1991 of NARA prior to its finalization by the Treasury.
- (iii) Ensure that the Agency operates a separate bank account exclusively for the use of the NREPP project funds.

F. Purchase Regulations and Tender Procedures:

1. Authorities for purchases may be as follows :

	<u>Day to day Purchases without Quotations:</u>	<u>Emergency Purchases:</u>
1. Director General	Up to Rs. 1,000.00	Up to Rs. 5,000.00
2. Director	Up to Rs. 500.00	Up to Rs. 2,500.00
3. Deputy Director	Up to Rs. 250.00	Up to Rs. 1,000.00
4. Asst. Director	Up to Rs. 100.00	Up to Rs. 500.00
5. Research Officers	Up to Rs. 50.00	Up to Rs. 500.00
6. Admn. Officer	Up to Rs. 50.00	Up to Rs. 500.00

(a) Day to day Purchases:

These are day to day requirements such as consumables, chemicals, fish and other perishable items required for research work. In case of purchases less than Rs. 100.00 petty cash may be used

(b) Purchase of imported articles from Sole Agents in Sri Lanka:

Where supplies of imported items of particular make can be obtained only through a Sole Agent in Sri Lanka, such supplies may be purchased direct from the Sole Agent, provided the purchase is approved by the Chairman of the appropriate Tender Board, within the limits specified, subject to covering approval at the next Tender Board Meetings.

(c) Sealed Quotations from Registered Suppliers:

In cases where a Register of Suppliers is maintained by the Purchasing Officer, requests for sealed written quotations of prices may be sent direct to such Registered Suppliers only, provided the value of each supply does not exceed Rs. 100,000/-.

(d) Emergency Purchase:

In case where it is ascertained that the item required is not in stock and the circumstances are such that immediate purchase is necessary, the National Aquatic Resources Agency has delegated authority to authorise purchases without following normal tender procedure, to the officers indicated above up to the limits indicated. The officer authorising the emergency purchase under this regulation should, in each case, set out in writing the reasons for adopting this course of action. Every single purchase made under this regulation, exceeding Rs. 500/- in

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value; should be reported monthly to the Director General. A monthly statement of emergency purchases exceeding Rs. 500/- in value, made under this regulation should be put up to the Central Tender Board and to the Chairman by the Director General, in the following form: Up to Rs. 500.00 petty cash may be used with the permission of Director General.

- (e) Regulations for the day to day purchases and emergency purchase should also be applicable, to Works and Services required to be performed expeditiously.
- (f) The limitations indicated in Section 1-A for day to day purchases and emergency purchases should be applicable not only to perishables but also to normal purchases and work where the Tender Procedure is not practicable, due to limited availability, specific features (Quality, Designs, etc.) reliability, performance, etc., of the items or works.

2. Tender Boards:

- (a) Tender/Quotations for supplies of stores, works and services will be dealt with as follows :

Amount:

Authorized by:

- a. Not exceeding Rs. 100,000  
(Tender Board 'B')
- Tender Board comprised of -  
Chairman: Deputy Director  
Member : Research Officer  
Member : Accountant.
- b. Over Rs. 100,000 to Rs.250,000
- Tender Board comprised of -  
Chairman: Director (Nominated by  
Director General.)  
Member : Engineer/Tech.Officer  
Member : Accountant.
- c. Over Rs. 250,000 Upto  
Rs. 1,000,000  
(Central Tender Board)
- Tender Board comprised of  
Chairman: Director General  
Member : Director (Nominated by  
Director General).  
Member : Accountant

d. Over Rs. 1,000,000  
Up to 2,000,000

National Aquatic Resources Agency  
Tender Board which shall consist  
of the Chairman, Director General  
and Member Governing Board.

e. Over Rs. 2 million  
Up to 5 million.

Ministry Tender Board.

f. Over Rs. 5 million.

Cabinet Tender Board.

- (b) No decision shall be valid unless all members of the Tender Board or their representatives were present.
- (c) Copies of the Minutes of all Tender Board Meetings should be sent to the Chairman, Director General, Director and Deputy Director.

3. Registration of Suppliers:

- (a) In the case of items required to be purchased regularly, the Director General shall prepare a list of Registered Suppliers in respect of each item. Applications should be invited before the beginning of each year from prospective suppliers for registration by notice published in at least two local newspapers approved for the purpose. Prospective suppliers should be called upon to furnish certain minimum information on a prescribed form for the purpose of establishing the financial soundness and capacity to execute orders for such supplies.
- (b) Names of suppliers selected for registration should be recorded in a Register of Suppliers and should be authenticated by the Director General.
- (c) The Director General should submit the Register as compiled by him along with such details as are necessary to the Chairman of the Central Tender Board.
- (d) Suppliers of different commodities should be separately recorded and should be authenticated by the Director General.
- (e) Any quotations received from non-registered Suppliers/Contractors should not be rejected solely on the ground of non-registration. In such cases the Director General should ascertain the financial and business standing of the Tenderer. If the reports relating to such a Tenderer are found to be satisfactory, his name may be entered in the Register of Suppliers/Contractors with the approval of the Chairman, Central Tender Board.

## memorandum

DATE:  
REPLY TO  
ATTN OF:  
SUBJECT:  
TO:

June 31, 1990

Sir *Ch. N. S. K.* ~~Abbasakera~~, Financial Analyst

Review of the Financial Management System of the  
Coast Conservation Department

J. Wayne Butler, Controller *JWB*

Discussions held with: Mr. S. Manamperi - Chief Accountant  
Mr. P. Dharmabandu - Store-keeper

Purpose:

The Coast Conservation Department is one of the Host Country agencies which will implement the Natural Resources Environmental Policy Project. The purpose of the review was to assess the adequacy of the procedures of the Authority for contracting, commodity procurement, inventory control and invoice examination.

Organization:

The coast conservation department is headed by a Director and has the following six divisions:

- (1) Planning Division
- (2) Works Division (Construction)
- (3) Mechanical Engineering Division
- (4) Administration Division
- (5) Accounts Division
- (6) Projects Office (headed by a Project Officer, located separately to implement the DANIDA Project)

The Manager of the Planning Division (Mrs. D. Sadachandran) will be responsible for the implementation of the USAID Project.

The accounts division is headed by a chief accountant and has an accountant, 5 accounts clerks and a shroff working for him.

Budget:

At present the Coast Conservation Department receives foreign AID from three sources. They are DANIDA (DANISH), GTS (Germans) and USAID Central Funds. (This is coming to an end during this calendar year).

In the current years budget (1990) the department has provided Rs. 1,000,000 from the consolidated fund, and Rs. 3,000,000 from reimbursable foreign aid (USAID) in respect of the centrally funded project which is due for completion this year. No provision has been made in the budget for the current year or for 1991 for the NREPP project. However, the chief accountant without being aware of the NREPP project had provided Rs. 1,000,000 from Central funds and Rs. 3,000,000 in reimbursable foreign AID in the budget estimates for 1991, expecting the present centrally funded grant to be extended. He stated that the department would have to obtain Cabinet approval by August the latest if any funds were to be provided in the budget estimates for 1991 of the Department.

As in the case of the Coast Conservation Department the Department submits an annual cash flow statement to the Treasury. Further, a application of funds is made by the 7th of each month and the Treasury releases funds accordingly within 3 to 5 days.

Accounting Records:

The Coast Conservation Department operates one bank account. Checks of this account are signed by two signatories from the following:-

- 1st Signature - Chief Accountant or  
Accountant
- 2nd Signature - Director or  
Manager, Planning Division

The Department follows the government accounting procedures when regarding its accounting transactions. It maintains 1 Cash Book, 6 votes ledgers, salary register and a petty cash register. Commitments are recorded on the left hand side of the votes ledger. The commitment side of the votes ledger has columns for the date, particulars, commitment sheet no. and amount, initials of certifying officer, by this department, by other department, outstanding commitments, initials of certifying officer. The payment side has columns for date, particulars of payment, no. of voucher schedule, O/A of current years commitments, O/A of prior years commitments, total, initials of certifying officer, total of payments and commitments, credits of any and provision available.

Bank reconciliations are prepared monthly for the current account.

A petty cash book is also maintained for the imprests of Rs. 10,000/- maintained by the department in Colombo and Rs. 5,000/- in the regional office in Galle.

#### Payment Procedure:

The department has four types of vouchers. There are general vouchers, overtime vouchers, schedule for salary payments and travel vouchers.

The division responsible for the payment prepares the voucher and sends it to the accounts division. The voucher is then approved by the director. The chief accountant has the authority to approve salary payments. Once the voucher is approved an accounts clerk checks it enters it in the votes ledger. The Chief Accountant or the accountant then checks and signs the votes ledger and the voucher. Thereafter, the Cash book clerk enters the cash book and writes the check.

#### Procurement Procedure

The Director has authority to approve purchases upto Rs.50,000/-. Purchases between Rs.50,000/- and Rs.2,000,000 are approved by the Department Tender Board. The department Tender Board consists of the Director, Chief Accountant, Ministry representative (normally accountant), 2 others from the department nominated by the director and approved by the Ministry. Purchases over Rs.2,000,000 and less than 5,000,000 are approved by the Ministry Tender Board.

#### Contracting

At the moment the authority does enter into contracts other than for service contracts. Contracting is generally handled by the planning division and whenever necessary contracts are referred to the Attorney General's department for their opinion.

#### Audit

The department does not have an Internal audit division. The accounts of the department are audited annually by the Auditor General's department.

#### Inventory Control

The department has a store in the Colombo office and one in the Galle Regional Office. There is a Chief Storekeeper and a storekeeper at the Colombo Store and a Storekeeper at the Galle store.

The Coast Conservation department has adopted the system and procedures of the Government Stores.

It maintains a stock book, receipt journal and bin cards (for spare parts only). All items (including Fixed Assets) are entered in the receipts journal and entered in the stock book. Goods received notes are raised on the receipt of any item and issues and transfers are made on requisitions duly authorized. (As per the storekeeper the stores in the Galle regional office also maintains a similar set of records including a Fixed Assets Inventory and a buildings Inventory).

In addition to the above, the Colombo Stores maintains a Fixed Assets Inventory, Buildings Inventory and a Sub-inventory. The sub-inventory is to record the movement of Fixed Assets to and from the regional offices in Moratuwa and Negombo. When such a movement to one of these offices takes place it is not taken off the Fixed Assets Inventory but recorded in the sub-inventory. When Fixed Assets are issued to the Galle Office it is taken off the Fixed Assets Inventory, as the Galle Office has its own stores where a Fixed Assets Inventory is maintained. Further, a personal inventory is maintained for the Fixed Assets in each division in the Colombo office. These individual divisional inventories record the location and the movement of the Fixed Assets within the Colombo office.

As the mechanical engineer is responsible for the vehicles a separate vehicle register is also maintained by the mechanical engineers division. This register contains details of the vehicle No., date registered, No. of certificate of registration, class of vehicle, location.

During the review it was revealed that although adequate Inventory Control procedures are in place it is not been implemented properly. As per the system all items including Fixed Assets purchased by the Department should first be received by the stores, recorded in the relevant stores records and then issued out. As per the storekeeper, in certain cases (mainly Fixed Assets) they are recorded in the stores records on the directive of the Director long after it had been purchased. A computer which has been purchased by the department had still not been recorded in the stores records. A vehicle purchased 10 years ago had been taken into the stores records on the directive of the Director only in 1989. The Chief Accountant was present at the discussion and was surprised to hear this, as, he was under the impression that payments were made only on receipt of the GRN from the stores.

A physical stock verification is carried out annually and a Board of Survey consisting of 3 members appointed by the director carries out a physical inventory of all Fixed Asset, and certifies it after reconciling it with the Inventory.

### Summary

The Coast Conservation Department records its accounting transactions in accordance with Government of Sri Lanka accounting procedures. The procurement procedures, inventory control, contracting and invoice examination procedures are adequate subject to the following recommendation No. 1.

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Recommendations

1. Ensure strict adherence of the Inventory Control system and procedures by taking into stocks all items purchased prior to issuing to the end user.
2. Ensure NREPP project budget for the year 1991 is included in the Coast Conservation Department proposed budget estimates for 1991 prior to the finalization of same by the Treasury.
3. Ensure that the department operates a separate bank account for the NREPP project.

AID:CTR:SA:ta:06/21/90  
0072S

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## memorandum

DATE: June 21 1990

REPLY TO  
ATTN OF:

Siraj Abeysekera, Financial Analyst

SUBJECT:

Review of the Financial Management System  
of the National Planning Division

TO:

J. Wayne Butler, Controller

Discussions held with: Mr. N. Premaratne, Director, Industry  
Trade & Construction  
Mr. M.J. Perera, Accountant

Purpose

The National Planning division, a newly formed départment of the Government of Sri Lanka is one of the Host Country agencies which will implement the Natural Resources Environmental Policy Project. The purpose of the review was to assess the adequacy of the procedures of the division for contracting, commodity procurement, inventory control and invoice examination.

Organization

The National Planning division was made a separate department only in 1989. Prior to 1989 it was part of the General Treasury. It is headed by a Director and consists of seven deputy Directors (now given Director status) in charge of Irrigation, Plantation, Agriculture, Social Overheads, Economic Overheads, Administration, Industry Trade & Construction and Macro policy. The Director in charge of Industry Trade and Construction will be responsible for the implementation of the NPD component of the NREPP project. The accounts department consists of a part time accountant, head clerk and 3 other officers. The accountant works only three days a week as he is also the accountant of the Ministry of Policy Planning and Implementation.

The total budget of the NPD for 1990 is Rs.22,200,000, of which recurrent and capital expenditure budgets amount to Rs.11,100,000 each. The capital component includes an IDA loan for a public sector restructuring project amounting to Rs.10,600,000, acquisition of equipment and vehicles amounting to Rs.501,000 and rehabilitation and import of capital assets amounting to Rs.40,000. The projected budget estimates for 1991 of the NPD is Rs.14,499,900 of which Rs.12,564,900 is for recurrent expenditure and Rs.935,000 for capital expenditure.

As the NPD is a 'B' class department, unlike other government agencies it does not receive funds based on a monthly cash flow statement. It operates on an Imprest of Rs.3,500,000 credited by the Treasury to an account maintained by the NPD at the Central Bank. At the end of each month the NPD submits a schedule of accounts and an imprest application to the Treasury and the imprest is replenished based on these documents.

### Accounting Records

The National Planning division operates one bank account with the Central Bank. Checks of this account are signed by two signatories from the following:

- 1st Signature - Accountant
- 2nd Signature - Director, or
  - Director Administration or
  - Director, Macro Planning

The NPD follows the government accounting procedures when recording its accounting transactions. It maintains a cash book and a votes ledger.

A petty cash imprest of Rs.1,000/- is maintained by the NPD.

Bank reconciliations are prepared monthly for the Central Bank account.

### Payment Procedure

Invoices are received, checked and payment vouchers prepared by the relevant section of the NPD incurring the expenditure. It is approved by the section head and sent to the accounts department. The votes ledger clerk checks the voucher and enters the details in the votes ledger. The accountant certifies vouchers and initials the votes ledger entry. The voucher is then entered in the cash book by the cash book clerk and the check written. Once the check is written it is sent to the relevant section head who is responsible for transmitting the check to the payee.

### Payment Procedure

NPD does not have a Tender Board. The Director has authority to approve purchases upto Rs.50,000/=. Purchases over Rs.50,000/- and upto Rs.21,000,000 is approved by the Tender Board of the Ministry of Policy Planning and Implementation. Quotations are generally obtained from Government Institutions for purchases of stationery & office supplies etc.

Contracting

At the moment activities of the NPD does not involve any contracting. Although the NPD has no prior experience in contracting the Director Administration with the assistance of the Attorney Generals Department will be able to handle any type of contracting.

Inventory Control

As per the accountant a Fixed Assets Inventory is maintained by the NPD. However, this was not available for inspection at the time of the review.

Audit

As the NPD was formed only in May 1989 no audit has been carried out by the Auditor Generals Department as yet. However, from the inception all payment vouchers have been sent to the Auditor Generals Department.

Summary

The National Planning Division has been in existence only for the past one year and the volume of accounting transactions are relatively small and are mostly operational expenses of the division such as salaries, travelling, office supplies etc. It follows the Government of Sri Lanka accounting procedures. The invoice examination procurement procedures, inventory control and contracting are adequate subject to the following recommendation (i)

Recommendations

- (i) Ensure that the Fixed Assets Inventory is properly maintained.
- (ii) Ensure NREPP project budget for the year 1991 is included in the National Planning Division budget estimates for 1991 prior to the finalization of same by the Treasury
- (iii) Ensure that the department operates a separate bank account exclusively for the use of the NREPP project funds.

AID:CTR:SAbeysekera:ta:06/21/90  
NATIONAL

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DEPARTMENT OF WILDLIFE CONSERVATION  
MAHAWELI ENVIRONMENT PROJECT  
USAID PROJECT NO. 383-0075

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TELEPHONE: 545071, 545073, 545076, 545078

TELEGRAPHIC ADDRESS: CHARCOUNT, COLOMBO.  
RENTLEY'S CODE  
MAILING ADDRESS P.O. BOX 186, COLOMBO  
REPUBLIC OF SRI LANKA (CEYLON)TELEX: 21569 CHURCH - CE  
TELEFAX: Group 11111 545073FORD, RHODES, THORNTON & CO.  
(CHARTERED ACCOUNTANTS)32A, Sir Mohamed Macan Marka Mawatha  
COLOMBO 3

10th October, 1989

The Financial Controller,  
USAID,  
44, Galle, Road,  
COLOMBO - 3.

Dear Sirs,

DEPARTMENT OF WILDLIFE CONSERVATION  
MAHAWELI ENVIRONMENT PROJECT 383-0075

We have carried out an examination of the books and records of the Department of Wildlife in order to appraise the invoice examination capability, inventory controls and systems and procedures related to the Mahaweli Environment Project 383-0075 which is funded by USAID.

1. INTRODUCTION

The purpose of this project is to ensure the stability of irrigated agricultural development and human settlements in the Accelerated Mahaweli Programme area by providing alternative habitats for displaced wildlife and managing these habitats to maximise their watershed protection, flood control, wildlife conservation and tourism benefits.

2. PROJECT FUNDING

The project commenced with an initial grant of US\$.1,500,000/-. A further grant of US\$.3,500,000/- increased the total grant for the project to US\$.5,000,000/-.

N. G. P. Panditharane, F.C.A.  
A. S. Seneviratne, F.C.A.G. C. B. Wijeyesinghe, F.C.A.  
H. B. Arjuna, F.C.A.  
H. A. Mahipala, A.C.A.R. N. Arinatham, F.C.A.  
S. S. Srinivasan, F.C.A.  
H. A. Yennaras, F.C.A.A. N. Fernando, F.C.A.  
A. S. Abeyaratne, F.C.A.

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3. FINANCIAL PLAN

	Aid Grant in (US\$.000's)		
	<u>Foreign Currency</u>	<u>Local Currency</u>	<u>Total</u>
Construction	-	1,378	1,378
Park Development	-	175	175
Commodities	656	81	737
Technical Assistance	406	4	410
Training	175	15	190
Re-current Expenditure	-	362	362
	-----	-----	-----
Sub-total	1,237	2,015	3,252
Contingency	159	296	455
Inflation	348	945	1,293
	-----	-----	-----
Grand Total	1,744	3,256	5,000
	=====	=====	=====

4. INVOICE EXAMINATION

The invoice examination capability of AID project expenditure categories, the systems and internal controls related thereto are detailed in the procedures and flow charts attached herewith.

The different expenditure areas are detailed as follows :-

Construction - MECA Sites  
 Construction - MEP Sites  
 Park Development  
 Training  
 Technical Assistance

Invoice Examination and Inventory Control  
 Commodities

General  
 Reimbursement procedure through MECA Office  
 Recurrent Expenditure

## Comments and Recommendations

### (a) Construction - Comments

1. In respect of the 9 sites that are operated by MEP, MECA is involved only in regular supervision of the construction work in the Project as required by USAID in PIL No.48.

An Engineer from MECA was appointed by Director (System B) in January, 1989 to inspect the above construction sites monthly and to submit reports thereon. So far he has submitted only one report. We noted that in this report there were comments on irregularities at the sites e.g. inferior building materials, non-availability of records at site etc. However, we were informed that these matters were followed up and cleared.

An engineer from MEP also visits the sites monthly and submits a report.

### Recommendation

We suggest that monthly reports be obtained from MECA and MEP Engineers every month. These reports may be examined by the USAID Project Officer as well to ensure that construction on Project Sites are progressing satisfactorily.

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(b) CommoditiesComments

1. When checking Issue Orders in respect of Land Cruiser Jeeps bearing Registration Nos. 32 Sri 6294 and 32/6295 we found that for Issue Orders No.064114 and for 064115 no receipts were attached. These Vehicles were send to Polonnaruwa and Badaragala respectively.
2. No Fixed Assets Register is maintained for Fixed Assets held by the Organisation. The only Record available is the Inventory Register which also serves as the Stock Book.
3. No formal purchase orders are raised when procuring Fixed Assets.
4. No GRN's are raised by the Store Keeper when he receives the goods. The goods are entered in the Inventory Register/Stock Book from the Suppliers Invoice.
5. It was difficult to trace the Suppliers Invoice to the Stock Book since no reference number was given in the Suppliers Invoice as to the page in the Stock Book. However, it was noted that the Store Keeper files a photocopy of the Invoice in which he enters a reference number.

Recommendation

1. We suggest that every Issue of goods to site should result in a goods received note from site and this should be attached to the copy of the Issue Order at Head Office.
2. A Fixed Assets Register should be maintained at Head Office for all assets of the Department of Wild Life. The procurments made using USAID funds should be entered and separately according to USAID instructions.
3. Purchase orders should be raised and duly authorised when purchasing goods.
4. Goods received notes should also be raised by the Store Keeper when he receives goods procured from abroad or locally at the Head Office before despatch to Sites.
5. The GRN should be attached to the invoice as evidence of goods received and recorded at Stores. This would facilitate easy checking from invoice to stock records.

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FORD, RHODES, THORNTON & CO.

AUDIT CAPABILITY

Documents and records required by us for our check were available to us at the MEP Office, except in the instances mentioned in our report.

We were informed that the records of the MEP had been audited but audit reports were not available to us. No Internal Audit check has been done on records at the sites or Head Office.

ANNEXURES

Annexures related to the earlier mentioned procedures are attached.

GENERAL

The Government of Sri Lanka regulations followed by the MEP are given in the Financial Regulations and the Establishment Code. Other regulations and forms clarifying the procedures and data are found in the Annexures.

Standard Accounting Practice has been followed except in the instances mentioned in our comments and in the section on Audit Capabilities.

We shall be please to furnish you with any further information that you may require.

Yours faithfully,



NARESA  
INNOVATIVE SCIENTIFIC RESEARCH  
AID PROJECT NO. 936-5542-05

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(CHARTERED ACCOUNTANTS)MAILING ADDRESS P.O. BOX: 166, COLO:180  
REPUBLIC OF SRI LANKA (CEYLON)32A, Sir Mohamed Macan Markar Mawatha,  
COLOMBO 3

January 4, 1990

The Financial Controller,  
USAID,  
US Embassy,  
44, Galle Road,  
COLOMBO 3

Dear Sir,

NARESA  
INNOVATIVE SCIENTIFIC RESEARCH  
AID PROJECT NO. 936-5542-05

We have examined the books and records of the Natural Resources, Energy and Science Authority in order to appraise the invoice examination capability, inventory controls and systems and procedures related to USAID funded research grants.

1. Introduction

The Research Grants come under the USAID Programme in Science and Technology Cooperation which seeks to stimulate new and innovative scientific research on problems that confront developing countries.

Each Research Grant is treated separately by NARESA as well as USAID and has separate plans and budgets.

2. Invoice Examination

For the purpose of our appraisal of the invoice examination capability and systems and procedures related to invoice examination, the expenditure on research grants was separately identified in the following areas:

- Research Grant Approval and Research Expenses
- Overseas Training
- Research and Technical Assistance
- Equipment

We have examined the existing procedures and compliance to these procedures in these areas. The steps in the procedure in each area (which is given below) were examined by us from the viewpoint of Accounting Control and Standard Accounting Practice, Government of Sri Lanka regulations where relevant, documents and records and whether these are adequate for controls and recording of transactions.

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### 3. Research Grant Approval and Research Expenses

#### 3.1. Procedures

In appraising the invoice examination we have noted the following steps in the procedure and reviewed the relevant areas.

- Submission of proposals by Researchers and the approval by NARESA and USAID of suitable proposals.
- Signing of agreement with Research Grantee. (Please see Annexure 10.1)
- Disbursements of funds for Research.
- Financial monitoring of Research expenses by NARESA until completion of project. (Annexure 10.2)
- Requests for funds by NARESA to USAID. (Annexure 10.3)
- Maintaining of appropriate financial records.

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4. Items should not be issued to the Investigator without obtaining his signature on the Inventory.

Where deliveries have been made directly to him suitable entries must be made in the Inventory Book after obtaining a letter of acknowledgement from him.

5. Requests for equipment/consumables from investigators may be formalised by having a standard request form for them to submit.
6. We suggest that AID instructions relating to maintaining inventory records be brought to the attention of NARESA Officers.  
[E.g. Separate F. Asset records, USAID seal etc.]

### 7.3 Other Comments

Statements are submitted periodically to USAID by NARESA giving the expenditure for a particular period on the research grant. The expenditure is given in total for the different categories.

Since supporting vouchers are not submitted now to USAID, we suggest that a detailed schedule of payments be obtained for each account for scrutiny by USAID.

A copy of the statement and schedules may be submitted to the researcher for his information and check.

### 8. Audit Capabilities

NARESA Accounts are audited by the Auditor General. We have seen the audit report on the accounts for the year ended 31.12.87. There were no adverse comments on the systems and procedures relating to Research Grants.

### 9. Staff Evaluation

The accounts at NARESA are maintained up to date and we feel that there are sufficient staff members to do the accounting and other work related to the research grants. However, the staff may have to be instructed on maintaining records in the areas mentioned by us in our comments.

### 10. Annexures

Annexures which give further details on procedures and rules and regulations at NARESA are attached.

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11. Conclusion

Having examined the Invoice Examination Capability/Inventory Control, we have no comments to make other than those in section 7. The systems may be strengthened by implementing our recommendations stated there.

We shall be pleased to furnish you with any further information you may require.

Yours faithfully,



F/TP/nder