USAID ENVIRONMENTAL PROCEDURES TRAINING MANUAL for USAID Environmental Officers and USAID Mission Partners

AFR Edition:
March 2002

PURPOSE AND DISCLAIMER—PLEASE NOTE

This USAID Environmental Procedures Training Manual (EPTM) is intended to serve as an informative, practical guide to help USAID Mission staff and USAID partners complete environmental documentation required under USAID's environmental regulations and procedures contained in Title 22 of the Code of Federal Regulations (22 CFR part 216).

However, **the guidance contained in this manual is advisory only**. The contents of this EPTM does not constitute official USAID procedures, regulations, guidelines, guidance, or revisions thereto, nor do they modify or replace any aspect of 22 CFR 216. Should there be any apparent conflict between 22 CFR 216 and the EPTM, 22 CFR 216 will take precedence. (For reference, the full text of 22 CFR 216 is included in this manual.)

The tables, matrices and forms suggested herein are intended to be helpful to preparers and reviewers, but they are not specified by Reg. 216. Each Mission or Mission partner may decide whether they are useful in documenting 22 CFR 216 requirements.

Comments on this document are encouraged. Please send them to the USAID Environmental Coordinator (James Hester), to the Regional Environmental Officer, or to the Bureau Environmental Officer for your region or program.

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March 2002

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Acknowledgements and history

This *Environmental Procedures Training Manual* (EPTM) draws extensively on an earlier publication, the *Environmental Documentation Manual for Title II Cooperating Sponsors* (EDM). The EDM was developed with leadership from USAID's Africa Bureau and the Environmental Working Group of Food Aid Management (FAM), in collaboration with the Office of Food for Peace (BHR/FFP). The goal of the EDM was to make easier the tasks of understanding and complying with USAID environmental regulations for USAID Missions and Partners engaged in Title II activities.

The draft EDM was issued in November 1997, and revised after use in a regional training course in December 1997. The EDM was field tested in Environmental Assessment training courses for USAID P.L.480 Title II Cooperating Sponsors implementing food-aided development programs. These courses were held in Ethiopia, Ghana, Cape Verde, Kenya, Mozambique, Honduras, Bolivia and Mali. The EDM was published in final form in February 1999.

Charlotte Bingham was the primary author of the original Environmental Documentation Manual. At the time she was the Regional Environmental Officer (REO) for USAID's Regional Economic Development Services Office for East and Southern Africa (REDSO/ESA) based in Nairobi, Kenya. With co-author Walter Knausenberger, she was a lead organizer and trainer in the Africa Bureau's Environmental Capacity Building (ENCAP) initiative. A central part of ENCAP's program is building capacity within USAID partner organizations in environmentally sound design and Regulation 216 compliance.

Dr. Knausenberger also had much to do with the creation of the Environmental Capacity Building Program for Africa (ENCAP), the production of the Africa *Bureau's Environmental Guidelines for Small Scale Activities in Africa,* and the initiative that led to the development of the EDM.

Mr. Wes Fisher, a natural resources specialist and trainer from Tellus Institute, was the third original co-author. His work was funded under ENCAP via the EPIQ Indefinite Quantity Contract.

Based on the experience with the EDM, a decision was made to create this more general handbook for use by a broader audience of both USAID Missions and their partner organizations working in the field. Tellus was tasked to modify the EDM with primary funding from the Bureau for Asia and the Near East, and additional support from the Africa and Europe and Eurasia bureaus. In addition to field training experiences using the EDM, this revision drew on FAM and BHR/FFP review of the quality of DAP/PAA environmental documentation submissions in 1998, as well as on comments solicited from Title II CSs' on their experience in using the EDM and preparing their environmental documentation.

For their encouragement and guidance, we are indebted to the Agency Environmental Coordinator, James Hester, and Bureau Environmental Officers Paul des Rosiers (BHR and Global), John Wilson (Asia/Near East), Carl Gallegos (Africa), Jeffrey Goodson (Europe and Eurasia), Carl Maxwell (Europe and Eurasia) and Mohammed Latif (Europe and Eurasia).

Acronyms and Abbreviations

AFR	Bureau for Africa (USAID)
ANE	Bureau for Asia and the Near East (USAID)
BEO	Bureau Environmental Officer
BHR/FFP	Bureau for Humanitarian Response, Office of Food for Peace (USAID)
BDCHA	Bureau for Democracy, Conflict and Humanitarian Assistance (replaced the Bureau of Humanitarian Response in Jan 2002.)
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CFW	Cash for Work
CITES	Convention on the International Trade in Endangered Species
CSs	Cooperating Sponsors (PVOs & NGOs) programming food aid
DAP	Development Activity Proposal
EA	Environmental Assessment
E&E	USAID Europe and Eurasia Bureau
EDG	Environmental Decision Guide
EDM	Environmental Documentation Manual
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EPIQ	Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (USAID-funded Consortium initiated Oct. 1996)
ESA	Eastern and Southern Africa
ESR	Environmental Status Report
EWG	Environmental Working Group
FAA	Foreign Assistance Act
FAM	Food Aid Management (association of PVOs using food aid in international development and relief programs, funded by USAID/BHR/FFP)
FAO	Food and Agriculture Organization
FFP	Office of Food for Peace, USAID/BDCHA
FFW	Food-for-Work
FY	Fiscal Year
GIS	Geographic Information System
ha	hectares
IEE	Initial Environmental Examination
IPM	Integrated Pest Management
IR	Intermediate Result
IUCN	International Union for the Conservation of Nature
LAC	USAID Bureau for Latin America and the Caribbean
LOP	Life-of-Project funding
M&E	Monitoring and Evaluation
MEO	Mission Environmental Officer (USAID)
MOA	Ministry of Agriculture
ND	Negative Determination
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organization
NRM	Natural Resources Management
OFDA	Office of Foreign Disaster Assistance (USAID/BDCHA)
PAA	Previously Approved Activity (USAID Title II)
PEA	Programmatic Environmental Assessment
P.L. 480	Public Law 480—Agricultural Trade Development and Assistance Act of 1954 providing for assistance in the form of food commodities
PRC	Project Review Committee
PVO	Private Voluntary Organization (in USAID usage, applies mainly to USAID funded non-governmental organizations)
REDSO	Regional Economic Development Support Office (USAID)
Reg. 216	Informal short form of USAID's Environmental Procedures, 22 CFR Part 216. Also Regulation 216 or sometimes colloquially referred to as "Reg. 16"

REO	Regional Environmental Officer (USAID)
SO	Strategic Objective
SOW	Scope of Work
TA	Technical Assistance
(Title II)TII	One of the main provisions of P.L 480 applying to food aid programmed by PVOs
U.N.	United Nations
UNCED	United Nations Conference on Environment and Development
UNHCR	United Nations High Commission for Refugees
U.S.	United States
USAID	U.S. Agency for International Development
USEPA	U.S. Environmental Protection Agency
WFP	World Food Program(me)

Chapter 1. Introduction

1.1. Background and purpose

USAID's Environmental Procedures[1] (known as Regulation 216 or Reg. 216) were formulated to:

- ensure that environmental consequences of USAID-funded activities are identified and considered in the design and implementation of activities prior to final decisions to proceed;
- assist countries in strengthening their environmental evaluation capabilities;
- define limiting environmental factors that constrain development; and
- identify activities that can assist in sustaining or restoring the natural resource base.

The procedures apply to **all** new projects, programs, or activities authorized or approved by USAID. They also apply to substantive amendments or extensions of ongoing projects, programs, or activities. Thus under Regulation 216, nearly all projects and programs require some form of environmental documentation. The documentation is an integral part of the program or project proposal; **no "irreversible commitment of resources" can take place until the environmental documentation is approved by USAID**.

Implementing organizations typically have primary responsibility for developing the documentation. These organizations know their activities and local environment better than anyone else and are best suited to develop the documentation, and to determine appropriate mitigation and monitoring measures.

This Environmental Procedures Training Manual (EPTM) has been developed specifically to assist USAID Missions and their partners in designing environmentally sound development activities and in bringing their activities into compliance with USAID Environmental Procedures. The manual may also be useful for NGOs and PVOs carrying out development activities with other sources of support.

Under Reg. 216:

- *Nearly all proposed activities require environmental documentation*
- *No irreversible commitment of resources can occur until this documentation is approved*
- *The implementing organization typically has primary responsibility for developing this documentation, in consultation with USAID*

[1] The procedures, published in final form in the fall of 1980, are codified in 22 CFR 216 (Title 22, Code of Fxederal Regulations, Part 216). Annex B reproduces the text of the regulation in full.

1.2. Use and contents

Regulation 216 is a particular implementation of the general environmental impact assessment (EIA) process, and conforms to norms of good EIA practice. After this introductory chapter, the structure of this manual mirrors this general process.

Specifically, EIA processes begin with an initial SCREENING on proposed activities or projects. The intent of screening is to identify activities which:

- by their nature pose inherently low risks of environmental harm
- by their nature pose moderate or high risks of environmental harm.

The screening result determines the nature of environmental analysis and documentation required. Low-risk activities require minimal documentation. Moderate and higher-risk activities are subject to more extensive environmental study and documentation requirements.

Chapter 2 is a step-by-step guide to screening under Regulation 216. Regulation 216 defines types of activities "normally having a significant [adverse] effect on the environment," as well as those for which environmental impacts are not expected to be significantly adverse. Regulation 216 establishes particular terminology for these screening outcomes and classes of activities. Chapter 2 introduces this terminology.

Chapter 2 also overviews the further analysis required by Regulation 216 for activities outside the low-impact group.

Once screening is completed, the reader turns to **Chapter 3**. Chapter 3 matches screening results to the type of environmental documentation required for the project. Each of the four types of basic documentation is described.

Chapter 4 is a detailed guide to writing the Initial Environmental Examination (IEE). The IEE is used to analyze all activities *except* those specifically enumerated in Regulation 216 as posing little risk of significant, adverse effects on the environment.[2]

Chapter 5 assembles frequently asked questions that have arisen about USAID and USAID partner environmental compliance, especially those posed originally by members of the Environmental Working Group of Food Aid Management (FAM).

Topics include: (a) the rationale for environmental compliance; (b) responsibilities and timelines; (c) Environmental compliance documentation; (d) environmental analysis; and (e) designing and managing more environmentally sound activities. Beyond the answers provided here, you should feel free to contact your USAID Mission or Bureau Environmental Officer (BEO).

The Annexes include a detailed discussion of activity classification under Reg. 216, forms and sample USAID compliance documents, official

EPTM contents

Chapt. 1	Introduction and overview
Chapt. 2	Step-by-step guide to screening under Reg 216
Chapt. 3	Matching screening outcomes to environmental documentation requirements
Chapt. 4	A guide to writing the IEE
Chapt. 5	Frequently asked questions
Annexes	A: Reg. 216 definitions B: Official USAID Guidance C: Blank environmental documentation forms D: Sample environmental documentation E: Sample tables and matrices F: Programmatic Environmental Assessments (PEAs) G: Umbrella IEEs and subgrant environmental screening

[2] As the name implies the IEE is an *initial* study. Regulation 216 mandates that a full Environmental Assessment study to be completed when the IEE indicates that a project may result in significant adverse effects on the environmental.

guidance (including the full text of Reg. 216), and other useful information on the compliance process.

NOTE: The manual is written as a reference document, and information is occasionally repeated so that descriptions of a particular topic are self-contained.

We hope that the step-by-step process outlined in this package will make adopting USAID environmental procedures easier. Experience has shown that complying with procedures strengthens development activities and makes them more sustainable. This manual may appear daunting, but it is intended to make environmental compliance less burdensome.

1.3. Rationale for the procedures and compliance

Almost all development activities affect the environment in some way (see Table 1.1.) The intent of USAID's environmental procedures is NOT to prevent all such impacts. This would be equivalent to prohibiting all development. And such a position ignores the reality that the environmental impacts of "business as usual" may be far worse than those which would occur under a well-planned activity, project or program.

Instead, the procedures are intended to assure that environmental issues receive adequate consideration in design and implementation. This is necessary so that (1) knowledgeable tradeoffs can be made between economic, social and environmental outcomes; and (2) project failure arising from environmental causes can be avoided.

Ultimately, the procedures are intended to prevent *development failures* rooted in environmental causes. Failure occurs in a number of ways. It may occur when improper disposal of waste from a new health post contaminates a community water supply, or when poorly designed or maintained drainage structures of a new rural access road destroy downslope cropland. Or it may occur in more subtle ways, when the effects of a program gradually degrade ecosystem resources and services essential to agricultural productivity and future development.

For this reason, compliance with Reg. 216 should be viewed as much more than a paper exercise. It should be viewed as a formal framework for engaging in *environmentally sound design* of development activities. This cannot happen when environmental documentation is completed after activity, project or program design is complete. Environmental analysis should be integrated into the lifecycle of each proposed intervention.

For details regarding environmentally sound design principles and their relation to Regulation 216 and the project lifecycle, see "An Introduction to Environmentally Sound Design" in *Environmental Guidelines for Small-Scale Activities in Africa. (*USAID, 2000; available for download at www.encapafrica.org.

The purpose of regulation 216. . .

- *is NOT to prevent all environmental impacts associated with development activities*
- *IS to assure that environmental issues receive adequate consideration in activity design and implementation.*
- *IS to avoid environmental project failure and improve sustainability of activities.*

Table 1.1: Typical USAID Supported Activities and Their Potential Adverse Environmental Implications

Type	Activity	Potential Adverse Environmental Impacts
Irrigation	rehabilitation of older schemes or new construction river diversions dam and pond construction land leveling digging/boring wells	transmission of waterborne diseases destruction and/or impairment of wetlands salinization of soils alteration in aquatic ecology, including fisheries surface and groundwater water pollution (non-point source farm runoff) effects on downstream water flow effects on groundwater quantity water use conflicts
Water Supply and Sanitation	potable water supply latrines & sewerage water catchments wells & ponds	groundwater aquifer drawdown or depletion waterborne disease transmission contamination of groundwater deforestation, overgrazing, trampling of vegetation around wells
Health Services Programs	immunizations AIDS/HIV treatment	medical and biohazardous wastes disposal of used/spent needles
Rural Infrastructure	construction and/or rehabilitation of secondary and tertiary (farm to market) roads construction of public buildings (health posts, schools)	opening of otherwise intact forest or protected areas to exploitation and/or destruction erosion and uncontrolled runoff from improper construction practices or lack of adequate drainage impacts on land use, e.g., wetlands or farmlands
Natural Resources Management	soil and water conservation, e.g., bunds, terracing, etc. reforestation land clearing exotic species introduction, e.g., non-indigenous seed	improper/incomplete structures add to erosion potential inadvertent shifts in land use patterns destruction of natural or secondary forest for reforestation with exotic species disruption of ecosystem balance through commercial production or harvesting of fauna or flora displacement by exotic species of endemic (local) species; weediness
Crop Protection, Livestock Disease Control	introduction and application of pesticides use of dip vats	water pollution (non-point source farm runoff) environmental contamination human contact with toxic substances (acute or chronic) residues in food commodities, milk and meat poisoning of livestock

1.4. Resources to support Reg. 216 compliance, environmental analysis, and associated capacity-building

USAID Resources. Partners and Mission staff will find that there are other sources of information within USAID Missions and Regional Bureaus regarding compliance with 22 CFR 216.

- To the extent that this *EPTM* or other similar unofficial Agency documents suggest processes or procedures for completing Initial Environmental Examinations (IEEs) and other environmental documentation, these are meant to be purely advisory and, it is hoped, helpful suggestions. For authoritative guidance, refer to 22 CFR 216 itself, and consult with USAID's Bureau Environmental Officers (BEOs) or other knowledgeable staff.
- USAID's environment home page is a useful portal to many of the agency's environmental resources and publications (http://www.usaid.gov/environment).
- AFR's Africa Bureau maintains a number of pertinent resources and documents (www.afr-sd.org). These include a searchable database of the environmental documentation submitted for Africa-based projects and decisions rendered (http://www.afr-sd.org/IEE/).
- Africa Bureau's Environmental Capacity-Building Program (ENCAP) website contains training and resource materials on Regulation 216 compliance, environmentally sound design, and environmental review and analysis (www.encapafrica.org).
- Other Bureaus also maintain environmental resource sections of their websites, including the Europe and Eurasia Bureau (http://www.usaid.gov/regions/europe_eurasia/), and the Asia and Near East Bureau (http://www.usaid.gov/regions/ane/).

Help with Small-Scale Projects. There are many handbooks on environmentally sound design and management of small-scale projects. A first point of departure should be USAID's *Environmental Guidelines for Small-Scale Activities in Africa* which provides summary guidance for a number of common sectors, and provides an annotated sector-by-sector bibliography (available for download at www.encapafrica.org).

Web portals. A number of organizations maintain websites which catalogue and provide access to a wide set of environmental assessment/ environmentally sound design resources:

- Food Aid Management (FAM) maintains an extensive library of environmental resources, including best practice resources and environmental documentation submitted to USAID by its partner organizations. (www.foodaid.org)

Disclaimer

This manual is advisory. It does not replace or supplant the text of Regulation 216.

For authoritative guidance, consult the text of the regulation, or a USAID Bureau Environmental Officer (BEO) or Regional Environmental Officer (REO)

- The International Association for Impact Assessment (IAIA) website is a valuable starting point for exploring environmental assessment resources on the Internet (www.iaia.org)

Note also that general environmental impact assessment/environmentally sound design resources are available within host country universities, among host government environmental/natural resource planning and management units, and through in-country private consultants. It may also be possible to capitalize on available training courses in technically specific areas of value to USAID Partners and/or Mission staff.

USAID Missions, PVOs and other Partners have generated numerous ideas on how best to provide additional resources and capacity to support environmental analysis. Some of these ideas are discussed in Section 5. We welcome your additional suggestions and thoughts.

Chapter 2. Screening and Classifying Activities Under Regulation 216

As mentioned in Chapter 1, Regulation 216 is a particular implementation of the general environmental impact assessment (EIA) process, conforming to norms of good EIA practice.[3] EIA processes—and thus Regulation 216 compliance—begin with an initial SCREENING of proposed activities or projects. The purpose of screening is to separate activities which, *by their nature*, pose inherently low risks of environmental harm from those which pose moderate or high risks of environmental harm.

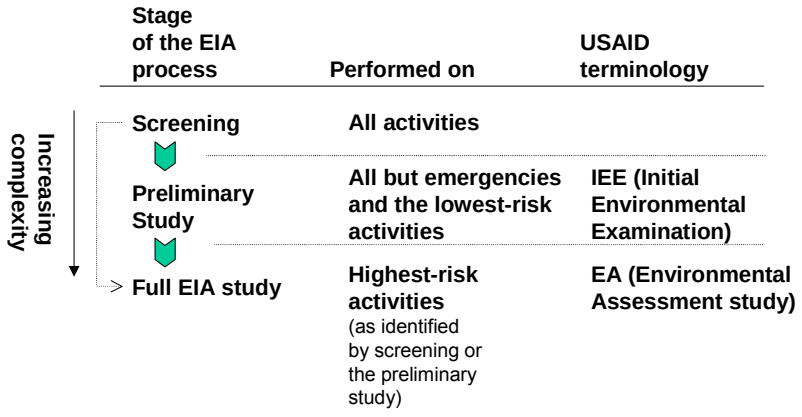
In EIA, very low-risk activities identified by screening require no further analysis. Other activities are subject to a preliminary study. In USAID parlance, this preliminary study is called the *Initial Environmental Examination*. In many cases, the preliminary study determines that the proposed activities pose little threat of significant environmental harm. Where the preliminary study identifies a possibility of significant harm, however, a full-scale EIA study is required. Such a study (called an *Environmental Assessment* by USAID) requires the efforts of a professional team over at least several months.[4] This series of steps, from screening to full study, is depicted in Figure 2.1, below:

***All EIA processes begin with screening**. . . and Regulation 216 compliance is no exception.*

Screening examines the nature *of activities and sorts them into risk categories.*

All but the lowest-risk activities require further analysis.

Figure 2.1: the EIA process: screening to full impact study



[3] See, for example, USAID's *Topic Briefing: Introduction to EIA* available for download at www.encapafrica.org.

[4] For certain enumerated activities, Regulation 216 permits skipping the IEE entirely and proceeding directly to a full EIA study, or *Environmental Assessment.* As explained subsequently in the text, this guide recommends always completing the IEE first.

This chapter first provides a step-by-step guide to screening under Regulation 216. *This is the critical first step in Regulation 216 compliance*. You will see that Regulation 216 enumerates types of activities "normally having a significant [adverse] effect on the environment," as well as those for which environmental impacts are expected to be not significantly adverse. Regulation 216 sets out particular terminology for these screening outcomes and classes of activity. This chapter introduces this terminology.

The chapter then overviews the possible results of the *Initial Environmental Examination* and introduces IEE terminology. Again, the IEE is conducted for all but the lowest risk activities.

Once(1) screening is completed, and (2) the basic IEE concepts are understood, the reader turns to **Chapter 3**. Chapter 3 matches screening results to the type of environmental documentation required for the proposed intervention.

NOTE: Please read through the entire chapter before starting to classify your activities.

2.1. Step I: Summarize ALL of your proposed activities.

The essential first step is to gather information describing all activities being planned, including the location and specific nature of all components of the activity.

Screening must be performed on a COMPLETE list of activities

- *include associated activities*
- *include the entire life-of-project*

- Include any associated activities related to the primary activity. For example, if you are assisting with small-scale irrigation, is a road being built as part of the irrigation activity?
- Include all the specific physical components of the activity. For example small scale irrigation might involve a diversion or a dam, water distribution canals, leveling of land, possible relocation of farmers, and so on.
- If you have activities for which detailed information is not available, gather whatever information you can about the generic nature and general location of such activities.
- Your list should include the entire life-of-project (LOP) activities, even if some were begun long before submission of Reg. 216 documents.

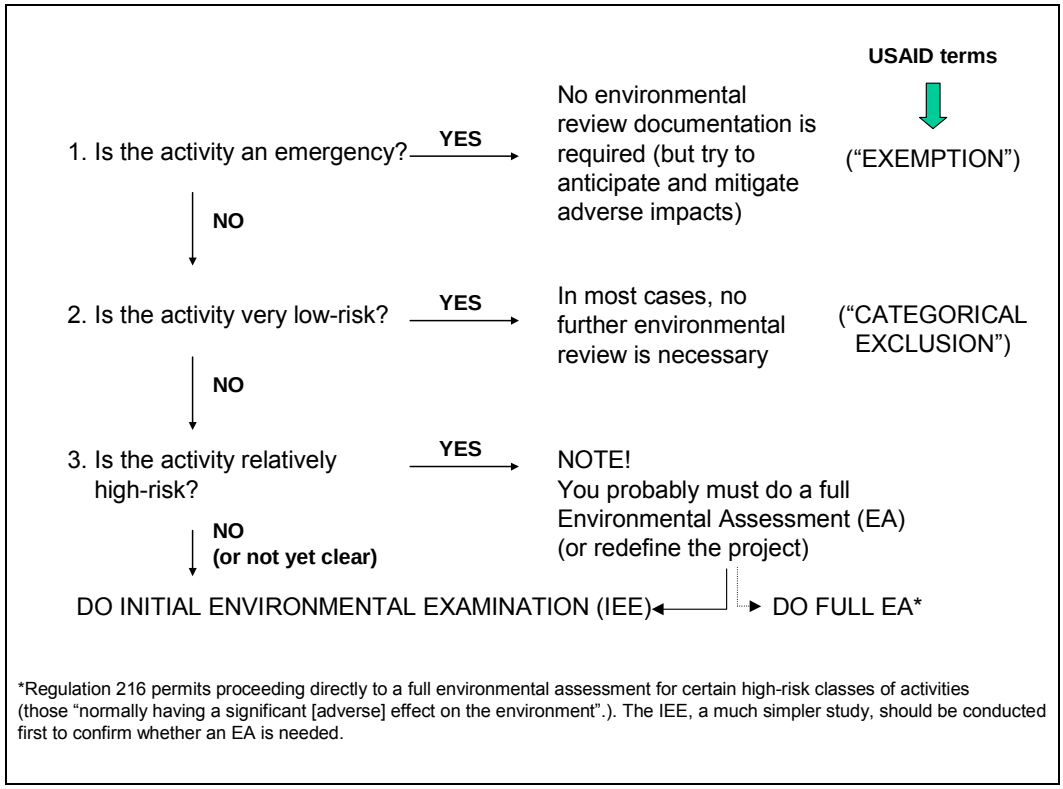
The information you gather should be organized in table(s) that summarize key information. A Sample Summary table is provided (Table 2.1). Annex E illustrates how to fill out a summary table. Note that a summary table is typically a part of the final environmental documentation.

Definitions of terms and explanations of how to fill out these tables are provided in the instructions that follow.

Table 2.1: Sample summary table

Activity type or description	Geographic Distribution, Location	Sites/Projects (number, geographic division)	Scale & Quantity of Activity	Unit *[ha, etc.]*	Screening outcome	Recommended IEE Threshold Decision
IR 1: …						
Subtotal (% of total budget)						
IR 2: …						
Subtotal (% of total budget)						
Grand Total %						

Figure 2.2: USAID screening procedures



2.2. Step II: Classify each activity under Reg. 216

The purpose of screening is to determine what level of environmental review, if any, will be required. In screening, these decisions are made on the basis of the *general nature of the proposed activities.*

For *each* activity listed in your summary table, you must follow the screening procedure summarized in Figure 2.2, and described in detail below.

CAUTION: You do not have the freedom to decide on your own whether your proposed activities are "emergencies," or whether they are intrinsically "low risk."

Instead, Regulation 216 defines the activities that fall into these various categories, as well as the USAID terminology that describes them. Terminology and definitions are presented below.

Key USAID terminology for screening:

Reg. 216 defines two several types of environmental decisions (also called classes of action in the regulation) applicable to screening. These are:

- **Exemptions:** Exemptions apply to activities conducted on an emergency basis or other unusual situations. As the name implies these actions are not subject to Reg. 216. Nevertheless, prudent and sound environmental practices should be applied. See 2.A and discussion below.

- **Categorical Exclusions:** Categorical Exclusions are classes of actions that, by their nature, typically pose a very low risk or have no effect on the environment—e.g., studies, seminars, or training. They require only brief documentation that supports the applicability of the exclusions as defined in Reg. 216. See Box 2.B and discussion below.

  Note. Categorically excluded activities may contribute to future/indirect environmental impacts of associated activities. For example, consider training in latrine or road construction. The training itself is categorically excluded, but the future construction activities arising from the training will certainly have environmental impacts. For this reason, the training should communicate principles of environmentally sound design.

Box 2.A
Summary of "EXEMPTIONS"

Exemptions are essentially emergency situations, and include:

- International disaster assistance—i.e., situations in which an immediate response is required and no immediate alternatives are available. E.g:

  Emergency relocation of flood victims

  Establishment of refugee camps for rural populations caught in civil strife

  Emergency medical infrastructure, materials and equipment for victims of war

- Other emergency situations (requires Administrator (A/AID) or Assistant Administrator (AA/AID) formal approval

- Circumstances with "exceptional foreign policy sensitivities" (requires A/AID or AA/AID formal approval.)

1. Are Any of Your Activities Exempt from USAID Environmental Procedures?

As Figure 2.2 shows, the first step in screening is to determine whether ANY of your activities are exempt from USAID's environmental regulations. Again, exemptions essentially apply to emergency situations. They are relatively uncommon. If you are using this guide, your activities are **probably NOT exempt.**

Box 2.A lists the general categories of activities which may be exempt**. If any of your activities seem to fit these categories, consult Annex A for the full definition of exempt activities.**

Now, enter "exempt" in the "screening outcome" column of the summary table for any activities which meet the formal exemption criteria described in the annex. Note that a single activity proposal should NOT contain a mix of exempt and non-exempt activities.

2. Do Any of Your Activities Qualify for Categorical Exclusions?

The second step in screening is to determine if any activities are "categorical exclusions." Again, categorical exclusions are activities which, by their nature, typically pose negligible risk to the environment.

Box 2.B summarizes the types of activities usually qualifying for categorical exclusions. Box 2.B is only a summary of Regulation 216 language. **If any of your activities seem to fit these categories, consult Annex A for the full definition of categorically excluded activities.**

Please note that **no categorical exclusions are possible for projects involving the procurement or use of pesticides.**

Now, enter "categorically excluded" in the "screening outcome" column of the summary table for any activities which meet the formal criteria described in the annex. **You MUST cite the proper section of Regulation 216 justifying the exclusion.** Annex A contains these citations.

Please note: Categorical Exclusions are not a right; they are granted at the discretion of the Bureau Environmental Officer.

What now?

At this point, you have now checked to see whether each activity may be (A) exempt, or (B) categorically excluded. Look at your summary table.

- **If ALL your activities are exempt**, no environmental documentation is needed. (Note: Proposals should not contain a mix of exempt and non-exempt activities.)
- **If ALL your activities are categorically excluded,** you need only complete the categorical exclusion documentation. (This is the "Facesheet" and the Categorical Exclusion request form.

  These forms direct you to (1) briefly describe the activities and (2) cite the Reg. 216 section number(s) that justify the exclusion (e.g., 216.2(c)(iii)). There is no need to read further. You can skip ahead to the next chapter, which describes these documentation requirements in more detail.
- **Otherwise, you prepare an Initial Environmental Examination (IEE).** If you have ANY activities which are not exempt or categorically excluded, you must conduct an IEE.

Box 2.B
Summary of activities normally qualifying for categorical exclusions

- Education, training or technical assistance
- Limited experimental research
- Analysis, studies, workshops, meetings
- Documents or information transfer
- General institutional support
- Capacity building for development
- Nutrition, health, population and family planning activities (except for construction)

NOTE: Categorical exclusions also include situations in which USAID has no direct control over the activity. Examples include:

- Support to intermediate credit institutions if USAID does not review or approve loans
- Commodity Import Programs (CIPs), when USAID has no knowledge of or control over use;
- Support to intermediate credit institutions if USAID does not review or approve loans; Projects where USAID is a minor donor;
- Food for development programs under Title III, when USAID has no specific knowledge or control; and
- Grants to PVOs where USAID has no specific knowledge or control.

An IEE is a review of the *reasonably foreseeable effects* on the environment of a proposed action. IEEs also identify the mitigation and monitoring actions needed. An IEE is a streamlined, simplified version of a full environmental assessment (EA) study (see below). EAs are only conducted if the IEE indicates that an activity is likely to result in significant, adverse environmental effects.[5]

For projects including the procurement or use of pesticides, the procedures set forth in §216.3(b) will be followed, in addition to the IEE procedures.

Enter "IEE" in the "screening outcome" column of the summary table next to ALL activities which are neither exempt nor categorically excluded.

Box 2.C. Common Development Activities that May Trigger an EA

Development activities could well invoke an EA if they involve the following types of actions:

- Irrigation or water management including dams
- Agricultural land leveling & Drainage
- Large scale agricultural mechanization
- New land development
- Resettlement
- Penetration road building or road improvement
- Power plants
- Industrial plants
- Potable water and sewage, unless small scale
- Activities jeopardizing endangered and threatened plant and animal species, biodiversity or critical habitat
- Use or procurement of pesticides
- Activities adversely affecting relatively un-degraded tropical forest

3. Are any of your activities likely to require a full Environmental Assessment?

Before you begin an IEE, it is useful to know whether any of your activities are likely to require a full environmental assessment (EA).

EAs are conducted for activities likely to have significant adverse impacts on the environment. They are much more detailed than IEEs, and thus also more time and resource-intensive. EAs require a professional, multi-disciplinary team, and typically take a minimum of several months to complete.

A "Standard EA" assesses a single, discrete project. Three specialized types of EAs exist that have broader scopes. Additional information on these specialized EAs preparation can be found in Annex F.

- **Programmatic Environmental Assessments (PEAs)** may be carried out if there are many similar activities either within a particular program, or where several USAID Partners have similar activities.
- **Strategic Environmental Assessments (SEAs)** may be undertaken to assess overall environmental impacts from a set of proposed policies or programs.
- **Regional Environmental Assessment (REAs)** may focus on the potential impacts of development within a specific geographic region or ecological zone.

USAID has identified a set of activities which, by their nature, typically require an EA. These activities are summarized in Box 2.C. Before you conduct your IEE, you should know whether your project falls into this category.

If you believe that any of your activities fall into these or other similar high-risk categories, consult the fuller description contained in Annex A. In the summary table, star or underscore any activities meeting the criteria set out

[5] Regulation 216 permits proceeding directly to an EA in certain cases. This manual does not recommend this approach, for reasons discussed subsequently.

in Annex A. These activities must receive special attention during the IEE process (discussed next).

Note that for these "high-risk" actions, Reg. 216 permits the preparation of an EA without first preparing the IEE. **However, this guide recommends always preparing an IEE first. The screening instructions of this chapter are written accordingly.** The IEE may indicate that the environmental issues posed by the project can be addressed by incorporating clearly effective mitigation and monitoring measures into the project design. Thus, from a practical point of view and as a matter of Agency practice, an IEE should always be completed before an EA is considered.

This argument particularly applies to PVO activities: Because PVO activities are typically small in scale, the examples cited in Box 2.C may not trigger an EA. (Note that no definitive standards or written criteria exist to distinguish "small-scale" from "large-scale" and "non-significant" from "significant." It is the role of the IEE to address these issues through informed judgment.)

You have now finished the screening process.

The "screening outcomes" column of the summary table should be completely filled in.

2.3. The Initial Environmental Examination (IEE)

You must conduct an IEE unless screening shows that ALL your activities are either exempt or categorically excluded. This sections overviews the outcomes of the IEE, and IEE terminology. Chapter 4 provides detailed instructions for preparing the IEE.

Box 2.D
What is an IEE?

An IEE is a review of the *reasonably foreseeable effects* on the environment of a proposed action. IEEs also identfy the mitigation and monitoring actions needed.

An IEE is a streamlined, simplified version of a full environmental assessment (EA) study (see below). EAs are only conducted if the IEE indicates that an activity is likely to result in significant, adverse environmental effects.

Purpose of the IEE

IEEs are prepared to provide a first look at possible effects of activities on the environment, and to commit partners to appropriate environmental mitigation and monitoring.

IEEs should be regarded as useful design tools for improving the long-term success of development interventions, and not simply as documents necessary to comply with USAID environmental procedures. An important function of an IEE is to identify design modifications and appropriate ways to avoid or reduce potential impacts. It is also used to identify any needed monitoring.

IEE outcomes

A single IEE can—and most often does—assess more than one activity. **For each activity assessed**, the IEE has four possible outcomes, as depicted in Figure 2.3:

As the figure indicates, Regulation 216 defines a specific sets of terms corresponding to these outcomes.

Regulation 216 terminology for the IEE:

*A **negative determination** means the activity will have* no *significant adverse effects on the environment*

*A **negative determination with conditions** means that specified mitigation and monitoring will prevent significant adverse effects on the environment*

*A **positive determination** means the activity may have significant adverse effects on the environment*

- **Negative determination:** The IEE returns a **negative determination** if the activity has no significant (adverse) effects on the environment.

- **Negative determination with conditions.** If the determination is negative, but some specific conditions merit monitoring (one cannot predict everything) or if there are some specific mitigative measures (i.e., measures that can be taken to minimize, avoid, or compensate for adverse effects during construction or implementation), the negative determination can be made with conditions. For example, a condition might be that water quality be monitored or that measures be taken to prevent erosion and siltation.

  A "Negative determination with conditions" can apply when there are multiple small-scale activities, the details of which are not known when the IEE is prepared. Under these circumstances, the conditions specify subsidiary environmental reviews. Additional guidance for environmental reviews of multiple small-scale activities is provided below in *Table 4.2: Guidelines for choosing the type of IEE you write* and in Annex G.

  Negative determinations with conditions are probably the most common IEE outcome.

- **Positive Determination:** A positive determination results if the IEE indicates there could be significant adverse effects. This means that an Environmental Assessment (EA) must be completed and approved[6] before USAID can obligate funds or an activity can be implemented. *No irreversible commitments of resources can be made before the EA is completed and approved.*

  During the screening process, you should have starred or underscored any activities falling into USAID's definitions of "high-risk" activities. (I.e., the specific list of actions in Reg. 216 defined as normally having a "significant effect.") These actions will likely result in positive determinations unless project design changes are made, or adequate mitigation and monitoring measures can be devised.[7]

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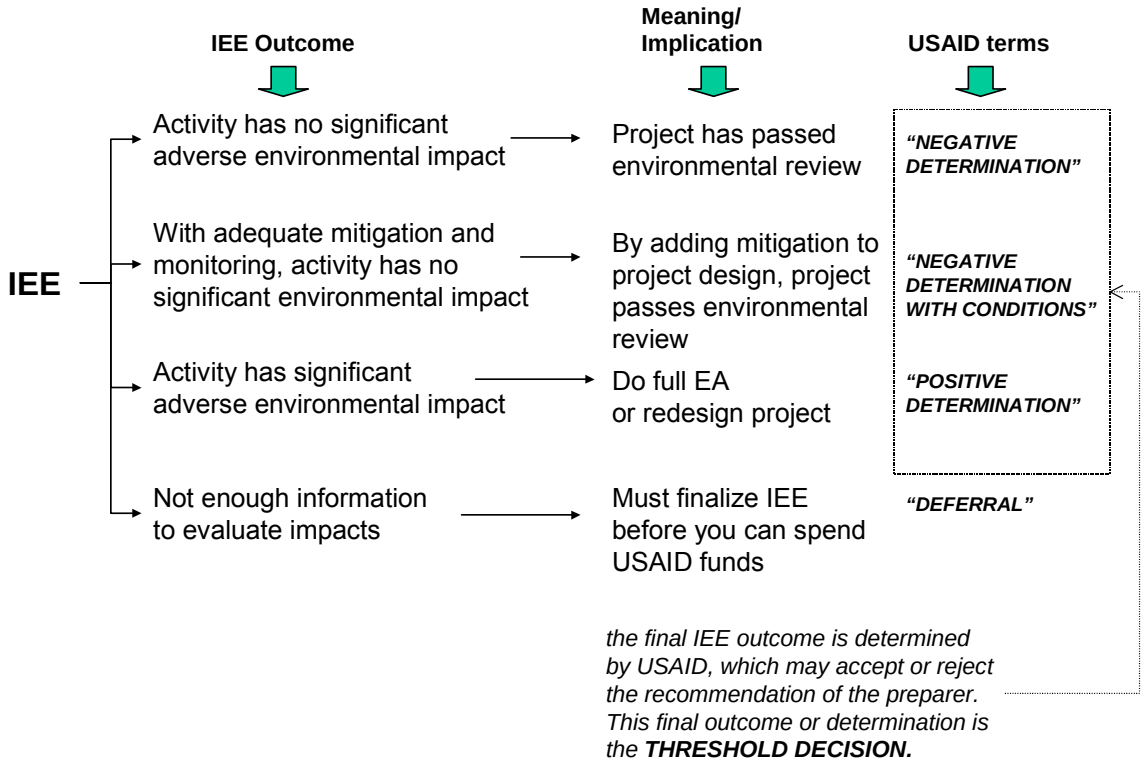
[6] Under Reg. 216, an EA is prepared for USAID actions outside the U.S., but this does not apply when these actions might affect the U.S., the global environment, or areas outside the jurisdiction of any nation, such as oceans. Where such effects might occur, as determined by the Agency Environmental Coordinator,[6] Reg. 216 calls for preparation of an Environmental Impact Statement (EIS). The EIS requirement is very rarely invoked—only one has been done in USAID's history

[7] As noted previously, Reg. 216 permits the preparation of an EA for these "high-risk" actions without first preparing the IEE. Again, however, this guide recommends always preparing an IEE first. The rationale for this is that the IEE may indicate the activity or project actually can be given a negative determination with conditions. (The "conditions" in this case are clearly effective mitigation and monitoring measures built into the activity or project design.) Thus, from a practical point of view and as a matter of Agency practice, an IEE should always be completed before an EA is considered.

Figure 2.3: Four possible results of the IEE



Notes regarding Reg. 216 terminology

"Negative" vs. "Positive" determinations. Reg. 216 uses the terms "negative" and "positive" in the same sense as medical tests. Thus, a negative result is the best outcome, in the same way that a negative test for TB or HIV indicates that the individual does NOT have the disease.

"Significant" Effect. In standard English usage, "Significant" has no implication of harm or benefit. However, the language of Regulation 216 defines "significant effect" as meaning that an action is likely to do significant *harm* to the environment. An effect is not considered significant when activities are **not** expected to do significant harm to the *biophysical environment*—under normal conditions and with good practices. To avoid confusion in this manual, we always add (adverse) to the Regulation 216 language. (E.g. "significant (adverse) effect.")

***Deferrals** are only recommended when the activity is yet sufficiently defined to evaluate environmental impacts*

An amended IEE must be filed assessing the activity before any funds can be obligated to that specific activity.

- **Deferral.** Finally, an IEE can result in deferral. A deferral applies when activities are not yet sufficiently well defined to assess their probable environmental impact. Deferrals require documentation explaining *why* sufficient information is not available and when resolution of the deferral can be expected.

  Declaring a "deferral" also means deferring implementation of the affected activity; under a deferral, USAID *cannot obligate funds.* Thus, deferrals only postpone the inevitable—one must return to do an amended IEE to resolve the outstanding deferral of a decision. In some cases, particularly for small-scale activities, the negative determination with conditions that require subsidiary environmental reviews is preferable.

USAID Partners submitting an IEE recommend or request one of the four IEE outcomes for EACH activity covered by the IEE. The appropriate Bureau Environmental Officer (BEO) at USAID makes the final determination on these outcomes, and can accept or reject the recommendation. This final determination is called a **THRESHHOLD DECISION** in Regulation 216. (Note that a deferral is not a threshold decision. Rather, a request for deferral is a request to *defer* the threshold determination.)

At this point, you are ready to begin preparing your IEE or other environmental documentation. Proceed to Chapter 3.

Figure 2.4: Screening Process with USAID terminology

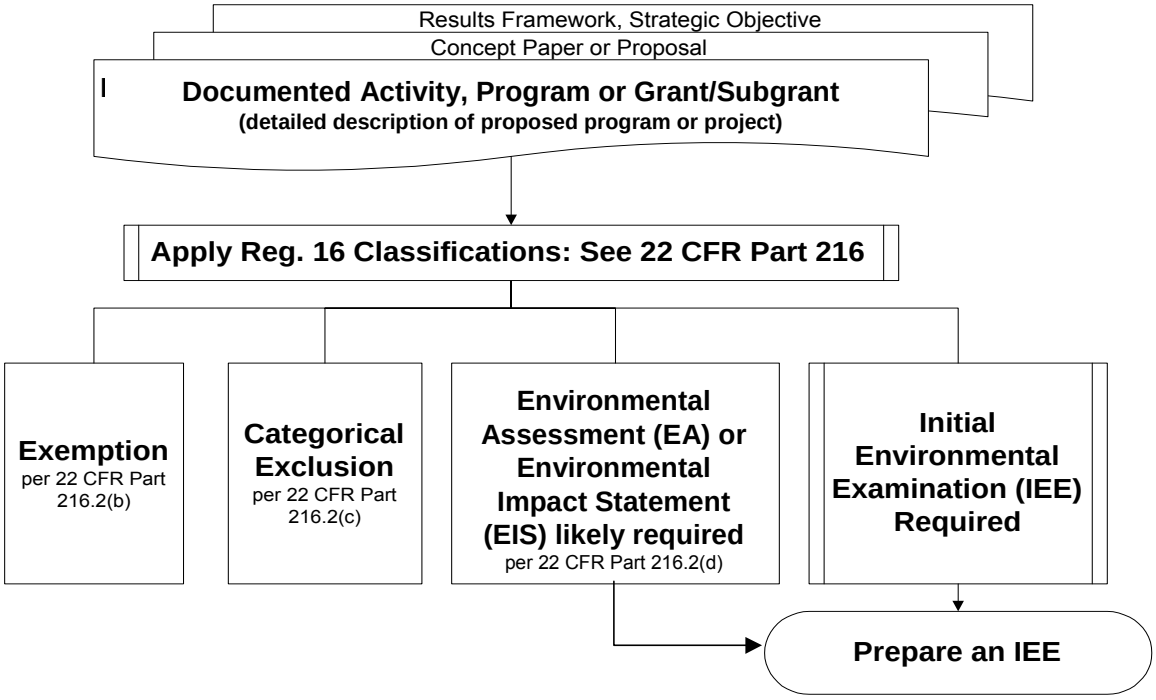
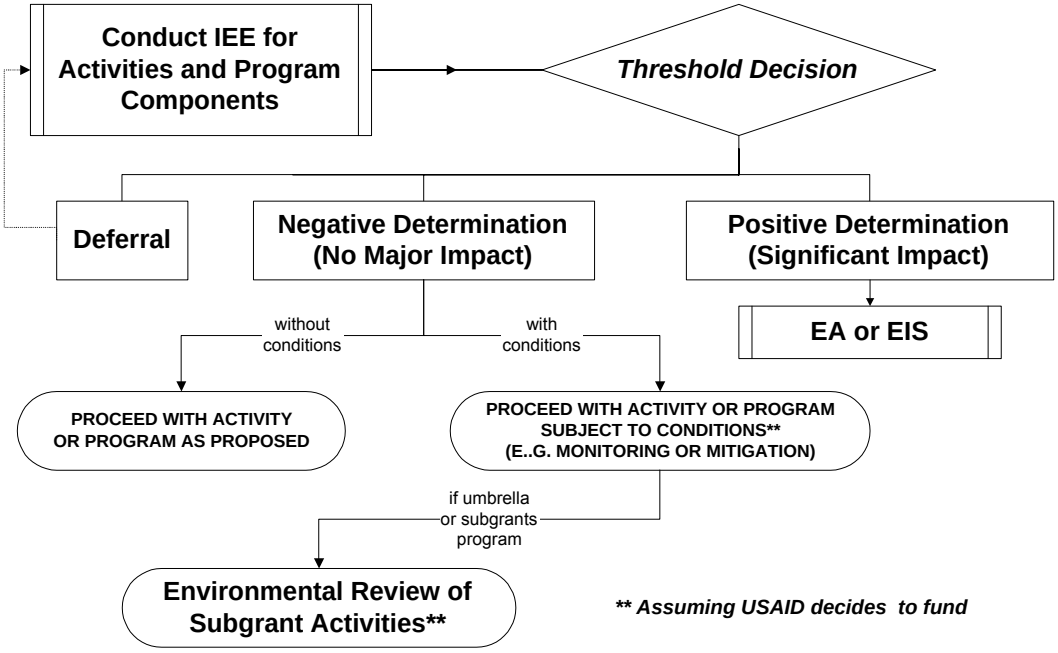


Figure 2.5: IEE outcomes with USAID terminology



Chapter 3. Required Documentation: Determination and Overview

In Chapter 2, you *screened* your activities and filled in the summary table. This Chapter describes the environmental documentation you must prepare and submit to USAID as a result of this screening process.

3.1. What environmental documentation must you submit?

New activities

Recall that the screening process results in one of three outcomes for each activity: (1) exempt, (2) categorical exclusion, or (3) IEE required. At this point, the "screening outcomes" column in your *summary table* (Table 2.1) should be completed. A screening outcome should be indicated for each activity.

The screening outcomes determine the environmental analysis that must be conducted and the environmental documentation that must be submitted. Examine your summary table and identify the overall screening outcome that applies to you:

Table 3.1: Screening determines required environmental documentation

Overall screening outcome	Environmental documentation required
All activities are exempt*	None
All activities are categorically excluded	Facesheet AND Categorical exclusion request
All activities require an IEE	Facesheet AND IEE covering all activities
Some activities are categorically excluded, some require an IEE	Facesheet AND IEE covering activities for which an IEE is required AND justifying the categorical exclusions.

*there should be no instances in which a mix of exempt and non-exempt activities are submitted in a single proposal document.

Note: if the IEE finds that the project or activity may have significant adverse effects on the environment, a full Environmental Assessment (EA) study will be required.

For New Activities:

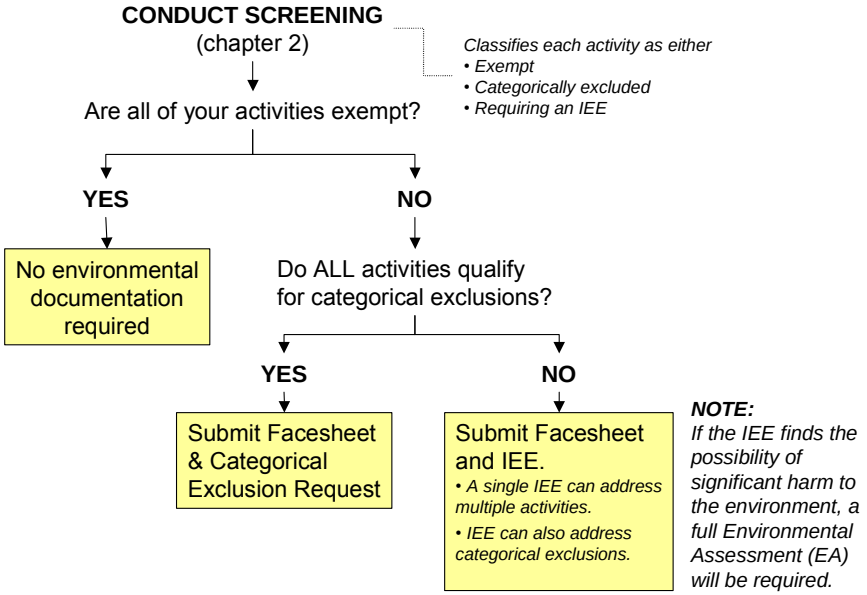
Match *your screening results to required environmental documentation.*

Read *the description of the documentation which follows later in this chapter*

The table identifies three basic types of environmental documentation (the Facesheet, the Categorical Exclusion Request, and the IEE). Section 3.2 describes each of these basic documents.

Table 3.1 can be understood as the result of the decision tree depicted in Figure 3.1.

Figure 3.1: Environmental documentation required for new activities



For Modified Activities:

***Screen** the activities again*

***Submit** an IEE or Categorical Exclusion request amendment, as indicated.*

Modified activities

When a project or program is formally modified, an IEE or Categorical Exclusion amendment should be submitted that specifically addresses the changes:

- Conduct screening again on the modified activities, using the screening procedure presented in the previous chapter
- Submit the environmental documentation indicated by the screening result. (Consult Table 3.1)
- Indicate on the compliance facesheet that an IEE or Categorical Exclusion AMENDMENT is being submitted.

Continuing activities

Annual Environmental Status Reports. The Bureau for Democracy, Conflict and Humanitarian Assistance requires that annual Environmental Status Reports be submitted for all Title II-funded activities. These reports are intended to assure that the mitigation and monitoring measures specified in the IEE are being carried out. The ESR is also intended to identify any unusual circumstances or changes to project implementation that may call into question the Categorical Exclusion(s) which may have been given, the

determinations reached by the IEE, or the adequacy of mitigation and monitoring measures. If such circumstances or changes are identified, the ESR directs implementing organizations to file an amended IEE or Categorical Exclusion request.

At the current time, no other Bureaus consistently require annual environmental status reporting.

Updating environmental documentation to reflect year-to-year changes in implementation. Even in the absence of formal modification, implementation of continuing activities may change from year to year in a way that would affect its treatment/classification under Reg. 216. It is good practice to examine environmental documentation each year to assure it is still operative and applicable, and that it addresses all activities actually being implemented. If such examination indicates that environmental documentation is no longer complete or accurate, proceed as follows:

- Conduct screening again on the modified activities, using the screening procedure presented in the previous chapter
- Submit the environmental documentation indicated by the screening result. (Consult Table 3.1)
- Indicate on the compliance facesheet that an IEE or Categorical Exclusion AMENDMENT is being submitted.

At this time, *only BDCHA requires annual environmental status reports*

However, *environmental documentation for projects under all USAID Bureaus and Missions should be updated to reflect year-to-year changes in implementation of continuing activities.*

3.2. The four basic environmental documents: an overview

The overview of environmental documentation requirements presented above identified four basic documents:

- The compliance facesheet
- The Categorical Exclusion Request (or Categorical Exclusion Request Amendment)
- The IEE (or IEE Amendment)
- The Environmental Status Report

Each is briefly described in this section.

The compliance facesheet

The compliance facesheet is required in all cases, *except* where ALL activities are exempt. The facesheet simply summarizes the following information:

- Basic activity or project information
- Whether the facesheet supports a new activity, or whether it is submitted in support of a modified activity (and thus amends preexisting environmental documentation).

The compliance facesheet *is found in Annex C.*

It is used in all cases, except *where activities are exempt.*

- Screening outcomes
- Recommended IEE determination, if applicable.

The facesheet should be completed AFTER completing the Categorical Exclusion request, and/or an IEE. It summarizes information taken from these documents.

The facesheet is found in Annex C. Examples of prepared facesheets are located in Annex D.

The Categorical Exclusion request

***The Categorical Exclusion request** is found in Annex C.*

It is used when ALL activities qualify for categorical exclusions.

The Categorical Exclusion request is required when screening indicates that ALL activities should be categorically excluded. The Categorical Exclusion request should cover ALL these activities.

The Categorical Exclusion request requires you to (1) describe the activities briefly; and (2) justify the request for Categorical Exclusion by citing the relevant provision of Reg. 216. For example, providing health information,training farmers or supporting primary school curriculum development would typically qualify for a Categorical Exclusion.

Note, however, that even a proposal in which all activities are Categorical Exclusions may need to incorporate provisions for monitoring and application of sound environmental principles and practices. In the example above, for instance, the Categorical Exclusion request would document that farmer training will include principles and practices of environmentally sustainable agriculture.

The IEE

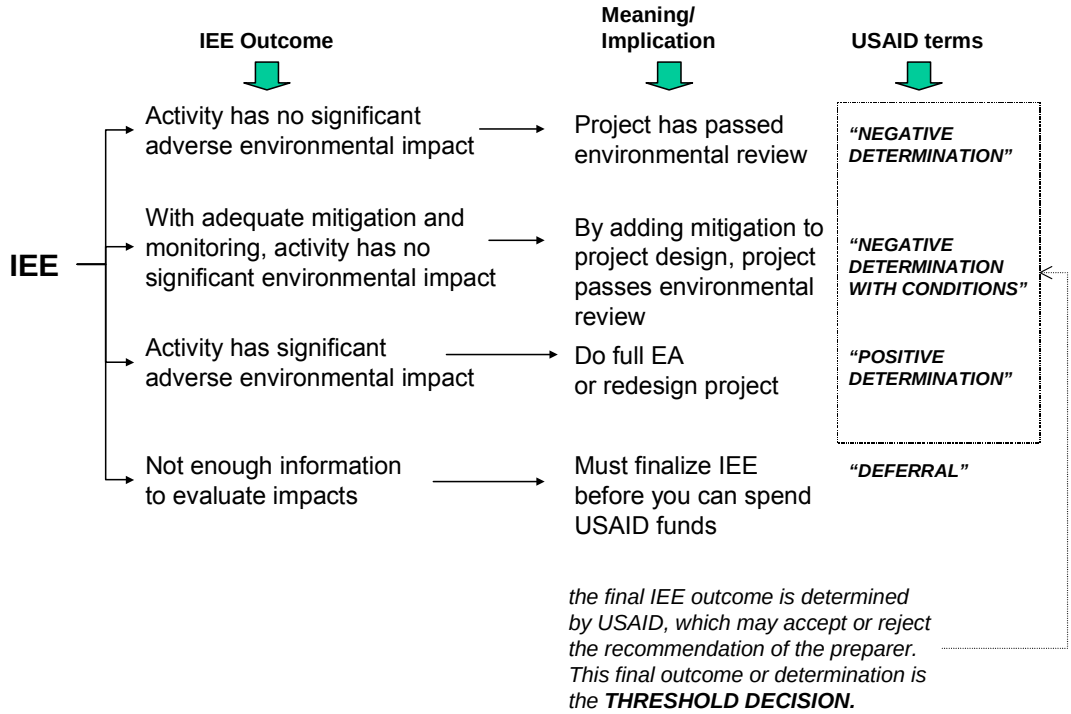
You must conduct an IEE unless screening shows that ALL your activities are either exempt or categorically excluded. The IEE should cover ALL activities whose screening result is "IEE required." Writing the IEE is the subject of the next chapter.

Purpose of the IEE. As noted earlier, an IEE is a review of the reasonably foreseeable effects on the environment of a proposed action. The IEE process has one of four outcomes, as indicated in Figure 3.2. The IEE preparer recommends one of these outcomes for *each* activity covered by the IEE. The IEE must provide enough information so that USAID can accept or reject these recommended determinations. IEEs document monitoring and mitigation measures, and the adequacy of these measures will significantly influence the determination given to the activity. IEE terminology is described in detail in Chapter 2.

Basic outline. Box 3.1 contains the standard IEE outline. The next chapter is a guide to writing the IEE, and contains detailed information about each element of this outline.

Variations. Note that there are many variations on the basic IEE, depending on particular characteristics of the proposed activities. These are also addressed in the next chapter.

Figure 3.2: The four possible outcomes of the IEE process



Box 3.1
Basic IEE outline

Program/Project Data:

Program/Activity:

USAID Partner Name, Country/Region:

1 Background and Activity Description
- 1.1 Background
- 1.2 Description of Activities
- 1.3 Purpose and Scope of IEE

2 Country and Environmental Information (Baseline Information)
- 2.1 Locations Affected
- 2.2 National Environmental Policies and Procedures *(of host country, both with respect to environmental assessment generally, and any requirements particular to the activity)*

3 Evaluation of Environmental Impact Potential

4 Recommended Mitigation Actions (Including Monitoring and Evaluation)
- 4.1 Recommended IEE Determinations *(includes justification of categorical exclusions identified during screening)*
- 4.2 Mitigation, Monitoring and Evaluation

5 Summary of Findings
- 5.1 Environmental Determinations
- 5.2 Conditions

Mitigation and monitoring are often not given sufficient attention by IEE preparers, perhaps because of pressures associated with meeting submission deadlines, insufficient technical understanding of mitigation and monitoring options, or the natural tendency to focus more on the urgency of initiating present activities than on thinking carefully about potentially adverse effects. It is important that you devote proper time and care to this task.

On the other hand, some preparers go too far in the other direction, creating unrealistic mitigation checklists and a host of superfluous factors to be monitored. It is best to start with a doable mitigation strategy, and then limit your monitoring to only that which realistically will help you determine if your mitigation is working. Mitigation and monitoring are singled out for attention here, because every Partner or Mission should **revisit their environmental mitigation and monitoring strategy or management plan annually.**

Note that since June 1998, USAID has required water quality testing of USAID-funded potable water sources. This required monitoring measure must be noted in the IEE. See Box 4.L on this topic.

The Environmental Status Report (applies to BDCHA only)

As noted above, BDCHA projects and programs (i.e., those funded under Title II/monetized food aid) require an annual *Environmental Status Report (ESR).* The ESR is submitted as an appendix to the project or program annual report. It must be submitted for *all previously approved programs,* whether those programs were approved under a Categorical Exclusion, an IEE, an EA or PEA.

The ESR is intended to assure that mitigation and monitoring as specified in the IEE are being carried out. The ESR is also intended to identify any unusual circumstances or changes to project implementation that may call into question the Categorical Exclusion(s) given the project, the determination reached by the IEE, or the adequacy of mitigation and monitoring measures. If such circumstances or changes are identified, the ESR directs implementing organizations to file an amended IEE or categorical exclusion.

In 2-10 pages or less, the Environmental Status Report narrative should indicate whether steps need to be taken to amend previous environmental documentation and whether conditions are being met, e.g., mitigation plans are on schedule and that the specified monitoring and evaluation measures are being undertaken by the Partner. In a Mission's comments and/or approval cable on annual reports or project or program modifications, the Mission should state whether it concurs with the Environmental Status Report. See Section 3.6, below.

The 'Environmental Status Report Instructions and Format' and the 'Environmental Status Report Facesheet' are provided in Annex C.

Before the completing an ESR, read the guidance on formulating IEE mitigation and monitoring plans contained in Chapter 4.

3.3. Preparation, submission and approval process

Basic roles and responsibilities. All environmental documentation **must first be approved at the Mission level**, and then by the relevant USAID Bureau Environmental Officer (BEO) in Washington. Approval by the BEO is required by Regulation 216. Both the Mission and headquarters may request revisions. Reasons for revision may include adequacy, completeness, or consistency with overall documentation for the Mission program.

The Mission Director typically designates the Mission Environmental Officer (MEO) as the individual responsible at the Mission level for approving environmental documentation. In a non-presence country, the role of the MEO is filled by the Regional Environmental Officer (REO). The USAID Mission may choose to have the REO assist the MEO in assessing environmental documentation. Once the Mission has approved the documentation, the Mission typically takes responsibility for forwarding documents to USAID/Washington.

Primary responsibility for preparation of documentation varies by USAID Region.

- In **Asia and the Near East**, most projects are larger in scale and executed directly by the Mission. Mission personnel thus have responsibility for IEE preparation.
- In **Africa**, most projects are smaller in scale and executed through USAID Partner organizations (typically PVOs). Typically, the USAID Partner is responsible for drafting environmental documentation and finalizing it based on comments received from USAID.

  It is possible, however that the Mission may prefer to prepare the documentation itself, based on input from Partners (e.g., in the case of new programs or initiatives). In either case, Partners should discuss environmental impact issues with the Mission, typically the Mission Environmental Officer (MEO), prior to the preparation of environmental documentation.

In either case, the screening process and documentation requirements are identical. This section is generally written as if the USAID partner is responsible for preparing this documentation. The slightly simpler case of Mission preparation is easily abstracted from the following discussion. See Chapter 5 (Frequently Asked Questions) for more on role and responsibilities.

Timing of submission. Environmental documentation is submitted concurrent with project proposals or amendments. Amendments to projects/proposals should be accompanied by environmental documentation amendments.

Deferrals should be resolved (using an IEE or Categorical Exclusion amendment) as soon as the necessary information is available.

Consultation with the Mission is STRONGLY recommended. As emphasized above, USAID partners are expected to work with the Mission

Where projects are carried out via USAID partners, *the Partners are usually responsible for drafting documentation.*

Where projects are executed directly by the Mission, the Mission is responsible for drafting documentation.

Environmental documentation *is approved first at the Mission level, and then by the appropriate Bureau Environmental Officer in USAID/*

in drafting environmental documentation. The principal points of contact are usually the MEO and/or the Program Officer. When no MEO is available, partners should feel free to contact the appropriate Bureau Environmental Officer (BEO) in Washington.

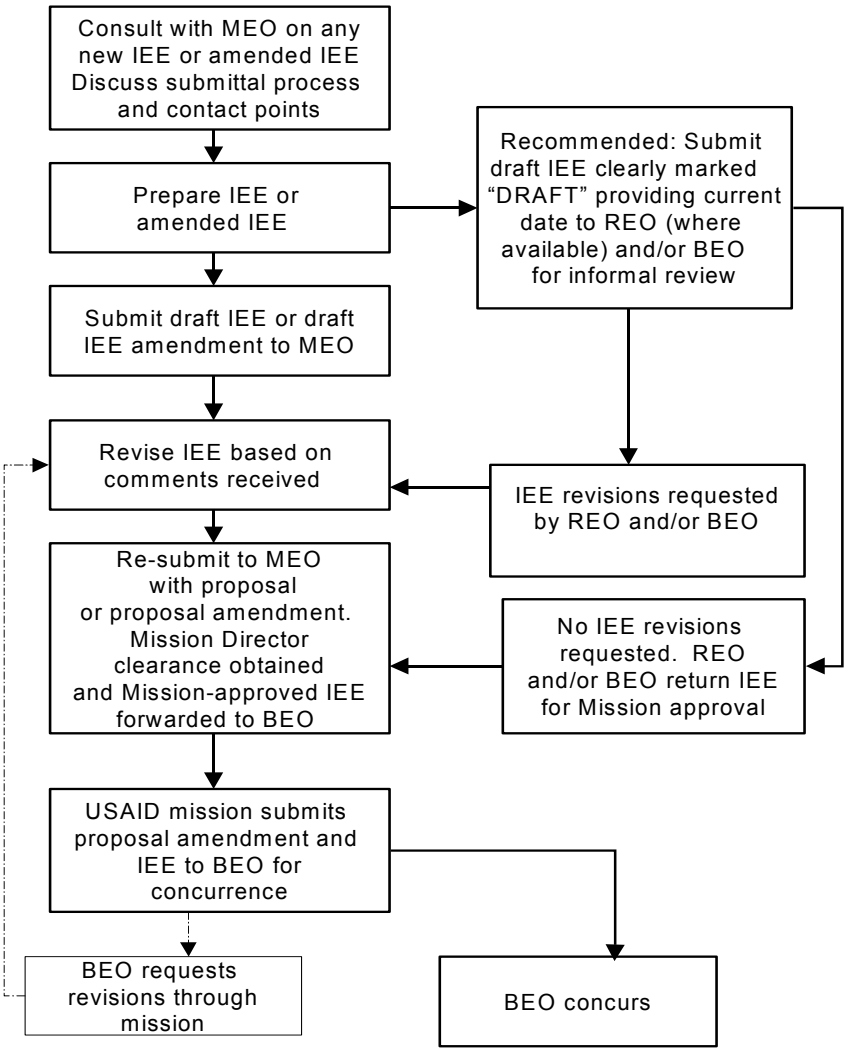
Clearly mark and date draft documentation!
All drafts circulated for comment and/or information should be clearly marked with the date and "**DRAFT—Not Yet Approved by Mission**"

Advance USAID review of draft documentation is recommended. Partners are encouraged to submit DRAFT environmental documentation for informal review by the MEO/Mission, as well as the BEO or REO. Review of drafts encourages a constructive dialogue and ensures that issues are addressed early.

Note: any documentation submitted in draft form **must be re-submitted** to the Mission for formal consideration and approval.

Figure 3.3 depicts an IEE submission and approval process incorporating consultation with the Mission and opportunity for comments on draft documentation.

Figure 3.3: IEE submission and approval process*



3.4. What if the IEE results in a Positive Determination?

A positive determination indicates that a proposed activity has the potential for creating significant, adverse effects on the environment, and that these issues cannot be resolved by the IEE. In this case, Regulation 216 *requires* that a full Environmental Assessment (EA) or Programmatic Environmental Assessment (PEA) be conducted.[8] The affected activity *cannot proceed* until the EA is completed and approved, although normally the other activities in the project or program may proceed once the IEE is approved.

An EA or PEA implies a substantial commitment of resources and time. Thus, a potential positive determination should be discussed with the MEO as soon as possible.

Assuming that an EA or PEA is needed, read Reg. 216.6 thoroughly to gain an understanding of the process and the content of the EA document. The first step in the process is *scoping,* which is discussed in detail below.

***A positive determination** means that the activity has the potential for causing significant adverse environmental impacts.*

In this event, Reg. 216 requires a full environmental assessment (EA) study.

EAs require a professional team and significant resources

Consult with the MEO regarding all positive determinations

Scoping Statement

Under standard EIA procedures, a *scoping exercise* is the first step in preparing a full assessment study. Scoping identifies the key issues to be treated in the full study. Here again, Regulation 216 implements standard EIA practice. A scoping statement must be approved by the BEO before work on the EA proper can commence.

The purpose and content of the scoping statement is set out in Reg. 216, §216.3(a)(4). The statement must characterize the "scope and significance of issues to be analyzed" and eliminate from further discussion issues that will not have a significant effect on the environment. It provides a description of: (1) the timing of the preparation of the environmental analyses, including phasing if appropriate, (2) variations required in the format of the Environmental Assessment, and (3) the tentative planning and decision-making schedule. It also provides a "*description of how the analysis will be conducted and the disciplines that will participate in the analysis*."

Scoping process

The scoping statement is the result/summary of the *scoping process.* The scoping process gathers information from a variety of public and private sources, locally and nationally. It also provides a mechanism for public and technical concerns to be raised and evaluated to assist decision-making and priority setting. It informs and involves people potentially affected, takes into account local values, considers reasonable approaches and practical alternatives, determines the procedures for consultation and analysis, and

***Scoping is** the first step in conducting a full EA*

*It should be a **consultative and public** process.*

[8] If the activity is one of a kind, then a project-specific EA is suitable. If there are many similar activities either within a particular program, or where several USAID Partners have similar activities, a PEA might be more applicable. Additional information on PEA preparation is provided in Annex C. If the activity directly affects the U.S., the global environment, or areas outside the jurisdiction of a country, an EIS (Environmental Impact Statement) will be required.

establishes the terms of reference (preferably for both the EA and each member of the EA Team).

Thus, good EIA practice and Regulation 216 dictate that the process should be *consultative:*

- Regulation 216 specifies that "Persons having expertise relevant to the proposed action shall also participate in this scoping process. (Participants may include but are not limited to representatives of host governments, public and private institutions, and the USAID Mission staff and contractors.)
- Good practice requires that scooping should also involve consultation with the general public and all potentially affected parties.
- In general, Regulation 216 requires collaboration with the host country "to the maximum extent possible" (§216.6(b). If USAID has required an EA or PEA, your host country may also require a similar document. This is an issue that should be addressed in the scoping statement so that one document satisfies both USAID and host country procedures.

Box 3.2
EAs as capacity-building opportunities

Host country environmental management capacity is essential to the success of economic development efforts. Limited opportunities for host country professionals to practice these skills is one of the largest barriers to capacity-building in this area.

Therefore, scoping and EA processes should employ host country expertise to the greatest extent possible.

Collaboration with the host country throughout the scoping and EA process helps to build institutional capacity and developing country-specific approaches to environmental assessment, mitigation, and strategic management.

The completed EA or PEA should be shared with the host country authorities. Public dissemination and review of the document is encouraged

Who prepares the Scoping Statement and the EA?

Scoping statements are typically prepared by the *responsible party* directly. This may be a USAID Partner, or it may be undertaken by Mission staff directly. In the case of a USAID Partner, the process should be designed in close consultation with the MEO and the Project Officer.

Professional contractors are typically engaged to carry out the technical work of the EA itself; the Scoping Statement forms an important part of the contractor's scope of work. The BEO should be able to provide sample contractor scopes of work and past EAs.

Expected level of effort

Approximately six to eight person-months of effort is typical for a good quality EA or PEA process; three person-months is an absolute minimum. This typically requires a calendar year, although with with aggressive workers and committed reviewers, six calendar months is feasible.

If document translation is required to achieve host country participation, more effort is needed.

Despite the time commitment required, the EA or PEA should not discourage you from carrying out important development initiatives. Rather, the EA or PEA should be viewed as a key element of sound design.

Additional resources

The World Bank *Environmental Assessment Sourcebooks* (3 volumes) (1991) provides guidance on approaches to EA, as do numerous other sources. (See USAID's *Topic Briefing: An Introduction to EIA"* available for download at www.encapafrica.org.)

Chapter 4. Writing the Initial Environmental Examination (IEE)

As explained in the previous chapter, your screening outcomes determine if you must undertake an IEE. This Chapter guides you through the process of writing the IEE. Note that the process described here is representative of that applied in environmental impact assessment processes anywhere in the world.

Suggested steps involved in preparing an IEE are:

- Step 1: Decide the type of IEE you will write;
- Step 2: assemble the relevant information resources;
- Step 3: carry out the environmental analysis (i.e., write sections 1–3 of the IEE narrative);
- Step 4: consider recommended determinations (threshold decisions);
- Step 5: settle on recommended threshold decisions and mitigation and monitoring (write sections 4 & 5 of the IEE narrative);
- Step 6: fill in the Environmental Compliance Facesheet and attach to the IEE Narrative.

The chapter begins with a brief review of the purpose and content of the IEE, and then addresses each of these steps in turn.

NOTE: Steps 2–5 of the IEE are often an **iterative process**. You prepare each section, following the outline to the extent that you have information. You may need additional information and have to go back to various sections and add detail or, in some cases, revise your conclusions. It is best to jump in and do what you can, then fill in and revise later.

Box 4.A
IEE Basic Outline

Program/Project Data:

Program/Activity:

USAID Partner Name, Country/Region:

1 Background and Activity Description
- 1.4 Background
- 1.5 Description of Activities
- 1.6 Purpose and Scope of IEE

2 Country and Environmental Information (Baseline Information)
- 2.3 Locations Affected
- 2.4 National Environmental Policies and Procedures *(of host country, both with respect to environmental assessment generally, and any requirements particular to the activity)*

3 Evaluation of Environmental Impact Potential

4 Recommended Mitigation Actions (Including Monitoring and Evaluation)
- 4.3 Recommended IEE Determinations *(includes justification of categorical exclusions identified during screening)*
- 4.4 Mitigation, Monitoring and Evaluation

5 Summary of Findings
- 5.3 Environmental Determinations
- 5.4 Conditions

4.1. IEE Review

The IEE is a review of the reasonably foreseeable effects on the environment of a proposed development intervention/activity. The purpose of the IEE is to provide information and analysis sufficient to reach one of four conclusions (or *threshold decisions)* regarding the overall environmental effects of the project. For each activitiy addressed by the IEE, IEE preparers *recommend* one of these threshold decisions to USAID. USAID can accept or reject this determination.

Table 4.1: IEE outcomes

IEE determination (Reg. 216 terminology)	Explanation	Implication
Positive determination	Activity is likely to have significant adverse environmental impacts	Do full Environmental Assessment (EA), or redesign project
Negative determination	Activity has no significant adverse environmental impact	Project has passed environmental review
Negative determination with conditions	With adequate mitigation and monitoring, activity has no significant adverse environmental impact	By adding additional mitigation to project design, project passes environmental review
Deferral	Not enough information to evaluate impacts	Project must be defined and IEE finalized and approved before any "irreversible commitment of resources" can be made.

Note that the text of the IEE will also document any Categorical Exclusions identified during the screening process.

4.2. Step 1: Decide the type of IEE you will write

Regulation 216 does not specify the IEE format or outline. Over time, USAID practice has standardized around a set of basic approaches. All start from the same outline (Box 4.A, above). These basic approaches are described in Table 4.2. Examine the first column of the table to see what situation best characterizes your proposal. Remember that the IEE must cover all the activities/components for which a screening outcome required an IEE.

Note that subsequent guidance centers on writing the IEE to the basic outline—i.e., to the "basic" or "classic" IEE described in the table. IEE examples in the Annex illustrate how this basic outline is adapted to various other IEE types.

Table 4.2: Guidelines for choosing the type of IEE you write

Situation	Type of IEE	Comment and Explanation
Well-defined, closely related activities at one site.	Basic or "classic" IEE	This is the most straightforward IEE. It requires specific information about the activities over their full lifecycle (i.e., over all phases of the activity), including site selection, design, construction, operation and decommissioning/abandonment. For example, a classic IEE describing agricultural interventions would detail these interventions, how they work, and where they will be implemented. If, on the other hand, dams or river diversions are planned to irrigate an area, required information would include the design of the dam or diversion (e.g., height, volume of water impounded or diverted; location of the water source), upstream and downstream characteristics; etc. In both cases, information about the site, environmental setting, farmers and their families would be required. Examples of "classic" IEEs and amendments are found in Annex D.
Well-defined, closely related activities at multiple sites	Multi-site IEE	Many USAID-supported programs carry out specific, well-defined activities in numerous sites across a region or country. A multi-site IEE can be prepared if the following conditions apply: ▪ The multiple activities are well-defined, repetitive and/or predictable; ▪ impacts can be mitigated by measures readily identifiable in advance ▪ sites are known well enough to affirm that no unexpected impacts would occur in sensitive areas (e.g., wetlands, protected areas, etc.). In these cases, the multi-site IEE avoids the unnecessary effort of preparing an IEE for each site. Instead, the IEE analyses the activities in a general way, and identifies mitigation and monitoring measures sufficient to prevent significant adverse impacts. Common situations in which multi-site IEEs might apply include programs of latrine or well construction or terracing. At the beginning of the program or project, not every specific site may have been identified, but overall characteristics are known. In these cases, the multi-site IEE would analyze all construction activities in the general environmental context. The analysis would identify mitigation measures sufficient to prevent significant adverse environmental effects. Mitigating measures might include training for local staff, and adoption of siting and construction guidelines to ensure the actions taken have no adverse environmental implications (e.g., water sources will not be diverted, soil will not be eroded, and protected species will not be endangered, etc.). An example of a multi-site IEE is included in Annex D.
Some activities not yet fully defined	IEE with deferral	A *deferral* may be appropriate for an activity or major component when it is not yet fully defined, sufficient information is unavailable, or a decision to pursue an activity is not yet definite. This applies especially when you expect that at least some of the activities are not likely to be considered small-scale. The request for a deferral is made within the IEE (see §216.3(a)(7)).The IEE must be amended as soon as information about that activity becomes available. The deferred activity **cannot proceed** until the deferral in the IEE has been resolved. However, other activities addressed in the approved IEE and receiving negative determinations CAN proceed. An example of an IEE with deferral is included in Annex D.

Situation	Type of IEE	Comment and Explanation
Multiple sets of dissimilar activities at one or more sites.	IEE with separate write-ups of sectoral activity	If the project or program includes several sets of dissimilar activities (e.g., natural resources management, road construction, and water resources works), it may be most efficient to address each sector in a separate analysis. Each analysis would follow the format and content of IEE sections 1-5, but would address *only* the sector in question. Elements common to multiple sectors (e.g., aspects of country and environmental information) can be cross-referenced rather than repeated.
Multiple activities not yet fully defined, but mostly small scale	Umbrella IEE	The "umbrella" IEE may be applicable under the following conditions: ▪ The proposal consists of multiple activities (i.e., one or more sets). ▪ The activities are generally expected to be small in scale. ▪ Some of the activities are not fully defined at the time of proposal. ▪ A post-IEE review process can be defined that will prevent any as yet undefined activities from having significant adverse environmental impacts. Umbrella IEEs are commonly used for subgrant programs and proposals that contain activities to be identified by communities. An "umbrella" IEE assumes a negative determination with conditions. The conditions are the environmental review process that will be followed as the activities become more completely defined. This environmental review process varies with the nature of the activities. E.g., environmental review and screening for construction of many small dams differs from that for construction of wells. The "umbrella" IEE may also require application of "Best Practice" guidelines, and training of subgrant recipients in environmental review. The umbrella IEE process can be applied to all the sponsor's program activities or to a portion of the program. [Note that a "classic" IEE may also incorporate an umbrella process for part of the program.] In principle, the advantages of the "umbrella" IEE are that (a) it provides for a post-IEE screening and review process for each activity as the information about the activities is developed; and (b) all or most activities can be approved in the field on the basis of local screening and review once the IEE, including a process of environmental screening and review, has been approved by the BEO. *An alternative to the "umbrella" IEE is to* ***prepare an IEE with a deferral of those activities for which insufficient information is available.*** *This requires amendment of the IEE before funds are obligated or the deferred activities are implemented.* Examples included: More information about the "umbrella" IEE is contained in Annex G A useful example of an environmental review process and screening form, specifically prepared for rural roads is provided in Annex E.

4.3. Step 2: Assemble information resources

To understand the potential environmental impacts of a project or activity, certain information about the community and physical environment at the site(s) will be needed. Some of this information will already have been collected to develop the activity objectives, but additional data will be necessary to identify alternative means of accomplishing the objectives and to assess their impacts on the environment.

Note: You will not be able to acquire all possible sources of information for the IEE. Be selective and judge what you think is most useful.

Box 4.B
Assembling an IEE team

If you are not especially familiar with the implementation of activities and actual on-the-ground detail, you should consider assembling a multi-disciplinary team with the requisite knowledge and expertise.

Locate key environment and natural resources data.

Potential sources of existing information about the environment and natural resources relating to the project sites include:

- Host country counterpart agencies, such as the Ministry of Agriculture or Forestry, or local agricultural extension workers, universities, or training centers;
- Direct observation during a site visit and contact with counterparts, villagers, farmers, and residents;
- NGOs, universities, consultants, and technical experts;
- National-level documents, such as the country's National Environmental Action Plan (NEAP), Conservation Strategy for Sustainable Development (IUCN sponsored), National Report on Environment and Development prepared for the United Nations Conference on Environment and Development (UNCED) held in Rio in 1992, or Tropical Forestry Action Plan;
- The USAID Mission's Environmental Sector Assessment (sometimes referred to as an Environmental Threats Assessment) or Biodiversity Assessment (in place or likely in process);
- Geographic Information System (GIS)[9] databases (consult Ministry of Environment or Natural Resources or equivalent); and
- FAO reports (The FAO has supported international soils and water resource inventories in many areas).

[9] Geographic Information Systems provide digitized computerized map data, often on subjects such as land use, drainage, climate, vegetation, or soils. Overlays and comparisons of these factors are possible.

Box 4.C
Basic elements of a participatory process

- Work with organizations established in the local community.
- Participation must be facilitated. It won't just happen by calling a meeting.
- Be attentive to meeting times and suitability of places for women to attend.
- Provide gender training to the PVOs and NGOS who will be working at the local level.
- Work with entire families.
- Ensure that communication skills, discussion and methods of inclusion are appropriate for the community in which you are working

Do not neglect socio-economic and cultural information

To understand the context of your interventions, you need information on local culture, socio-economic conditions, and gender relations in the geographic area of your proposed activities. Without this understanding and the participation of the local population, your activities' sustainability will be questionable. Sources of such information include direct observation, local counterparts, farmers and villagers, and local NGOs. The information gathering process should include a local participation component. The participation of affected groups needs to be encouraged so that potential adverse impacts can be identified and mitigation strategies developed by those most knowledgeable about the local setting and existing environmental conditions.

By **incorporating gender and other social variables in design and environmental analysis**, development programs will be more effective and sustainable. Gender-disaggregated data should routinely be collected where appropriate. This information can be useful as baseline for monitoring and evaluation purposes.

For example:

- In the case of agricultural productivity projects, be sensitive to the fact that women and men have different relationships to specific resources, and these relationships affect resource access and use. Which farmers are responsible for what? Is it appropriate to ensure that all farmers receive training in the new technology? How will you choose the farmers? What risk minimization strategies do farmers employ? What impact might these strategies have on the environment, the introduction of new technologies, and mitigation strategies?

- For agricultural extension projects and demonstration of improved practices, determine through a participatory process whether those involved agree that the technology can be expected to work. What would be the anticipated drawbacks? Will they use the new techniques, if not, why not? Again, who selects the farmers and how?

- In providing agricultural credit, will all farmers benefit, or mainly those who own (or farm) the land? If it is in a region where credit is tied to ownership and women farmers cannot own land, can provisions be made to benefit them?

One should also aim to promote enforcement of environmental and health statutes or application of such statutes in areas with disadvantaged populations. **Environmental justice** concerns to be addressed include:

- inequities or disproportional adverse environmental impacts affecting low income populations or various disadvantaged groups (depending on the context: ethnic groups, indigenous populations, minorities and women);

- adverse effects on populations that depend on subsistence consumption of natural resources or those who have traditional

livelihoods, e.g., pastoralists who depend upon rangeland proposed for irrigation;

- population groups that face higher health risks because of exposure to environmental hazards created by nearby project activities; and
- segments of the population whose health is differentially affected by exposure to environmental hazards or changes in environmental baseline conditions, such as the very young or very old, pregnant women, etc..[10]

The importance of maps

Maps can be especially valuable in activity design and implementation, as well as in preparing the IEE. They also make it much easier for reviewers to understand the proposed activities and their environmental implications. They should be of sufficient scale to show roads and villages, targeted rivers and streams, and topographic features (e.g., 1:50,000 or 1:25,000 or better). Compare information about the setting with maps or plans of your activity to assess how the geographic area may be affected by your proposed action. Be careful when comparing maps of different scales.

Maps will help you visualize whether or how various resources or areas overlap with your area of intervention. Often you will not have a precise indication of overlap areas, but you will be able to see potential areas of conflict that need to be investigated further. Environmental information in map form can be developed and presented manually with transparent overlays. Computer-generated maps or Geographic Information Systems (GISs) can be used to present multiple features from a variety of sources. You may even wish to consider providing maps as attachments to your environmental documentation.

4.4. Step 3: Conduct the Environmental Analysis (write sections 1–3 of the IEE narrative)

The first 3 sections of the IEE (1) describe the program or activity; (2) characterize the physical and social environments potentially affected by the program or activity, and (3) evaluate the potential impact of the proposed activities on these environments. Together, these sections constitute the basic environmental analysis portion of the IEE. The text below provides guidance for completing each of these sections.

[10] Adapted from: US Executive Order 12898, February 1994.

IEE Section 1 *contains:*

- *background and rationale for the proposed activity*
- *description of proposed activities*
- *purpose and scope of the IEE*

IEE Section 1: Background and Activity/Program Description

In Section 1 of the IEE, you should provide the **background**, **rationale for** and **description** of current and/or proposed activities and the **purpose and scope of the IEE**.

- Use the background subsection (1.1) to discuss briefly how your activities fit into the Mission and/or the host country strategy or program or to highlight other contextual information that should be brought to the attention of an IEE reviewer.
- Under the activities subsection (1.2) describe the activity and its component actions. The organizational framework is up to you. Determine how you wish to organize and group activities in a logical or coherent fashion. If your project or program is organized as a Results Framework, you may find that method of organization most convenient. You may prefer some other logical grouping of activities, geographically or by sector.
- Use the subsection on "purpose and scope of the IEE" (1.3) to note if this is the first IEE being prepared for the proposed activity(ies), an amendment, or if certain activities are not being covered, e.g., they are expected to end in the near future, or are deferred.

In this manual:

Activities = desired accomplishment or output *(e.g., a road, placing land under irrigation, etc.)*

Activities consist of a number of components or actions, occurring over various phases of the activity (e.g., planning, construction, etc.)

What is the definition of an activity?
In this manual, "activity" refers to the desired accomplishment or output such as a road, seedling production, forestry planting, or river diversion to irrigate land. An activity is independent, although it may be linked to other activities. Accomplishing the activity will require certain actions, such as planning and design (site selection, choice of materials and equipment, etc.), construction (clearing, digging, filling, transporting materials or even establishing a construction workers' camp). Other actions occur during operation or implementation (vehicular traffic patterns once a road is constructed, water management once irrigation infrastructure is in place). Most activities also need maintenance. Analysis of impacts requires that you know what all these actions are. These discrete actions, the inputs to accomplish the activity, do not, however, require separate Reg. 216 determinations. The activity as a whole is typically the subject of the Reg. 216 determination.

For each grouping (e.g., by type of intervention or Intermediate Result), try to provide information about the activities, including background and description of major components or discrete actions. You do not need to justify activities (this is covered in other parts of the project or program proposal). You do, however, need to provide some physical detail and be as quantitative as possible. For example, "about 500 farmers will be trained in irrigated agriculture for one week each, four farm-to-market roads will be built in such-and-such locations with respective lengths of a, b, c, and d kilometers with a construction period of approximately four months during the dry season, and estimated vehicular traffic of about 20 small trucks or vans and 10 autos per day. . ."

Consider actions over the entire activity lifecycle
All activities have a lifecycle, from (i) planning/design, to (ii) construction, through (iii) operation, and (iv) potential phase out or abandonment

(decommissioning) of these components. The activity description in the IEE should cover all of these components and phase, and address the various locations involved. (For example, if you are building or rehabilitating a road, material from a distant quarry may be needed during the construction phase. Consider constructing a table that organizes the components of your activities by the four phases along the vertical axis, and by location (village, ward, district, nation, etc.) along the horizontal axis. Review the additional questions listed below to help you understand the activity and its components from the IEE point of view.) Table 4.3, below, sets out specific concerns and questions related to each phase of the lifecycle.

Table 4.3: Issues for consideration in the IEE across the project lifecycle

Activity phase	Questions and notes
Planning and design	Planning and design work usually does not directly affect the environment or human behavior. However, sometimes it does, for example, site drilling or survey work can disturb threatened or endangered species. Associated land speculation can also lead to future adverse impacts. The proposed activity can prompt people to move to or away from the site in anticipation of the activity happening. Further, decisions made in the planning and design phase define in large measure the environmental impacts associated with future phases. It is thus important to ask whether there are siting alternatives, and the impacts that might be associated with each. What choices of materials and equipment will need to be made?
Construction/Site preparation	Is a construction camp needed? Where will the labor come from? Does an access or haul road need to be constructed? Is quarrying needed to obtain construction materials or is a borrow pit for earth fill needed? What other construction materials are needed (wood, bricks, etc.) and where will they come from? If earth or vegetation is removed, what will be done with it? What will happen to excess construction material or rubble? How will erosion be controlled? If new plantings are proposed will these be indigenous? Do utility pipes need to be laid? What social impacts may result during this phase?
Operation	What inputs are needed, including raw materials, water, or energy sources? Where will they come from? What products are created and where do they go (export, autoconsumption)? Are waste products created and how are they disposed of? Is traffic generated? What routine maintenance and repair activities are needed, and what inputs, (e.g., material, labor, transport) will this require? What social impacts may result during this phase?
End-of-life	If the activity were to cease (no longer needed or no longer funded) or its useful life were over (reservoirs silt up; mines become exhausted; roads, wells or latrines are abandoned; etc.), does it just disappear? What is left behind and what characteristics do the “leftovers” have?

Key Questions to Consider in describing expected results, background and rationale.

You are not expected to answer the following questions *per se* in the IEE. Instead, they are provided to (1) help you identify all activities and actions which should be covered by the IEE, and (2) adequately describe background and rationale. These questions should also stimulate your thinking on potential impacts. (You will assess potential impacts in Section 3 of the IEE). Again, keep in mind the full activity lifecycle, as discussed above.

- **Why is the (proposed or current) activity needed, and are there alternatives?** Have the alternatives been evaluated? If so, the IEE

should indicate why the particular activity was chosen. If no alternatives have been considered, are there any, what are they, and should they be considered?

Consider these key questions *when you articulate the rationale for the activity and describe its components and intended results*

- **Why is the activity the best or most feasible**? Why is activity "x" the best or the most feasible way to accomplish the goal? For example, if increased income is the ultimate goal, why is small-scale irrigation (or aquaculture or micro-enterprise) the chosen activity? What other planned or potentially necessary activities are linked to the activity under consideration? The planned intervention may be necessary to accomplish the goal, but is it sufficient? For example, if vegetable production were to increase, is the road adequate to transport it to market?
- **Does the activity have a history**? Is there some important history to the activity? For example, fish farming may have been tried before, but failed. Perhaps the community being assisted was relocated because of another project, etc. What was its previous experience? Does the activity involve rehabilitation of a previous investment (e.g., terraces)? It may be important to know why rehabilitation is proposed. Was rehabilitation expected and planned for in the original design? Was the prior design incorrect or inappropriate? Was maintenance neglected or improperly carried out? If faulty design or lack of maintenance is provoking the rehabilitation, how will these problems be avoided in the proposed new activity?
- **What are the results?** Distinguish between the physical reality (a school or a well constructed) and the ultimate result (potable water or education).
- **What would happen if the no action alternative were chosen?** The answer is **not** that things would remain the same. For example, without the proposed activity, environmental deterioration might worsen over time. This scenario should be compared against the effects of the proposed activity. For example, a rehabilitated road with proper drainage may pose fewer long-run environmental impacts than a deteriorating road that is eroding away.

IEE Section 2 *contains:*

- *information regarding the environmental, social and economic conditions of locations affected by the activity*
- *any applicable host country environmental regulation or procedures with which the activity must comply*

IEE Section 2: Country and Environmental Information

In this section, you describe the environment (physical, biological, socio-economic and cultural) in which the proposed activities and interventions are expected to occur.

It is standard practice in most countries and in most documents that assess environmental impacts to consider people and the socio-economic and cultural characteristics of the affected environment.

Although USAID regulations define environment as the natural and physical environment, experience demonstrates that an IEE needs to consider the human factor. Some impacts may be beneficial for one segment of the population but adverse for others (e.g., women versus men or rich versus poor). Indigenous populations, different ethnic groups, and the economically

inactive portion of the population (the elderly and those not yet of working age) may either benefit from an activity or be adversely affected in different ways from other groups.

You will need to determine first how you want to organize this section. It may be appropriate to adopt the same organizational framework you used in IEE Section 1, presumably by sector, type of activity or Intermediate Result, and to describe the environmental situation appropriate to each. For example, suppose rural health activities occur in the same general area as road rehabilitation activities. In this case, you may want to describe the baseline situations for rural health and then refer back to this description for roads. In some cases, it may be easiest to use geography as the organizing framework.

Environmental baseline information.
In some cases, this may be similar or identical to information required for performance monitoring and evaluation. Similarities or differences between the environmental baseline and the baseline for measuring activity results will depend on the nature of the results expected and being tracked. Such baseline information, whatever the source or reason for collecting it, can be useful in determining long-term sustainability, in developing environmental mitigation and monitoring strategies, and for measuring whether mitigation is working. As noted earlier, people are part of the environment, and their interactions are often the key issue under consideration, especially for most Title II development activities.

Locations Affected and Trends.
Try to gain a picture of overall development issues and prospects for the area of concern. In so doing, you are trying to determine the future no-action alternative. This is not a static condition, but rather, the baseline situation projected into in the future, and shaped by trends, growth, further degradation, improvement in water or air quality as regulations are developed and enforced, normal environmental change, etc.)

The impacts of your actions are measured not against the existing situation but by using the yardstick of the future—the future context in which the actions will occur. If no clear trends exist, you may have to consider the existing situation to be the best approximation you have of the future. For example, if you are building a road through a forested area that has already been targeted for cutting and for development in the next four years, how much does it matter that the road will result in loss of vegetation? Can you estimate the population of the area 25 years from now? Fifty years? What would be the potential impact of the projected changes on the natural resource base? Box 4.D poses a number of questions which focus attention on this wider context — i.e, *what else is happening (or is likely to happen) in the activity locations* that will shape the future baseline*?*

Look at Box 4.E, which describes Major Categories in a Baseline Study, to determine what features you should describe or about which you should acquire data. Determine key characteristics and key data needs. You construct the description of the environment pertinent to your activities as you see fit.

Environmental Policies and Procedures
Describe briefly the host country's environmental impact assessment policy,

Box 4.D
Factors and actions outside your activity which may impact the future environmental baseline.

Are roads being built or rehabilitated by others?

Are there other projects operating or about to start-up?

Has this area been identified as a growth area?

Are there plans for power development or extension of electricity?

Are there resources (e.g., mineral or biological) that will likely be exploited (mined, extracted) in the foreseeable future?

legislation, or procedures and whether the host country will require environmental documentation. Note any applicable policies or regulations for protected areas, wetlands, historic or archaeological sites, siting or construction of facilities, wells, dams, or water diversions.

Remember to **reference** your sources of information. For example, Kenya has procedures and standards for siting wells. Thus, for a program for well development in Kenya, the USAID Partner may need to elaborate in Section 2.2 of the IEE on the nature of the procedures specific to the siting of wells. Policies and procedures are likely to vary by sector, i.e., irrigation, roads, wells, or the like, and each is affected by the sector-specific policies, procedures or regulations from lead government units, e.g., a Ministry of Agriculture or Ministry of Water Resources, etc.

Box 4.E
Major elements of the environment characterized in baseline studies

(select and focus as appropriate to your activities)

Geology—geological provinces, bedrock formations, history of geological stability or instability.

Topography—general topography of region, specific topography of project area.

Soils—soils mapping, soil series properties, constraints to development.

Groundwater Resources—nature of water-bearing formations, recharge rates, sustainable safe yields, locations and depths of existing wells, quality.

Surface Water Resources—drainage basins and sub-basins, named and unnamed water bodies and watercourses, regulatory classification of water bodies, flow regimes, water quality data and evaluation, identification of existing permitted discharges to surface waters, long-term historical precipitation data or characteristics.

Terrestrial Communities—spatial arrangement of vegetative community types, vegetative species-abundance listings, wildlife species-abundance listings, records of threatened and endangered plant and animal species.

Aquatic Communities—nature of aquatic habitats, species-abundance listings for aquatic macro-invertebrate and fish communities, ecological indexing of community data.

Environmentally Sensitive Areas—identification of wetlands, floodplains, sensitive coastal, riparian or desert ecosystems, steep slopes, stands of mature vegetation, aquifer recharge areas, areas of high water table, areas of rock outcrop, prime agricultural lands, and mines. Identification of existing protected areas (e.g., national parks and forests).

Air Quality—regional quality and trends, data from local monitoring stations, reported exceedances of standards.

Sound Levels—existing sound levels, sources of sound.

Land Use—existing patterns of land use in region, regional planning for future use, zoning.

Demography—censused or estimated population, recent trends and projections for future population.

Socioeconomics—economic and social structure of communities, tax rates, characteristic types of development.

Infrastructure Services—nature and status of human services such as police and fire protection, hospitals, schools, utilities, sewage, water supply, solid waste disposal.

Transportation—layout and function of existing roadways, railways, airports; existing and projected capacities and demands.

Cultural Resources—location and characterization of identified cultural resources (archaeological, paleontological, historical, cultural, landmark), potential for unidentified resources to be present in project area.

General Guidelines:

- You are not writing an environmental encyclopedia! Provide only baseline information needed to assess the potential environmental effects of your proposed activities.
- Be guided by national environmental policy or Environmental Action Plan(s) and by the special or unusual characteristics of the locations affected. For example, in one country, genetic diversity and maintenance of indigenous crop varieties may be important; in another, preventing land degradation or soil erosion may have special value.
- Consider what is ecologically or culturally unique, unusual, or sensitive. Consider what regulations or laws might apply. For example, are there special prohibitions on building in or filling wetlands?
- Obtain some information about all the locations associated with each activity and its related actions, as noted in IEE Section 1 above. For example, if a project or activity requires an access road or a utility line to a site or a borrow pit, relocation of families to another place, off-site disposal of waste, etc., it may be appropriate to describe all locations that will be affected by the proposed activities.

"You are not writing an environmental encyclopedia"

Provide only useful and relevant information.

IEE Section 3: Evaluation of Activity/Program Issues with Respect to Environmental Impact Potential

Identifying potential impacts requires application of **science** and **experienced judgment.** Although scientific methods should be used whenever possible, there are often limitations due to inadequate data, complex relationships, and limited time and resources. Therefore, seeking the input of knowledgeable local experts and applying informed judgment are essential; where these are lacking, simple analysis and logical reasoning are useful.

You are advised to adopt the same organizational framework for IEE Section 3 you used for IEE Section 1, so that reviewers can easily refer back to the activity descriptions.

IEE Section 3 *describes the impacts for each activity, using the same organizational framework you adopted for IEE Section 1*

If an activity has no potential impact, or a component may be a categorical exclusion, briefly note this.

Construct List of Potential Impacts

You may wish to use one or more simple *checklists* to help you identify potential environmental impacts. Sample checklists are found in Annex E. No checklist is perfect. Each is meant to help stimulate good thinking and planning about your activities. You are encouraged to create your own for the specific activity or program under review. Checklists offer the advantage of simplicity in gathering and classifying information necessary for assessing environmental impacts. The technique is a structured way of help you begin to organize information, identify potential environmental impacts, think about possible mitigation options, and make tentative conclusions on the extent of environmental impacts.

Table 4.4: Example of a project impact (or Leopold) matrix for a roads project

Environmental Components:	Physical environment											Biological environment									Social environment							
	Agricultural lands	Soil erosion	Slope stability	Energy/mineral resources	Surface water quantity	Surface water quality	Ground water quantity	Ground water quality	Air quality	Noise	Aquatic eco-systems	Wetland eco-systems	Terrestrial eco-systems	Endangered species	Migratory species	Beneficial plants	Beneficial animals	pest plants	pest animals	disease vectors	public health	resources/land-use	distribution systems	employment	at-risk population	migrant populations	community stability	cultural/religious values
Project Components																												
I. Project Planning & design																												
Obtain geo-mechanical investigations																												
Obtain groundwater investigations																												
Design basic road route																												
Determine excavated road materials locations (where?)																												
Determine borrow pits quarries – where?																												
Planning of disposal site locations																												
Planning of drainage systems																												
Land surveying																												
II. Construction																												
Clearing of top soil																												
Disposal of removed vegetation																												
Excavation of embankments																												
Rock blasting																												
Road camp management																												
Putting down base material																												
Mining, crushing, and transport																												
Construction of concrete drainage systems																												
Construction of erosion control structures																												
Asphalt works: production, transport, filling																												
Land survey																												
Bridge construction																												
III. Operation & Maintenance																												
Preventive soil erosion measures: planting grass and shrubs																												
Winter maintenance activity: salt and snow application																												
Maintenance of drainage systems																												
Fence maintenance																												
Road patching																												
Maintenance of road signage																												
Pay toll facilities&management																												
Commercial facilities impact																												
IV. Decommissioning																												
Old road sections																												
Reclamation of quarries and excess material landfills																												
Abandonment of excavated road material																												
Abandonment of old asphalt and concrete materials																												

The matrix should be filled in with symbols which indicate (1) the size or extent of any impact, AND (2) whether it is adverse or beneficial. Example:

Adverse impacts		Beneficial impacts
×	Negligible or non-existent	•
✕	Moderate	●
╳	Large	⬤

A "**Project Impact Matrix**" (also called a Leopold Matrix, Table 4.4) is *highly recommended* as a means of organizing your thoughts. Typically such a matrix has the various environmental components affected by the activity listed across the top. For each of these environmental components (physical, biological, socio-cultural, economic), you indicate if some input action during planning and design, construction, operation, and cessation of useful life could affect one of the environmental components. (see Annex E for an example of a completed matrix)

Impact matrices are *highly recommended.*

Once you have organized your activities by phase (planning, construction, operation, end of useful life) and bearing in mind the characteristics of the environment you noted in IEE Section 2, determine how each activity might affect some environmental component, e.g., aquatic ecology, soils, topography, water quality, flora and fauna, etc. You will need to focus on issues of importance. It is not always easy, even given the right data, to appreciate the various and often subtle ways in which certain project activities can affect the environment.

Identify and Consider the Implications of Classes of Impacts
Using the information you developed and the description of the affected environment, determine what types or classes of impacts may apply, as defined below.

- Determine direct impacts first, e.g., clearing land means loss of vegetation. A new or improved road means new or additional traffic.
- Consider the *implications of each direct impact to arrive at indirect or induced development impacts*. Indirect impacts are caused by the action, but two, three or four steps down the line from direct impacts, occurring later, or in different locations. (See box 4.F.)

  Use the literature available to see how you might link direct impacts to secondary, tertiary impacts, etc. For example, does development of a site mean that more people are attracted to an area, resulting in population growth, or will the clearing be so extensive or in such a sensitive zone that an important habitat will be destroyed.
- Distinguish between short-term or temporary, and long-term impacts. Although construction-related impacts are often short-lived, some impacts may occur during construction that are long-term with permanent implications, e.g., construction activities that alter the hydrology of a wetland.
- Distinguish beneficial impacts from adverse impacts, recognizing that where human groupings are concerned, impacts beneficial to one group may be adverse to another.
- Consider the ***potential for cumulative impacts.*** These are impacts that result when the impacts of your actions are added to the existing situation or to the effects of other reasonably foreseeable activities likely to take place ***regionally or over time***. For example, cumulative impacts can result from individually minor but collectively significant actions, e.g., continuing forest clearing for agriculture, or the addition of another access road. This is

Box 4.F
Indirect impacts: the example of a dam

Consider the following example of a chain of impacts associated with a dam:

The dam could result in reduced water flow downstream

Decreased water flow results in increased aquatic vegetation growth,

Denser aquatic vegetation tends to support denser populations of aquatic snails (some of which are vectors of schistosomiasis)

Higher population of disease vectors results in the potential for increased incidence of this disease by water users.

Thus, in this example, the indirect health impacts of the dam clearly need to be taken into account.

The vegetation growth can be called a secondary impact, the growth of snails a tertiary impact, etc.

particularly the case in countries with severe population pressures on land, water and energy resources. The activities you are proposing may be only one of many being carried out, or likely to be undertaken in the area by a variety of organizations or agents with varying objectives and sources of support. Promoting area-wide environmental management plans and environmental analyses can be very important in mitigating adverse cumulative effects. You probably will not be able to mitigate the effects of activities for which you are not responsible. Nevertheless, where feasible, you should try to **coordinate your activities** with others, help others to recognize potential impacts of their activities, or play a role in fostering an environmentally sound overall development plan.

- Consider what you said about the future context of the activities, i.e., the future no action alternative. **Compare** the expected impacts to that, not just the current baseline situation.

To write Section 3:

1. List potential impacts

2. Systematically consider the list by class/type of impact

3. Predict the impacts

4. Judge their significance

Predict and Characterize Potential Impacts
Identify the nature of the changes in environmental conditions that are caused by the proposed action. Doing so requires an understanding of *cause-and-effect relationships*. Environmental impacts will have a number of distinct, but linked, characteristics, which should be considered to give an overall picture of the anticipated changes due to the project. Use the list in Box 4.G to help predict the nature of the identified impacts. In using the list of impact descriptors, consider especially effects on human groups. Also consider gender equity. Who is affected by the magnitude, direction, extent, duration, or frequency of impacts? Try to make your impact indicators as quantitative as possible. Define your terms for the reviewer and try to avoid words like minor, moderate, major, etc.

It is a good idea at this point to again compare the impacts of the proposed action with the no-action alternative[11] and any other alternatives to the proposed action. If the proposed action seems to have the biggest set of adverse impacts, *consider these additional alternatives*. Consider reducing the size of the activity, changing its site or substituting another type of activity that could achieve a similar objective. Note: Consider again whether there are alternatives that have less impact, including possible sets of mitigation measures for each alternative. (See IEE Section 4 for more ideas.)

Judge the Significance of Impacts
Significance of a predicted impact depends on its *context* and *intensity*.

- **Context** varies with the setting. For example, the loss of one hectare of park in an urban setting may be more significant than the same quantitative loss in a more rural setting, unless that hectare is habitat for an endangered species (or belongs to you!). A new or rehabilitated road in an urban area could be far less significant than the same road in a remote or wilderness setting.

[16] It is important to stress the role of the no-action alternative because it serves as a baseline against which other alternatives can be measured. When the environmental consequences of the action alternatives are weighed against their projected benefits, the no-action alternative can sometimes be the best one.

- **Intensity** depends on the degree to which an action:

▪ affects public health or safety ▪ affects unique characteristics of an area (culturally, archeologically or historically important resources, parklands, prime farmlands, wetlands, wild and scenic rivers, ecologically critical areas, etc. ▪ is likely to be highly controversial	▪ is highly uncertain or involves unique or unknown risks ▪ establishes a precedent ▪ adversely affects nationally defined historic places ▪ adversely affects endangered or threatened species or habitat and the like; or ▪ is irreversible

Thus, determining "significance" involves a judgment, tempered not only by applicable national or international laws protecting the environment, but also by societal perceptions of importance. One way to judge significance is by considering the specific USAID or host country regulations, international conventions, or policies that say "x" is significant, or where standards exist that are not to be contravened. (For more detail, see 5.4.4 How do I determine whether the scale or magnitude of my activities may result in significant effects?")

Box 4.G:
Characteristics of environmental impacts

Typical *descriptors* used in identifying environmental impacts include:

Magnitude: the absolute or relative change in the size or value of an environmental feature. Uncertainty is likely in forecasting the magnitude of change, and some upper and lower estimates may need to be given.

Direction: the impact will represent a beneficial or adverse change. It is therefore important to know the direction of the impact as the beneficial impacts are welcome. It is the adverse impacts which are cause for most concern.

Extent: the area affected by the impact — e.g., in hectares of productive agricultural land or kilometers of river. A distinction here between on-site and off-site impacts is often useful.

Duration: the time period over which the impact will be felt. Some impacts may be very short term (i.e., during construction), some may occur over a number of years, and some may be permanent. It is often desirable to specify duration in terms of short-term (i.e., 1 year or less), medium-term (i.e., 1 to 10 years), and long-term (i.e., more than 10 years).

Frequency: refers to the *return period* for impacts which will recur over and over again—e.g., seasonal water quality problems. Return period can often be specified by interval—e.g., annually or less, 1 to 10 years, 10 to 100 years.

Reversibility: refers to the permanence of the impact. Several distinctions are possible here. Impacts may be reversible by natural means at natural rates, or be reversible by various forms of human intervention at reasonable costs, or be, for all practical purposes, irreversible. Irreversible impacts are likely to be more severe as this assumes permanent damage to the environment.

Likelihood of Occurrence: refers to the possibility of a particular impact occurring as forecast. Here, an estimate is made about how certain the impact prediction is, given the limitations of environmental science. Again, establishing categories of analysis such as "definite," "probable" and "possible" may come in useful if they are well-defined.

(adapted from Takawira, 1995)

4.5. Step 4: Consider recommended threshold decisions

After writing the basic environmental analysis, you must consider the threshold decision(s) the IEE will recommend to USAID. Again, the IEE recommends a threshold decision for EACH activity it covers. Each recommendation MUST be supported by the analysis presented in the IEE, as detailed below:

- A **negative determination without conditions** indicates that the activity is routine and is expected to have no significant effect on the environment. (As discussed above, significance is a matter of judgment, based on context and the intensity of an action) If a negative determination without conditions is recommended, section 3 (evaluation of potential environmental impacts) must clearly reflect the low-impact nature of the activity.

- A **negative determination with conditions** indicates that, with appropriate mitigation and monitoring, the proposed activity will produce no significant harm to the environment. Mitigation and monitoring might produce this result in one of two ways:

  1. any adverse impacts that occur will be mitigated
  2. monitoring will identify adverse impacts before they become significant, and project implementation will be adjusted to prevent significant harm from occurring.

  Absent those mitigation and monitoring conditions, the implication is that a positive determination would result. If there is any confusion or doubt about whether to include conditions, the prudent decision is to select a "negative determination with conditions," then specify good environmental practices and mitigation or monitoring of impacts (see Box 4.I).

- A **positive determination** indicates that the activity has the potential for creating significant, adverse effects on the environment. A positive determination means that an IEE alone is not sufficient to assess and address the environmental concerns raised by the proposed activity, and an EA or PEA is required. The affected activity cannot proceed until the EA is completed and approved, although normally the other activities in the project or program may proceed once the IEE is approved.

Box 4.H
EA versus PEA

If the activity is one of a kind, then a project-specific EA is suitable. If there are many similar activities either within a particular program, or where several USAID Partners have similar activities, a PEA might be more applicable. Additional information on PEA preparation is provided in Annex C. If the activity directly affects the U.S., the global environment, or areas outside the jurisdiction of a country, an EIS (Environmental Impact Statement) will be required.

Box 4.I
Examples of Environmental Determinations

Example 1: Health post construction.
If as part of a health activity, you were building a small health post or some other facility where health care and information were provided, your analysis would need to show that building and operating this facility posed no special environmental problems (e.g., no wetlands filled, no habitat for endangered species affected, no unusual erosion or flooding conditions, etc.), and that the health post could be built using standard engineering and construction practices. Assuming this were the case, the health post would qualify for a **negative determination without conditions.**

If, however, the health post's construction had some unusual siting conditions and the site could not be changed to avoid these conditions (e.g., unusual need for slope or soil stabilization, specialized erosion control, or need to divert a drainage course), then a **negative determination with conditions** would apply. If this health post were to be testing blood, using syringes, creating biohazardous waste, etc., then a **negative determination with conditions** would also apply. The conditions would specify how the adverse effects would be minimized or otherwise mitigated (e.g., how biohazardous wastes would be safely disposed of), so as to avoid environmental harm or risks to human health.

Example 2: Well construction.
If wells were to be developed, and they were shallow wells in an area with a sufficient aquifer and standard "good practices" for digging wells were to be followed, a simple **negative determination** would suffice. The IEE would affirm that cumulative impacts on the environment should not be a concern, that "best practices" are expected to suffice as mitigation measures, and would identify any other appropriate measures that have been incorporated in the design.

If there were unusual conditions, such as the need to use major construction equipment to bore hundreds of feet into the ground, questions about the sufficiency of the aquifer or a potential for saline intrusion, then a **negative determination with conditions** related to construction methods, water extraction rates or monitoring would likely apply.

Example 3: **Potentially high-risk activity**
Consider an activity on the list that might trigger an EA (e.g., application of general-use pesticides, or construction of dams of 50,000 cubic meters capacity).

- If the scale and magnitude of potentially adverse impacts could be avoided or sufficiently minimized through design, or mitigation and monitoring measures, then the IEE would likely request a negative determination with conditions.
- However, if the IEE indicates that significant impacts are still likely even with best practice design, mitigation and monitoring, then a positive determination is necessary.

Example 4: **"Umbrella IEE"**
If an "umbrella" IEE is used (Annex G), the determination is by definition a **negative determination with conditions,** the conditions being the subsequent environmental screening and review appropriate to the development programs involved. Also normally included in the "umbrella" IEE language would be a requirement for demonstrated capacity in sound design, environmental review, mitigation and monitoring and "best practices." This requirement may be addressed in part through required training for USAID partners, and incorporation of specific language in Partner Subgrant or contract agreements.

See Chapter 2 for examples of applicable **categorical exclusions** and high-risk activities likely to result in **positive determinations.**

Positive determinations *should be made in consultation with the relevant USAID environmental officers.*

A positive determination automatically requires preparation of an EA. This implies a substantial commitment of resources and time (often ranging from six month to more than a person-year). Thus, a positive determination should be made in consultation *with the relevant USAID Environmental Officers*, who need sufficient information from the USAID Partner in making this decision. In the case of a positive determination, the IEE should clearly support this conclusion.

- A **deferral** indicates that no threshold decision can yet be reached, because of insufficient information.

Box 4.I provides short examples of types of decisions reached. In Annex D, you will find examples of approved IEEs. These illustrate how determinations are made in practice.

4.6. Step 5: Settle on recommended threshold decisions and mitigation and monitoring (write sections 4 & 5 of the IEE narrative);

At this point, you have reviewed the first three sections of the IEE narrative, and carefully considered the threshold decision(s) you will recommend to USAID. Now you must write these recommended threshold decisions into the IEE, document any applicable categorical exclusions you identified during screening, and document the mitigation and monitoring measures you are committing to.

Complete the summary table

Your first step should be to complete the summary table you started in Chapter 2 (Table 2.1). In the final column of the table (**Recommended IEE Threshold Decision)**, indicate the threshold decision you are recommending for each activity covered by the IEE.

Organize "recommended determinations" *in the same way as sections 1 and 3.*

IEE Section 4.1: Recommended Determinations (Threshold Decisions & Categorical Exclusions)

Organize this section to correspond with the organizational format chosen for IEE Sections 1 and 3.

In this Section, you should set out your recommended threshold decision for *each* activity whose screening result was "IEE required." (Again, the only possibilities are a positive determination, negative determination, negative determination with conditions, and deferral.) Review the specific language in Reg. 216 for negative determination(s) §216.3(a)(2)(iii) and for deferrals §216.3(a)(1)(iii)

- IF your screening identified some categorical exclusions, you must document them in this section. You should **provide the specific Reg. 216 language and citation** to justify these exclusions.
- IF you one or more of your recommended threshold decisions is a "negative determination with conditions," you should note briefly what mitigation and monitoring measures are considered "conditions." You will be able to expand on these in IEE Section 4.2

If screening identified some activities as CATEGORICAL EXCLUSIONS, *these are also documented in IEE Section 4.1*

IEE Section 4.2
Mitigation, Monitoring, and Evaluation.

The generic outline for the IEE indicates Mitigation, Monitoring, and Evaluation as one section. You can discuss the three topics together by activity under Section 4.2 or you can organize separate sections for each. In this discussion, only Mitigation and Monitoring (related to the IEE specifically) are treated. This assumes that the evaluation of overall effectiveness of mitigation and monitoring will be dealt with as part of your overall project performance monitoring and evaluation (M&E) framework.

The process of environmentally sound project development does not stop when project or program environmental effects have been identified or decisions have been reached. An environmental mitigation and monitoring plan (often referred to as an *Environmental Management Plan*) is part of the environmental documentation process and should be included in or annexed to the Reg. 216 documentation.

Identify Mitigation Options.
Mitigation is the purposeful implementation of decisions or activities that are designed to reduce the undesirable impacts of a proposed action on the affected environment. Mitigation is a general concept that may include the following list of categories:

- *Avoiding* impacts altogether by not taking a particular action.
- *Minimizing* impacts by limiting the degree or magnitude of the action and its implementation.
- *Rectifying* impacts by repairing, rehabilitating, or restoring particular features of the affected environment.
- *Reducing* or *eliminating* impacts over time by performing maintenance and preservation activities over the life of the action.
- *Compensating* for impacts by replacing or providing substitute resources or environments that are, or might be, affected by the action. (Compensation might include, for example, enhancing the ecological value of another wetland or protected area, if you have destroyed one. Or it might be the provision of replacement housing and land for relocated people. Generally, it is easier to provide compensation to people than it is to provide replacements or

compensation for the biophysical environment.) Note that providing compensation requires some estimate of the level of compensation provided. This is turn requires a methodology for *valuing* the environmental damage caused by the proposed activity.

- *Monitoring impacts* of an activity can be considered a form of mitigation when decisions contain uncertainty and monitoring becomes a form of agreement among affected stakeholders, to be used to help define a shared strategy for addressing future problems as they are identified.

Note that the mitigation categories above are arranged according to desirability. In other words, avoiding impacts is preferable to rectifying impacts or providing compensation for them.

When designing mitigation measures:

Plan for the cost and build into the budget. If too expensive, consider redesign

Identify who *is responsible for each aspect of mitigation.*

Elements of an environmental mitigation plan or management plan are summarized in Box 4.J.

Key issues to consider in developing your mitigation strategies
The most important issues to consider in developing a mitigation strategy center around cost and accountability:

- How costly are the mitigation measures relative to project cost? If they are more than ten percent of the cost, perhaps you should recommend redesign.
- What co-benefits, if any, are likely to result from the mitigation measures?
- Who will be responsible for design, implementation, and monitoring of the effectiveness of your proposed mitigation measures?

It is very important to incorporate any mitigation and monitoring measures in bids or tenders, if contracts for construction are needed as part of an activity. These could be construction-related mitigation measures (such as reducing soil erosion, protecting vegetation during construction, restoring a landscape, or ensuring sound environmental practices in a construction camp). They may include mitigation measures needed during operation (e.g., the methods employed to prevent contamination of water supplies in water and sanitation projects, or the disposal of medical wastes in health facilities.) They may also extend to measures that will need to be taken at the end of a project's useful life, or when infrastructure is finally abandoned or replaced, e.g., closure of old roads, quarries, wells, latrines, mines, etc.

In preparing your environmental documentation, you may not have the time or resources to assess or develop mitigation and monitoring measures for all potentially adverse impacts. Your Project Impact (Leopold) Matrix (Table 4.4) can be used to help identify those impacts most in need of mitigation and others which may be considered only as time and additional resources allow. (See Annex E for examples.) For instance, in a rural road project, impacts from water related erosion may require far more mitigation attention than the potential adverse impact from road traffic hydrocarbon emissions.

Box 4.J
Environmental Mitigation or Environmental Management Plan

A mitigation or environmental management plan consists of the set of measures to be taken during implementation and operation to eliminate, offset, or reduce adverse environmental impacts to acceptable levels. Also included in the plan are the actions needed to implement them, including monitoring. During the preparation of a mitigation plan, one should (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.

A mitigation or management plan should include the following items:

(a) identification and summary of all the significant adverse environmental impacts that are anticipated;

(b) description and technical details for each mitigation measure, including the type of impact to which it relates and the conditions under which mitigation may be required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;

(c) institutional arrangements—the assignment of specifics responsibilities for carrying out the mitigatory measures (e.g., responsibilities which involve operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training);

(d) implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans;

(e) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) provide information on the progress and results of mitigation; and

(f) integration into the activities' cost estimates and sources of funds for both the initial investment and the recurring expenses for implementing the mitigation plan.

To strengthen environmental management capability for implementation, most mitigation plans cover one or more of the additional topics identified below:

(a) technical assistance programs;

(b) staff development;

(c) procurement of equipment and supplies, and;

(d) organizational changes.

Specific links should exist for (a) funding, (b) management and training (strengthening local capabilities), and (c) monitoring. The purpose of the first link is to ensure that the proposed actions are adequately financed. The second link helps embed in the overall management plan the training, technical assistance, staffing, and other institutional strengthening needed to implement the mitigation measures. The third link is necessary to provide a critical path for implementation, to enable evaluation of the success of mitigation, and to serve as a means for improving future projects.

(Adapted from World Bank Environmental Assessment Sourcebook Electronic Copy (1991), by using keyword 'mitigation'.)

Identify Monitoring Needs
In addition to monitoring of key mitigation measures to determine whether they are achieving the intended result, there may be potential environmental impacts you are unsure of, or for which mitigation may or may not be necessary. These potential impacts are also candidates for monitoring. Certain mitigative measures may require periodic maintenance. These too are candidates for monitoring. Box 4.K describes basic elements of a monitoring plan.

Because monitoring can be a costly undertaking, consider:

- Is the monitoring needed?
- Will comparisons be made to the baseline situation, a control site/situation, or both?
- How often will the indicators be monitored?
- Who specifically will be responsible for the monitoring? What kind of expertise may they need?
- What will be the approximate cost (including person-days per month or year, if you can estimate that) for measuring each indicator? Can the mitigation and monitoring budget be sustained long enough to provide useful data?
- Can the indicators of mitigation effectiveness be derived from data already being collected? Could the data collected contribute to regional, national, or other monitoring efforts?
- Can the stakeholders benefiting from the activity be involved in or trained to perform any of the monitoring?
- How will the results be used and with whom will results be shared, either for information purposes or because action needs to be taken?
- How will this monitoring be incorporated into your overall monitoring plan or program?

Note:
for BDCHR activities, updates on mitigation and monitoring are to be included in the annual Environmental Status Report (see Chapter 3.2.)

What environmental factors and indicators are to be monitored?
Indicators used for monitoring need to be clearly identified and described during activity and monitoring plan design. The monitoring plan identifies and describes the environmental and natural resources parameters to monitor, such as pH, salinity, productivity, etc. It also identifies indicators or "proxies" to use to measure or estimate changes (presence of plants in a specific environment, plants with different tolerances to changes in soil fertility, exotic species, etc.). The selection of parameters to be monitored, as well as associated indicators, depend on the type of activities, and the impact of those activities on the environment, and the mitigation measures employed. If environmental monitoring specialists are not on staff, consider obtaining short-term technical assistance and use an interdisciplinary team approach.

Note that sample mitigation and monitoring tables *are presented in Annex E.*

The environmental mitigation and monitoring plan (or Environmental Management Plan) may be applied most effectively where it is directly linked to the Annual Workplan for a project or program and to annual budget planning processes.

Box 4.K
Designing an Environmental Monitoring Plan

Environmental monitoring plans differ depending on the severity of impacts on the environment, and on the kinds of environmental factors that need to be monitored. Plans should state clearly *how, by whom, and at what cost in human and financial resources* monitoring will be accomplished.

Monitoring components should describe how:

(i) monitoring will be accomplished to determine if mitigation is meeting expectations; and

(ii) other monitoring will be provided to serve as "caution lights" to inform activity implementers and communities of changes that may require additional mitigation (ideally an effort should be made to select indicators that measure both beneficial and adverse effects).

Effective monitoring plan development and implementation requires a participatory approach, especially in development settings where constraints on financial and technical resources may require innovative approaches to monitoring involving local communities, farmers, pastoralists, etc. Local involvement in monitoring can reduce overall mitigation and monitoring costs and create greater ownership and responsibility for Environmental Management Plans. The results of the monitoring should be provided to the USAID MEO and in some cases might warrant reporting to the host country institution in charge of the environment, e.g., if the monitoring were to detect overall patterns of degradation that warranted area-wide action or policy solution.

For more information on environmental mitigation and monitoring see USAID's *Topic Briefing: An Introduction to EIA* (available for download at www.encapafrica.org). Also of particular interest are the mitigation and monitoring tables contained in the *World Bank's Environmental Assessment Source Book - Volume II Sectoral Guidelines* (1991). Also explore the IAIA website home page at www.iaia.org.

The special case of water quality monitoring
Testing and monitoring for water quality has become an issue of increasing importance to USAID and USAID Partners. USAID and other donors, including the World Health Organization, are concerned about the frequent occurrence of health-threatening contaminants in rural and urban public water supplies. These contaminants include heavy metals like arsenic, as well as coliform bacteria, nitrates and nitrites. (See Box 4.L.)

***Potential water supplies** should be tested BEFORE water development programs are initiated*

Testing should include arsenic

Prior to initiating water development programs, USAID Partners should assess water quality, and take results into account in the design of water development activities. Monitoring also should be done to ensure future quality is maintained. A 1998 USAID official cable (98 STATE 108651) on testing potable water provides "supplemental guidance for conducting USAID's 22 CFR 216 Initial Environmental Examinations (IEE) and Environmental Assessments (EA) when funding activities involving drinking water." Reference to this cable is made in Box 4.L).

This guidance is under development as research continues on arsenic field evaluation and mitigation. You should consider the following questions:

- What should be tested? Where? The answers depend on factors that include, but are not limited to, the hydrogeological conditions of the area, nature of surface and groundwater flow patterns and quantities, or proximity to potential sources of contamination (sometimes many miles from the proposed water development activity).
- How frequently will testing need to be done? Is seasonal testing important?
- Will sample surveys suffice? Does every well need to be tested for everything? For example, if wells are all part of one uniform aquifer, in uniform geological formations, would one-shot sampling be sufficient? If the hydrogeology is known to vary, or if it is largely unknown, what should the approach be?
- How will testing be done? Who will do it? How much will it cost? Again these answers are shaped by hydrogeological conditions and proximity to known or potential contamination sources, but they are also determined by the context of geography and available human and financial resources. For example, what are the cost and labor advantages of conducting tests and analyzing samples in the field versus sending samples to laboratories? What are the advantages/disadvantages of kits versus lab work, taking into account factors such as reliability, ease and cost of transport, length of time required to receive and apply analysis results, etc.
- Whose water quality standards should be used? The World Health Organization's? The host country's? The U.S. Environmental Protection Agency's? Other?
- If testing reveals water quality is lower than agreed upon standards, what mitigative measures are available?

The preceding questions may be relatively easy to answer, or quite difficult. Answers must typically be developed on a case-by-case basis. There is no

one "requirement" for water quality testing—it's a matter of appropriateness. Do what makes sense based on local expertise and realism. Sampling about a half-dozen key parameters at the outset, and twice a year, or more often if called for, may in fact be a significant improvement over past practice and a major step in helping to improve the health and well-being of rural and urban populations. Remember to consult members of the community on their perceived problems with water quality and how the think they might best be solved.

More information and resources on water supply issues are contained in USAID's *Environmental Guidelines for Small-Scale Activities in Africa* (available for download at www.encapafrica.org). Seek advice, when appropriate, from your MEO, REO (if one exists in your region), or your geographic or BDCHA BEO.

Box 4.L
Arsenic Testing in Potable Water

Recent concern over arsenic was sparked by a situation in Southern Bangladesh and West Bengal, India, where very large rural populations have been exposed to elevated levels of arsenic from wells drilled over the last forty years, leading to increased incidences of poisoning. Naturally occurring high levels of arsenic in groundwater have also been identified in Mexico, Romania and several other countries. These occurrences are not associated with mining or industrial sources or with any particular geologic formation, so they were difficult to predict. Initial thinking is that these situations may be more likely to occur in areas with thick sediments such as deltas or deserts, or areas with current or former geothermal activity, but there is no reliable prediction model yet.

In general, USAID no longer undertakes large-scale well-drilling programs. Nevertheless, in those cases where USAID does fund potable water supply (either via construction of a new system or via restoring old infrastructure), prudent practice would dictate that environmental reviews carried out in accordance with 22 CFR 216 should include testing for arsenic in addition to the usual testing for coliform bacteria and nitrite/nitrate. Tests for additional contaminants should also be performed, as appropriate, when a nearby pollution source (e.g., industry, mining, heavy pesticide or fertilizer use) suggests that additional contaminants may be present.

There is no cause for undue alarm at this time because elevated arsenic concentrations are not anticipated at most locations. The USAID guidance has been issued to avoid potential problems and to resolve actual problems more effectively should they arise.

Should concentrations of arsenic exceeding the current drinking water recommendations be found in a location, a dilemma may arise as to whether to allow people to continue to use polluted traditional water supplies or to use USAID funds to provide water tainted with arsenic. Options will depend upon how the water is used (drinking and cooking, irrigation, livestock watering, or industry), the actual concentration of arsenic in the water, and the duration of use. Should such a dilemma arise, the Mission should consult the Public Health and Nutrition (PHN) Center in the Global Bureau and other partners as well as the potentially affected populations to find a workable resolution.

USAID is working with the U.S. Geological Survey to address this problem. Close coordination is recommended among the field, the responsible Bureau Environmental and Health Officers and USAID Partners (including PL-480 Title II Cooperating Sponsors) that provide wells, as G/HPN's additional guidance on appropriate sampling and testing for arsenic is being developed. This coordination is also recommended to ensure appropriate analysis of this important issue in an activity's 22 CFR 216 documentation.

The Global Bureau's Centers for Environment and PHN will continue to monitor current research and field evaluations aimed at mitigation of arsenic in water supplies. Your input and ideas on developing guidance that is on the one hand, sensible, and on the other, protective of public health, are welcome. Please send input and ideas to Jim Hester, PPC/ENV, at (202) 712-5176.

(USAID's cable communication Agency-wide, State 108651 16 June 1998)

IEE Section 5 *contains:*

1. The completed summary table, listing all activities, screening outcomes, and recommended threshold decisions.

2. A brief abstract of the IEE.

IEE Section 5: Summary of Findings

Include your Summary Table of activities in this section. (Again, this is the table you began in Chapter 2 to record your screening results (Table 2.1), and further filled out under Step 5 of this Chapter.)

Summarize the findings, typically using the same organizational scheme adopted for Section 1. Limit the text to a brief description of the activity, the nature of the impacts (if any), the recommended determination, the rationale for this determination, and applicable mitigative measures and monitoring.

4.7. Step 6: The Environmental Compliance Facesheet

Completing the Environmental Compliance Facesheet is the last step in the IEE process. The first page of the Facesheet is self-explanatory, and simply summarizes the following information:

- Basic activity or project information
- Whether the Facesheet supports a new activity, or whether it is submitted in support of a modified activity (and thus amends preexisting environmental documentation)
- Screening outcomes
- Recommended IEE determinations (including Categorical Exclusions)

The second page of the Facesheet contains a one or two paragraph summary of the activities covered by the IEE and recommended threshold decisions. This is based on section 5 of the IEE. The Facesheet summary can simply reproduce IEE Section 5 in its entirety, if Section 5 is short enough.

Chapter 5.
Frequently Asked Questions about Environmental Compliance

The following are questions most frequently posed by users of the *Environmental Documentation Manua for USAID Title II Cooperating Sponsors,* the antecedant document to this EPTM. These questions arose repeatedly when PVOs and other food aid professionals began the process of understanding and responding to USAID's Environmental Procedures. To assist in cross-referencing, the questions are organized thematically. The questions themselves, paraphrased and combined, are in bold face type.

5.1. Understanding the rational for compliance

5.1.1 Why is compliance with USAID environmental regulations required?

The requirements are Congressional in origin, but the rationale for their existence is a practical one — taking environmental factors into account makes good development sense. Activities, projects and programs have their sustainability enhanced through environmental review and assessment at the design stage—and that is what the regulation is all about.

5.1.2 What is Regulation 216

Regulation 216 is the commonly used shorthand term for the Agency's Environmental Procedures, which are codified in the Code of Federal Regulations (CFR) as 22 CFR Part 216 (also referred to informally as Reg. 216 or Reg. 16).

5.1.3 What happens if an activity is undertaken without adequate environmental analysis

USAID and those involved in the certification process are open to potential lawsuits, and the good name of all those involved is jeopardized. Most important, without environmental review and underlying environmentally sound design, an activity may not yield the results sought and may not be sustainable. Furthermore, USAID funds cannot be obligated unless activities receive prior Reg. 216 concurrence from the appropriate BEO.

5.2. Responsibilities and timelines

5.2.1 What is the timeline for Environmental Compliance?

- Environmental documentation should begin as soon as possible, and be completed expeditiously.
- All Program or Project Proposals or Proposal Amendment submissions should include an IEE or Categorical request cleared by the Mission Director or his/her designee (typically an MEO), unless an IEE or Categorical Exclusion for the respective project has already been approved by USAID.
- All BDCHA annual program or project reviews should be accompanied by an Environmental Status Report as outlined in Section 3.2 of the EPTM.
- USAID will continue to offer training in environmental analysis for USAID partners and their contractors and collaborators.

5.2.2 Who does what?

Partners: USAID Partners will prepare an environmental analysis of their activities, which will form the basis of the appropriate USAID environmental documentation. In addition to the EPTM, Partner staff can draw on outside expertise (MEO, REO, local and U.S. consultants as needed). The environmental documentation is incorporated by the Partner in the design process.

Partners should seek Mission review and clearance on their environmental documentation prior to official submission of proposals to Washington. The same is true for Environmental Status Reports and IEE/Categorical Exclusion Amendments. Environmental documentation, marked draft, may be submitted informally through the Mission to the Bureau Environmental Officer. If environmental documentation is submitted with a proposal without having been cleared by the Mission, the Partner should insure that it is clearly labeled as "**DRAFT—Not Yet Cleared by Mission"** and **dated** (be sure your computerized date mode is not set on automatic update, so that you are able to track possible future revisions). All draft Reg.216 documentation must be returned to the Mission for required clearance and the Mission may request revisions to ensure that Mission objectives, consideration of local conditions and consistency with environmental documentation of other Partners in the same country is achieved. Partners first submit environmental documentation to the USAID Mission Environmental Officer. The MEO obtains Mission clearance, and submits to the REO, if one exists and to the BEO.

USAID Missions: The MEO assesses information, recommends how an activity is to be classified, and works with the Partner to finalize documentation. Thus, it's important for the Partner to discuss preparation with the Mission before assembling the documentation. It is common practice for the MEO to clear on the documentation and for the Mission Director to approve it. The Mission Director or his/her designee must clear the IEE or Categorical Exclusion request prior to final environmental documentation approval by the BEO at USAID/Washington. In the case of

Title II Environmental Documentation, the USAID Mission Food for Peace Officer should also clear and the documentation forwarded to the BDCHA BEO for approval.

In a Mission's comments and/or approval cable on a proposed program, project or amendment, the Mission should state whether it concurs with the environmental documentation.

USAID/Washington: The IEE must receive BEO concurrence as the last step in the approval process from the USAID BEO. USAID Partners are free to send the Environmental Officer informational copies of environmental documentation, and to seek the guidance and expertise of the BEO during the IEE preparation and project design process. However, since the **IEE/Categorical Exclusion or IEE Amendment must first be cleared by the Mission Director or his/her designee prior to final approval by USAID/Washington,** all drafts circulated for comment and/or information to the BEO or the REO should be clearly marked as such.

Following review of the IEE by the Mission and USAID/W, the USAID Partner may be asked to modify current activity designs or budgets. An EA (a more comprehensive analysis than an IEE) may be required if the IEE recommends a Positive Determination, i.e., when significant (adverse) environmental consequences have been identified in the IEE and the approval process. It is a good idea to give the BEO a “heads up,” and to keep the BEO in the loop, to avoid surprises and help answer specific questions.

5.2.3 What if the IEE is written, but the activity is subsequently changed or eliminated from the proposal?

Sometimes IEEs may be written for sets of activities that are modified or even eliminated from a proposal (if major changes are being made) during formal project or program approval. What happens if the IEE were to be approved prior to approval of the final proposal, thereby making it inconsistent with the program or project that will actually be implemented?

The Partner must take responsibility for making the necessary environmental documentation revisions and seeking necessary approvals and concurrences. Review again Section 3.4 of the EPTM regarding roles and responsibilities.

If an IEE has been submitted and approved by the MEO and the BEO, but there are changes to the proposal, the Partner’s point person for the proposal should inform the Partner’s staff responsible for Reg. 216 documentation preparation in the field (and the BEO and MEO) that a revised IEE must be prepared to accord with the final proposal document. If the proposal gets revised in Washington, then the Partner must work out a mechanism whereby the BEO is informed and sends the IEE back to the Mission for reworking with the revisions of the proposal.

In any case, a note regarding the revisions needed and made should accompany any re-submission and the date and sequence of the submissions should be clearly noted for the MEO’s and BEO’s information.

5..2.4 Is proposal approval contingent on environmental approval?

Specific questions under this topic include: Is a proposal approved before the environmental documentation is approved, or only after the approval of environmental documentation (this would likely be an IEE or Categorical Exclusion)? Is obligation of funds dependent on approved environmental documentation? Could a proposal be approved, but funds not be obligated until after environmental documentation is approved?

In principle, fully approved environmental documentation is to be submitted with the proposal or Project or Program Amendment , because **future obligations cannot be made until the documentation is approved** and approval of the proposal or amendments will not be possible unless there is suitable environmental documentation.

5.2.5 Can EAs be funded from DAP monies?

Specific questions under this topic include: What if I do an IEE and submit it with my proposal , but the IEE recommends a positive determination indicating that I will need to do an EA? Can I use the monies that I might get via that proposal to expend on the EA process so that I would be in compliance?

Partners must defer activities affected by the EA, but would be able to implement other approved activities. Partners could request a Categorical Exclusion to conduct the study itself, per 22 CFR 216.2(c)(iii). If an EA is needed, partners should budget for it, by requesting 202(e) funds. It is recommended that provision for IEE-related environmental review be made as a line item in the monetization component's budget as submitted with the project or program proposal. In ex post facto cases, budgeting would require a budget amendment proposing a shift of funds from one or more line items to an IEE/EA line item. An explanation of how the shift was made, without compromising the schedule of activities the budget was originally designed to support, should accompany the amendment request (see also Section 5.6.1).

5.2.6 Must environmental documentation be redone each time a project or program amendment is submitted?

Although amendment submissions need not include the previously approved environmental documentation (e.g., an IEE), if the documentation has already been approved by USAID and these activities have not changed. However, annual Environmental Status Reports should be prepared on all programs and projects. In 2-10 pages, the Report discusses the status of the mitigation plans and environmental monitoring. The instructions for preparing the Environmental Status Report help you determine if the previously approved environmental documentation needs to be amended because of changes in the activities mitigation plans or monitoring. The format and instructions are found in Section 3.2.

Note: If a Partner's submission contains changes that require a Project or Program Amendment, it will also include amended Reg. 216 environmental documentation.

5.2.7 Why does environmental documentation require USAID/Washington concurrence and clearances?

USAID is trying to empower Partners and USAID/Missions to make decisions for themselves, and increase their responsibility for compliance with Reg. 216. However, by statute, USAID cannot fully delegate authority for environmental decision-making from the BEO to the field under the concurrence process mandated by Reg. 216. The regulations cannot be changed internally by USAID, since they are established Federal Regulations that can only be changed by a process that involves formal notifications, public review, public comment and publication of new draft and final regulations in the Federal Register. Nevertheless, the approval and concurrence process should not cause delay in most cases. The BEOs typically have quick turn-around times for decisions.

The regulations stipulate that a threshold decision about the significance of environmental impacts and the appropriate level of documentation must have the concurrence of the BEO in USAID/Washington. The BEO will either concur or request reconsideration by the officer who made the threshold decision. Differences of opinion between these officers are submitted first to the Agency's Environmental Coordinator for resolution, or (in rare circumstances) are passed on to the Assistant Administrator (216.3[a][2]).

BEO concurrence provides a check against inadvertent error, as well the possibility that an implementing office might downplay environmental issues to expedite an activity. Furthermore, many Missions do not have staff fully conversant with the regulations and are not able to provide the level of knowledge required. It is the BEO's job to worry about the regulation and the environment.

5.3. Environmental compliance documentation

5.3.1 If a program or project contains several activities, do I submit separate environmental documentation for each activity?

Typically, no. You can cover several activities in one document. The EDG and additional guidance in this manual on compliance (see Sections 3 and 4) explains how to do this. If the proposal consists of a suite of different activities, such as agricultural credit, irrigation, and/or road building, it may make sense to organize Sections 1.0 through 4.0 of the IEE under the topical activity-cluster headings so that the sets of activities are analyzed separately by sector (thematic area). Thus, the sections would be repeated for each set of activities, and IEE Section 5.0 and the Facesheet summary would become the synopsis of all the parts. See also the response to Question 5.4.2.

5.3.2 What does the Partner do if the activities are not known in detail at the time the proposal is submitted?

Consider a deferral or preparing an "umbrella" IEE. Annex F provides information about preparing environmental documentation that can be submitted with the proposal when activities have not yet been designed in full. Annex F also provides guidance on how to do subsequent screening and environmental reviews of these activities as they are designed, without requiring that each submission receive USAID/Washington approval.

5.3.3 If deferrals are not encouraged, why are they provided as an option?

Deferrals merely postpone the inevitable, but they do buy time and they do allow you to separate out those activities that can proceed from those that cannot. Deferrals may be unavoidable in certain situations where some proposal elements need further definition (e.g., specific location, nature, and time), before they can be reviewed environmentally. Decisions on implementing those elements are also deferred, and **no commitment of resources should be made.** Multiple-activity proposals typically have a combination of multiple determinations, of which the deferral needs to be an available option. **In situations where a deferral might be appropriate, a Negative Determination with Conditions involving screening and review processes is an alternate option** (again, see Annex F).

5.4. Environmental Analysis

5.4.1 Is there a recommended way to organize proposal activities for the purpose of environmental decision making

Drawing on the sets or suites of activities and interventions in the USAID Partner's proposals, and preferably parallel to the format of your performance-monitoring plan and strategic framework, you could identify the nature and scale of the activities, geographic distribution, and relative proportion of resources devoted to the activities. Environmental decisions are ultimately site-specific and activity-specific, so having a sense of locations and activity characteristics will allow the overall potential for environmental impacts to be evaluated as well as the document preparation effort.

You may organize this information in a table (seeTable 2.1). Note that this preparatory exercise provides an overview, so only ballpark figures are needed to arrive at a reasonably accurate order of magnitude. With this information in hand, use the EPTM. The format presented is intended as a guide only, and not meant to be the only way to present this information. Modify yours if necessary as long as the essential headings and their intent are addressed. Subsequent steps in preparing the documentation may require other tables and report formats appropriate to the nature and location of the activities.

5.4.2 If a proposal consists of a large number of different activities, what is the best way to organize the IEE?

That is, is there a way to organize the IEE to minimize repetition and make it easier to both prepare and review?

For large multi-sectoral programs it might be easier to retain the Environmental Compliance Facesheet and Summary as is, but as a means of trying to simplify the documentation process, it is suggested that the Partner consider preparing a series of documents that follow the IEE format but with each sector standing alone, e.g., roads, agriculture, health, soil conservation, etc. It is therefore recommended that the writeup for the first sector contain relevant background to the sector and program (without describing the whole program). If there are portions of IEE Section 1 *Background and Activity Description* that are applicable to other sectors, they do not need to be repeated in the next sector's documentation, but can be cross-referenced. This also may be possible for IEE Section 2 *Country and Environmental Information* with similar cross-referencing. Go to EPTM Sections 4.2 and 4.3 for a more detailed discussion of this issue.

5.4.3 When is programmatic environmental documentation best (vs. documenting each individual activity)

Environmental analysis is needed prior to and as input to any IEE, EA, or PEA. The approach to the conduct of environmental analyses depends on whether the proposed activities are generic or site-specific. Highly site-specific activities, such as an irrigation intervention, require analysis specific to the site within a "classic" IEE or as part of a post-IEE environmental review conducted under an "umbrella" IEE (see Question 5.3.2). If the scale of the activity is "significant" (a positive determination), it normally requires an EA. A group of similar activities in a region can also be treated within the framework of a PEA. More generic activities, such as soil erosion and terracing in several locations within a particular area, may be analyzed as a group within a "classic" IEE or, if an umbrella IEE has been prepared, similarly grouped and analyzed as part of a post-IEE environmental review. As in the example of highly site-specific activity(ies), activities considered "significant" would normally require an EA or a PEA.

5.4.4 How do I determine whether the scale or magnitude of my activities may result in significant effects?

Reg. 216 is unclear as to what scale or magnitude of a proposed action of group of actions is considered significant and therefore would trigger an EA. For example, in interpreting Reg. 216 compliance requirements, certain essential specifications as to what constitutes a "large" vs. "micro" dam, "major" irrigation project, etc., are not given. Without this information, how can the preparers of environmental documentation make determinations on their activities? More detailed specifications seem to be needed.

The very purpose of an IEE is to provide initial recommendations regarding a threshold decision, based on environmental analysis. Also, remember that

coming to conclusions about what constitutes “significant” scale or magnitude for activities is often a matter of judgment among professionals. Scale and magnitude decisions often involve reasoned subjective decisions rather than objective science, depending on the environmental context, e.g., the same intervention near a protected area may be “significant” but “not significant” in another location. Therefore, it is often useful in making such decisions to form and involve a team with varied environmental expertise in these decisions.

In some cases, a USAID Mission may take responsibility for acquiring specifications and data already developed (for example, by the host government) and for identifying parameters needed to assist USAID Partners in making their determinations. Although these kinds of specifics may not currently be available, the Partners can still proceed with an environmental analysis, begin the documentation process, and identify mitigation and monitoring measures to be taken to ensure that the activity is optimally sustainable and will not cause unintended harm to the environment.

In addition, the environmental analysis serves as an informal process for identifying mitigation measures linked to activity implementation. This process will give you a sense of the scale and magnitude of potential impacts. Begin the environmental analysis by simply listing all activity categories, and focus the collection of information on those activities that you consider to be not categorically excludable. That information will be essential for the IEE. If you believe your activities will have no significant (adverse) effects, provide the rationale in your IEE.

Remember that the umbrella IEE process (which provides for a Negative Determination with conditions) may be used if you have a large set of multiple activities and most of your activities are small-scale and not yet defined in much detail. In the course of refining other environmental review tools for country-specific situations, including country-specific IEE and post-IEE Environmental Screening Forms under an “umbrella” IEE process, you should expect to develop additional specifications for what locally are considered to constitute “significant” scale and magnitude.

Annex A:
USAID Definitions in More Detail

This section provides more detailed discussion of the different categories of activities defined by Regulation 216. Read and understand this section before you begin classifying your activities and preparing your IEE or other documentation.

Please note that the section (§) numbers from Reg. 216 are cited throughout this section. *Actual excerpts from Reg. 216 are italicized*. Both are section references and Reg. 216 excerpts are provided because you may need to cite the applicable portions of the regulation in preparing environmental documentation. The full text of Regulation 216 is contained in Annex B.

A.1 Definition of exempt activities

A.2 Definitions of categorically excluded activities

A.3 Definitions of "high risk" activities typically requiring an environmental assessment (EA)

A.1 Definition of exempt activities

Regulation 216 sets out criteria for exemptions as follows:

Exemptions [§216.2(b)(1)]:[12]

(1) Projects, programs, or activities involving the following are exempt:

(i) International disaster assistance [International disasters are declared by the U.S. Ambassador in the country(ies) involved, including those that receive emergency food aid];

(ii) Other emergency circumstances; and

(iii) Circumstances involving exceptional foreign policy sensitivities.

Sometimes Title II activities are exempt because they are undertaken as part of international disaster assistance involving emergencies (for example, civil strife, famine, major earthquake, or flood). There are instances in which "notwithstanding" authorities will be invoked for emergency actions that have the effect of waiving certain normally required provisions. These instances will need to be determined in consultation with USAID. For example, "notwithstanding" language exists for "emergency feeding" programs that exempts these activities from everything, including 22 CFR 216. The purpose for this is to avoid slowing down food drops to people who are on the verge of starving to death—it is not for sustainable development.

The exemptions of §216.2(b)(1) are not applicable to assistance for the procurement or use of pesticides.

Development activities almost never qualify for exemptions. Permission for an exemption under (ii) and (iii) is required from the highest levels of USAID and from the President's Council on Environmental Quality. In the extremely unlikely event that your activities might qualify for exemptions (ii) and (iii), a formal written determination, including a statement of justification, is required for each project, program, or activity. The determination is made by the Assistant USAID Administrator with responsibility for the program, project, or activity, or by the USAID Administrator, if authority to approve financing is reserved for the Administrator. The determination is made after consultation with the Council on Environmental Quality (a **rare** event) regarding the environmental consequences of the proposed program, project, or activity.

Table A.1 lists several kinds of PVO activities that USAID may determine to be exempt.

The Agency Environmental Coordinator has responded to several questions from the field concerning exemptions in order to clarify the underlying principles that justify an exemption.[13]

On the ground, practitioners not infrequently encounter situations which require distinguishing between emergency and development programming modalities, and decisions need to made as to whether emergency or development procedures and requirements apply, especially as related to environmental compliance. Typically questions arise as to how one handles:

1) actual (unpredictable) emergencies, such as major floods, cyclones or similar situations, that are declared disasters by the Ambassador and which, if they use TII funds, could be considered exemptions, in accordance with §216.2(b)(1)(i);

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[4] All italicized text in this section is directly quoted from Reg. 216.

[5] Source: Jim Hester, USAID's Agency Environmental Coordinator (AEC), May 14, 1998 e-mail to Charlotte Bingham, REDSO/ESA REO and Nov. 30, 1998 e-mail to Walter Knausenberger.

2) situations which appear to be defined as emergencies because the source of funding is the emergency side of FFP. (In this case, the justification for an exemption does not appear to lie within Reg. 216 *per se*); and

3) emergency programs that are justified with "notwithstanding" clauses and which may not be actual emergencies in the sense of number 1, but the source of the justification for not applying Reg. 216 is a "notwithstanding" clause(s).

The discussion below addresses these issues.

Table A.1: Some activities that may quality for exemption

Type of Activity	Reason for Exemption
Emergency relocation of flood victims	Immediate response required; no alternatives available
Refugee camp establishment for rural populations caught in civil strife	Displaced populations without means or land to grow food; no immediate alternatives available
Emergency medical infrastructure, materials, and equipment for victims of war	Emergency medical requirements for injured populations

- When the current 22 CFR 216 was drafted in 1979-80, USAID created 216.2(b)(1)(i) for declared disaster assistance to avoid any possible delay in getting assistance to people who would die or suffer terribly if help didn't arrive in a matter of days. In the process, *(ii) Other emergency circumstances* and *(iii) Circumstances involving exceptional foreign policy sensitivities* were provided as contingencies to cover matters where people like the Administrator and the White House agreed that in extraordinary cases something was so urgent or so sensitive that environmental review was simply outweighed by the foreign policy need. The benchmark is extraordinarily high for these "emergency" or "foreign policy sensitivities" exemptions. They have been used rarely and even USAID's first work in war-torn Bosnia did not qualify.

  Spending time and effort finding ways around an environmental review is time wasted that could have been used to make a project more effective. The purpose of the regulation is not to go through pointless bureaucratic gyrations, but to ensure a professional job of designing a project to be sustainable and not hurt the people and the society it is trying to help. With or without a regulation such as 22 CFR 216, inattention to environmental impacts can lead to under-performance or harmful activities.

- USAID has determined that declared disaster assistance emergencies funded through the Office of Foreign Assistance (OFDA) are the only situations that qualify for *exemption (i)*. The purpose of this exemption is to give USAID the flexibility to address those disaster situations where even a day or two of delay would cause loss of lives and where getting relief to a location is critical. Even in cases of OFDA disaster assistance, the exemption clause should not be considered a license to ignore environmental consequences. OFDA does **advance planning** on how it will respond to different categories of disasters and **this is where efforts should be made to ensure that whatever is designed as a standard response package is as environmentally sound as possible**, in the same way that OFDA puts serious thought into advance planning to deliver medicines or temporary shelter. When a disaster response is extended in time, there should be a conscious effort to consider environmental impacts and to adjust assistance so as to minimize any long-term harm it might cause.

  USAID and other donors are now beginning to understand that giving exemptions to disaster assistance may not be as humane as once thought, since poorly designed disaster assistance can cause major problems after the disaster has passed. Refugee camps are one example. Cooperating Sponsors, USAID, and other donors are learning that while very real needs may exist to get help to people as fast as possible in emergencies, there is also a need to "pre-design" emergency response packages with full consideration of environmental implications and mitigate them in advance of a response. They are also undertaking environmental review concurrently with providing disaster assistance, so that the assistance can be modified as it goes along to make it more environmentally sound.

USAID's own OFDA has developed guidance for use by PVOs/NGOs in preparation and response to emergencies. PVOs/NGOs are encouraged to develop environmentally sensitive programs based on this guidance and to coordinate their activities with the United Nations High Commission for Refugees (UNHCR) or other entities, which have environmental procedures for refugee operations.

In summary, **if you have activities that you believe may qualify as international disaster assistance consult the MEO (or appropriate parties) as soon as possible** to confirm that an exemption might be in order. Include appropriate information in your proposals indicating what activities are exempt and why. If some of your activities are considered exemptions, include the justifying document (e.g., the disaster assistance cable) in your Reg. 216 environmental documentation.

"Notwithstanding" authorities are found throughout U.S. Government Foreign Appropriations and Assistance regulations, pertaining to exceptions permitting programming despite various prohibitions (i.e., these prohibitions "notwithstanding") for exigencies of various sorts: e.g.,

- for bonafide declared emergencies threatening human lives with imminent danger, political sensitivities; and
- for overriding geopolitical factors and programmatic needs (such as regional HIV/AIDS programs) deemed important and "without borders"—thus being able to operate in countries in which USAID has no Mission ("non-presence" countries) or is prohibited by law from assisting (e.g., due to military coup—Section 508 of the FY98 Appropriations Act).

For pesticide use, notwithstanding clauses do not override the need for a proper risk-benefit assessment, following USAID's Pesticide Procedures in 22 CFR 216.3(b).

A.2 Definitions of categorically excluded activities

Categorical exclusion criteria. Reg. 216, 22 CFR 216.2(c)(1), provides three general criteria that define a more specific list of Categorical Exclusions provided in 216.2(c)(2). The three criteria are:

(i) The action does not have an effect on the natural or physical environment;

(ii) [USAID] does not have knowledge or control over, and the objective of [USAID] in furnishing assistance does not require, either prior to approval of financing or prior to implementation of specific activities, knowledge or control over, the details of the specific activities that have an effect on the physical and natural environment for which financing is provided by [USAID]; and

(iii) Research activities which may have an effect on the physical and natural environment but will not have a significant effect as a result of limited scope, carefully controlled nature, and effective monitoring.

These three criteria **are not normally used** in determining and citing Categorical Exclusions. Instead, you should use the specific list below which is taken from §216.2(c)(2). The list above is used **only** if the activity meets the criteria, but is not specifically listed below. For example, you will notice that none of the items below covers monetization per se, so it would be appropriate to cite 22 CFR 216.2(c)(1)(i) *The action does not have an effect on the natural or physical environment*.

Specific activities which are usually "categorically exempt." The classes of action defined as Categorical Exclusions are listed below. If Categorical Exclusions apply to your activities or components thereof, enter these activities in Table 2.1 with the relevant information including the **specific citation** from the Regulation:

Categorical Exclusions [§216.2(c)(2)]:[14]

(i) *Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.)*;

(ii) Controlled experimentation exclusively for the purpose of research and field evaluation which are confined to small areas and carefully monitored [Note: a working definition of small would be fewer than four hectares (ha) or ten acres.];

(iii) Analyses, studies, academic or research workshops and meetings

(iv) Projects in which USAID is a minor donor to a multidonor project and there are no potential significant[15] *effects upon the environment of the United States, areas outside any nation's jurisdiction or endangered or threatened species or their critical habitat* [Note: USAID is a minor donor when its total contribution to the project is both less than $1,000,000 and less than 25 percent of the estimated project cost, or USAID's total contribution is more than $1,000,000 but less than 25 percent of the estimated project

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[14] All italicized text in this section is directly quoted from Reg. 216.

[15] In this particular instance the term "significant" is defined according to the U.S. Council on Environmental Quality regulations, because it applies to effects on the U.S. or outside a nation's jurisdiction. When effects are limited to countries outside the U.S. the word significant is defined as causing significant harm to the environment. Should you have an activity that might have significant effects on the U.S. or that is outside a nation's jurisdiction, consult the BEO.

cost and the environmental procedures of the donor in control of the planning of design of the project are followed, but only if the USAID Environmental Coordinator determines that such procedures are adequate.];

(v) Document and information transfers;

(vi) Contributions to international, regional or national organizations by the United States which are not for the purpose of carrying out a specifically identifiable project or projects;

(vii) Institution building grants to research and educational institutions in the United States such as those provided for under section 122(d) and Title XII of Chapter 2 of Part I of the FAA [22 USCA §§2151 p. (b) 2220a. (1979)];

(viii) Programs involving nutrition, health care or population and family planning services except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, etc.) [Note: if biohazardous waste is handled, blood is tested, or syringes are used (as in an immunization program), mitigative measures to deal with waste disposal must be identified in an IEE.];

(ix) Assistance provided under a Commodity Import Program when, prior to approval, USAID does not have knowledge of the specific commodities to be financed and when the objective in furnishing such assistance requires neither knowledge, at the time the assistance is authorized, nor control, during implementation, of the commodities or their use in the host country;

(x) Support for intermediate credit institutions when the objective is to assist in the capitalization of the institution or part thereof and when such support does not involve reservation of the right to review and approve individual loans made by the institution [Note: if there could be some biophysical impact from the loans made by the credit institution, for most rural credit programs, procedures for environmental review should be incorporated in the program and this activity should be addressed as part of an IEE.];

(xi) Programs of maternal or child feeding conducted under Title II of [Public Law] 480 [Note: when there are no on-the-ground physical interventions.];

(xii) Food for development programs conducted by food recipient countries under Title III of [Public Law] 480, when achieving USAID's objectives in such programs does not require knowledge of or control over the details of the specific activities conducted by the foreign country under such program [Note: PVOs do not receive Title III funds, so this categorical exclusion does not apply.];

(xiii) Matching, general support and institutional support grants provided to private voluntary organizations (PVOs) to assist in financing programs where USAID's objective in providing such financing does not require knowledge of or control over the details of the specific activities conducted by the PVO [Note: Title II is considered a commodity transfer, not a grant. Activities supported by 202(e) funds are subject to Reg. 216 compliance.];

(xiv) Studies, projects or programs intended to develop the capability of recipient countries to engage in development planning, except to the extent [they are] designed to result in activities directly affecting the environment (such as construction of facilities, etc.); and

(xv) Activities which involve the application of design criteria or standards developed and approved by USAID [Note: to date USAID has no such approved criteria or standards, so this categorical exclusion will not apply.]

A Few Reminders

- **The most common Categorical Exclusions that will apply to PVO or Cooperating Sponsor small-scale activities are 216.2(c)(2)(i), (ii), (iii), (v), (viii) or (xi).**
- **The Categorical Exclusions of §216.2(c)(2) are not applicable to assistance for the procurement or use of pesticides.** No use of pesticides will be approved unless USAID pesticide procedures have been satisfied. Consult Annex B [22 CFR 216.3(b)].
- Certain activities, for example, monetization or supplying computer equipment, may not fall under the specific list provided in §216.2(c)(2). However, since they normally have no significant adverse effect on the environment, they can be categorically excluded by citing one or more of the three general criteria in 216.2(c)(1). **When an activity does not fit under §216.2(c)(2), but is still categorically excluded, this should be explained, together with citation of 216.2(c)(1)**.
- Categorical Exclusions are not a right; they are granted at the BEO's discretion.

A.3 Definitions of "high risk" activities typically requiring an environmental assessment (EA)

What triggers an EA? Activities that can trigger an EA are covered under four sets of regulatory provisions. These are: (1) actions normally having a significant effect on the environment [22 CFR 216.2(d)(1)]; (2) some pesticides [22 CFR 216.3(b)]; (3) endangered species and critical habitats [22 CFR 216.5]; and (4) special provisions of the Foreign Assistance Act as described below. **All those activities or components thereof to which these four provisions apply should be entered in Table 2.1** as potential positive determinations.

The regulation defines an EA as "a detailed study of the reasonably foreseeable significant effects, both beneficial and adverse, of a proposed action on the environment of a foreign country or countries." See the Reg. 216 language [§216.6] in Annex B for more detail. The regulation provides information about the processing, format, and content of an EA, which is a relatively major document (with more detail, coverage, and depth than the IEE). As mentioned elsewhere EAs frequently take several months to a year to complete and are not normally applied to small-scale activities.

The four regulatory provisions that trigger an EA serve as a potential "red flag" that an EA **might be** required. You will note as you read the items covered by these four provisions that there is no reference to scale or magnitude of actions. The need for an EA as opposed to an IEE is a matter of judgment. Thus, you will prepare an IEE, even if you have activities included in this list, so that you can provide information about scale, scope, and intensitye of the activities. (For example, if your activities are small-scale or if pesticides have a specific kind of registration status, you will indicate in the IEE why mitigative measures and monitoring are sufficient and why an EA might not need to be prepared. Remember that EAs for small-scale activities are relatively rare.

If you have sets of similar activities, or you and other USAID Partners working in the same area have similar activities, you might consider a Programmatic EA (PEA), which looks generically or programmatically at the entire class of actions. (E.g., "dams and irrigation interventions in Country X.")

Guidance on the use of PEAs is also provided in Reg. 216 [§216.6(d)]. The regulation states they "*may be appropriate in order to assess the environmental effects of a number of individual actions and their cumulative environmental impact in a given country or geographic area, or the environmental impacts that are generic or common to a class of agency actions, or other activities which are not country specific.*"

Classic PEAs are of benefit when a broad examination of a class of impacts is needed, typically in situations where previous EAs have not been performed and there is little past experience to use as a guide. See **Annex F: Programmatic Environmental Assessments—Special Application** for additional detail.

See Section 3.3 for pointers regarding next steps if your IEE leads to a positive determination.

Specific activities usually requiring an EA. Reg. 216 identifies several generic "classes of action" that are considered *a priori* to have a high potential for causing harm to the environment and normally require an EA. These are

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"Actions normally having a significant effect on the environment" [§216.2(d)(1)]*:*

(i) Programs of river basin development;

(ii) Irrigation or water management projects, including dams and impoundments;

(iii) Agricultural land leveling;

(iv) Drainage projects;

(v) Large scale agricultural mechanization;

(vi) New lands development;

(vii) Resettlement projects;

(viii) Penetration road building or road improvement projects;

(ix) Powerplants;

(x) Industrial plants; and

(xi) Potable water and sewerage projects other than those that are small-scale.

Other activities and project attributes often requiring an EA.

- **Procurement or Use of Pesticides [§216.3(b)][16].** Any assistance involving procurement or use of pesticides is subject to USAID's Pesticide Procedures [22 CFR 216.3(b)]. The definition of a pesticide is broad and includes insecticides, fungicides, herbicides, many other "cides" as well as botanical pesticides and certain biological controls. In many instances, an IEE suffices to describe the conditions for safe use of pesticides. Some types of pesticides require an EA (or EIS); other pesticides may require an EA on the basis of a threshold decision made in an IEE. If pesticide procurement or use is part of your activity, you will need to review the specific provisions of 216.3(b), then determine the USEPA registration status and what restrictions apply with respect to user or environmental hazard, and find out whether USEPA intends to cancel or suspend registration, or has initiated other types of regulatory actions. Unless the exceptions (stringent) of 216.3(b)(2) apply, an IEE must be prepared that addresses the 12 specific types of information required by 216.3(b)(1)(i).

  Users of the EPTM may find it useful to obtain up-to-date information on pesticide registration at the following Internet website: **http://www.epa.gov/ebtpages/pesticides.html.**

  In practice, USAID's pesticide procedures have had an unintended chilling effect on USAID's engagement in pesticide management, because of the perceived technical and informational hurdles. Paradoxically, Reg. 216 has also tended to minimize the inclination of USAID and its partners to become involved in integrated pest management (IPM). There is no reason why the prudent use of well-chosen, so-called general-use and least-toxic pesticides should not be readily justifiable to promote crop productivity. Ideally, these can be linked to IPM and sustainable agricultural practices.

  In order to apply USAID regulations pertaining to pesticides, the name of the pesticide to be used and its USEPA registration status must be known. Contact your headquarters support staff and USAID's BEOs for assistance.

- **Endangered species and critical habitat [§216.5].** Regulation 216 contains specific language regarding project activities which may affect endangered species and/or critical habitat:

It is A.I.D. policy to conduct its assistance programs in a manner that is sensitive to the protection of endangered or threatened species and their critical habitats. The Initial Environmental Examination for each project, program or activity having an effect on the environment shall specifically determine whether the project, program or activity will have an effect on an endangered or threatened species, or critical habitat. If the proposed project, program or activity will have the effect of jeopardizing an endangered or threatened species or of adversely modifying its critical habitat, the Threshold Decision shall be a Positive Determination and an Environmental Assessment or Environmental Impact Statement completed as appropriate, which shall discuss alternatives or modifications to avoid or mitigate such impact on the species or its habitat.

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[16] "Use" is interpreted broadly by USAID, to include direct or indirect support to actual use such as transport, provision of fuel for transport, storage or disposal, etc. (i.e., cradle to grave).

For more on endangered and threatened species and the U.S. response to the Convention on International Trade in Endangered Species (CITES) see Box A.1.

- **Tropical forests, as addressed in the Foreign Assistance Act (FAA).** Based on amendments to the 1992 FAA, Section 118(c)(14) assistance must be denied for:

(A) the procurement or use of logging equipment (unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner which minimizes forest destruction, and that the proposed activity will produce positive economic benefits and sustainable forest management systems); and

(B) actions which significantly degrade national parks or similar protected areas which contain tropical forests or introduce exotic plants or animals into such areas.

Assistance must also be denied under **Section 118(c)(15)** for the following activities, unless an environmental assessment indicates that the proposed 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:

(A) Activities which would result in the conversion of forest lands to the rearing of livestock.

(B) Construction, upgrading or maintenance of roads, including temporary haul roads for other logging or other extractive industries, that pass through relatively undegraded forest lands.

(C) Colonization of forest lands.

(D) Construction of dams or other water control structures that flood relatively undegraded forest lands.

- **Biological diversity and endangered species, as addressed in the Foreign Assistance Act (FAA).** Section 119 of the Foreign Assistance Act specifies that the preservation of animal and plant species through the regulation of hunting and trade in endangered species, through limitations on the pollution of natural ecosystems and through protection of habitats, is an important objective of U.S. development assistance. USAID must ensure that ongoing and proposed actions by the Agency do not inadvertently endanger wildlife or plant species or their critical habitats, harm protected areas, or have other adverse impacts on biological diversity.

  Section 119(g)(10) provides for the denial of direct or indirect assistance "*for actions which significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas*."

In addition to the endangered species provisions of Reg. 216 and the Foreign Assistance Act, the Endangered Species Act of 1973 (as amended in 1978, 1982, 1988, and 1998) and the CITES convention affect USAID-funded actions overseas (see Box A.1).

Box A.1
Endangered and Threatened Species: What is CITES?

CITES is the Convention on International Trade in Endangered Species of wild flora and fauna.

CITES began in the mid-1970s with 139 member states as signatories.

CITES is a global alliance whose focus is the protection of plants and animals that otherwise could be over-exploited by unregulated international trade

What are the Appendices of CITES?
The UN sponsored a conference in Sweden in 1972 to recognize the need for focused international efforts to conserve wildlife. A treaty evolved from this conference which was designed to control the international trade in species that either were threatened with extinction or could become threatened with extinction. Three appendices were created:

- **Appendix I.** Species in which commercial trade is prohibited and non-commercial use strictly controlled. *Examples: red panda, golden-capped fruit bat and Arowana freshwater fish.*
- **Appendix II**. Species in which trade is strictly regulated to avoid jeopardizing species survival. *Examples: Nile crocodile, minke whale and leopard cat.*
- **Appendix III.** Species identified by individual CITES parties as subject to domestic regulations to restrict or prevent exploitation. *Examples: golden jackal, walrus and little egret.*

What is the Red List?
The Red List is the most comprehensive inventory of threatened species and subspecies on a global scale. The "IUCN Red List of Threatened Animals" is compiled by the Species Survival Commission (SSC) of IUCN, which has more than 6,000 members.

- **List 1. Threatened Species**
  Animals in this category are listed as Critically Endangered (CR), Endangered (EN), or Vulnerable (VU).
  Examples: African wild dog (EN), black rhino (CR), and cheetah (VU).
- **List 2 - Lower Risk: Conservation Dependent**
  Animals in this category are the subject of a targeted conservation program.
  Examples: minke whale, spotted hyena and white rhinoceros.
- **List 3 - Lower Risk: "Near Threatened"**
  Examples: Colobus monkey, white rumped vulture, and shoebill.
- **List 4 - Extinct and Extinct in the Wild**
  Examples: dodo, Vietnam warty pig, and pig-footed bandicoot.

What is the U.S. response?

- The US is a signatory to the Convention.
- The Endangered Species Act of 1973 requires all Federal agencies to undertake programs for the conservation of endangered and threatened species, and prohibits the authorizing, funding, or carrying out of any action that would jeopardize a listed species or destroy or modify its "critical habitat." Enforcement authority rests with the U.S. Fish & Wildlife Service. For information by Worldwide Web check: http://endangered.fws.gov/.
- Broad prohibitions against taking of wildlife are applied to all domestic and international endangered animal species, which could apply to threatened animals by special regulation.
- Under the Act, authority was provided to acquire land for animals and plants listed under CITES.
- The 1998 Foreign Operations Appropriations Act (P.L. 105-118) prohibits the use of development assistance funds for any activity which is "in contravention to. CITES."

Annex B:
Official USAID Guidance and Regulation

B.1 Full text of Regulation 216

(USAID Environmental Procedures: Text of 22 CFR 216)

B.2 Excerpts from official FY 2003 DAP Guidance regarding environmental compliance

USAID ENVIRONMENTAL PROCEDURES: TEXT OF TITLE 22, CODE OF FEDERAL REGULATIONS PART 216 (Reg. 216)

ENVIRONMENTAL PROCEDURES[1]

These procedures have been revised based on experience with previous ones agreed to in settlement of a law suit brought against the Agency in 1975. The Procedures are Federal Regulations and therefore, it is imperative that they be followed in the development of Agency programs.

In preparing these Regulations, some interpretations and definitions have been drawn from Executive Order No. 12114 of 4 January 1979, on the application of the National Environmental Policy Act (NEPA) to extraterritorial situations. Some elements of the revised regulations on NEPA issued by the President's Council on Environmental Quality have also been adopted. Examples are: The definition of significant impact, the concept of scoping of issues to be examined in a formal analysis, and the elimination of certain USAID activities from the requirement for environmental review.

In addition, these procedures: 1) provide advance notice that certain types of projects will automatically require detailed environmental analysis thus eliminating one step in the former process and permitting early planning for this activity; 2) permit the use of specially prepared project design considerations or guidance to be substituted for environmental analysis in selected situations; 3) advocate the use of indigenous specialists to examine pre-defined issues during the project design stage; 4) clarify the role of the Bureau's Environmental Officer in the review and approval process, and 5) permit in certain circumstances, projects to go forward prior to completion of environmental analysis.

Note that only minimal clarification changes have been made in those sections dealing with the evaluation and selection of pesticides to be supported by USAID in projects or of a non-project assistance activity.

Sec.	Topic
216. 1	Introduction
216. 2	Applicability of procedures
216. 3	Procedures
216. 4	Private applicants
216. 5	Endangered species
216. 6	Environmental assessments
216. 7	Environmental impact statements
216. 8	Public hearings
216. 9	Bilateral and multilateral studies and concise reviews of environmental issues
216.10	Records and reports

Authority: 42 U.S.C. 4332; 22 U.S.C. 2381.
Source: 41 CFR 26913, June 30, 1976.

§216.1 INTRODUCTION

(a) Purpose

In accordance with sections 118(b) and 621 of the Foreign Assistance Act of 1961, as amended, (the FAA) the following general procedures shall be used by A.I.D. to ensure that environmental factors and values are integrated into the A.I.D. decision-making process. These procedures also assign responsibility within the Agency for assessing the environmental effects of A.I.D.'s actions. These procedures are consistent with Executive Order 12114, issued January 4, 1979, entitled Environmental Effects Abroad of Major Federal Actions, and the purposes of the National Environmental Policy Act of 1970, as amended (42 U.S.C. 4371 et seq.)(NEPA). They are intended to implement the requirements of NEPA as they effect the A.I.D. program.

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1 Title 22 of the Federal Code of Federal Regulations, Part 216, with preamble, is presented here in its entirety. Spelling errors have been corrected from the original. This represents the most recent version, dated October 9, 1980.

Even with a "re-engineered" assistance process, USAID must fully comply with 22 CFR 216, except to the extent some of its terms are not used in the new operations assistance processes (i.e. PID, PP, etc.). In those cases the terms used in the Automated Directives System (ADS, which are intended to be as parallel as possible to the original terms) are used instead. However, 22 CFR 216 is controlling in the event of a conflict between ADS Chapter 204 on USAID's Environmental Procedures and 22 CFR 216. If there are questions, consult your BEO, the AEC, or Agency legal counsel.

(b) Environmental Policy

In the conduct of its mandate to help upgrade the quality of life of the poor in developing countries, A.I.D. conducts a broad range of activities. These activities address such basic problems as hunger, malnutrition, overpopulation, disease, disaster, deterioration of the environment and the natural resource base, illiteracy as well as the lack of adequate housing and transportation. Pursuant to the FAA, A.I.D. provides development assistance in the form of technical advisory services, research, training, construction and commodity support. In addition. A.I.D. conducts programs under the Agricultural Trade Development and Assistance Act of 1954 (Pub. L. 480) that are designed to combat hunger, malnutrition and to facilitate economic development. Assistance programs are carried out under the foreign policy guidance of the Secretary of State and in cooperation with the governments of sovereign states. Within this framework, it is A.I.D. policy to:

(1) Ensure that the environmental consequences of A.I.D.-financed activities are identified and considered by A.I.D. and the host country prior to a final decision to proceed and that appropriate environmental safeguards are adopted;

(2) Assist developing countries to strengthen their capabilities to appreciate and effectively evaluate the potential environmental effects of proposed development strategies and projects, and to select, implement and manage effective environmental programs;

(3) Identify impacts resulting from A.I.D.′s actions upon the environment, including those aspects of the biosphere which are the common and cultural heritage of all mankind; and

(4) Define environmental limiting factors that constrain development and identify and carry out activities that assist in restoring the renewable resource base on which sustained development depends.

(c) Definitions

(1) CEQ Regulations. Regulations promulgated by the President′s Council on Environmental Quality (CEQ) (Federal Register, Volume 43, Number 230, November 29, 1978) under the authority of NEPA and Executive Order 11514, entitled Protection and Enhancement of Environmental Quality (March 5, 1970) as amended by Executive Order 11991 (May 24, 1977).

(2) Initial Environmental Examination. An Initial Environmental Examination is the first review of the reasonably foreseeable effects of a proposed action on the environment. Its function is to provide a brief statement of the factual basis for a Threshold Decision as to whether an Environmental Assessment or an Environmental Impact Statement will be required.

(3) Threshold Decision. A formal Agency decision which determines, based on an Initial Environmental Examination, whether a proposed Agency action is a major action significantly affecting the environment.

(4) Environmental Assessment. A detailed study of the reasonably foreseeable significant effects, both beneficial and adverse, of a proposed action on the environment of a foreign country or countries.

(5) Environmental Impact Statement. A detailed study of the reasonably foreseeable environmental impacts, both positive and negative, of a proposed A.I.D. action and its reasonable alternatives on the United States, the global environment or areas outside the jurisdiction of any nation as described in '216.7 of these procedures. It is a specific document having a definite format and content, as provided in NEPA and the CEQ Regulations. The required form and content of an Environmental Impact Statement is further described in '216.7 infra.

(6) Project Identification Document (PID). An internal A.I.D. document which initially identifies and describes a proposed project.

(7) Program Assistance Initial Proposal (PAIP). An internal A.I.D. document used to initiate and identify proposed non-project assistance, including commodity import programs. It is analogous to the PID.

(8) Project Paper (PP). An internal A.I.D. document which provides a definitive description and appraisal of the project and particularly the plan or implementation.

(9) Program Assistance Approval Document (PAAD). An internal A.I.D. document approving non-project assistance. It is analogous to the PP.

(10) Environment. The term environment, as used in these procedures with respect to effects occurring outside the United States, means the natural and physical environment. With respect to effects occurring within the United States see '216.7(b).

(11) Significant Effect. With respect to effects on the environment outside the United States, a proposed action has a significant effect on the environment if it does significant harm to the environment.

(12) Minor Donor. For purposes of these procedures, A.I.D. is a minor donor to a multidonor project when A.I.D. does not control the planning or design of the multidonor project and either

(i) A.I.D.'s total contribution to the project is both less than $1,000,000 and less than 25 percent of the estimated project cost, or

(ii) A.I.D.'s total contribution is more than $1,000,000 but less than 25 percent of the estimated project cost and the environmental procedures of the donor in control of the planning of design of the project are followed, but only if the A.I.D. Environmental Coordinator determines that such procedures are adequate.

§216.2 APPLICABILITY OF PROCEDURES

(a) Scope

Except as provided in '216.2(b), these procedures apply to all new projects, programs or activities authorized or approved by A.I.D. and to substantive amendments or extensions of ongoing projects, programs, or activities.

(b) Exemptions

(1) Projects, programs or activities involving the following are exempt from these procedures:

(i) International disaster assistance;

(ii) Other emergency circumstances; and

(iii) Circumstances involving exceptional foreign policy sensitivities.

(2) A formal written determination, including a statement of the justification therefore, is required for each project, program or activity for which an exemption is made under paragraphs (b)(l) (ii) and (iii) of this section, but is not required for projects, programs or activities under paragraph (b)(l)(i) of this section. The determination shall be made either by the Assistant Administrator having responsibility for the program, project or activity, or by the Administrator, where authority to approve financing has been reserved by the Administrator. The determination shall be made after consultation with CEQ regarding the environmental consequences of the proposed program, project or activity.

(c) Categorical Exclusions

(1) The following criteria have been applied in determining the classes of actions included in '216.2(c)(2) for which and Initial Environmental Examination, Environmental Assessment and Environmental Impact Statement generally are not required:

(i) The action does not have an effect on the natural or physical environment;

(ii) A.I.D. does not have knowledge of or control over, and the objective of A.I.D. in furnishing assistance does not require, either prior to approval of financing or prior to implementation of specific activities, knowledge of or control over, the details of the specific activities that have an effect on the physical and natural environment for which financing is provided by A.I.D.;

(iii) Research activities which may have an affect on the physical and natural environment but will not have a significant effect as a result of limited scope, carefully controlled nature and effective monitoring.

(2) The following classes of actions are not subject to the procedures set forth in '216.3, except to the extent provided herein;

(i) Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.);

(ii) Controlled experimentation exclusively for the purpose of research and field evaluation which are confined to small areas and carefully monitored;

(iii)Analyses, studies, academic or research workshops and meetings;

(iv) Projects in which A.I.D. is a minor donor to a multidonor project and there is no potential significant effects upon the environment of the United States, areas outside any nation's jurisdiction or endangered or threatened species or their critical habitat;

(v) Document and information transfers;

(vi) Contributions to international, regional or national organizations by the United States which are not for the purpose of carrying out a specifically identifiable project or projects;

(vii) Institution building grants to research and educational institutions in the United States such as those provided for under section 122(d) and Title XII of Chapter 2 of Part I of the FAA (22 USCA ''2151 p. (b) 2220a. (1979));

(viii) Programs involving nutrition, health care or population and family planning services except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, etc.)

(ix) Assistance provided under a Commodity Import Program when, prior to approval, A.I.D. does not have knowledge of the specific commodities to be financed and when the objective in furnishing such assistance requires neither knowledge, at the time the assistance is authorized, nor control, during implementation, of the commodities or their use in the host country.

(x) Support for intermediate credit institutions when the objective is to assist in the capitalization of the institution or part thereof and when such support does not involve reservation of the right to review and approve individual loans made by the institution;

(xi) Programs of maternal or child feeding conducted under Title II of Pub. L. 480;

(xii) Food for development programs conducted by food recipient countries under Title III of Pub. L. 480, when achieving A.I.D.'s objectives in such programs does not require knowledge of or control over the details of the specific activities conducted by the foreign country under such program;

(xiii) Matching, general support and institutional support grants provided to private voluntary organizations (PVOs) to assist in financing programs where A.I.D.'s objective in providing such financing does not require knowledge of or control over the details of the specific activities conducted by the PVO;

(xiv) Studies, projects or programs intended to develop the capability of recipient countries to engage in development planning, except to the extent designed to result in activities directly affecting the environment (such as construction of facilities, etc.); and

(xv) Activities which involve the application of design criteria or standards developed and approved by A.I.D.

(3) The originator of a project. program or activity shall determine the extent to which it is within the classes of actions described in paragraph (c)(2) of this section. This determination shall be made in writing and be submitted with the PID, PAIP or comparable document. This determination, which must include a brief statement supporting application of the exclusion shall be reviewed by the Bureau Environmental Officer in the same manner as a Threshold Decision under §216.3(a)(2) of these procedures. Notwithstanding paragraph (c)(2) of this section, the procedures set forth in §216.3 shall apply to any project, program or activity included in the classes of actions listed in paragraph (c)(2) of this section, or any aspect or component thereof, if at any time in the design, review or approval of the activity it is determined that the project, program or activity, or aspect or component thereof, is subject to the control of A.I.D. and may have a significant effect on the environment.

(d) Classes of Actions Normally Having a Significant Effect on the Environment

(1) The following classes of actions have been determined generally to have a significant effect on the environment and an Environmental Assessment or Environmental Impact Statement, as appropriate, will be required:

(i) Programs of river basin development;

(ii) Irrigation or water management projects, including dams and impoundments;

(iii) Agricultural land leveling;

(iv) Drainage projects;

(v) Large scale agricultural mechanization;

(vi) New lands development;

(vii) Resettlement projects;

(viii) Penetration road building or road improvement projects;

(ix) Powerplants;

(x) Industrial plants;

(xi) Potable water and sewerage projects other than those that are small-scale.

(2) An Initial Environmental Examination normally will not be necessary for activities within the classes described in §216.2(d), except when the originator of the project believes that the project will not have a significant effect on the environment. In such cases, the activity may be subjected to the procedures set forth in §216.3

(e) Pesticides.

The exemptions of §216.2(b)(l) and the categorical exclusions of §216.2(c)(2) are not applicable to assistance for the procurement or use of pesticides.

§216.3 PROCEDURES

(a) General Procedures

(1) Preparation of the Initial Environmental Examination. Except as otherwise provided, an Initial Environmental Examination is not required for activities identified in §216.2(b)(1), (c)(2), and (d). For all other A.I.D. activities described in §216.2(a) an Initial Environmental Examination will be prepared by the originator of an action. Except as indicated in this section, it should be prepared with the PID or PAIP. For projects including the procurement or use of pesticides, the procedures set forth in §216.3(b) will be followed, in addition to the procedures in this paragraph. Activities which cannot be identified in sufficient detail to permit the completion of an Initial Environmental Examination with the PID or PAIP, shall be described by including with the PID or PAIP:

(i) an explanation indicating why the Initial Environmental Examination cannot be completed;

(ii) an estimate of the amount of time required to complete the Initial Environmental Examination; and

(iii) a recommendation that a Threshold Decision be deferred until the Initial Environmental Examination is completed. The responsible Assistant Administrator will act on the request for deferral concurrently with action on the PID or PAIP and will designate a time for completion of the Initial Environmental Examination. In all instances, except as provided in §216.3(a)(7), this completion date will be in sufficient time to allow for the completion of an Environmental Assessment or Environmental Impact Statement, if required, before a final decision is made to provide A.I.D. funding for the action.

(2) Threshold Decision.

(i) The Initial Environmental Examination will include a Threshold Decision made by the officer in the originating office who signs the PID or PAIP. If the Initial Environ-mental Examination is completed prior to or at the same time as the PID or PAIP, the Threshold Decision will be reviewed by the Bureau Environmental Officer concurrently with approval of the PID or PAIP. The Bureau Environmental Officer will either concur in the Threshold Decision or request reconsideration by the officer who made the Threshold Decision, stating the reasons for the request. Differences of opinion between these officers shall be submitted for resolution to the Assistant Administrator at the same time that the PID is submitted for approval.

(ii) An Initial Environmental Examination, completed subsequent to approval of the PID or PAIP, will be forwarded immediately together with the Threshold Determination to the Bureau Environmental Officer for action as described in this section.

(iii) A Positive Threshold Decision shall result from a finding that the proposed action will have a significant effect on the environment. An Environmental Impact Statement shall be prepared if required

pursuant to §216.7. If an impact statement is not required, an Environmental Assessment will be prepared in accordance with §216.6. The cognizant Bureau or Office will record a Negative Determination if the proposed action will not have a significant effect on the environment.

(3) Negative Declaration. The Assistant Administrator, or the Administrator in actions for which the approval of the Administrator is required for the authorization of financing, may make a Negative Declaration, in writing, that the Agency will not develop an Environmental Assessment or an Environmental Impact Statement regarding an action found to have a significant effect on the environment when (i) a substantial number of Environmental Assessments or Environmental Impact Statements relating to similar activities have been prepared in the past, if relevant to the proposed action, (ii) the Agency has previously prepared a programmatic Statement or Assessment covering the activity in question which has been considered in the development of such activity, or (iii) the Agency has developed design criteria for such an action which, if applied in the design of the action, will avoid a significant effect on the environment.

(4) Scope of Environmental Assessment or Impact Statement

(i) Procedure and Content. After a Positive Threshold Decision has been made, or a determination is made under the pesticide procedures set forth in §216.3(b) that an Environmental Assessment or Environmental Impact Statement is required, the originator of the action shall commence the process of identifying the significant issues relating to the proposed action and of determining the scope of the issues to be addressed in the Environmental Assessment or Environmental Impact Statement. The originator of an action within the classes of actions described in §216.2(d) shall commence this scoping process as soon as practicable. Persons having expertise relevant to the environmental aspects of the proposed action shall also participate in this scoping process. (Participants may include but are not limited to representatives of host governments, public and private institutions, the A.I.D. Mission staff and contractors.) This process shall result in a written statement which shall include the following matters:

(a) A determination of the scope and significance of issues to be analyzed in the Environmental Assessment or Impact Statement, including direct and indirect effects of the project on the environment.

(b) Identification and elimination from detailed study of the issues that are not significant or have been covered by earlier environmental review, or approved design considerations, narrowing the discussion of these issues to a brief presentation of why they will not have a significant effect on the environment.

(c) A description of

(1) the timing of the preparation of environmental analyses, including phasing if appropriate,

(2) variations required in the format of the Environmental Assessment, and

(3) the tentative planning and decision-making schedule; and

(d) A description of how the analysis will be conducted and the disciplines that will participate in the analysis.

(ii) These written statements shall be reviewed and approved by the Bureau Environmental Officer.

(iii) Circulation of Scoping Statement. To assist in the preparation of an Environmental Assessment, the Bureau Environmental Officer may circulate copies of the written statement, together with a request for written comments, within thirty days, to selected federal agencies if that Officer believes comments by such federal agencies will be useful in the preparation of an Environmental Assessment. Comments received from reviewing federal agencies will be considered in the preparation of the Environmental Assessment and in the formulation of the design and implementation of the project, and will, together with the scoping statement, be included in the project file.

(iv) Change in Threshold Decision. If it becomes evident that the action will not have a significant effect on the environment (i.e., will not cause significant harm to the

environment), the Positive Threshold Decision may be withdrawn with the concurrence of the Bureau Environmental Officer. In the case of an action included in §216.2(d)(2), the request for withdrawal shall be made to the Bureau Environmental Officer.

(5) Preparation of Environmental Assessments and Environmental Impact Statement. If the PID or PAIP is approved, and the Threshold Decision is positive, or the action is included in §216.2(d), the originator of the action will be responsible for the preparation of an Environmental Assessment or Environmental Impact Statement as required. Draft Environmental Impact Statements will be circulated for review and comment as part of the review of Project Papers and as outlined further in §216.7 of those procedures. Except as provided in §216.3(a)(7), final approval of the PP or PAAD and the method of implementation will include consideration of the Environmental Assessment or final Environmental Impact Statement.

(6) Processing and Review Within A.I.D.

(i) Initial Environmental Examinations, Environmental Assessments, and final Environmental Impact Statements will be processed pursuant to standard A.I.D. procedures for project approval documents. Except as provided in §216.3(a)(7), Environmental Assessments and final Environmental Impact Statements will be reviewed as an integral part of the Project Paper or equivalent document. In addition to these procedures, Environmental Assessments will be reviewed and cleared by the Bureau Environmental Officer. They may also be reviewed by the Agency's Environmental Coordinator who will monitor the Environmental Assessment process.

(ii) When project approval authority is delegated to field posts, Environmental Assessments shall be reviewed and cleared by the Bureau Environmental Officer prior to the approval of such actions.

(iii) Draft and final Environmental Impact Statements will be reviewed and cleared by the Environmental Coordinator and the Office of the General Counsel.

(7) Environmental Review After Authorization of Financing.

(i) Environmental review may be performed after authorization of a project, program or activity only with respect to subprojects or significant aspects of the project, program or activity that are unidentified at the time of authorization. Environmental review shall be completed prior to authorization for all subprojects and aspects of a project, program or activity that are identified.

(ii) Environmental review should occur at the earliest time in design or implementation at which a meaningful review can be undertaken, but in no event later than when previously unidentified subprojects or aspects of projects, programs or activities are identified and planned. To the extent possible, adequate information to undertake deferred environmental review should be obtained before funds are obligated for unidentified subprojects or aspects of projects, programs or activities. (Funds may be obligated for the other aspects for which environmental review has been completed.) To avoid an irreversible commitment of resources prior to the conclusion of environmental review, the obligation of funds can be made incrementally as subprojects or aspects of projects, programs or activities are identified; or if necessary while planning continues, including environmental review, the agreement or other document obligating funds may contain appropriate covenants or conditions precedent to disbursement for unidentified subprojects or aspects of projects, programs or activities.

(iii) When environmental review must be deferred beyond the time some of the funds are to be disbursed (e.g., long lead times for the delivery of goods or services), the project agreement or other document obligating funds shall contain a covenant or covenants requiring environmental review, including an Environmental Assessment or Environmental Impact Statement, when appropriate, to be completed and taken into account prior to implementation of those subprojects or aspects of the project, program or activity for which environmental review is deferred. Such covenants shall ensure that implementation plans will be modified in accordance with environmental review if the parties decide that modifications are necessary.

(iv) When environmental review will not be completed for an entire project, program or activity prior to authorization, the Initial Environmental Examination and Threshold Decision required under §216.3(a)(l) and (2) shall identify those aspects of the project, program or activity for which environmental review will be completed prior to the time financing is authorized. It shall also include those subprojects or aspects for which environmental review will be deferred, stating the reasons for deferral and the time when environmental review will be completed. Further, it shall state how an irreversible commitment of funds will be avoided until environmental review is completed. The A.I.D. officer responsible for making environmental decisions for such projects, programs or activities shall also be identified (the same officer who has decision-making authority for the other aspects of implementation). This deferral shall be reviewed and approved by the officer making the Threshold Decision and the officer who authorizes the project, program or activity. Such approval may be made only after consultation with the Office of General Counsel for the purpose of establishing the manner in which conditions precedent to disbursement or covenants in project and other agreements will avoid an irreversible commitment of resources before environmental review is completed.

(8) Monitoring. To the extent feasible and relevant, projects and programs for which Environmental Impact Statements or Environmental Assessments have been prepared should be designed to include measurement of any changes in environmental quality, positive or negative, during their implementation. This will require recording of baseline data at the start. To the extent that available data permit, originating offices of A.I.D. will formulate systems in collaboration with recipient nations, to monitor such impacts during the life of A.I.D.'s involvement. Monitoring implementation of projects, programs and activities shall take into account environmental impacts to the same extent as other aspects of such projects, programs and activities. If during implementation of any project, program or activity, whether or not an Environmental Assessment or Environmental Impact Statement was originally required, it appears to the Mission Director, or officer responsible for the project, program or activity, that it is having or will have a significant effect on the environment that was not previously studied in an Environmental Assessment or Environmental Impact Statement, the procedures contained in this part shall be followed including, as appropriate, a Threshold Decision, Scoping and an Environmental Assessment or Environmental Impact Statement.

(9) Revisions. If, after a Threshold Decision is made resulting in a Negative Determination, a project is revised or new information becomes available which indicates that a proposed action might be "major" and its effects "significant", the Negative Determination will be reviewed and revised by the cognizant Bureau and an Environmental Assessment or Environmental Impact Statement will be prepared, if appropriate. Environmental Assessments and Environmental Impact Statements will be amended and processed appropriately if there are major changes in the project or program, or if significant new information becomes available which relates to the impact of the project, program or activity on the environment that was not considered at the time the Environmental Assessment or Environmental Impact Statement was approved. When ongoing programs are revised to incorporate a change in scope or nature, a determination will be made as to whether such change may have an environmental impact not previously assessed. If so, the procedures outlined in this part will be followed.

(10) Other Approval Documents. These procedures refer to certain A.I.D. documents such as PIDs, PAIPs, PPs and PAADs as the A.I.D. internal instruments for approval of projects, programs or activities. From time to time, certain special procedures, such as those in §216.4, may not require the use of the aforementioned documents. In these situations, these environmental procedures shall apply to those special approval procedures, unless otherwise exempt, at approval times and levels comparable to projects, programs and activities in which the aforementioned documents are used.

(b) Pesticide Procedures

(1) Project Assistance. Except as provided in §216.3 (b)(2), all proposed projects involving assistance for the procurement or use, or both, of pesticides shall be subject to the procedures prescribed in §216.3(b)(l)(i) through (v). These procedures shall also apply, to the extent permitted by agreements entered into by A.I.D. before the

effective date of these pesticide procedures, to such projects that have been authorized but for which pesticides have not been procured as of the effective date of these pesticide procedures.

(i) When a project includes assistance for procurement or use, or both, of pesticides registered for the same or similar uses by USEPA without restriction, the Initial Environmental Examination for the project shall include a separate section evaluating the economic, social and environmental risks and benefits of the planned pesticide use to determine whether the use may result in significant environmental impact. Factors to be considered in such an evaluation shall include, but not be limited to the following:

(a) The USEPA registration status of the requested pesticide;

(b)The basis for selection of the requested pesticide;

(c)The extent to which the proposed pesticide use is part of an integrated pest management program;

(d) The proposed method or methods of application, including availability of appropriate application and safety equipment;

(e) Any acute and long-term toxicological hazards, either human or environmental, associated with the proposed use and measures available to minimize such hazards;

(f) The effectiveness of the requested pesticide for the proposed use;

(g) Compatibility of the proposed pesticide with target and nontarget ecosystems;

(h) The conditions under which the pesticide is to be used, including climate, flora, fauna, geography, hydrology, and soils;

(i) The availability and effectiveness of other pesticides or nonchemical control methods;

(j) The requesting country′s ability to regulate or control the distribution, storage, use and disposal of the requested pesticide;

(k) The provisions made for training of users and applicators; and

(l) The provisions made for monitoring the use and effectiveness of the pesticide.

In those cases where the evaluation of the proposed pesticide use in the Initial Environmental Examination indicates that the use will significantly affect the human environment, the Threshold Decision will include a recommendation for the preparation of an Environmental Assessment or Environmental Impact Statement, as appropriate. In the event a decision is made to approve the planned pesticide use, the Project Paper shall include to the extent practicable, provisions designed to mitigate potential adverse effects of the pesticide. When the pesticide evaluation section of the Initial Environmental Examination does not indicate a potentially unreasonable risk arising from the pesticide use, an Environmental Assessment or Environmental Impact Statement shall nevertheless be prepared if the environmental effects of the project otherwise require further assessment.

(ii) When a project includes assistance for the procurement or use, or both, of any pesticide registered for the same or similar uses in the United States but the proposed use is restricted by the USEPA on the basis of user hazard, the procedures set forth in §216.3(b)(1)(i) above will be followed. In addition, the Initial Environmental Examination will include an evaluation of the user hazards associated with the proposed USEPA restricted uses to ensure that the implementation plan which is contained in the Project Paper incorporates provisions for making the recipient government aware of these risks and providing, if necessary, such technical assistance as may be required to mitigate these risks. If the proposed pesticide use is also restricted on a basis other than user hazard, the procedures in §216.3(b)(l)(iii) shall be followed in lieu of the procedures in this section.

(iii) If the project includes assistance for the procurement or use, or both of:

(a) Any pesticide other than one registered for the same or similar uses by USEPA

without restriction or for restricted use on the basis of user hazard; or

(b) Any pesticide for which a notice of rebuttable presumption against reregistration *[since 1985, known as Special Review*], notice of intent to cancel, or notice of intent to suspend has been issued by USEPA, The Threshold Decision will provide for the preparation of an Environmental Assessment or Environmental Impact Statement, as appropriate (§216.6(a)). The EA or EIS shall include, but not be limited to, an analysis of the factors identified in §216.3(b)(l)(i) above.

(iv) Notwithstanding the provisions of §216.3(b)(l)(i) through (iii) above, if the project includes assistance for the procurement or use, or both, of a pesticide against which USEPA has initiated a regulatory action for cause, or for which it has issued a notice of rebuttable presumption against reregistration, the nature of the action or notice, including the relevant technical and scientific factors will be discussed with the requesting government and considered in the IEE and, if prepared, in the EA or EIS. If USEPA initiates any of the regulatory actions above against a pesticide subsequent to its evaluation in an IEE, EA or EIS, the nature of the action will be discussed with the recipient government and considered in an amended IEE or amended EA or EIS, as appropriate.

(v) If the project includes assistance for the procurement or use, or both of pesticides but the specific pesticides to be procured or used cannot be identified at the time the IEE is prepared, the procedures outlined in §216.3(b)(i) through (iv) will be followed when the specific pesticides are identified and before procurement or use is authorized. Where identification of the pesticides to be procured or used does not occur until after Project Paper approval, neither the procurement nor the use of the pesticides shall be undertaken unless approved, in writing, by the Assistant Administrator (or in the case of projects authorized at the Mission level, the Mission Director) who approved the Project Paper.

(2) Exceptions to Pesticide Procedures. The procedures set forth in §216.3 (b)(i) shall not apply to the following projects including assistance for the procurement or use, or both, of pesticides.

(i) Projects under emergency conditions. Emergency conditions shall be deemed to exist when it is determined by the Administrator, A.I.D.. in writing that:

(a) A pest outbreak has occurred or is imminent; and

(b) Significant health problems (either human or animal) or significant economic problems will occur without the prompt use of the proposed pesticide; and

(c) Insufficient time is available before the pesticide must be used to evaluate the proposed use in accordance with the provisions of this regulation.

(ii) Projects where A.I.D. is a minor donor, as defined in §216.1(c)(12) above, to a multi-donor project.

(iii) Projects including assistance for procurement or use, or both, of pesticides for research or limited field evaluation purposes by or under the supervision of project personnel. In such instances, however, A.I.D. will ensure that the manufacturers of the pesticides provide toxicological and environmental data necessary to safeguard the health of research personnel and the quality of the local environment in which the pesticides will be used. Furthermore, treated crops will not be used for human or animal consumption unless appropriate tolerances have been established by EPA or recommended by FAO/WHO, and the rates and frequency of application, together with the prescribed preharvest intervals, do not result in residues exceeding such tolerances. This prohibition does not apply to the feeding of such crops to animals for research purposes.

(3) Non-Project Assistance. In a very few limited number of circumstances A.I.D. may provide non-project assistance for the procurement and use of pesticides. Assistance in such cases shall be provided if the A.I.D. Administrator determines in writing that

(i) emergency conditions, as defined in §216.3(b)(2)(i) above exist; or

(ii) that compelling circumstances exist such that failure to provide the proposed assistance

would seriously impede the attainment of U.S. foreign policy objectives or the objectives of the foreign assistance program. In the latter case, a decision to provide the assistance will be based to the maximum extent practicable, upon a consideration of the factors set forth in §216.3(b)(l)(i) and, to the extent available, the history of efficacy and safety covering the past use of the pesticide the in recipient country.

§216.4 PRIVATE APPLICANTS

Programs, projects or activities for which financing from A.I.D. is sought by private applicants, such as PVOs and educational and research institutions, are subject to these procedures. Except as provided in §216.2(b), (c) or (d), preliminary proposals for financing submitted by private applicants shall be accompanied by an Initial Environmental Examination or adequate information to permit preparation of an Initial Environmental Examination. The Threshold Decision shall be made by the Mission Director for the country to which the proposal relates, if the preliminary proposal is submitted to the A.I.D. Mission, or shall be made by the officer in A.I.D. who approves the preliminary proposal. In either case, the concurrence of the Bureau Environmental Officer is required in the same manner as in §216.3(a)(2), except for PVO projects approved in A.I.D. Missions with total life of project costs less than $500,000. Thereafter, the same procedures set forth in §216.3 including as appropriate scoping and Environmental Assessments or Environmental Impact Statements, shall be applicable to programs, projects or activities submitted by private applicants. The final proposal submitted for financing shall be treated, for purposes of these procedures, as a Project Paper. The Bureau Environmental Officer shall advise private applicants of studies or other information foreseeably required for action by A.I.D.

§216.5 ENDANGERED SPECIES

It is A.I.D. policy to conduct its assistance programs in a manner that is sensitive to the protection of endangered or threatened species and their critical habitats. The Initial Environmental Examination for each project, program or activity having an effect on the environment shall specifically determine whether the project, program or activity will have an effect on an endangered or threatened species, or critical habitat. If the proposed project, program or activity will have the effect of jeopardizing an endangered or threatened species or of adversely modifying its critical habitat, the Threshold Decision shall be a Positive Determination and an Environmental Assessment or Environmental Impact Statement completed as appropriate, which shall discuss alternatives or modifications to avoid or mitigate such impact on the species or its habitat.

§216.6 ENVIRONMENTAL ASSESSMENTS

(a) General Purpose

The purpose of the Environmental Assessment is to provide Agency and host country decision-makers with a full discussion of significant environmental effects of a proposed action. It includes alternatives which would avoid or minimize adverse effects or enhance the quality of the environment so that the expected benefits of development objectives can be weighed against any adverse impacts upon the human environment or any irreversible or irretrievable commitment of resources.

(b) Collaboration with Affected Nation on Preparation

Collaboration in obtaining data, conducting analyses and considering alternatives will help build an awareness of development associated environmental problems in less developed countries as well as assist in building an indigenous institutional capability to deal nationally with such problems. Missions, Bureaus and Offices will collaborate with affected countries to the maximum extent possible, in the development of any Environmental Assessments and consideration of environmental consequences as set forth therein.

(c) Content and Form

The Environmental Assessment shall be based upon the scoping statement and shall address the following elements, as appropriate:

(1) Summary. The summary shall stress the major conclusions, areas of controversy, if any, and the issues to be resolved.

(2) Purpose. The Environmental Assessment shall briefly specify the underlying purpose and need to which the Agency is responding in proposing the alternatives including the proposed action.

(3) Alternatives Including the Proposed Action. This section should present the environmental impacts of the proposal and its alternatives in comparative form, thereby sharpening the issues and providing a clear basis for choice among options by the decision-maker. This section should explore and evaluate reasonable alternatives and briefly discuss the reasons for eliminating those alternatives which were not included in the detailed study; devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits; include the alternative of no action; identify the Agency′s preferred alternative or alternatives, if one or more exists; include appropriate mitigation measures not already included in the proposed action or alternatives.

(4) Affected Environment. The Environmental Assessment shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in the Environmental Assessment shall be commensurate with the significance of the impact with less important material summarized, consolidated or simply referenced.

(5) Environmental Consequences. This section forms the analytic basis for the comparisons under paragraph (c)(3) of this section. It will include the environmental impacts of the alternatives including the proposed action; any adverse effects that cannot be avoided should the proposed action be implemented; the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity; and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented. It should not duplicate discussions in paragraph (c)(3) of this section. This section of the Environmental Assessment should include discussions of direct effects and their significance; indirect effects and their significance; possible conflicts between the proposed action and land use plans, policies and controls for the areas concerned; energy requirements and conservation potential of various alternatives and mitigation measures; natural or depletable resource requirements and conservation potential of various requirements and mitigation measures; urban quality; historic and cultural resources and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures; and means to mitigate adverse environmental impacts.

(6) List of Preparers. The Environmental Assessment shall list the names and qualifications (expertise, experience, professional discipline) of the persons primarily responsible for preparing the Environmental Assessment or significant background papers.

(7) Appendix. An appendix may be prepared.

(d) Program Assessment

Program Assessments may be appropriate in order to assess the environmental effects of a number of individual actions and their cumulative environmental impact in a given country or geographic area, or the environmental impacts that are generic or common to a class of agency actions, or other activities which are not country-specific. In these cases, a single, programmatic assessment will be prepared in A.I.D./Washington and circulated to appropriate overseas Missions, host governments, and to interested parties within the United States. To the extent practicable, the form and content of the programmatic Environmental Assessment will be the same as for project Assessments. Subsequent Environmental Assessments on major individual actions will only be necessary where such follow-on or subsequent activities may have significant environmental impacts on specific countries where such impacts have not been adequately evaluated in the programmatic Environmental Assessment. Other programmatic evaluations of class of actions may be conducted in an effort to establish additional categorical exclusions or design standards or criteria for such classes that will eliminate or minimize adverse effects of such actions, enhance the environmental effect of such actions or reduce the amount of paperwork or time involved in these procedures. Programmatic evaluations conducted for the purpose of establishing additional categorical exclusions under §216.2(c) or design considerations that will eliminate significant effects for classes of actions shall be made available for public comment before the

categorical exclusions or design standards or criteria are adopted by A.I.D. Notice of the availability of such documents shall be published in the Federal Register. Additional categorical exclusions shall be adopted by A.I.D. upon the approval of the Administrator, and design consideration in accordance with usual agency procedures.

(e) Consultation and Review

(1) When Environmental Assessments are prepared on activities carried out within or focused on specific developing countries, consultation will be held between A.I.D. staff and the host government both in the early stages of preparation and on the results and significance of the completed Assessment before the project is authorized.

(2) Missions will encourage the host government to make the Environmental Assessment available to the general public of the recipient country. If Environmental Assessments are prepared on activities which are not country specific, the Assessment will be circulated by the Environmental Coordinator to A.I.D.'s Overseas Missions and interested governments for information, guidance and comment and will be made available in the U.S. to interested parties.

(f) Effect in Other Countries

In a situation where an analysis indicates that potential effects may extend beyond the national boundaries of a recipient country and adjacent foreign nations may be affected, A.I.D. will urge the recipient country to consult with such countries in advance of project approval and to negotiate mutually acceptable accommodations.

(g) Classified Material

Environmental Assessments will not normally include classified or administratively controlled material. However, there may be situations where environmental aspects cannot be adequately discussed without the inclusion of such material. The handling and disclosure of classified or administratively controlled material shall be governed by 22 CFR Part 9. Those portions of an Environmental Assessment which are not classified or administratively controlled will be made available to persons outside the Agency as provided for in 22 CFR Part 212.

§216.7 ENVIRONMENTAL IMPACT STATEMENTS

(a) Applicability

An Environmental Impact Statement shall be prepared when agency actions significantly affect:

(1) The global environment or areas outside the jurisdiction of any nation (e.g., the oceans);

(2) The environment of the United States; or

(3) Other aspects of the environment at the discretion of the Administrator.

(b) Effects on the United States: Content and Form

An Environmental Impact Statement relating to paragraph (a)(2) of this section shall comply with the CEQ Regulations. With respect to effects on the United States, the terms environment and significant effect wherever used in these procedures have the same meaning as in the CEQ Regulations rather than as defined in §216.l(c)(12) and (13) of these procedures.

(c) Other Effects: Content and Form

An Environmental Impact Statement relating to paragraphs (a)(l) and (a)(3) of this section will generally follow the CEQ Regulations, but will take into account the special considerations and concerns of A.I.D. Circulation of such Environmental Impact Statements in draft form will precede approval of a Project Paper or equivalent and comments from such circulation will be considered before final project authorization as outlined in §216.3 of these procedures. The draft Environmental Impact Statement will also be circulated by the Missions to affected foreign governments for information and comment. Draft Environmental Impact Statements generally will be made available for comment to Federal agencies with jurisdiction by law or special expertise with respect to any environmental impact involved, and to public and private organizations and individuals for not less than forty-five (45) days. Notice of availability of the draft Environmental Impact Statements will be published in the Federal Register. Cognizant Bureaus and Offices will submit these drafts for

circulation through the Environmental Coordinator who will have the responsibility for coordinating all such communications with persons outside A.I.D. Any comments received by the Environmental Coordinator will be forwarded to the originating Bureau or Office for consideration in final policy decisions and the preparation of a final Environmental Impact Statement. All such comments will be attached to the final Statement, and those relevant comments not adequately discussed in the draft Environmental Impact Statement will be appropriately dealt with in the final Environmental Impact Statement. Copies of the final Environmental Impact Statement, with comments attached, will be sent by the Environmental Coordinator to CEQ and to all other Federal, state, and local agencies and private organizations that made substantive comments on the draft, including affected foreign governments. Where emergency circumstances or considerations of foreign policy make it necessary to take an action without observing the provisions of §1506.10 of the CEQ Regulations, or when there are overriding considerations of expense to the United States or foreign governments, the originating Office will advise the Environmental Coordinator who will consult with Department of State and CEQ concerning appropriate modification of review procedures.

§216.8 PUBLIC HEARINGS

(a) In most instances AID will be able to gain the benefit of public participation in the impact statement process through circulation of draft statements and notice of public availability in CEQ publications. However, in some cases the Administrator may wish to hold public hearings on draft Environmental Impact Statements. In deciding whether or not a public hearing is appropriate, Bureaus in conjunction with the Environmental Coordinator should consider:

(1) The magnitude of the proposal in terms of economic costs, the geographic area involved, and the uniqueness or size of commitment of the resources involved;

(2) The degree of interest in the proposal as evidenced by requests from the public and from Federal, state and local authorities, and private organizations and individuals, that a hearing be held;

(3) The complexity of the issue and likelihood that information will be presented at the hearing which will be of assistance to the Agency; and

(4) The extent to which public involvement already has been achieved through other means, such as earlier public hearings, meetings with citizen representatives, and/or written comments on the proposed action.

(b) If public hearings are held, draft Environmental Impact Statements to be discussed should be made available to the public at least fifteen (15) days prior to the time of the public hearings, and a notice will be placed in the Federal Register giving the subject, time and place of the proposed hearings.

§216.9 BILATERAL AND MULTILATERAL STUDIES AND CONCISE REVIEWS OF ENVIRONMENTAL ISSUES

Notwithstanding anything to the contrary in these procedures, the Administrator may approve the use of either of the following documents as a substitute for an Environmental Assessment (but not a substitute for an Environmental Impact Statement) required under these procedures:

(a) Bilateral or multilateral environmental studies, relevant or related to the proposed action, prepared by the United States and one or more foreign countries or by an international body or organization in which the United States is a member or participant; or

(b) Concise reviews of the environmental issues involved including summary environmental analyses or other appropriate documents.

§216.10 RECORDS AND REPORTS

Each Agency Bureau will maintain a current list of activities for which Environmental Assessments and Environmental Impact Statements are being prepared and for which Negative Determinations and Declarations have been made. Copies of final Initial Environmental Examinations, scoping statements, Assessments and Impact Statements will be available to interested Federal agencies upon request. The cognizant Bureau will maintain

a permanent file (which may be part of its normal project files) of Environmental Impact Statements, Environmental Assessments, final Initial Environmental Examinations, scoping statements, Determinations and Declarations which will be available to the public under the Freedom of Information Act. Interested persons can obtain information or status reports regarding Environmental Assessments and Environmental Impact Statements through the A.I.D. Environmental Coordinator.

(22 U.S.C. 2381; 42 U.S.C. 4332)
Dated October 9, 1980
Joseph C. Wheeler
Acting Administrator

B.2 Excerpts from official FY 2003 DAP Guidance regarding environmental compliance

This section contains official fiscal year 2003 guidance issued by USAID regarding environmental compliance requirements for DAP (Development Activity Proposal) submission and amendment. This guidance applies to Title II Cooperating Sponsors submitting DAP proposals.

> United States Agency For International Development. Bureau For Humanitarian Response, Office Of Food For Peace (Usaid/BDCHA/Ffp), Development Programs Team. *P.L. 480 Title II Guidelines For FY 2003 Development Assistance Programs: DAP Proposals and DAP Amendments*. October 30, 2001

"Annex F: Environmental Review and Compliance Information"

I. Background on Regulation 16

USAID's Environmental Procedures (known as 22 CFR 216 or Reg. 16) are meant to ensure that (1) the environmental consequences of USAID-funded activities are identified during the design stage, and that these consequences are considered prior to funding approvals and a decision to proceed with activity implementation; and (2) if possible, activities are identified that preserve or restore the natural resource base where the activity is located.

II. Title II Compliance with Regulation 16

Compliance with USAID's Environmental Procedures (known as 22 CFR 216 or Reg. 16) is required of all Title II development activities, whether they are supported by food assistance or Section 202(e) funding. All Title II Development assistance program proposals should include an Initial Environmental Examination (IEE) with their proposal. If the IEE of the original DAP was cleared without conditions or a categorical exclusion was granted, the CS should only state "No changes" in the Environmental Compliance section of the CSR4 submission.

In all other situations, the CS should include, as an appendix to the CSR4, an Environmental Status Report (ESR) detailing the actions they have undertaken with regards to the previously approved IEE. The ESR should indicate whether mitigation plans are on schedule and detail the monitoring and evaluation measures being undertaken by the Cooperating Sponsor. The ESR face sheet must be signed by either the Mission Environmental Officer or the Food for Peace Officer. It should include an Environmental Status Report detailing the actions they have undertaken with regards to their previously approved IEE. This status report may be between 2-10 pages and should indicate if mitigation plans are on schedule and should detail the monitoring and evaluation measures being carried out by the Cooperating Sponsor. However, if a CS's submission contains changes that require a DAP amendment, an IEE amendment may need to be submitted with the DAP amendment. Please see sections A through D below for further details.

Cooperating Sponsors are encouraged to seek Mission review and clearance on DAP IEEs prior to official submission of the proposal to FFP/Washington. The same is true for CSR4 ESRs and IEE amendments for CSR4s or DAP amendments. Environmental documentation, marked draft, may be submitted informally through the Mission to the Bureau Environmental Officer. If environmental documentation is submitted with the DAP proposal, DAP amendment or R4 without having been cleared by the Mission, the CS should insure that it is clearly labeled as "draft -- not cleared by Mission." All draft Reg. 16 documentation must be returned to the Mission for required clearance and the Mission may request revisions to ensure that Mission objectives, consideration of local conditions and consistency with environmental documentation of other Sponsors in the same country is achieved.

A. New DAPs. To meet this requirement, all DAP proposals must include an IEE, which must be cleared by the Mission Director or his/her designate. A statement as to whether the Mission concurs/does not concur with the CS's ESR (if applicable) should be included in the Mission's approval/comments cable to FFP. The CS is expected to submit the cleared document with their operational plan to FFP for clearance. FFP will obtain clearance from the FFP Director and forward the IEE to the BDCHA Bureau environmental Officer (BEO) for final concurrence. Note however, that if CSs and Missions are interested in getting feedback from the BDCHA, Geographic BEOs or a Regional Environmental Officer (REO) on a draft IEE prior to formal submission, they are encouraged to submit a copy for informal review to one or both BEOs or to the REO, where they exist. An IEE face sheet should accompany the IEE.

B. DAP Amendments. All DAP amendments must include an IEE amendment if a change has occurred from what was submitted in the original IEE. The same clearance process is followed as described above for DAP proposals. If no change has occurred, the process as described below for CSR4s should be followed.

C. Cooperating Sponsor CSR4 Submission. If the IEE of the proposal was cleared without conditions or a categorical exclusion was granted, the CS should only state "No changes" in the Environmental Compliance section of the CSR4.

In all other situations, the CS should include an Environmental Status Report as an appendix to the CSR4, detailing the actions they have undertaken or that need to be taken with regard to the previously approved IEE or Environmental Assessment /Programmatic Environmental Assistance where they might exist. In 2-10 pages, the ESR should indicate whether steps need to be taken to modify previous environmental documentation and whether conditions are being met (e.g., mitigation plans are on schedule and monitoring and evaluation measures are being undertaken by the Cooperating Sponsor). The CSs should include a matrix, or chart, in the ESR outlining that mitigation plans are being implemented as submitted in previous environmental documentation, (i.e. the IEE). An ESR face sheet is used for IEE amendments.

D. Deferrals. For those Cooperating Sponsors who received a deferral on one or more aspects of their program from the BDCHA Bureau Environmental Officer, an amended IEE should be included with their following year's CSR4 to resolve each deferral or indicate that the activity will not be conducted, if that is the case.

III. IEE Preparation Resources

While these guidelines take precedence, The Environmental Documentation Manual also provides guidance on completing the IEE, IEE amendment and Environmental Status Report (ESR). The Manual also covers more in-depth environmental reviews, and defines many of the environmental compliance issues and terms used in these instructions. A Field Guide to USAID Environmental Compliance Procedures is a shorter field guide. In addition to these documents, both the Mission and Bureau Environmental Officers, and where they exist, Regional Environmental Officers, should be consulted.

Annex C:
Title II Environmental Compliance Forms

This section contains template forms for use by Title II Cooperating Sponsors.

Note: when using these forms as templates, replace headers and footers with ones which identify your organization/proposal.

C.1 Title II Environmental Compliance Facesheet

C.2 Request for Categorical Exclusion

C.3. IEE Template

C.4 Annotated IEE Template

C.5 Environmental Status Report Facesheet

C.6 Environmental Status Report Instructions and Format

Annex C.1

TITLE II ENVIRONMENTAL COMPLIANCE FACESHEET

Title of DAP/PAA Activity:

CS name/Country/Region:

Funding Period: FY_____- FY_____

Resource Levels: Commodities (dollar equivalent, incl. monetization): _____
Total metric tonnage request: _____
202(e) grant: $_____

Statement Prepared by: Name _____ Date _____
Title _____

IEE Amendment (Y/N)? ____ Date of Original IEE: _____

Environmental Media and/or Human Health Potentially Impacted (check all that apply):
air___ water___ land___ biodiversity (specify)_____ *human health____ other____ none_____*

Environmental Action(s) Recommended (check all that apply):

_____ 1. *Categorical Exclusion*(s)

_____ 2. Initial Environmental Examination:

____ *Negative Determination*: no significant adverse effects expected regarding the proposed activities, which are well defined over life of DAP/PAA. IEE prepared:
- ____ without conditions (no special mitigation measures needed; normal good practices and engineering will be used)
- ____ with conditions (special mitigation measures specified to prevent unintended impact)

____ *Negative Determination:* no significant adverse effects expected, but multiple sites and sub-activities are involved that are not yet fully defined or designed. "Umbrella IEE" prepared [go to Annex B and Annex F for examples]
____ conditions agreed to regarding an appropriate process of environmental capacity building and screening, mitigation and monitoring.

____ *Positive Determination*: IEE confirms potential for significant adverse effect of one or more activities. Appropriate environmental review needed/conducted.
- ____ EA to be / being / has been (circle one) conducted. Note that the activities affected cannot go forward until the EA is approved.

____ *Deferral:* one or more elements not yet sufficiently defined to perform environmental analysis; activities will not be implemented until amended IEE is approved. Briefly describe the nature of the deferred activities:_____

Summary of Findings:

Briefly describe (in 1 or 2 paragraphs) the activities being implemented or proposed and those deferred. Justify the reason for the recommended action(s) and cite appropriate sections of Reg. 216 as needed. For IEEs, reproduce here the Summary from Section 5 of the IEE narrative, and/or Section 2 of the Request for Categorical Exclusion.

USAID APPROVAL OF ENVIRONMENTAL ACTION(S) RECOMMENDED:

Clearance:

Mission Director: _____ Date: _____

Food For Peace Director: _____ Date: _____

Concurrence:

Bureau Environmental Officer: _____ Date: _____
(BHR)

Approved: _____

Disapproved: _____

Optional Clearances:

FFP Officer: _____ Date: _____

Mission Food Aid Manager: _____ Date: _____

Mission Environmental Officer: _____ Date: _____

Regional Environmental Officer: _____ Date: _____

Geographic Bureau Environmental Officer: _____ Date: _____

General Counsel: _____ Date: _____

Annex C.2

REQUEST FOR A

CATEGORICAL EXCLUSION

1. Background and Activity Description

More in-depth information than what was provided on the cover sheet, especially if activities are relatively diverse, complex, and likely to operate for several years. This will allow the environmental recommendation to be more self-explanatory and free-standing, especially for the BEO=s record keeping and tracking purposes.

2. Justification for Categorical Exclusion Request

Refer to appropriate guidance from Reg. 216, especially 22 CFR 216.2(c)

Annex C

Annex C.3

Outline of the IEE Narrative: Template

INITIAL ENVIRONMENTAL EXAMINATION

Program/Project Data:
DAP/PAA Program/Activity:
CS Name, Country/Region:

1. BACKGROUND AND ACTIVITY DESCRIPTION

1.1 Background
1.2 Description of Activities
1.3 Purpose and Scope of IEE

2. COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

2.1 Locations Affected
2.2 National Environmental Policies and Procedures (of host country both for environmental assessment and pertaining to the sector)

3. EVALUATION OF ACTIVITY/PROGRAM ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

4. RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

4.1 Recommended IEE Determination
4.2 Mitigation, Monitoring, and Evaluation

FOR UMBRELLA IEE, THE FOLLOWING MIGHT BE USED:
4.1 Recommended Planning Approach
4.2 Environmental Screening and Review Process
4.3 Promotion of Environmental Review and Capacity Building Procedures
4.4 Environmental Responsibilities
4.5 Mitigation, Monitoring, and Evaluation

5. SUMMARY OF FINDINGS

5.1 Environmental Determinations
5.2 Conditions

Annex C.4

Annotated IEE Narrative

INITIAL ENVIRONMENTAL EXAMINATION

Program/Project Data:
DAP/PAA Program/Activity:
CS Name, Country/Region:

The following narrative should be organized around the major activity sub-headings, if the activity categories are rather distinct, e.g., road construction, agricultural development, and irrigation works. As in sample IEEs (Annex B.4 & B.5), treat each major activity under each section. Alternatively, one could organize by activity and then each major heading would cover the Sections 1 to 4. The summary in Section 5 is to cover all categories addressed, with an overview of the summaries at the end.

If you are preparing an "Umbrella" IEE, please refer to Annex F for the detailed description of what the outline might include.

1.0 BACKGROUND AND ACTIVITY DESCRIPTION

Describe why the activity is desired and appropriate, and outline the key activities proposed for Title II funding. A current activity description should be provided and the purpose and scope of the IEE indicated (amendment, why needed, what it covers).

2.0 COUNTRY AND ENVIRONMENTAL INFORMATION

This section is critical and should briefly assess the current physical environment that might be affected by the activity. Depending upon the activities proposed, this could include an examination of land use, geology, topography, soil, climate, groundwater resources, surface water resources, terrestrial communities, aquatic communities, environmentally sensitive areas (e.g., wetlands or protected species), agricultural cropping patterns and practices, infrastructure and transport services, air quality, demography (including population trends/projections), cultural resources, and the social and economic characteristics of the target communities.

The information obtained through this process should serve as an environmental baseline for future environmental monitoring and evaluation. Be selective in the country and environmental information you provide, as it should be specific to the activity being proposed and more information is not necessarily better.

Finally, indicate the status and applicability of host country, Mission, and CS policies, programs and procedures in addressing natural resources, the environment, food security, and other related issues.

3.0 EVALUATION OF ACTIVITY/PROGRAM ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

This section of the IEE is intended to define all potential environmental impacts of the activity or project, whether they be considered direct, indirect, beneficial, undesired, short-term, long-term, or cumulative.

4.0 RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

For each proposed activity or major component recommend whether a specific intervention included in the activity should receive a categorical exclusion, negative determination (with or without conditions), positive determination, etc., as well as cite which sections of Reg. 216 support the requested determinations.

Recommend what is to be done to avoid, minimize, eliminate or compensate for environmental impacts. For activities where there are expected environmental consequences, appropriate environmental monitoring and impact indicators should be incorporated in the activity=s monitoring and evaluation plan.

5.0 SUMMARY OF FINDINGS

This should summarize the proposed environmental determinations and recommendations.

Annex C.5

TITLE II ENVIRONMENTAL STATUS REPORT FACESHEET

Title of Activity:

CS name/Country/Region:

Funding Period: FY_____- FY_____

Resource Levels: Commodities (dollar equivalent, incl. monetization):_____

Total metric tonnage request: _____

Status Report Prepared by: Name:_____ Title _____

Date: _____

Date of Previous Status Report: _____

A. Status of the IEE/Categorical Exclusion/EA or PEA

IEE Reference: Date of most recent IEE or Categorical Exclusion (If all activities were CEs): _____

_____ No revisions or modifications needed. IEE/CE or CE and all activities still applicable.

_____ Amended IEE submitted, based on attached report, summary, etc., (referencing the body).

_____ EA or PEA needs to be amended to cover additional or modified activities. [Note: If yes, immediately notify the MEO, REO (where one exists) or the BHR BEO. Amended EA or PEA submitted, based on_____

B. Status of Fulfilling Conditions in the IEE, including Mitigative Measures and Monitoring

_____ Environmental Status Report describing compliance measures taken is attached.

_____ For any condition that cannot be satisfied, a course of remedial action has been provided within an IEE Amendment. [Note: For conditions under an EA or PEA, consult the MEO, REO (where one exists) and/or BEO].

USAID APPROVAL OF ENVIRONMENTAL STATUS REPORT:

Clearance:

Mission Environmental Officer:* _____ Date: _____

Food For Peace Officer: _____ Date: _____

*or USAID Environmental Representative, if MEO does not exist.

ENVIRONMENTAL STATUS REPORT (ESR)
INSTRUCTIONS AND FORMAT

In 2-10 pages or less, the Environmental Status Report should indicate whether steps need to be taken to amend previous environmental documentation and whether conditions are being met, e.g., mitigation plans are on schedule and the monitoring and evaluation measures are being undertaken by the Cooperating Sponsor. In a Mission's PAA comments and/or approval cable to BHR/FFP, the Mission should state whether it concurs with the Environmental Status Report.

Section A. Status of the IEE/Categorical Exclusion/EA or PEA

Use the answers to the following questions to determine if the status of the IEE has changed.

Use the same instructions for a Categorical Exclusion submission in the event all CS activities were Categorical Exclusions.

If any activities are covered under an EA which is typically activity or site-specific—or a broader sectoral, thematic or geographic PEA–the questions below need to be interpreted in the context of the specific activity, sector or area.

A1. Modified or New Activities:

Have new activities been added or activities substantially modified?

Note what these are and reference an amended IEE, if the DAP or PAA has an approved IEE. Reference a Categorical Exclusion Document in the event the DAP or PAA required only a Categorical Exclusion Document **and** the new/modified activities are also categorically excluded. If they are not, a full IEE will need to be prepared.

Note: An amended DAP requires an IEE Amendment. Also remember that activities can be changed or added that do not require an amended DAP, but which do alter Reg. 216 threshold decisions and would require an IEE Amendment.

A2. Resolution of Deferrals:

Did the previous IEE have deferrals? List these.

State if they are being resolved through an amended IEE to be submitted with this year's PAA. If not, indicate when an amended IEE will be submitted in order to be able to go ahead with the activities.

If the deferred activities have been dropped from the sponsor's program, amend the current IEE to state that and recommend to the BEO that the deferral is no longer applicable.

A3. Conditions:

If experience has shown that conditions in the IEE cannot be complied with, note and reference an amended IEE, which discusses what substitute conditions are recommended in order to comply with the spirit of the original conditions (to avoid or reduce environmental effects).

Many conditions in IEEs relate to **Mitigation and Monitoring.** If based on Section B2 below, it proved not feasible to carry out all mitigation and monitoring and the sponsor desires to change the conditions for mitigation and monitoring spelled out in the IEE, discuss and reference an amended IEE.

A4. Amendments:

Based on the above, is an amended IEE needed?

___ Yes If yes, attach here. No___

If the previous documentation was a Categorical Exclusion Submission, is an amended Categorical Exclusion needed to deal with new Categorical Exclusions for new activities?

___ Yes If yes, attach here. No___ Not Applicable___

Is the Sponsor unable to meet recommendations and/or conditions that are part of an EA or PEA or does the Sponsor believe an EA or PEA needs to be amended to cover additional or modified activities?

___ Yes No____ Not Applicable___

If yes, immediately notify the MEO, REO (where available) or the BHR BEO.

A5. Remember it is necessary to obtain the Mission=s concurrence on an Environmental Status Report prior to proposal approval. Be sure to complete the ESR Facesheet. Proceed to Section B.

Section B. Status of Fulfilling Conditions in the IEE, including Mitigative Measures and Monitoring

Take this opportunity to re-evaluate your mitigation and monitoring plan. Make sure the commitments made in the IEE are doable and realistic, in other words, not beyond the capabilities and resources of the CS to implement. Mitigation and monitoring can be part of normal visits to an area to check on activities, unless specific testing, surveys or the like have been required. Alternatively, experience to date may indicate that the IEE's mitigation and monitoring plan is not sufficiently specific or is lacking in some respect. If conditions or mitigation and monitoring are part of an activity-specific EA or sectoral PEA, the instructions below still apply.

B1. For each component of the program, list or reproduce (as an Annex to this report) the mitigative measures and monitoring or other conditions. [For activities placed

under an umbrella process according to EDM Annex F, do not reproduce the standard Environmental Screening Form and Review conditions; follow instructions at B3 below.]

B2. Describe status of complying with the conditions. Examples of the types of questions a Sponsor should answer to describe "status" follow.

1) What mitigative measures have been put in place? How is the successfulness of mitigative measures being determined? If they are not working, why not? What adjustments need to be made?

2) What is being monitored, how frequently and where, and what action is being taken (as needed) based on the results of the monitoring? In some situations, a CS will need to note that the monitoring program is still being developed with intent to satisfy the conditions. Alternatively, it could happen that the conditions cannot be achieved because of various impediments.

Sponsors are encouraged to construct table(s) of relevant status indicators.

For any conditions that cannot be satisfied, propose a course of remedial action and amend the IEE. In the case of an EA or PEA, consult the MEO, REO (where available), and the BHR BEO, as amending an EA or PEA is a more elaborate process.

B3. If the CS is using Environmental Screening Forms (ESFs) and environmental reviews, prepare: i) a table listing the ESFs prepared and submitted; (ii) the Category(ies) the activity(ies) was\were placed in; and (iii) whether the ESF has been approved by the MEO. For any Category 2 or above activities, the chart should include the status of the Environmental Reviews, e.g., in preparation; submitted to MEO; approved by MEO; MEO referred to REO and BEO; and the date of approval by MEO or by REO or BEO, if appropriate.

Section C. Cooperating Sponsor Recommendations for Beyond Compliance and Institutionalization of Environmentally Sound Practices

Please outline plans or recommendations (in a page or less) for institutionalizing environmentally sound design and management practices in future activities of a similar nature.

Annex D:
Examples of Categorical Exclusions (CEs) and Initial Environmental Examinations (IEEs)

This Annex presents examples of approved CEs and IEEs from the Africa Bureau, and two draft IEEs of Title II activities. The Title II IEEs use the recommended BDCHA/FFP environmental documentation format. Each Bureau tries to maintain reasonable internal consistency in its IEE format. However, while formats of different Bureaus are similar, they are not necessarily identical.

D.1 Categorical Exclusion—CARE/India Integrated Nutrition and Health Program, August 1998

D.2 Categorical Exclusion—Save the Children/Nicaragua: Targeted Food Assistance to Malnourished and At-Risk Mothers and Children

D.3 "Classical" or Standard IEE—Africare/Mozambique: Manica Oil Seed Food Security Initiative (FY 99 PAA)

Includes both Categorical Exclusion and IEE Negative Determination. Includes a pesticide section.

D.4 "Classical" IEE with Multiple Activities—CARE/Honduras: Sustainable Food Security for the Most Vulnerable in Honduras

Facesheet only. Covers multiple activities with a positive determination for Roads.

D.5 "Umbrella" IEE—CRS/Kenya: FY97–FY00 DAP

D.6 "Hybrid IEE"—Africare: Uganda Food Security Initiative DAP/PAA FY 98

Includes Categorical Exclusion, elements of a "standard" or classic IEE with negative determination, and an umbrella component for community road improvements. (Note: Format does not follow the EPTM model.

Annex D.1

TITLE II ENVIRONMENTAL COMPLIANCE FACESHEET[17]

Title of DAP/PAA Activity: PL 480 Title II CARE/India

CS name/Country/Region: CARE/India

Funding Period: FY 99 - FY 04

Resource Levels: Commodities (dollar equivalent, incl. monetization): $343.4 million*
(Title II commodities inclusive of Monetization and Ocean Freight)

(* subject to yearly approvals)

Total metric tonnage request: _____

_____

202(e) grant: $2.5 million
(Section 202 (e) grant fund)

Statement Prepared by: Name Richard L. Edwards Date _____
Title Deputy Director, USAID/India Office of Environment, Energy and Enterprise

IEE Amendment (Y/N)? N **Date of Original IEE:** _____

Environmental Media and/or Human Health Potentially Impacted (check all that apply):
*air*___ *water*___ *land*___ *biodiversity* (specify)_____ *human health* X *other*____ *none*_____

Environmental Action(s) Recommended (check all that apply):

X 1. *Categorical Exclusion*(s)

_____ 2. Initial Environmental Examination:

____ *Negative Determination*: no significant adverse effects expected regarding the proposed activities, which are well defined over life of DAP/PAA. IEE prepared:

____ without conditions (no special mitigation measures needed; normal good practices and engineering will be used)

____ with conditions (special mitigation measures specified to prevent unintended impact)

---

[17] The original format has been readjusted to more closely follow that used in the Environmental Documentation Manual

____ *Negative Determination:* no significant adverse effects expected, but multiple sites and sub-activities are involved that are not yet fully defined or designed. "Umbrella IEE" prepared [go to Annex B and Annex F for examples]

____ conditions agreed to regarding an appropriate process of environmental capacity building and screening, mitigation and monitoring.

____ *Positive Determination*: IEE confirms potential for significant adverse effect of one or more activities. Appropriate environmental review needed/conducted.

____ EA to be / being / has been (circle one) conducted. Note that the activities affected cannot go forward until the EA is approved.

____ *Deferral:* one or more elements not yet sufficiently defined to perform environmental analysis; activities will not be implemented until amended IEE is approved. Briefly describe the nature of the deferred activities:_____

Summary of Findings:

The Integrated Nutrition and Health Program (NHP) of CARE - India aims to improve the nutritional and health status of women and children, especially pregnant women, lactating mothers and children under 2 years of age. INHP works with government and non-government counterparts in this endeavor. CARE-India focuses on activities with the greatest potential to reduce malnutrition and mortality.

USAID APPROVAL OF ENVIRONMENTAL ACTION(S) RECOMMENDED:

Clearance:

Mission Director: LEM Date: _____
Linda E. Morse

Food For Peace Director: Jeane Markuras, Acting Date: 8/21/98
Wm Thomas Oliver

Concurrence:

Bureau Environmental Officer: JPDR Date: 8/21/98
(BHR)

Approved: X

Disapproved: _____

Optional Clearances:

FFP Officer: _____ Date: _____

Mission Food Aid Manager: _____ Date: _____

Mission Environmental Officer: _____ Date: _____

Regional Environmental Officer: _____ Date: _____

Geographic Bureau Environmental Officer: _____ Date: _____

General Counsel: _____ Date: _____

REQUEST FOR A

CATEGORICAL EXCLUSION

INDIA - INTEGRATED NUTRITION & HEALTH PROGRAM

August 1998

1. Background and Activity Description

The Integrated Nutrition and Health Program (NHP) of CARE - India aims to improve the nutritional and health status of women and children, especially pregnant women, lactating mothers and children under 2 years of age. INHP works with government and non-government counterparts in this endeavor. CARE-India focuses on activities with the greatest potential to reduce malnutrition and mortality.

The program is implemented in 7 states - Andra Pradesh, Hihar, Madha Pradesh, Orissa, Rajesthan and West Bengal, spread over 912 blocks and 114,273 Angamwadi Centers (AWCs). This program reaches 6.6 million women (who are pregnant, a nursing and mothers of children under 24 months of age) and children up to 6 years of age. In addition to the program administration and monitoring/evaluation related costs, other activities funded through this program are supplementary feeding conducted under Title II (Public Law 480), provision of communication aids/teaching aids and capacity building of Government, non-government counterparts, Community Based Organizations, community members and leaders to enable women to learn and practice positive nutrition and health practices, thus empowering the community to be responsible for their own health.

2. Justification for Categorical Exclusion Request

The INHP program consists exclusively of technical assistance, a capacity building, supplementary feeding . under Title I I (Public Law 480) and program administration cost. These activities are clearly within the Class of programs listed in paragraph (c:) (1), “Categorical Exclusions" of Sector 216.2, “Applicability of Procedures” of Title 22 CFR Part 216, "AID Environmental Procedures."

Pursuant to 22 CFR 216.2 (c) (2) (i) (viii) (xi):

(i) “Education, technical assistance, or training except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.)”
(viii) “Programs involving nutrition, health care or population and family planning services designed to include activities directly affecting the environment (such as construction of facilities, etc.)”
(xi) “Programs of maternal or child feeding conducted under Title II of Public Law 480.”

Pursuant to CFR 216.2 (c) (2) the proposed program is categorically excluded from further environment review. As per 22 CFR 216.2 (c) (i), environmental assessment is not required for the activities that are determined to fall within one of the categories listed in 22 CFR 216.2 (c) (2).

Authority

AID Environmental Procedures in 22 CFR 216.2 (c) (3) state that a categorical exclusion determination shall be reviewed by the Bureau Environmental Officer in the same manner as a Threshold Decision under 216.3 (a) (2).

You may signify your concurrence with the foregoing determination by signing on the attached face sheet for this amendment.

ANNEX D.2

TITLE II ENVIRONMENTAL COMPLIANCE
FACESHEET
SAVE THE CHILDREN NICARAGUA

Title of DAP/PAA Activity: Targeted Food Assistance to Malnourished and At-Risk Mothers and Children, Region II, Leon and Chinandega

Funding Period: FY 99 to FY 99

Resource Levels:

Commodities (dollar equivalent, incl. Monetization)	$ 550,000
Total Metric tonnage request	1090MT
202 (e) grant:	$285,102

Statement Prepared by: **Name:** Margarita Clark **Date:** September 17, 1998
Title: Program Manager

IEE Amendment (YES/N): N **Date of original IEE:** _____.

Environmental Media and/or Human Health Potentially Impacted (check all that apply):
Air ____ *water* _____ *biodiversity (specify)* _____ *human health* _____ *other* _____ *none x*

Environmental Action(s) Recommended. (check all that apply)

__x__ 1. Categorical Exclusion
due to types of activities: *1. Education & training programs 216.2 c (2) (t)*
2. Nutrition & health care program 216.2 c (2) (viii) & (xi)

_____ 2. Initial Environmental Examination:

_____ *Negative Determination:* no significant adverse effects expected regarding the proposed activities which are well defined over life of DAP/PAA. IEE prepared:

_____ without conditions (no special mitigation measures needed; normal good practices and engineering will be used)

_____ with conditions (special mitigation measures specified to prevent unintended impact)

_____ *Negative Determination:* no significant adverse effects expected, but multiple sites and subactivities are involved that are not yet fully defined or designed. "Umbrella IEE" prepared (go to Annex B and Annex F for examples)

_____ conditions agreed to regarding an appropriate process of environmental capacity building and screening, mitigation and monitoring.

_____ *Positive Determination:* IEE confirms potential for significant adverse effects on one or more activities. Appropriate environmental review needed/conducted.

_____ EA to be 'being' has been (circle one) conducted. Note that the activities affected cannot go forward until the EA is approved.

Annex D.2

REQUEST FOR A CATEGORICAL EXCLUSION SAVE THE CHILDREN NICARAGUA

1. Background and Activity Description

The project: "Targeted Food Assistance to Malnourished and At-Risk Mothers and children of Region 11, Leon and Chinandega" provides PL 480 Title II food commodities in the form of CSB and Vegetable Oil as take-home rations for program participants to improve their health and nutritional status. In combination with Save the Children's Child Survival Program, the project uses a variety of integrated nutrition and health interventions to address the household food security of pregnant women, lactating women and children under three. Additionally through direct feeding in community services for children ages three through five, the program contributes towards more integral child development and on-going parent education.

Activities implemented do riot have any adverse affects on the environment, as they are focused on maternal-child health and nutrition involving education and training as well as nutritional surveillance.

2. Justification for Categorical Exclusion Request

1. Education & training programs 216.2 c (2) (i)
2. Nutrition & health care program 216.2 c (2) (viii) & 216.2 c (2) (xi)

Summary of Findings:

Briefly (1 or 2 paragraphs) describe the activities being implemented or proposed, justify the reason for the recommended action(s), and cite appropriate sections of Reg. 216 as needed. For IEEs, reproduce here the Summary from Section 5 of the IEE narrative, and/or Section 2 of the Request for Categorical Exclusion.

USAID APPROVAL OF ENVIRONMENTAL ACTION(S) RECOMMENDED:

Mission Director: Liliana Ayalde for Date: 9/22/98

Food For Peace Director: Jeane Markuras, Acting Date: 9/23/98

Concurrence:

Bureau Environmental Officer: J Paul des Rosiers Date: 9/23/98
(BHR)

Approved: X

Disapproved: ___

Optional Clearances:

FFP Officer: _____ Date: _____

Mission Food Aid Manager: _____ Date: _____

Mission Environmental Officer: Margaret M Hawey Date: 9/21/98

Regional Environmental Officer: _____ Date: _____

Geographic Bureau Environmental Officer: _____ Date: _____

General Counsel: _____ Date: _____

Annex D.3

INITIAL ENVIRONMENTAL EXAMINATION

TITLE II ENVIRONMENTAL COMPLIANCE FACE SHEET

Title Of DAP/PAA Activity: Manica Oil Seed Food Security Initiative (FY'99 PAA)
CS Name/Country/Region: Africare/Mozambique/Africa

Funding Period: FY 1997 - FY 2001

Resource Levels: Commodities (dollar equivalent): $3,737,486
Total Metric Tonnage Request: 18,690 MT's (Wheat)
202 (E) Request: $647,522
USAID/M Request: $569,077
PVO Contribution: $189,693

Statement Prepared by: Name: William Noble Date: 05/18/98
Title: Country Representative

IEE Amendment (Y/N?) No **Date Of Original IEE**: _____

Environmental Media and/or Human Health Potentially Impacted (check all that apply):
air___ water _X_ land _X_ bio-diversity(specify)___human health___other___none___

Environmental Action (s) Recommended (check all that apply):

_X__1. *Categorical Exclusion (s)*

_X__2. Initial Environmental Examination:

_X_ *Negative Determination*: no significant adverse effects expected regarding the proposed actions, which are well-defined over life of DAP/PAA. Prepare IEE:
___ without conditions (no special mitigation measures needed; normal good practices and engineering will be used)
_X_ with conditions (special mitigation measures specified to prevent unintended impact)

___ *Negative Determination*: no significant adverse effects expected, but multiple sites and sub-activities are involved that are not yet fully defined or designed. "Umbrella IEE" prepared:
___ condition agreed to regarding an appropriate process of environmental capacity-building and screening, mitigation and monitoring.

___ *Positive Determination*: IEE confirms potential for significant adverse effect of one or more activities.
___ EA to be / being / has been (circle one) conducted. Note that the activities affected cannot go forward until EA is approved.

___ *Deferral*: one or more elements not yet defined, will not be implemented until amended IEE is approved.

Summary Of Findings:

This IEE has been completed under the guidelines issued by USAID/BHR/FFP and Africa Bureau to Title II Cooperating Sponsors implementing Development Activity Programs (DAP) for Environmental Compliance Procedures. Included is an analysis of all activities that have been begun by Africare (since FY'97) of its on-going Title II activity - the Manica Oil Seed Food Security Initiative - and other activities that will be completed during the expected life of activity. Based on this analysis, including a review of field experience, project impact and existing national and USAID regulations, the following determinations are being recommended:

Categorical Exclusions are recommended for the following activities:

Per 22 CFR 216.2 (c) (1) (i): 1) Monetization of agricultural commodities; 2) Support private sector to import and maintain stocks of presses and spare parts.

Per 22 CFR 216 2 (c) (2) (i): 1) Training and extension support in improved oil seed husbandry techniques; 2) Training and technical assistance to Press Owners; 3) Train rural artisans to provide repair services at the village level; 4) Training of sales agents to market oil presses.

Per 22 CFR 216 2 (c) (2) (ii)*:* 1) Field level research of different varieties of oil seed.

Per 22 CFR 216 2 (c) (2) (v): 1) Oil press demonstrations at the community level; 2) Identification of different outlets for the sale of increased oil seed production (village presses and/or commercial refineries).

Per 22 CFR 216 2 (c) (2) (viii). 1) Formation and support of Village Food Security Committees (VFSC's); 2) Training and support of Community Nutrition Activists; 3) Development of a nutritional education curriculum (with IEC materials); 4) Monthly growth-monitoring/educational sessions of under-five children; 5) House to house visits with members of the VFSC's that have children with serious nutritional problems 6) Transfer and reenforcement of a series of nutritional-related messages, presented during culinary demonstrations, traditional theatre, radio "spots" and group discussions about diet, good health and obstacles to improve these; 7) Establishment of a "Micro-Project Fund" that supports community-based efforts to reduce constraints to improved household food security and nutrition.

Per 22 CFR 216 2 (c) (2) (x): 1) Sale and marketing of manual oil presses, including credit provision.

Negative Determinations with conditions are recommended for the following activities:

Per 22 CFR 216.3 (a) (2) (iii):

1) Promotion of open-pollinated high oil-content seeds for the small-scale farmer.

Ensure that no adverse conditions are created, such as increased pest infestations for other crops or overly-depleted fields.

2) Promotion of improved methods of post-harvest drying and storage of oil seeds.

Drying tables on farmer's fields and storage sheds in the target districts will be properly sited to not increase soil erosion and will not be near fragile or inappropriate land.

3) Promotion of the appropriate mix of oil seed "cake" for improved animal feed.

Ensure that oil seed cake is disposed of properly, to not contaminate ground water sources.

Per 22 CFR 216.3 (b) (1): 1) Establishment of a private-sector-driven seed multiplication system, including the application of insecticide to planting seed prior to long-term storage.

Conditions as specified in Appendix A (Pesticide Analysis and Action Plan).

USAID APPROVAL OF ENVIRONMENTAL ACTION(S) RECOMMENDED:

Clearance:

Mission Director: _____ Date: _____

Food For Peace Director: _____ Date: _____

Concurrence:

Bureau Environmental Officer: _____ Date: _____
(BHR) Approved: _____
Disapproved: _____

Optional Clearances:

FFP Officer: _____ Date: _____

Mission Environmental Officer: _____ Date: _____

Regional Environmental Officer: _____ Date: _____

Geographic Environmental Officer: _____ Date: _____

General Counsel: _____ Date: _____

INITIAL ENVIRONMENTAL EXAMINATION

Program/Project Data:

DAP/PAA Program/Activity:	Manica Oil Seed Food Security Initiative
Activity Numbers:	FFP -G-00-97-00034-01 (BHR/FFP)
	# 656-0229-G-7063-00 (USAID/Mozambique)
CS Name/Country/Region:	Africare/Mozambique

1. BACKGROUND AND ACTIVITY DESCRIPTION

1.1 Background

During FY'97, Africare began implementation of the Manica Oil Seed Food Security Initiative (MOSFSI), in five districts of Manica Province in the central part of Mozambique. Years of war and drought have left the vast majority of Mozambique's population in poverty, and they face challenges in achieving minimum conditions of food availability, access and utilization necessary for survival let alone meeting "dietary needs for a productive and healthy life." The twin problems of low levels of agricultural productivity and malnutrition are felt in different ways depending on the region of the country (north, central and south). The central province of Manica, bordering Zimbabwe, possesses significant potential for improved agricultural production but is just now beginning to respond to the damages caused by war and drought.

Within Manica province since the end of the war in 1992, the majority of households have returned to using hoe culture and have not been able to cultivate all the land area formerly used by each household. The civil war and the attendant insecurity in the province resulted in the uprooting of a large numbers of the rural households. Initiatives are critically needed to increase agricultural production but a variety of measures are also required to improve utilization both of existing food and any additional food which becomes available through increased production and/or incomes. These practices combined with the general poverty translate into statistics on nutritional status for the area which are extremely poor.

Although conditions vary within the districts, the area as a whole has a high potential for agriculture as it is highly suitable for the production of a wide range of crops. Historically, Manica Province was a net exporter of surplus production, both food and cash crops. The agricultural production system in the family (small-scale) farm sector was formerly based primarily on a mixed cultivation system using animals for draught power, transport and manure and smaller livestock for meat. A variety of crops were grown by households and those with access to irrigation (for which there is a high potential in the area) cultivated a variety of vegetables in gardens with in-field banana and other fruit trees for erosion control.

Africare's DAP was designed to address both the problems of agricultural productivity and of household nutrition within Manica Province through an activity which integrates the promotion of oil seed production and processing with an initiative to improve household nutrition. Oil seed production and processing is an appropriate activity to be promoted because it is the cash crop with the largest participation from the "family"/small-scale farm sector (based on historical experience and its proven ease of application), the documented positive impact oilseed will have in the short run on household income levels and that the most severe nutritional problems are evident within the small-scale farming sector. The intervention will increase agricultural productivity/processing capabilities and target improved household nutrition simultaneously. The interface being created between these two components will increase the impact of the DAP considerably beyond what could be achieved by either as a stand alone activity to improve the food security situation within the target districts.

The MOSFSI's twin emphasis on increasing household income and improved nutritional status strongly supports the strategies of both USAID/Mozambique and USAID/BHR/FFP. Strategic Objective #1 of USAID/Mozambique is focused on increased rural household income, especially as influenced by the establishment and enhancement of rural enterprises such as small-scale oil pressing and the planting of cash crops such as oil seed. Improvements in nutritional status that will be impacted by the Household Nutrition Component (e.g.

stunting, underweight, exclusive breast-feeding) are part of the "Generic Indicators" included in BHR/FFP's "Results Framework".

1.2 Description Of Activities

The goal of the Manica Oil Seed Food Security Initiative (MOSFSI) is to significantly enhance food security in the Sussundenga, Gondola, Manica, Guro and Barue districts of Manica Province. There are two objectives of this activity, which are of equal priority. The first is development of a sustainable, small scale oil seed production and processing industry in the five districts. The second is increased awareness and application of improved nutrition and health practices. The Oils Promotion Component and the Household Nutrition Component are designed to reinforce each other as well as increase the success and impact of each component beyond that which it could achieve as a stand alone activity. A map of the implementation area is on the following page.

A table presenting the activities to be completed under each objective and the recommended environmental decisions is on the following pages. Further information about these activities is presented below:

- **Monetization of Agricultural Commodities:** Working in collaboration with five other PVO's, Africare has begun the importation and monetization of wheat (4,620 MT's in FY'97 and 4,460 in FY'98; a proposed LOA total of 18,690 MT's), a key food commodity that is not produced in Mozambique. The wheat is sold to national millers, who are producing wheat flour for poor urban consumers and to be marketed in outlying rural districts. The umbrella monetization program in Mozambique is jointly-managed by all six PVO's, with World Vision as the Lead Agency. In addition to wheat, unrefined sunflower oil is also monetized, to be sold to national oil refineries. The local currency generated from the sale of both of these commodities is distributed among the collaborating PVO's to support their technical interventions.

- **Oil Seed Production:** Activities focus on training and extension support for small-scale farmers and outreach staff of other agencies in improved oil seed husbandry techniques; the provision of open-pollinated high oil-content seeds for the small-scale farmer through primarily private sector outlets; establishment of a private-sector-driven seed multiplication system that will provide high-germination planting seed for the small-scale farming sector at a reasonable cost; identification of different outlets for the sale of increased oil seed production (village presses and/or commercial refineries); field level research of different varieties of oil seed to determine "optimum" planting conditions and highest oil content; promotion of improved methods of post-harvest drying and storage of oil seeds.

- **Oil Seed Processing:** Activities focus on oil press demonstrations at the community level; sale and marketing of manual oil presses at the village level, including the provision of credit for this purchase; training and technical assistance to press owners to improve oil extraction rates, market locally-processed oil, maintain accurate business and inventory records and ensure a regular supply of crushing seed; provide training and support rural artisans to provide repair services at the village level; training of sales agents from rural stores and companies in how to market oil presses; establish the private sector's role in the support given to these rural enterprises, including importing and maintaining stocks of presses and needed spare parts; promotion of the appropriate mix of oil seed "cake" to increase the nutritional benefits of animal feed for local livestock.

- **Nutrition Education And Monitoring:** Activities focus on the formation and support of Village Food Security Committees (VFSC's) as a community-based mechanism to organize improved levels of awareness and applications; training and support of Community Nutrition Activists that will support the VFSC's; development of a nutritional education curriculum (with IEC materials) that will be the basis of outreach with the VFSC's and the field staff of other agencies involved in community health; monthly growth-monitoring/educational sessions of under-five children to reenforce the impact that improved nutrition has with weight gain and general well-being; house to house visits with members of the VFSC's that have children with serious nutritional problems; transfer and reenforcement of a series of nutritional-

related messages that form the nutritional curriculum, presented during culinary demonstrations, traditional theatre, radio "spots" and group discussions about diet, good health and obstacles to improve these; establishment of a "Micro-Project Fund" that will make a limited amount of funds available to each VFSC (maximum of $800) to reduce constraints to improved household food security and nutrition.

Field activities in Manica Province are being completed with a participatory approach in the five districts that integrates the activities of both the Oils Promotion and Household Nutrition components, working in collaboration with the Ministries of Agriculture, Health and other development agencies operating in the province. Monetization activities are completed in Maputo (the capital city) and are managed by the PVO Executive Committee that meets on a regular basis to coordinate the importation and sale of Title II commodities with local traders.

During FY'97, a comprehensive baseline survey was completed within the more than 80 communities that will receive assistance during the five year Life Of Activity. Separate surveys were completed for both agriculture (including oil seed crops) and health (including nutritional status and food consumption practices). There are 49,354 households within Africare's DAP implementation area. With an average household size of 6.5 people, there is an estimated 320,801 people for a target population. More information about Africare's baseline information can be found in the FY'97 Baseline Monitoring and Evaluation Report, submitted to USAID/BHR/FFP in November 1997.

1.3 Purpose And Scope Of IEE

This IEE is accompanying the FY'99 Previously-Approved Activity (PAA) submission and addresses all the activities in the FY'97 DAP for Africare/Mozambique's Manica Oil Seed Food Security Initiative. Included in the analysis are all activities that have been implemented since FY'97 and any others to be begun during the last three years of implementation within the five target districts. Appendix A is a Pesticide Analysis and Action Plan for a key sub-activity to be completed during the final quarter of FY'98: the application of post-harvest insecticide to protect multiplied seed to be stored for five months (August - December 1998), prior to being marketed to small-scale farmers during the 1999 planting season (detailed below).

Included in the PAA is a proposed expansion of oils promotion activities into two districts of neighbouring Sofala Province. This expansion would take place during FY'99. If approved, an amended IEE would be submitted to include an analysis of the activities to be completed in these two additional districts.

2. COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

2.1 Country Overview

Since the signing of the General Peace Accord in 1992 that ended seventeen years of fighting and subsequent multi-party elections in 1994, Mozambique has turned in one of the most positive sets of macro-economic conditions of any country on the African continent. Inflation in 1997 was estimated to be 17%, with an economic growth rate of 8%; this is expected to improve during 1998. A significant amount of private investment has begun in different sectors of the country (much of this from South Africa) to develop key infrastructure links and the basis for increasing manufacturing and processing industries.

Agricultural production levels have continually increased during the same period. Since the official declaration by the Mozambican government to end the "Emergency Period" in December 1995, the agricultural sector has generally performed beyond expectations. Significant marketing and rural transport bottlenecks remain, and the government is re-evaluating its role vis-a-vis the establishment of producer prices for key food and cash crops (to become "market-determined"). The 1998 agricultural harvest will be the third consecutive good harvest that should make the country virtually self-sufficient in terms of cereals (in 1997, the cereals harvest represented 88% of total cereals available for consumption). With the exception of flooding in different parts of the country during the past three years, the principal constraint to increased food availability has been poorly-developed

infrastructure to improve transport from the cereals-surplus north to the population-dense southern part of the country.

Mozambique is a predominantly tropical country with a total area of 784,000 square kilometers. It has a long coastline of approximately 2,500 KM's. Topographically, the country can be divided into four zones: coastal, middle plateau, northern plateau and western highland. The majority of USAID-funded activities take place in the middle plateau and northern plateau zones in the provinces of Nampula, Zambezia, northern Sofala and northern Manica. This area has traditionally been the most agriculturally-productive of the country. A key assumption of USAID's Country Program Strategy is that the impact from improving services, inputs and capacity in this region is critical to the rehabilitation of the rest of the country.

The results of the August 1997 Population and Housing Census indicate a total population of 15 million people, significantly less than what had been estimated (this was the first census in fourteen years and was completed after the repatriation and internal re-settlement of approximately 5.5 million people after the end of the war). Despite the macro-economic improvements the country has had since 1994, it remains one of the poorest countries in the world. Per capita income is estimated to be $90; even with ten years of 10% annual growth (USAID's income growth target for its current strategy period), the country would still be extremely poor.

2.2 Manica Province

Located in the central part of the country, bordering Zimbabwe to the west and Sofala Province to the east, Manica Province is part of the middle plateau zone, but with mountains on its western borders. Historically a net exporter of surplus production for both food (maize and sorghum) and cash crops (sunflower and tobacco), these levels were reduced significantly during the initial fifteen years of independence. Livestock was virtually eliminated during the war and a large percentage of the land that had been cultivated by the small-scale farming sector was abandoned because of insecurity.

Conditions within the province have improved greatly during the past five years, mirroring the rest of the country. However, this process has been uneven and not without difficulties. At the time of the design of Africare's DAP (early 1996), it was estimated that only 20% of the arable land within the province was actually being planted. This reflects the fact that while most people had returned to the country by 1995 (the end of the repatriation), many were still reluctant to resume farming in the more isolated parts of the province. Since the beginning of Africare's activities, it has been determined that more land is being brought under production, especially by the small-scale sector, often with support from one of several large agri-business concerns (in tobacco and cotton) or with support from agricultural development initiatives similar to Africare's.

Because Manica is slightly higher than neighboring Sofala Province, and has mountains on the western side, rainfall levels are significantly higher in the central part of the province (these are the areas where Africare is working). Beside the "Beira Corridor" linking Beira with the Zimbabwean border, that passes through the center of the province, there is a good road that goes through the northern part of the province and links Chimoio, the capital city, with Tete Province. These two roads are the principal conduit by which the agricultural surplus that has been produced during the past three years in this area is transported to Beira and the three southern provinces to improve the country's structural food availability deficit situation.

The five districts in which Africare is working are considered to have the highest potential for improved agricultural production and marketing. The eastern part of these districts are considered more marginal, with slightly lower rainfall, but still possessing significant potential for production agriculture. Each district has one or both of the principal roads running through it; most of the communities where Africare is promoting oil seed production and processing are within 40 kilometers of one of these principal roads. The estimated population of these five districts is 563,000 people (from the 1997 census). The population of the target area surveyed by Africare in its baseline field work contains 49,354 households (320,801 people). Not surprisingly, this is the area with the most fertile soils, much of which has only been brought back into production during the past three years.

There are no protected areas or conservation zones (e.g. game reserves or national parks) within the five target districts. There are several rivers that flow through these areas, including the Honde (Barue), the Revue (Sussendenga, Gondola), the Pungue (Manica, Gondola) and the Rotanda (Sussendenga). The Chicamba Dam in Manica district is the principal water source for the capital city of Chimoio. In normal rainfall years, water availability is not a constraint for small-scale agriculture. Average annual rainfall is more than 1,000 mm; slightly less in the more marginal areas. This part of Manica Province has been classified as a "semi-intensive" agro-ecological zone (USAID/M SEA 1994).

Soil conditions[18] in the areas with more than 1,000 MM of annual rainfall are very conducive to production agriculture. They are well-drained, highly weathered, deep to moderately deep, stable red soils with good permeability and water holding capacity. In areas with lower rainfall, the soils are generally brown to dark brown, moderately shallow sandy loams of moderate fertility. Areas of moderately deep soils occur on the crests of ridges between the major rivers. Alluvial soils have a scattered distribution pattern along the major streams and rivers. They have provided the nucleus for settlement and intensive cultivation.

Vegetation zones in the five districts include the following: semi-deciduous high rainfall woodland (Sussendenga, Gondola, Barue), moist semi-deciduous forests (Guro, Barue, Sussendenga, Manica), deciduous savana woodlands (Gondola, Sussendenga) and deciduous lowland savanna woodlands (Guro - area of marginal rainfall). Beginning in northern Barue district, the vegetation begins to change most clearly, to a drier ecology (rainfall levels in Guro district have always been significantly lower than the other target districts).

A principal reason for promoting oil seed in this area, besides its historical importance to the small-scale sector, is its inherent drought-resistant qualities (the roots of the sesame plant especially will grow significantly down into the soil to capture retained moisture). Part of the area where Africare is working has more fragile soils and lower rainfall levels (in the eastern part of the province). Despite this fact, oil seed is still considered a viable (and profitable) crop, albeit at lower levels of production.

The mean number of plots cultivated in 1997 by the farmers interviewed in Africare's baseline was 2.4 (each with no more than .3HA/plots). The percentage of small-scale farmers who used chemical fertilizers was 1% and the percentage that used other inputs (improved seed, insecticide, herbicide etc.) was 5%. In 1993, it was estimated throughout the province that 106,349 small-scale operators were cultivating 120,000 HA's of land (1.1 HA/farm family). This average has increased (for example, during 1997, the average amount planted in oil seed alone was .14 HA's/family; this planting took place before Africare's outreach began).

Oil seed fits well into the Manica farmer's planting schedule. Land clearing and planting for maize and sorghum is completed during mid-November through the end of December. It is often inter-cropped with cassava or ground nuts (especially in the northern part of the province). Oil seed is planted during the period mid-January through the end of February. There is limited competition between the principal food crops and oil seed.

Most of the labor provided for small-scale agriculture comes from the family. Given the large amounts of arable land to be brought back into production and that the secondary return movement of the population from the urban and rural commercial centers to the more isolated parts of the districts would be somewhat restricted due to insecurity, Africare determined (in 1996) that labor scarcity would be the principal constraint to increase land under cultivation by the small-scale sector (beyond 2 HA's/family). Because of its prior large livestock population and a tradition of using animal traction, it was hypothesized that this would be the most appropriate method by which more land could be tilled, and planted in oil seed. The experience to date supports that hypothesis, available outside labor remains scarce, but a significant number of farmers who have received support from Africare are using

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[18] The discussion on soils conditions and vegetative zones in Manica Province is taken from the Integrated Rural Development Strategy Plan for Manica Province, prepared by GTZ′s Mozambique Agricultural Rural Reconstruction Program, January 1995.

animal traction to prepare their land for planting (animal traction promotion is not an explicit activity of Africare's program).

2.3 Mozambican Environmental Policies And Procedures

In May 1996, the Ministry of Coordination For Environmental Action (MICOA) published the *Programa Nacional De Gestão Ambiental* (National Program Of Environmental Management - NPEM). This document represents several years of effort to present the Mozambican government's policies on environmental monitoring and objectives. This document identifies the government's principal environmental policy challenges as 1) a weak institutional capacity for rational management of its national resources, weak technical capacity, lack of intra-sectorial coordination and over-centralization of authority; 2) an inappropriate and/or incomplete sectorial legislation; 3) lack of an environmental education program; 4) limited information and research about the environment, especially in relation to coastal development.

Mozambique's environmental policy can be summarized as follows:

> "Targeting the progressive eradication of poverty and the improvement in the quality of life as well as a reduction in environmental damage. The principal objective is to guarantee sustainable development, considering specific conditions, via an acceptable and realistic compromise between socio-economic progress and environmental protection" (page 63).

In relation to rural communities (such as where Africare is working), the NPEM seeks to create incentives in the rural population to increase agricultural production and to establish the legal and institutional capacity for decentralization and a community management system of natural resources. The "service delivery" implied in the NPEM is to be provided by other ministries and governmental agencies that work in rural zones. As such, the NPEM is a comprehensive policy document with limited resources to support its implementation at the local level.

The time frame for the implementation of the NPEM is ten years. Since it publication, much effort has been made by the MICOA to secure donor support for its activities at the provincial and district level. Inter-sectorial coordination is being promoted, with MICOA providing general guidance. At the local level, the active participation of communities is being solicited, including the development of environmental education materials.

Africare has negotiated a Project Accord with the Manica Provincial Government in support of the MOSFSI, and separate Protocols of Cooperation with the Provincial Directorates of Agriculture and Health. The Ministry of Agriculture recognizes the importance of oil seed to the small-scale farmer, and has welcomed Africare's involvement in this crop's promotion. During the 1997 and 1998 planting seasons, government extension agents did not have an extension strategy for oil seed; no policy guidance was prepared (at either the national or provincial levels) and most of the field staff were not minimally-trained in this crop's husbandry techniques. Part of Africare's support has been to become well-integrated within the MOA's planning efforts, specifically for oil seed. This regular collaboration takes place at both the provincial and district level, and has included specific training activities for government extension agents in oil seed crop husbandry practices. This support has been well-received and it is probable that by the end of the DAP implementation period, ministry guidelines for oil seed cultivation in Manica Province will be a direct result of Africare's outreach and collaboration.

EVALUATION OF PROJECT/PROGRAM ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL.

3.1 Introduction

Many of the activities being completed under the technical components of the MOSFSI are related to training and the provision of technical assistance and are having little impact on the local environment. There are certain aspects of the program that deserve analysis, these are presented below.

3.2 Monetization

The importation and monetization of agricultural commodities is one of the principal sources of funding for Africare's DAP (and the other five Cooperating Sponsors that participate in the joint monetization program). The commodities are shipped from the US and are turned over to local traders at a Mozambican port. The PVO's do not physically import, clear, nor store the commodities; that is the responsibility of the trader. Sufficient storage exists at each of the three principal ports where both of the commodities are physically received (wheat and unrefined oil). This is confirmed by annual updates of the Bellmon Determination and Disincentive Analysis (the most recent copy of this analysis is included in the FY'99 PAA). All processing of the commodities takes place within the same city where it is received, using existing infrastructure owned by the traders (wheat mills and oil refineries), including packaging and marketing to urban consumers and rural commercial centers. There is limited present or future changes to the environment anticipated from the monetization activity.

3.3 Oils Promotion Component

The principal activities being completed by the Africare Oils staff in Manica Province are presented and analyzed below for potential environmental impact.

Oil Seed Production:

1) Training and extension support in improved oil seed husbandry techniques.

Africare has established a system for the transfer and reenforcement of key husbandry messages to small-scale farmers to improve yields of both sunflower and sesame. Fifty Lead Farmers have been trained in these techniques and are responsible to transfer them to the different farmer groups with whom they are working. This process is supervised by an Africare extensionist (one per district). Africare's agronomist spends most of his time in the field, observing the transfer of these messages (proper planting space, number of seeds per station, appropriate time for "rogueing", thinning and weeding) and making needed refinements. During FY'98, approximately 3,500 families have received extension support by Africare's staff, in addition to other extension support provided by ministry officials and other agencies (with whom Africare works closely). All of the farmers with whom Africare is working are planting fields of less than one hectare. No chemical inputs are included in the husbandry package being promoted and there are no natural reserves or special protected land zones within the target areas. The use of improved seed is the key to ensuring higher yields, in addition to solid farm management. The LOA target for number of hectares planted with oil seed is 17,783 HA's (planted by an estimated total of 42,402 farmers).

The environmental impact of adoption of these messages within the farmer's farm management include reduced erosion (proper plant spacing), maintain soil fertility (timely weeding and thinning) and improved stalk development (limited number of seeds planted within each station). These impacts will be sustainable because experience with similar activities in Mozambique and Southern Africa (in addition to Africare's initial planting season in 1998) make clear that the impact of these management practices are a significantly higher yield of high-oil content seeds. Small farmers will rationally continue these practices after they have "seen" the positive result.

2) Promotion of open-pollinated high oil-content seeds for the small-scale farmer.

Open-pollinated varieties of oil seed are superior in oil content to other varieties that have been harvested in the province during the past several years (including promotion by other organizations of second and third

generation hybrid seed). The advantages to the small-scale farmer of open-pollinated oil seed include an acceptable germination rate in the second and third generations with no increased field managements inputs and a significantly lower cost per hectare for planting seed when compared to hybrid varieties. These advantages have been documented by the on-going oil seed promotion activities throughout Southern Africa (Zimbabwe, Zambia, Tanzania, Kenya, Uganda and northern Mozambique). The seed that is being sold through the Lead Farmers and private sector sales points is the "Black Record" variety, originally from Romania, that has been brought to and successfully adapted within Southern Africa during the past fifteen years.

A principal difference between open-pollinated and hybrid seeds (besides cost) is that hybrid seeds are much more responsive to chemical inputs, which are quite expensive and generally unavailable in the Mozambican market. Traditional small-scale farming practices include the "selecting out" of part of each year's harvest to be planted the following year. The promotion of open-pollinated varieties is preferred because 1) no chemical inputs are required to receive acceptable yields and 2) their use directly complements the farmer's existing practices to select part of each year's harvest to be planted the following season and still receive positive germination rates and yields of higher oil content seed.

From an environmental perspective, open-pollinated seed offers additional important advantages. Research completed by the "Sunflower Project" of Universidade Eduardo Mondlane indicates that open-pollinated sunflower (including Black Record) produces well under reduced rainfall conditions, with minimal nutrient depletion of the soil. Both the sunflower and sesame plants have the ability to grow significantly into the soil horizons to access retained moisture and nutrients at these lower levels. This is especially important within the context of Mozambique's susceptibility to drought. There is a strong tradition of oil seed planting in Manica Province (see Africare's DAP, pages 1 -5) and small-scale farmers with whom Africare is working have been able to plant open-pollinated seeds on the same plot 2-3 years consecutively with minimal reductions in yields. One of the reasons for this is the fact that soils in the province (especially in the majority of the implementation area within the five target areas) are generally well-drained and fertile. Manica province is one of the major cereals producers for the southern part of the country; the amount of marketed agricultural production has grown significantly during the past three years. Another environmental advantage to sesame in Manica is its inherent resistance to nemotode development within the soil. Sesame is used in rotation with several cash crops in the province (principally tobacco and cotton) because of this characteristic.

Working with the university and the National Seed Service, Africare has supported training of provincial-based Seed Inspectors to improve their ability to monitor plant development of sunflower in the field. One aspect of this training has been to ensure that oil seed planted in the province is not creating unforseen environmental impacts. Examples include identification of the most appropriate sites (e.g. well-drained) for seed multiplication to take place (Africare consulted with SNS to identify the plots being used for multiplication on several commercial farms), recognition of the possible types of pests that can attack sunflower or sesame during plant growth and the types of response to these infestations (pests have not been a problem during the 1998 growing season) and assessment of stalk development after germination to determine if the field is well-maintained.

Selected parts of the eastern half of Africare's target districts are considered more marginal, because of slightly lower rainfall levels and a higher prevalence of the tse-tse fly, reducing the possibility of using animal traction to increase land under production. However, the drought-resistence qualities of open-pollinated seed are recognized by local farmers in these areas, especially during minimal rainfall seasons, making it superior to staple food crops such as maize. Sunflower is successfully inter-cropped with beans, taking advantage of the "nitrogen fixing" characteristics of the latter crop, while both plants' root systems do not compete because they are accessing water and nutrients at different soil horizons.

The possibility of increased pest infestation and/or disease exists with oil seed, as with any other crop. This is being monitored by Africare staff, as are any other unforseen changes in environmental conditions as a result of increased oil seed planting (See Section 4.2 below).

Africare has supported the formation of an "Oils Consortium", comprised of the PVO's working in the oils sector, commercial oil refineries and the university's Sunflower Project. The consortium meets twice per year to review activities, compare experiences and jointly plan collaborative research activities. This latter activity includes the sharing of different oil seed varieties for applied research under different agronomic conditions and the dissemination of any unforseen changes, including environmental impacts.

3) Establishment of a private-sector-driven seed multiplication system.

4) Identification of different outlets for the sale of increased oil seed production (village presses and/or commercial refineries).

These two activities are jointly discussed because they are focused on how the farmer receives planting seed and sells harvested seed for crushing. Africare has developed a seed provision system that satisfies several needs. For the 1998 planting campaign, 14 MT's of planting seed was purchased from CARE's oil program in Nampula Province (this has been sold and planted during the current planting year).. In addition, a limited amount of "basic" and "pre-basic" seed was sourced from Africare's oils program in Zambia and from the government's research station in Sussendenga. Contracts have been made with three commercial agricultural enterprises to multiply a large amount of basic seed during 1998, to provide 60 MT's planting seed that will be sold during 1999. A limited amount of "pre-basic" seed will be selected out of the 1998 harvest, that will be the "basic or bulking" seed for 1999, that will provide the planting seed for 2000. Seed multiplication has been established within the province to develop locally-produced open-pollinated, high oil content varieties of oil seed that are most appropriate to Manica's soils, in addition to providing an ample supply of crushing seed to satisfy local demand.

These multiplication contracts require the commercial farmer to provide a stipulated amount of seed, that will be purchased at an agreed upon price after the harvest. The multiplier must follow Africare's husbandry practices (timing for weeding etc.), allow the field to be inspected by the National Seed Service, have irrigation available (if necessary) and apply the micro-nutrient "Boron" to the plant at flowering. During FY'98, the role of the commercial farmer will be limited to the provision of the multiplied seed to Africare. One of the commercial farms has been contracted to clean and bag the seed, prior to its being stored by Africare until the 1999 planting season. It is expected that these companies will increase their role in this system, eventually to include all aspects of wholesale promotion of planting seed as a fully commercial activity.

The packaging of the seed to be promoted involves placing each type of oil seed (sunflower and sesame) in 1 KG or 2 KG bags, that will be sold to individual farmers. It is necessary to store the planting seed for several months after the harvest, prior to the subsequent planting season. For this reason, the multiplied or certified seed must be cleaned immediately after harvest, and have Actellic Powder applied (an insecticide that protects the seed during storage from pest infestation) and package the seeds, prior to secure storage for several months. The Actellic Powder dissolves 7 - 14 days after application and is necessary to minimize damage prior to planting. It is applied only once prior to storage, by trained Africare senior technical staff. Per CFR 216.3 (b) (1), Appendix A is a *Pesticide Analysis And Action Plan* that details the conditions under which this sub-activity will take place.

A farmer makes the decision to plant oil seed based on the opportunities for selling the harvest. Establishment of manual presses is an obvious sales source (and press owners are involved in the sale of planting seed within their communities). Africare is also facilitating contacts with a commercial expeller in Chimoio and a large refinery in Beira, to purchase large amounts of crushing seed.

5) Field level research of different varieties of oil seed.

Working in collaboration with several other agencies (Agricultural Research Service, World Vision and SEMOC/Seed Co.), research plots have been established within the target districts, to compare performance of open-pollinated and hybrid varieties of oil seed. These plots cover less than .25 HA. In addition, Results Demonstration Plots were established by both Africare extensionists and Lead Farmers, near principal roads, to provide an example to other farmers. These plots are also on less than .25 HA's of land. No chemical inputs are

used in either type of plot. The research plots are based on a comparison of different management techniques (amount of weeding, thinning) and the reaction of different varieties to local conditions. Another important objective of this activity is to determine if there are any unforseen environmental consequences to oil seed planting (i.e. reduced drainage).

6) Promotion of improved methods of post-harvest drying and storage of oil seeds.

During the 1998 harvest, a limited number of "drying tables" will be established at Leader Farmer fields. These will be constructed from local materials, and use plastic sheeting as the key component to improve drying of the seed. They will be used by Leader Farmers as an example to other farmers of the improvement in oil extraction from properly dried seeds.

Africare will build ten small storage facilities (maximum capacity of 10 MT's of seed each) at selected points in the target districts. These facilities will be constructed from local materials and be designed to reduce pest infestation and maintain the most appropriate air environment for short-term seed storage. The seed that is harvested by small-scale farmers to be sold to village presses and/or commercial refineries will be placed in these facilities during April - July (the pressing season). The seed treated with insecticide will be multiplied and stored in these same facilities during August - December.
The land onto which these sheds will be constructed will be level and well-drained. No site will be selected on fragile soils nor any "sensitive" areas.

Besides being an on-field storage site, they will be used in collaboration with several store owners to improve marketing of large amounts of seed, to be sold to commercial refineries (i.e. provide another local outlet for a farmer to sell his harvest in addition to the village-based press). The seed stored in these facilities during the harvest season will not be there for longer than several weeks, because the demand for crushing seed will be high.

Oil Seed Processing:

7) Oil press demonstrations at the community level.

The most effective method to generate demand for manual processing technology is the community press demonstration. Africare has completed more than 150 demonstrations to date. Often in collaboration with a press owner from a neighboring community, the press is presented to the people in attendance and a limited amount is pressed. This oil is then passed through a "bucket" filter or is boiled in water (these are the two methods to complete the processing). An explanation is given about the way to acquire a press. Because the press is mobile, the demonstration can take place anywhere within the district. Each demonstration takes place within the community (at a public meeting place) and takes approximately two hours to complete.

8) Sale and marketing of manual oil presses, including credit provision.

The sale of oil presses involves contact between interested people and Africare's oil promotion staff (often after a community press demonstration). The terms to purchase a press are presented and an agreement signed. If the press owner cannot pay the entire amount up front, there are several credit options (including leasing). Of the 27 press sales during FY'97, 75% were made by credit. Africare's target for operating presses in the target districts by the end of FY'98 is 85 (370 by LOA).

Manual oil press technology is considered "environmentally friendly" because the entire oil seed is effectively used. In addition to the oil that is produced, the remaining "cake" is an excellent source of livestock feed. The press itself is mobile (less than 40 KG's) and no construction is required prior to pressing.

9) Training and technical assistance to Press Owners.

A variety of training is provided to new press owners, about daily maintenance that is required, the most effective pressing techniques, the different ways by which pressing services can be offered, and establishment of an inventory and cash flow system. This support continues throughout the pressing season (at least weekly visits).

10) Train rural artisans to provide repair services at the village level

This training will take place during the second half of FY'98, and provide local blacksmiths and bicycle mechanics with the knowledge they need to repair the most common problems that manual presses have.

11) Training of sales agents to market oil presses.

12) Support private sector to import and maintain stocks of presses and spare parts.

Contacts between Africare and the private sector are focused on increasing the latter's participation in support of processing activities. This includes training private company employees and rural store owners about the advantage of the press and its proven profit-making qualities. A large amount of presses will be imported from Zimbabwe during FY'98 by a commercial operator in Chimoio. This importation is being made for Africare and will increase the private sector's involvement in the provision of presses and spare parts.

13) Promotion of the appropriate mix of oil seed "cake" for improved animal feed.

The "cake" that remains in the press after oil extraction is a high nutrient product that can be used to make an improved livestock feed. Because livestock in Manica is relatively important (and has increased significantly during the past five years), the sale of oil seed cake to livestock producers is an additional sources of income for the press owner. When mixed properly with other types of grain "chaff", it is an excellent feed for small livestock. Working with the Press Owners and Lead Farmers, the use of cake for livestock feed will be promoted. No chemical by-products will be used (salt will be added to the feed).

One possible environmental consequence from oil seed cake is if it were not to be used as a livestock feed and simply "thrown away" (i.e. possibly entering ground water sources). This will not occur for several reasons. The cake represents an additional source of income for the press owner (most of the cake produced during the 1997 pressing season was sold for livestock feed). Small-scale livestock is an important secondary activity for most families in the province. The cake is especially appropriate for goats, chickens, pigs and turkeys which are raised in every community that will have an oil press. Part of Africare's outreach is to encourage the use of oil seed cake for livestock feed and to monitor if existing stocks are not being consumed. Africare staff have received training in the most appropriate mixes of oil seed cake for small-scale livestock; this training has been incorporated into the recommendations being made within the target communities.

3.4 Household Nutrition Component

The principal activities being completed by the Africare Nutrition staff in Manica Province are presented and analyzed below for potential environmental impact.

1) Formation and support of Village Food Security Committees (VFSC's).

2) Training and support of Community Nutrition Activists.

3) Development of a nutritional education curriculum (with IEC materials)

The three activities presented above are the basis of Africare's training and outreach within nutrition education. An important part of this process is the facilitation of a community analysis to identify constraints to improved food security. Fifty VFSC's will have been established and operating by the end of FY'98 (80 by LOA).

4) Monthly growth-monitoring/educational sessions of under-five children.

The purpose of the weighing sessions is to reenforce to the mother that if the child eats a better balanced diet, monthly weight gain will be improved. These sessions are directed by Africare's nutritionists and/or nutrition activists, using a weighing scale that is designed to show illiterate mothers how a child's weight fluctuates from month to month. These sessions are conducted outdoors and no local materials are needed.

5) House to house visits with members of the VFSC's that have children with serious nutritional problems.

As a follow-up to support for Village Food Security Committees, Africare staff are completing house to house visits to provide more specific training to mothers with children in difficult nutritional circumstances.

6) Transfer and reenforcement of a series of nutritional-related messages, presented during culinary demonstrations, traditional theater, radio "spots" and group discussions about diet, good health and obstacles to improve these;

The culinary demonstrations take place with small groups of mothers, focusing on enriched weaning foods and increased consumption of leafy vegetables and oil. Only local foods are used, with an increasing amount of the food used in the demonstrations to be provided by the mothers. These sessions are followed by group discussions of food preparation and the relationship different foods have with health and nutritional well-being. Theater and radio are reenforcing activities for improved nutritional practices.

7) Establishment of a "Micro-Project Fund" that supports community-based efforts to reduce constraints to improved household food security and nutrition.

This activity will begin during the second half of FY'98. A limited amount of funding will be provided to those Village Food Security Committees that have proven to be well-organized and willing to work with Africare staff. The funding will be used to purchase items in support of an activity that will improve food security for the members. Examples are gardening tools, vegetable seeds and improved storage containers. All labor must be provided by the community. No micro-projects will involve construction or land clearing/development.

RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION).

4.1 Recommended IEE Determinations

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216.2 (c) (1) (i)..."*having no adverse effect on the natural or physical environment*".

- Monetization of agricultural commodities
- Support private sector to import and maintain stocks of presses and spare parts

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (i)... "*education, technical assistance or training programs to the extent such programs includes activities directly affecting the environment*"*:*

- Training and extension support in improved oil seed husbandry techniques.
- Training and technical assistance to Press Owners.
- Train rural artisans to provide repair services at the village level
- Training of sales agents to market oil presses.

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (ii)... "*controlled experimentation exclusively for the purpose of research and field evaluation which are confined to small areas and carefully monitored*"*:*

- Field level research of different varieties of oil seed.

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (v)..."*document and information transfers"*:

- Oil press demonstrations at the community level.
- Identification of different outlets for the sale of increased oil seed production (village presses and/or commercial refineries).

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (viii)..."*Program involving nutrition, health care or population & family planning services except to the extent designed to include activities directly affecting the environment"*

- Formation and support of Village Food Security Committees (VFSC's).
- Training and support of Community Nutrition Activists.
- Development of a nutritional education curriculum (with IEC materials)
- Monthly growth-monitoring/educational sessions of under-five children.
- House to house visits with members of the VFSC's that have children with serious nutritional problems.
- Transfer and reenforcement of a series of nutritional-related messages, presented during culinary demonstrations, traditional theater, radio "spots" and group discussions about diet, good health and obstacles to improve these;

- Establishment of a "Micro-Project Fund" that supports community-based efforts to reduce constraints to improved household food security and nutrition

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (x)... "*support for intermediate credit institutions when the objective is to assist in the capitalization of the institution or part thereof and when such support does not involve reservation of the right to review and approve individual loans made by the institution*":

- Sale and marketing of manual oil presses, including credit provision

A **Negative Determination With Conditions** is recommended for the following activities, per 22 CFR 216.3 (a) (2) (iii)... " a N*egative Determination will be recorded if the proposed activity will have no significant impact on the environmen*"*:*

- Promotion of open-pollinated high oil-content seeds for the small-scale farmer.
- Promotion of improved methods of post-harvest drying and storage of oil seeds.
- Promotion of the appropriate mix of oil seed "cake" for improved animal feed.

While negative environmental impact is not expected with an increased planting of open-pollinated oil seed, monitoring by Africare staff will ensure that no adverse conditions are created, such as increased pest infestation for other crops or overly-depleted fields.

The drying tables on farmer's fields and storage sheds at selected points in the districts will be properly "sited" to not increase soil erosion and will not be near fragile land.

An important part of Africare's outreach and monitoring of oil seed cake usage will be to ensure that the cake is disposed of properly, to not contaminate ground water sources.

A **Negative Determination With Conditions** is recommended for the following activity, per 22 CFR 216.3 (b) (1) (iii)... "*assistance for procurement or use, or both, of pesticides registered for the same or similar uses by USEPA...":*

- Establishment of a private-sector-driven seed multiplication system, including the packaging and protection of planting seed (with insecticide) prior to long-term storage.

The potential for adverse impact is significantly reduced because the insecticide is only applied once, under the direct supervision of trained Africare senior staff, prior to completing the bagging of the seeds and placement for storage (these will be the only individuals to physically handle the product). Promotion with small-scale farmers to use this type of storage insecticide is not included in Africare's program. Specific conditions are included in Appendix A (Pesticide Analysis and Action Plan).

4.2 Mitigation, Monitoring And Evaluation

Despite the fact that most of the activities to be completed under the MOSFSI are being recommended as having no direct adverse impact on the environment, Africare staff will complete regular monitoring of field implementation to ensure that no unforseen impacts develop. The majority of this environmental monitoring is taking place with the Oils Promotion Component. It is unlikely that any changes in the monetization program will create adverse environmental impacts. The Household Nutrition Component will also not likely develop environmental impacts, given that outreach activities such as immunization, blood testing or family planning promotion services are not included (nor are they expected to be added at a later date). However, should major modifications to the Household Nutrition Component occur that would incorporate new and potentially damaging activities, appropriate modifications to the recommended Threshold Decisions for each activity would be made.

The improved husbandry techniques being promoted for oil seed by Africare are "environmental friendly". Proper plant spacing, limiting the number of seeds per planting station and timely weeding are recommended techniques for any type of improved farming. Land preparation prior to planting is not included in the outreach program, but techniques such as contour planting, wind break establishment and animal traction are being promoted by other agencies and complement Africare's program. The initial experience with farmers during the 1998 planting season is that it is critical to reenforce the messages that are transferred; a significant amount of oil seed was "broadcast planted" despite repeated messages and demonstrations about the advantages of proper line spacing that result in higher yields.

Africare staff are responsible for monitoring any detrimental effects that result from an increase in oil seed planting and confirming that open-pollinated varieties continue to be the most appropriate from a financial and environmental perspective. Support is being provided to local farmers as they identify land to be prepared for oil seed planting. Fragile soils more prone to excessive erosion will be identified. Possible impacts on the local environment are included in the husbandry messages being transferred to farmers. Problems resulting from pest infestation and/or disease will be reported to Africare to expand collaborative work with other organizations to identify solutions, including Integrated Pest Management techniques, or more appropriate inter-cropping planting combinations. Research trials with other PVO's, the Sunflower Project and the Agricultural Research Station in Sussendenga will continue through the end of the DAP implementation period. The sharing of research conducted in other parts of Mozambique (through the Oils Consortium) is a source of information to overcome any negative environmental impacts that might be recorded.

Should increased soil erosion or poor drainage be identified by Africare staff (especially in the eastern more marginal rainfall areas of the target districts), specific recommendations will be made to the farmer to reduce this adverse impact (i.e. selection of land to be planted and/or specific land preparation techniques). An important monitoring activity is the tracking of yields on a representative sample of the farmers planting oil seed, and how

this changes from one year to the next. Significant reductions in yields due to insufficient nutrients in the soil would require the farmer to leave plots of land in fallow on a regular basis (although experience in Manica suggests that most farmers already do this).

This field monitoring takes place with government and research service personnel; one of the objectives of the Research and Results Demonstrations Plots is to identify the most appropriate combination of seed variety with different agronomic and climatic conditions, to receive high yields and minimal land degradation. All improved seeds that are being promoted have been certified for minimal oil content and germination rates by the National Seed Service.

Pesticides and fertilizers are not part of the Oils Promotion extension program. However, the use of fertilizer can effectively increase oil seed production (this has been little used in Mozambique to date, due to its prohibitive cost per hectare). Should Africare staff become aware of individual farmers using chemical fertilizers or a decision be made to include this input into the package being promoted, this would be included in an annual update of the IEE for the DAP, before promotion of this input. Any changes in the recommended IEE determinations would require USAID approval (e.g. to include chemical inputs in the outreach program).

The establishment of oil processing enterprises is also considered "environmental friendly" because the press is portable and requires no construction prior to its use. More importantly, it uses the entire harvested seed, first during the oil extraction process and second by the "cake" that provides the basis for improved animal feed. The farmers and press owners that are involved in the oil seed industry being created in the five target districts receive regular support from Africare staff throughout the growing season and the pressing season, respectively.

In addition to the district-based Oil Promoters/Extensionists, there are four technical staff that spend 50-60% of their time in the target districts. Finally, Africare has a full time M&E Officer that spends the majority of his time in the districts, recording the types of activities being completed and, more importantly, the impacts (both positive and negative) these activities are having at the community and household level. An important part of this monitoring includes the proper siting of on-farm drying tables and improved storage facilities and confirming that oil seed cake is being effectively used for livestock feed and not disposed of in an environmentally inappropriate manner. The storage sheds to be constructed during FY'98 will be directly managed by Africare and no further construction of similar structures will take place during the remaining three years of the DAP.

The initial experience with the packaging and storage of planting seed (identified above) will take place during the last quarter of FY'98. The multiplication of the seed is being completed under contract with commercial farmers. The cleaning and bagging of the seed will be completed by one commercial farm. Insecticide application and storage of the seed until the subsequent planting season will be completed by Africare staff. It is expected that in future years, commercial farmers will become more involved in this process (as part of the general objective to increase the role of the private sector in support of an oils industry), including the packaging and storage of seed prior to the subsequent planting season. This would also involve the application of insecticide to the seed by the multiplier, which would take place under the supervision of Africare staff.

As presented in Appendix A, post-harvest insecticide will be applied within an enclosed structure by trained Africare staff, in the appropriate quantities to provide long-term protection from pest infestation. The recommended product for this application, Actellic, is registered by both USEPA and the Mozambican Department of Plant Protection for use with stored grains. This product is available in Manica and appropriate equipment and protective clothing will be used. Provincial agricultural authorities will be requested to monitor this application, to ensure that Africare adhere's to existing guidelines. The use of this product is not being promoted within the small-scale farming sector.

5. SUMMARY OF FINDINGS

This IEE has been completed under the guidelines issued by USAID/BHR/FFP and Africa Bureau to Title II Cooperating Sponsors implementing Development Activity Programs (DAP) for Environmental Compliance Procedures. Included is an analysis of all activities that have been begun by Africare (since FY'97) of its on-going

Title II activity - the Manica Oil Seed Food Security Initiative - and other activities that will be completed during the expected life of activity. Based on this analysis, including a review of field experience, project impact and existing national and USAID regulations, the following determinations are being recommended:

A **Categorical Exclusion** is recommended for the following activities per 22 CFR 216.2 (c) (1) (i): 1) Monetization of agricultural commodities; 2) Support private sector to import and maintain stocks of presses and spare parts.

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (i): 1) Training and extension support in improved oil seed husbandry techniques;
2) Training and technical assistance to Press Owners; 3) Train rural artisans to provide repair services at the village level; 4) Training of sales agents to market oil presses.

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (ii)*:* 1) Field level research of different varieties of oil seed.

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (v): 1) Oil press demonstrations at the community level; 2) Identification of different outlets for the sale of increased oil seed production (village presses and/or commercial refineries).

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (viii). 1) Formation and support of Village Food Security Committees (VFSC's);
2) Training and support of Community Nutrition Activists; 3) Development of a nutritional education curriculum (with IEC materials); 4) Monthly growth-monitoring/educational sessions of under-five children; 5) House to house visits with members of the VFSC's that have children with serious nutritional problems 6) Transfer and reenforcement of a series of nutritional-related messages, presented during culinary demonstrations, traditional theater, radio "spots" and group discussions about diet, good health and obstacles to improve these;
7) Establishment of a "Micro-Project Fund" that supports community-based efforts to reduce constraints to improved household food security and nutrition.

A **Categorical Exclusion** is recommended for the following activities, per 22 CFR 216 2 (c) (2) (x): 1) Sale and marketing of manual oil presses, including credit provision.

A **Negative Determination with conditions** is recommended for the following activities, per 22 CFR 216.3 (a) (2) (iii):

1) Promotion of open-pollinated high oil-content seeds for the small-scale farmer.

Ensure that no adverse conditions are created, such as increased pest infestations for other crops or overly-depleted fields.

2) Promotion of improved methods of post-harvest drying and storage of oil seeds.

Drying tables on farmer's fields and storage sheds in the target districts will be properly sited to not increase soil erosion and will not be near fragile or inappropriate land.

3) Promotion of the appropriate mix of oil seed "cake" for improved animal feed.

Ensure that oil seed cake is disposed of properly, to not contaminate ground water sources.

A **Negative Determination with conditions** is recommended for the following activity, per 22 CFR 216.3 (b) (1): 1) Establishment of a private-sector-driven seed multiplication system, including the packaging and protection of planting seed (with insecticide) prior to long-term storage.

Conditions as specified in Appendix A (Pesticide Analysis and Action Plan).

REFERENCES

Africare: Manica Oil Seed Food Security Initiative, FY'97 Development Activity Proposal, May 1996.

_____: Manica Oil Seed Food Security Initiative, FY'99 Previously-Approved Activity Request, April 1998.

CARE/Mozambique, Request For Authorization To Apply Post Harvest Pesticide, Submitted To USAID/Mozambique, August 1995.

GTZ MARRP: Integrated Rural Development Strategy for Manica Province, January 1995.

Ministry of Agriculture Department Of Plant Protection: "Guia De Pesticidas", January 1994.

USAID Bureau for Africa: Environmental Guidelines For Small-Scale Activities in Africa, June 1996.

USAID Bureau for Humanitarian Response: Environmental Documentation Manual, Final Draft January 1998.

USAID/Mozambique: Supplemental Environmental Assessment Of Pest Management and Pesticide Use In the Private Voluntary Organization Support Projects of USAID/Mozambique, January 1994.

Appendix A: Pesticide Analysis And Action Plan

Africare/Mozambique Title II IEE/CE Request
Post-Harvest Insecticide Application On Oil Seed

Background

During the 1998 planting season, Africare contracted three commercial farmers in Manica Province to multiply "basic" open-pollinated sunflower and sesame seed on their own fields. The seed that will be harvested on these farms will be the planting seed to be sold to small-scale farmers within Africare's target districts during the 1999 planting season. The original target of multiplied seed to be received was 60 MT's. The harvest period has begun (at the time of this writing - May 1998). It is expected that at least 40 MT's will be harvested during the period June - July 1998.

It will be necessary to store this multiplied seed for up to five months (through December 1998), prior to beginning the marketing of this planting seed to small-scale farmers. The seed will be stored in improved storage sheds that are being constructed under Africare's management (see IEE text, section 3.3). To further protect this seed from insect damage, authorization is requested to apply the "Actellic" insecticide to the seed prior to it being bagged and stored.

Analysis

The following analysis follows the recommended outline, as per 22 CFR 216.3 (b) (1) (a-l):

USEPA's registration status of the requested pesticide:

Actellic (generic name perimiphos-methyl) is a USEPA-registered pesticide that is classified for "general use". It is an organophosphate with a USEPA Toxicity Class of III (Caution). It controls a wide range of pests affecting grains and other stored products. It is a rapid acting chemical with a 7 day toxicity cycle and is effective in warm and humid climates. Actellic acts through fumigation and ingestion and has a low mammalian toxicity. Authorization is requested to use this product in powder form.

Basis for selection of the requested pesticide:

Actellic is highly recommended for use on stored grains (and is approved for this purpose in the Supplementary Environmental Assessment completed for USAID/M's PVO Support I Project). Attached is a copy of a table from the SEA that identifies perimiphos-methyl as approved for use with stored grains. It is registered by the Mozambican Ministry of Agriculture's Department of Plant Protection for use on stored grains and is the least toxic of other available products. Previous experience by other PVO's (CARE/Nampula) has confirmed that it is the most effective product for this purpose.

Extent to which the proposed pesticide is part of an IPM:

This application is not part of an Integrated Pest Management strategy because post-harvest insecticide application is <u>not</u> included in Africare's outreach and training with small-scale farmer's in Manica Province. This application is to be made to protect multiplied seed in storage prior to being sold to small-scale farmers. Its use will take place within a secure environment (i.e. within an enclosed structure) by trained Africare staff.

Proposed method or methods of application, including availability of appropriate application and safety equipment:

The application of this product will take place prior to the bagging of the seed into 1 KG polyurethane bags. The bagging and cleaning will take place within a large warehouse on the grounds of one of the commercial farms that have multiplied seed during 1998. This farm has been contracted by Africare to clean the seed that will then be placed into large sacks, capable of holding up to 50 KG's of seed each. The Actellic powder will be applied directly (dusted) onto the seed in these large bags (an application rate of 20 - 50 grams of powder per 100 KG's of seed). This will take place at the warehouse where the bagging will take place. The seed will be sealed in these large bags for 15 days prior to initiating bagging into the smaller bags.

After it has been bagged in 1 KG bags, the seed will be stored in ten different storage sheds located throughout Africare's target districts. Each shed has a maximum capacity of 10 MT's; part of the walls will be wire-mesh, providing appropriate ventilation. Prior to placing the bagged seed in each storage shed, it will be disinfected with a common cleaning product.

The following equipment will be used by Africare staff during this application:

- Protective mask
- Rubber gloves and boots
- A set of overalls

The precautionary recommendations included on the packaging of this product will be strictly followed, including the use of a mask over mouth and nose, immediate removal of clothing used during application and burning of used containers. Prior to application and as per recommendations on the Actellic container, the product will be stored in its original container in Africare/Chimoio's warehouse. The warehouse will be locked and well-ventilated. Any person entering the warehouse will be informed of its existence and be aware of the toxicity of the product.

Any acute and long-term toxicological hazards, either human or environmental, associated with the proposed use and measures available to minimize such hazards:

Acute toxicity (LD50 in MG/KG) of Actellic is +2,000 oral and + 4,592 dermal. Eye effects are no corneal opacity, irritation is reversible in seven days. Skin effects are moderate irritation at 72 hours. Soap, water and hand towels will be available during application for immediate washing of hands and eyes (if necessary).

Effectiveness of the requested pesticide for the proposed use:

According to the Department of Plant Protection's "Guia de Pesticidas Registados em Moçambique" (1994), Actellic is "registered for use in public health and to control pests in stored products". It has a toxicity level of "Ligeiramente" (USE WITH CAUTION). As per the SEA completed for USAID/Mozambique in 1994, Actellic is most appropriate to be used with stored grain (see attached table and presentation of Actellic uses).

Compatibility of the proposed pesticide with target and non-target ecosystems:

The proposed application of Actellic by Africare will take place within an enclosed structure only. The use of Actellic powder within an enclosed, ventilated warehouse is recommended (see attached information). Because of the controlled conditions under which application will take place, no contact with non-target ecosystems is expected.

Conditions under which the pesticide are to be used, including climate, flora, fauna, geography, hydrology and soils:

The use of Actellic as presented for post-harvest storage protection (within an enclosed warehouse) will not contact flora, fauna, open water sources or fragile soils.

Availability and effectiveness of other pesticides or non-chemical management methods:

While there are other pesticides available that are effective for the proposed use, it has been determined that Actellic is the least toxic and has been used successfully for similar purposes within Mozambique (post-harvest storage protection of oil seed). Due to the length of time required to store this seed, it has also been determined that an exclusive non-chemical storage management strategy would result in significant losses due to pest infestation.

Requesting country's availability to regulate or control the distribution, storage, use and disposal of the requested pesticide:

As presented in the SEA for USAID/M, there is limited control of pesticide use in the country and "*...much of the responsibility for safe and effective pesticide use by PVO's must be borne by the PVO Support Project and the PVO's themselves* (page 38)". Limited support has been provided to the Ministry of Agriculture in warehouse inspection and plant quarantine, but this has not covered the entire country. Africare's own contacts in Manica Province indicates that very little, if any, regulation of pesticide use takes place on a regular basis. The Manica Provincial Directorate of Agriculture will be informed of this pesticide application and requested to inspect the facilities and preparations prior to application.

Provisions made for training of users and applicators:

Actellic will be applied by Africare/Chimoio's agronomist (trained at a Atechnical-vocational level), who has 10 years experience working in agricultural development projects, including the use of pesticides. He has been involved with research activities and on-farm trials of different chemical inputs in small-scale agricultural initiatives and has worked with Actellic previously. The expatriate Oils Promotion Coordinator will supervise this application. He also has worked with Actellic previously and has 6 years experience working with oil seed crops.

Provisions made for monitoring the use and effectiveness of the pesticide:

Actellic is available within Manica Province in sufficient quantities to complete this application (with detailed instructions in Portuguese). It will be transported to the application sites in the back of Africare vehicles, well-secured to ensure no spillage if there are sudden stops, starts or turns. There will no sharp objects in the vehicle that could puncture the containers during transport. Only the amount necessary to protect the multiplied seed will be acquired; no additional containers of Actellic will be purchased and stored (in the medium term) by Africare.

During application, preparations to apply Actellic powder to the seed will follow the instructions on the label, in the proper sequence. No one will handle the product without the proper protective clothing and soap and water will be available for immediate cleaning of hands and eyes. Partially-used containers will be securely sealed during the application process and returned to storage. After completing the application, the empty containers will be burned (per the Mozambican "Pesticide Guide"). The clothing and other equipment used during the application will be thoroughly cleaned (the clothes will be washed separately from other clothes). They will be stored in the Africare/Chimoio warehouse.

Because the application will take place within an enclosed warehouse, there should not be "drifting" problems (movement of pesticide dust away from the seed to be treated). Application will take place in the early morning (prior to 10:00 AM), avoiding the hottest part of the day. No food or drink will be consumed within the warehouse during application. Should anyone show signs of pesticide poisoning, the application will be stopped and first aid will be immediately sought.

The treated seed will be sealed for 15 days prior to initiating the bagging into 1 KG bags. There will be no subsequent applications during the storage period.

Annex D.4

INITIAL ENVIRONMENTAL EXAMINATION
SUSTAINABLE FOOD SECURITY FOR
THE MOST VULNERABLE IN HONDURAS - CARE/HONDURAS

Project Location: Honduras

Project Title: Sustainable Food Security for the Most Vulnerable in Honduras

Funding Source: PL-480 Title II CARE Grant provided by the BHR Bureau in USAID/Washington

Life of Project: 1996 to 2000 (5 years)

Life of Project Funding: $23,100,000

IEE Prepared by: Becky Myton, Honduras Environmental Consultant — Date submitted: September 11, 1997

Gerald P. Bauer, USAID/Nicaragua
Natural Resource Management Officer

Scott Solberg, CARE/Honduras
Food Security Advisor

IEE Reviewed By: Albert L. Merkel
Mission Environmental Officer

Threshold Decision for Activities during FY97 through FY00

A. Categorical Exclusions for the following actions:

1. Education and training programs (216.2 (c) (2) (i))
2. Nutrition and health care programs (216.2 (c) (2) (viii) & 216.2 (2) (xi))

B. Negative Determinations for the following actions (216.3 (a) (2) (iii)):

1. Agricultural demonstration plots.
2. Physical improvement of markets.
3. Construction of new markets.
4. Physical improvements to homes.
5. Environmental protection and reforestation

Under no circumstances will funds for new activities be used for, 1) the purchase of equipment which could be used for commercial timber harvesting, 2) activities, projects, or programs involving commercial timber harvesting, unless the appropriate EA is considered, and approved by the BHR Environmental Officer.

C. The following actions merit a Positive Threshold Decision and, hence, require Environmental Assessments:

1. Improvement of existing roads (216.2 (d) (1))
2. Construction of new roads (216.2 (d) (2))

Mission Director's Decision

Approved: _____EB____ Disapproved: _____

Elena Brineman
Mission Director

Elena Brineman
Mission Director

USAID APPROVAL OF ENVIRONMENTAL ACTION(S) RECOMMENDED:

Clearance:

BHR/FFP _____WTO_____ Date: 2/4/98

William T. Oliver, Director

Concurrence:

BHR/BEO _____PEDR_____ Date: 2/5/98

Paul E. des Rosiers
Environmental Officer

Annex D.4

TITLE II ENVIRONMENTAL COMPLIANCE FACESHEET

Title of DAP/PAA Activity:

Development Activity Proposal
FY 1997 B 2000
Catholic Relief Services/Kenya Project Number 648-96-013
CS name Country/Region

Catholic Relief Services B USCC Kenya Program

Funding Period: FY 1997 B FY 2000

Resource Levels: Commodities (dollar equivalent, incl. Monetization) $6,722,250
Total metric tonnage request: 24,483MT
202(e) grant: $ _____

Statement Prepared by: Name: Jean Marie Adrian **Date**: July 9, 1998
Title: Country Representative

IEE Amendment (Y/N)? _N_ Date of Original IEE _____

Environmental Media and/or Human Health Potentially Impacted (check all that apply):

Air _N__Water_Y__land _Y__biodiversity(specify) _N__human health_Y_other __none _N__

Environmental Action(s) Recommended (check all that apply):

Yes___1. Categorical Exclusion(s)

Yes_ 2. Initial environmental Examination

_____ Negative Determination: no significant adverse effects expected regarding the proposed activities, which are well defined over life of DAP/PAA. IEE prepared:

____ without conditions (no special mitigation measures needed; normal good practices and engineering will be used)

with conditions (special mitigation measures specified to prevent unintended impact)

Yes__ Negative Determination: no significant adverse effects expected but multiple sites and sub-activities are involved that are not yet fully defined or designed "Umbrella IEE" prepared (go to Annex B and Annex F for examples)

Yes__ conditions agreed to regarding an appropriate process of environmental capacity building and screening, mitigation and monitoring

_____ Positive Determination: IEE confirms potential for significant adverse effect of

one or more activities. Appropriate environmental review needed/conducted.

_____ EA to be/being/has been (circle one) conducted. Note that the activities affected cannot go forward until the EA is approved.

_____ Deferral: one or more elements not yet sufficiently defined to perform environmental analysis; activities will not be implemented until amended IEE is approved.

SUMMARY OF FINDINGS

a) **For activities associated with the Food Assisted Child Survival (FACS)**

The activities under FACS fall into Categorical Exclusion (CE) as per section 2(c) (2) of 22 CFR 216. The specific citations are 216.2(c) (2)(i),216.2(c) (2)(iii), 216.2(c)(2)(viii), and 216.2(c)(2)(xi), hence require no mitigation.

b) **Complementary Activities B** Negative Determination with conditions (Umbrella IEE)

This Initial Environmental Examination (IEE) satisfies the conditions of the environmental procedures for umbrella activities and delegation of environmental review responsibilities to Missions for PVO/NGO umbrella-type projects (Cable 95 STATE 257896). A screening form and environmental reviews will be prepared.

Environmental Determinations
Negative Determination with Conditions (Umbrella IEE)

Based on environmental review procedures, promotion of environment review capacity building monitoring, evaluation, and mitigation procedures specified in this IEE, to which the Mission commits itself, a **Negative Determination with Conditions (Umbrella IEE)** is recommended for complementary activities of FACS. The complementary activities of FACS which use of the umbrella IEE process is recommended are:

I. sustainable agriculture with emphasis on soil fertility improvement by using farm yard manure and/or compost, practicing organic farming, crop rotation, mixed farming and minimizing land degradation;
II. improving agricultural production by facilitating access to high quality germplasm, credit for draught animals and improving extension services to small holder farmers;
III. agroforestry practices;
IV. increasing livestock production through training small holder farmers in livestock management and offering them credit to purchase bulls and dairy animals;
V. providing potable water in shallow wells, bore holes, small earth dams/pans, de-silting of earth dams, by rain water harvesting and protecting springs;
VI. improving sanitation by constructing pit latrines;
VII. community training;
VIII. community organization and mobilization;
IX. technical assistance; and
X. small enterprise promotion by providing credit to the poor

Annex D.5

This IEE specifies a set of steps, in accordance with the Africa Bureau's *Environmental Guidelines for Small-Scale Activities in Africa*, to ensure adequate environmental review of USAID supported activities, including capacity building elements. This negative determination is also conditioned on the provision of supplemented project technical assistance and training support to augment existing efforts. These capacities will be developed and implemented in close collaboration with USAID/Kenya and CRS/Kenya local implementing partners.

The screening form will be used to confirm a Categorical Exclusion for these complementary activities: community training, community organization and mobilization, food rations, technical assistance, small enterprise promotion by providing credit facilities to the poor. They have no physical intervention and no direct effects on the environment pursuant to 22 CFR 216.2(c)(2)(i), 216.2(c)(2)(iii), 216.2(c)(2)(viii) and 216.2(c)(2)(xi). These activities will be grouped under Category 1 in the Screening Form to be prepared.

USAID APPROVAL OF ENVIRONMENT ACTION(S) RECOMMENDED:

Clearance:

Mission Director: _____ Date: _____
Dennis Weller (Acting)

Food for Peace Director: _____ Date: _____
William T. Oliver

Concurrence:

Bureau Environment Officer: _____ Date: _____
(BHR) J. Paul DesRosiers

Approved: _____

Disapproved: _____

Optional Clearances:

FFP Officer/Mission Food Aid Manager: _____ Date: _____
George Mugo

Mission Environmental Officer: _____ Date: _____
Dennis Weller

Regional Environmental Officer: _____ Date: _____
Charlotte Bingham

Geographical Bureau Environmental Officer: _____ Date: _____
Carl Gallegos

General Counsel: _____ Date: _____
Stephen Tisa

Annex D.5

INITIAL ENVIRONMENTAL EXAMINATION

Program Data:
DAP (FY 1997-2000); CRS Project Number - 648-96-013
Catholic Relief Services, Kenya, East Africa Region

1.0 BACKGROUND AND ACTIVITY DESCRIPTION

1.1 Background

Kenya is a low income, food insecure country with a per capita income of US$ 270. A majority of its inhabitants suffer from food insecurity, drought and famine conditions and 80% of the population lives in rural areas, which are classified as Arid and Semi-Arid Lands (ASAL). Food production of these farmers is insufficient to meet household needs. Reports from these areas indicate that childcare practices are deficient and that knowledge of other preventive health practices, including those for pregnant women and children, is woefully inadequate. Inadequate feeding practices, high levels of anemia and poor nutrition for women and children are common in these arid and semi-arid areas. Furthermore, recent statistics demonstrate that vaccination coverage and feeding practices in these regions are some of the lowest in the country (GOK, 1995).

The goal of the Catholic Relief Services (CRS) Kenya Program is to contribute to the reduction in infant and child mortality and morbidity through improved knowledge and health practices among women from food insecure households, and their communities. CRS's sub-goal is to improve utilization of food by pregnant/lactating women and children under the age of 24 months. Our strategic objective I is improved health status of women and children.

The CRS/Kenya program focuses on proven low cost Child Survival interventions which addresses inadequate infant feeding practices and maternal and newborn care knowledge, practice and coverage that present adequate the consumption/utilization of food. In addition, CRS/Kenya has moved from center-based to community-based health care programming for health interventions because of its proven effectiveness in improving the targeting of food resources and sustainability of health activities at the community level.

1.2 Description of Activities

Catholic Relief Services- Kenya Program FY 1997-2000 Development Activity Proposal (DAP) addresses several factors relating to food security in multiple targeted geographic areas in Kenya through food assisted child survival (FACS) and complementary activities which include sustainable agricultural, savings and credit, water and sanitation.

For the purpose of this Initial Environmental Examination (IEE), CRS activities have been categorized into two, namely activities which fall under FACS, and complementary activities. Specifically CRS/Kenya focuses its efforts on the communities which are located in areas plagued by food insecurity.

The CRS/Kenya Title II Program proposed in this four-year DAP focuses primarily on one intervention- Food Assisted Child Survival (FACS) - which was formerly the Maternal and Child Health intervention. CRS/Kenya focuses on an integrated approach to achieve success in the FACS program. That is, the FACS program activities take place in specifically defined communities and will be complemented by projects in sustainable agriculture, potable water, sanitation, and savings/credit. This integrated approach allows CRS/Kenya to achieve a greater level of program impact in the area of food security, and results in a greater concentration of resources in fewer geographical areas under stronger management structures.

1. FACS ACTIVITIES

The FACS activities can be grouped in the following major categories:

Community training on child survival messages
Community organization and mobilization

- Targeted, monthly food rations
- Community-based data collection
- Child growth monitoring
- Counseling and home visits
- Provision/distribution of de-worming medicine, iron, folic acid and vitamin supplements

2. COMPLEMENTARY ACTIVITIES

The complementary projects, will be decided as needs are identified by the FACS target communities after community mobilization and training. It is expected that, after community mobilization and training, the target community will identify other needs to improve their food security. These needs, prioritized by the community, will be considered for support by CRS. The support of the selected interventions will be determined by 1) their technical soundness 2) community capacity to implement and operate; 3) availability of the required natural resources and 4) future sustainability. The complementary activities can be grouped under the following major interventions:

I. sustainable agriculture with emphasis on soil fertility improvement by using farm yard manure and/or compost, practicing organic farming, crop rotation, mixed farming and minimizing land degradation;
II. improving agricultural production by facilitating access to high quality germplasm, credit for draught animals and improving extension services to small holder farmers;
III. agroforestry practices;
IV. increasing livestock production through training small holder farmers in livestock management and offering them credit to purchase bulls and dairy animals;
V. providing potable water in shallow wells, bore holes, small earth dams/pans, de-silting of earth dams, by rain water harvesting and protecting springs;
VI. improving sanitation by constructing pit latrines;
VII. community training;
VIII. community organization and mobilization;
IX. technical assistance; and
X. small enterprise promotion by providing credit to the poor

1.3 Purpose and Scope of IEE

This IEE is for the approved DAP for 1997-2000. It is presented with the PAA for FY 1999 due to the recent focus on the necessity of environmental review for Title II activities within USAID. This IEE covers activities for monetization and activities supported by such funds, namely Food Assisted Child Survival (FACS) and complementary activities for the period FY 1999 - 2000.

2.0 COUNTRY AND ENVIRONMENTAL INFORMATION

2.1 Locations affected

The locations affected are only briefly described, because for any complementary activity they will be described specifically and in more details in the Environmental Review following the procedure for environmental screening and review under umbrella procedures.
The four major areas in which the above mentioned activities will be implemented are

South Nyanza (Homa Bay and Suba Districts),
North Eastern (Tana and Lamu Districts), and
the semi-arid communities of Laikipia/ Nyandarua/ Nyeri Districts.

All the areas affected are in the arid and semi-arid lands (ASAL) of Kenya. The description of the physical environment of the ASAL herein is per GoK (1992) policy document titled "Development Policy for the Arid and Semi-Arid".

Climate and Rainfall of ASAL

Evapotranspiration rate is twice the annual rainfall. Rainfall is low and highly variable. Average annual rainfall (mm) range from 200 - 850 mm. Rains come in two seasons, long and short. ASAL soils are variable, ranging from light to medium texture and are shallow. The soils are subject to compaction and susceptible to erosion. In the very dry areas, soils have problems of salinity and sodicity.

Vegetation of ASAL

The vegetation is a variety of grasslands, bushlands, woodlands and some forest cover. River plains become important grazing fields during dry seasons. Density of tree and bush cover is very low, but evergreen forest occurs along the major rivers and highlands. Degradation of wood resources occurs locally, but elsewhere the fuelwood needs of low population densities are met.

Patterns of land use in the affected locations in ASAL

In Homa Bay, and Suba districts of South Nyanza, the farming system is mixed. The main crops are maize, beans and cotton. Cattle, goats and sheep are of local breeds. Productivity is much related to rainfall amount and pattern. In Tana River and Lamu districts, it is pastoralism and mixed farming.

2.2 Environmental policies and procedures

(a) Government of Kenya Laws, Policies and Procedures

The Government of Kenya addresses issues of the environment through:

Agriculture Act, Chapter 318 Section 48 of the Laws of Kenya on the preservation of the soil and its fertility. Under the law, whenever the Minister for Agriculture considers it necessary or expedient so to do for the purposes of the conservation of the soil of, or the prevention of the adverse effects of soil erosion on, any land, he may, with the concurrence of the Central Agricultural Board make rules that preserve the soil and its fertility. CRS/Kenya undertakes to abide by any rule made by the Minister for Agriculture according to Section 318 Section 48 of the laws of Kenya.

Water Act, Chapter 372 Section 50 and 53 of the Laws of Kenya does not allow the construction of wells within a half a mile from each other. In cases where the wells are within a half a mile from each other, the Water Apportionment Board will specify particular tests to be carried out. Such tests may include rate of pumping and rest levels of water. In case of high pumping rate or low water rest levels, the Board will stop further pumping. Section 68 of the Act deals with the contamination and pollution of ground water. The section also gives measures to be taken to control contamination and pollution of ground water such us effective sealing of the top of wells, disposal of wastewater, dispose of effluent or drainage from any household. For small dams, the guidelines for the design, construction and rehabilitation of small dams and pans in Kenya published in 1992 by the Ministry of Water Development will be used, also the provision of the Water Act Part XI will be followed.

According to the Ministry of Water Resources, Design Manual for Water Supplies in Kenya, gives guidelines on testing bacteriological and chemical quality of potable water. The guidelines are similar to those of World Health Organization (WHO).

Bacteriological and chemical quality of water source should be tested before selecting a water source, and routinely during the operation of a supply. The manual also gives guidelines on sampling and maximum acceptable values. CRS/Kenya and its partners will follow the recommendations.

A number of registered water testing laboratories are available in Nairobi. These include the Government of Kenya (GoK) Chemist, the Ministry of Water laboratory, the University of Nairobi in Kenya and several other private laboratories. These registered laboratories will be utilized. The parameters to be tested will include coliform organisms, arsenic, fluoride, nitrate and nitrites and other. All water sources will be tested for both chemical and bacteriological quality before being put to use, according to GoK and USAID guidelines.

i. Environment Action Plan (NEAP) of Kenya of the Ministry of Environment and Natural Resources. The NEAP report addresses environmental issues in a cross- sectoral and in an integrated fashion.

(b) Catholic Relief Services standards for community health, poverty lending, gender responsive programming, capacity building.

(c) Catholic Relief Services complies with USAID environmental compliance procedures.

3.0 EVALUATION OF ACTIVITIES/PROGRAM ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

3.1 Activities associated with the Food Assisted Child Survival (FACS)

Activities under FACS are not expected to have potential significant (deleterious) effects on the environment, and fall into Categorical Exclusions (CE) as per section 2(c) of 22 CFR 216. Please refer to Appendix I for the specific citations of Regulation 216 for each activity of FACS.

3.2 Complementary Activities

In addition to FACS, CRS will address food security through complementary activities. These complementary activities were listed in section 1.2 number 2 herein.

All complementary activities are small-scale and are not expected to have significant adverse environmental impacts. They are recommended for a **Negative Determination** with conditions for use of the Screening Form and preparation of an Environmental Review when the application of the Screening Form so requires. Items 7, 8, 9, and 10 have no direct impacts on the environment, and will qualify as Category I under the screening form, which will be used to verify that there are no environmental impacts.

The potential environmental impacts of some of complementary activities may be:

- *Under Sustainable Agriculture*
  - insignificant depletion of vegetation
  - soil loss and erosion

- *Under provision of potable*
  - deplete/lower ground water table causing damage to agricultural crops or natural vegetation
  - lowering the ground water head/level may affect the yield of other wells e.g. shallow wells
  - increase incidence of diseases (i.e., for dams)

- *Under latrine construction*
  - groundwater contamination

- *Under small enterprise promotion by providing credit to the poor*
  - no foreseeable affects (note that activities to be promoted by credit will be determined by borrowers)

The physical and topographic conditions, climate, soils, and ecosystems as well as social and economic characteristic that could be encountered are quite variable. Because the specific characteristics and locations of these activities are not definitive, the potential for adverse environmental impacts cannot be excluded until additional information about design and location becomes available. Each therefore, require environmentally sound design and review to determine the specific nature and magnitude of potential impacts. Activities do share the common characteristic of being small in scale. The complementary activities are small. The funds are limited to $200,000 for all the complementary activities. Also, the implementing partners prefer small-scale initiatives that reach between 50 - 300 families.

4.0 RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

This IEE evaluates each of the main FACS and complementary activities.

a) For Activities associated with the Food Assisted Child Survival (FACS)

The activities under FACS fall into Categorical Exclusions (CE) as per section 2(c) of 22 CFR 216 hence require no further mitigation.

b) For Complementary Activities

Complementary activities are expected to have no significant adverse impact on the environment, and, therefore, a Negative Determination (ND) with conditions is preferred. Due to the factors outlined above, CRS/Kenya proposes to prepare and submit this screening forms and environmental reviews under umbrella IEE.

4.1 Recommended planning approach

Complementary Activities

The complementary activities will be in the field of Sustainable Agriculture, Small Enterprise Development, Water and Sanitation, rural credit and, training/capacity building. The complementary activities will be integrated with FACS activities to maximize participant's benefits. Through this integrated approach, CRS will address, in the most cost effective way, problem of food insecurity in the target communities. For maximum efficiency and effectiveness, these review procedures are to be applied within the context of development plans, natural resource management plans, or land use plans developed for the areas in which the activities will take place.

4.2 Environmental Screening and Review Process for Complementary Activities

These environmental screening and review procedures specify how the complementary activities to be undertaken by CRS/Kenya, will be examined on an individual basis in order to comply with the determinations of this IEE in accordance with Reg. 216, Section 216.3. These procedures are intended to result in environmental accountability and soundness, by requiring that USAID/Kenya put in place specific mechanisms to promote environmental review capacity and other environmental capacity for the implementing partners. To ensure that the interventions are designed in a sound and sustainable manner, the Mission Environmental Officer (MEO) and/or USAID Project Manager will work with CRS/Kenya and the local implementing partners to achieve compliance with these procedures.

CRS/Kenya is the primary co-operating sponsor of the complementary activities. The Catholic Dioceses of Kenya are by large, the local implementing partners (sub-grantees) for the complementary activities.

These procedures are based upon utilization of a Screening Form. This form is consistent with the "Environmental Screening Form for NGO/PVO Activities and Grant Proposals" contained in the African Bureau *Environmental Guidelines for Small-Scale Activities in Africa.* USAID/Kenya will facilitate the refinement of this form with CRS/Kenya and the REO/MEO to meet project needs and to incorporate, where appropriate, information that will serve to identify any need for environmental assessment in accordance with Kenyan's environmental assessment policy and future legislation.

If it becomes necessary to construct small dams/pans, the Ministry of Water Development guidelines in the design, construction and rehabilitation of small dams in Kenya will be used. The guidelines have a section on environmental considerations.

Adherence to the procedures in this IEE, it must be emphasized, cannot be considered in lieu of Kenyan requirements or vice versa. Efforts will be made, however, in the refinement of the Screening Form to dovetail respective assessment information requirements to the maximum extent allowable.

This IEE does not cover pesticides or other activities involving procurement, use, transport, storage or disposal of toxic materials, and any situation dealing with such will require an amended IEE, except to the extent covered in Category 2 of the Screening Form that will be attached.

The complementary activities, including grants and sub grants will be individually screened using the Screening Form (to be prepared and sent to USAID/Kenya), which utilizes a four-tier categorization process consistent with Africa Bureau's *Environmental Guidelines*. The complementary activities are categorized as below.

Category 1*: Activities that do not require environmental review under the Environmental Screening Form.*

- community training
- community organization and mobilization
- technical assistance
- small enterprise promotion by providing credit to the poor

Category 2: *Activities that would normally qualify for a negative determination under Reg. 216, based on an environmentally-sound approach to the activity design and incorporation of appropriate mitigation and monitoring procedures.*

- sustainable agriculture with emphasis on soil fertility improvement by using farm yard manure and/or compost, practicing organic farming, crop rotation, mixed farming and minimizing land degradation
- improving agricultural production by facilitating access to high quality germplasm, credit for draught animals and improving extension services to small holder farmers
- agroforestry practices
- increasing livestock production through training small holder farmers in livestock management and offering them credit to purchase bulls and dairy animals
- providing potable water using shallow wells, bore holes, small earth dams/pans and protecting springs
- improving sanitation by constructing pit latrines

CRS/Kenya will employ the Screening Form (to be refined as needed with consultation with the REDSO/REO or REA) and the Environmental Review Reports prepared as a result of the categorization process to evaluate activities/or proposals. CRS/Kenya will ensure that all proposals from the local implementing partners (sub-grantees), seeking to implement any of the above referenced complementary activities, must comply with Advisory Committee approval criteria and review procedures, which will also include this requirement for environmental screening and review, as well as any other CRS/Kenya or USAID/Kenya requirements designed to ensure developmentally sound and sustainable activities.

An Environmental Review Report shall be prepared for all Category 2 activities. The MEO or Mission Director, or Acting Director, on behalf of USAID/Kenya, shall be responsible for clearances on category determination and Environmental Review Reports. Since majorities of complementary activities fall within Categories 1 and 2, they can be approved locally by USAID/Kenya without further external review.

Each activity will be proposed based on need arising from communities following mobilization and training by FACS program. In planning and design of these activities, approved procedures and standards will be used to reduce adverse environmental effect.

A project proposal will be prepared for each specific intervention and location. The proposal format is being revised to include environmental issues, and a strong monitoring and evaluation component. Each project proposal is vigorously reviewed at several different levels, starting internally within CRS Kenya by

competent staff members. Only project proposals which meet the review criteria are submitted to the Regional Technical Commission (RTC). The RTC members are appropriate CRS regional technical staff. Key staff members from the region, who are members of the RTC, have received training on USAID Environmental Compliance Procedures. The CRS Regional Office oversees the review process and maintains a high standard of project conceptualization before approval/funding is authorized.

Catholic Relief Services commit to USAID/Kenya approval of environmental reviews for the complementary activities under Category 2 for the whole period. CRS/Kenya shall fully co-operate with USAID Mission Environmental Officer (MEO), Regional Environmental Officer (REO) and Bureau Environmental Officer (BEO). CRS/Kenya shall give to USAID/Kenya, an annual report on the status of environmental compliance with regard to complementary activities. The reporting format shall be based on, but not limited to, section 4.0 - 4.5 of Annex F in the Environmental Documentation Manual of 1998.

4.3 Promotion of Environmental Review and Capacity Building Procedures

The partner organizations will be involved in all stages of project development and this will form part of capacity building. Awareness on the importance of environmental protection already exists among CRS/Kenya partners. In essence, implementation of the complementary activities, for example, agroforestry and sustainable agriculture, will augment sustainable use of the environment.

CRS/Kenya project officers have attended a training workshop on USAID Environmental Compliance Procedures, therefore they will in turn, up grade the capacity of CRS/Kenya local implementing partners through training, monitoring and project development. CRS/Kenya project staff, together with partners, will include environmental indicator in project monitoring and evaluation systems. Environmental monitoring and evaluation process will be put in place and used by CRS/Kenya, its partners, in collaboration with USAID/Kenya and the following Kenyan Government agencies:

a) Ministry of Environment and Natural Resources specifically, the Kenya National Environment Secretariat
b) Ministry of Agriculture
c) Ministry of Water Resources

CRS/Kenya and its partners will continue applying appropriate Kenyan Environmental assessment policies and procedures.

4.4 Environmental Responsibilities

1. USAID/Kenya will be responsible for environmental review and decision making for all USAID assisted CRS/Kenya complementary activities.

2. CRS/Kenya undertakes to work with the local implementing partners to ensure that proposals for the complementary activities take into consideration potential environmental impacts and their mitigation, including avoidance, and will design the complementary activities with an environmental monitoring system in place.

3. The local implementing partners (sub grantees) and CRS/Kenya will use the Screening Form to categorize proposals, and the MEO will review and pass on to the REO and BEO any category 3 or 4 and, as he/she determines, some Category 2 activities.

4. The local implementing partners for the complementary activities, with assistance of CRS/Kenya, will ensure implementation of agreed upon mitigation measures and environmental impact monitoring.

5. USAID/Kenya's Food for Peace Officer will be ultimately responsible for monitoring environmental impacts of all project-financed activities, as further specified below (Section 4.5).

6. Periodic visits of the REO or REA will also be requested for advice, refresher training and validation that environmental processes are in place.

4.5 Mitigation, Monitoring, and Evaluation

CRS together with implementing partners will incorporate appropriate mitigation and monitoring procedures as follows:

By utilizing the Environmental Guidelines for Small-Scale activities in Africa to assist them in determining what potential impacts should be of concern for different complementary activities in various settings. Thereafter, CRS/Kenya will determine which impacts to mitigate and monitor for each complementary activity.

- by abiding by appropriate policies, procedures and regulations contained in the National Environment Action Plan (NEAP) of Kenya, Agricultural Act and Water Act of Kenya and other environmental enforcing agencies

- by including environmental issues as a part of the project planning process

- by including environment indicators, and monitoring effects as a part of the overall Monitoring and Evaluation System.

CRS/Kenya and the local implementing partners commit to identify in each proposal each proposal for funding of complementary activities, and in the accompanying environmental review reports all proposed environmental mitigation and monitoring requirements.

The generic monitoring and mitigation measures CRS/Kenya will put in place for some of the complementary activities falling in Category 2 are summarized in the Table 1 below. The mitigation and monitoring activities, specifically defined, will be incorporated within the specific Environmental Review report for each activity or groupings thereof.

An Illustrative Table 1:
Monitoring and Mitigation Procedures for Complementary Activities

Activity	Sub Activity	Monitoring	Mitigation measures
Improving Agricultural Production	land tillage	soil erosion depletion of vegetation	- contour farming - terracing - planting trees (agroforestry)
Providing potable water	constructing shallow wells, bore holes, small earth dams/pans	deplete/lower ground water table incidence of diseases (i.e., for dams)	- avoid wells being close by. - regular monitoring of water levels - water quality testing will be carried out for arsenic, coliform, nitrates and nitrates in accordance with USAID and GoK guidelines. - proper sealing of wells top - proper drainage around wells -introducing fish in the dams - fencing around the dams - provide livestock drinking troughs
Improving sanitation	constructing pit latrines	ground water contamination	- proper siting of latrines -latrines to be at least 30 m from wells - proper drainage around the latrines

Since the complementary activities are not yet fully defined, the specific monitoring and mitigation procedures might vary at time of implementation.

Once the environmental review reports are approved, the mitigative measures and monitoring procedures stated in the environmental report shall be considered a requirement.

The local implementing partners, with the assistance of CRS/Kenya and other appropriate partners will be responsible for the implementation of the agreed-upon measure and monitoring of impacts. All periodic

reports of CRS/Kenya and its local implementing partners, under these procedures to CRS/Kenya, and of CRS/Kenya to USAID/Kenya shall contain a section on environmental impacts, success or failure of mitigative measures being implemented, results of environmental monitoring, and any major modifications/revisions to the complementary activities, mitigative measures or procedures.

USAID/Kenya ultimately is responsible for:

- Monitoring and evaluation of activities after implementation with respect to environmental effects that may need to be mitigated, a process which should be integrated into the Mission's pertinent Performance Monitoring and Evaluation Plan;
- Review of CRS/Kenya reports with respect to results of environmental mitigation and monitoring procedures;
- Incorporating into Mission field visits and consultation with implementing partners periodic examination of the environmental impacts of activities and associated mitigation and monitoring; and
- Reporting on implementation of mitigation and monitoring requirements as part of the summary of activities and their status that is passed to the REO and BEO.

5.0 SUMMARY OF FINDINGS

a) **For activities associated with the Food Assisted Child Survival (FACS)**

The activities under FACS fall into Categorical Exclusion (CE) as per section 2(c) (2) of 22 CFR 216. The specific citations are 216.2(c) (2)(i),216.2(c) (2)(iii), 216.2(c)(2)(viii), and 216.2(c)(2)(xi), hence require no mitigation.

b) **Complementary Activities B** Negative Determination with conditions (Umbrella IEE)

This Initial Environmental Examination (IEE) satisfies the conditions of the environmental procedures for umbrella activities and delegation of environmental review responsibilities to Missions for PVO/NGO umbrella-type projects (Cable 95 STATE 257896). A screening form and environmental reviews will be prepared.

Environmental Determinations

Negative Determination with Conditions (Umbrella IEE)

Based on environmental review procedures, promotion of environment review capacity building monitoring, evaluation, and mitigation procedures specified in this IEE, to which the Mission commits itself, a **Negative Determination with Conditions (Umbrella IEE)** is recommended for complementary activities of FACS. The complementary activities of FACS for which use of the umbrella IEE process is recommended are:

I. sustainable agriculture with emphasis on soil fertility improvement by using farm yard manure and/or compost, practicing organic farming, crop rotation, mixed farming and minimizing land degradation;
II. improving agricultural production by facilitating access to high quality germplasm, credit for draught animals and improving extension services to small holder farmers;
III. agroforestry practices;

IV. increasing livestock production through training small holder farmers in livestock management and offering them credit to purchase bulls and dairy animals;
V. providing potable water in shallow wells, bore holes, small earth dams/pans, de-silting of earth dams, by rain water harvesting and protecting springs;
VI. improving sanitation by constructing pit latrines;
VII. community training;
VIII. community organization and mobilization;
IX. technical assistance and
X. small enterprise promotion by providing credit to the poor.

This IEE specifies a set of steps, in accordance with the Africa Bureau's *Environmental Guidelines for Small-Scale Activities in Africa*, to ensure adequate environmental review of USAID supported activities, including capacity building elements. This negative determination is also conditioned on the provision of supplemented project technical assistance and training support to augment existing efforts. These capacities will be developed and implemented in close collaboration with USAID/Kenya and CRS/Kenya local implementing partners.

The screening form will be used to confirm a Categorical Exclusion for these complementary activities: community training, community organization and mobilization, technical assistance, small enterprise promotion by providing credit facilities to the poor. They have no physical intervention and no direct effects on the environment pursuant to 22 CFR 216.2(c)(2)(i). These activities will be grouped under Category 1 in the Screening Form to be prepared.

APPENDIX 1: SUMMARY OF IEE ACTIVITIES AND EXPECTED DETERMINATIONS

GOAL: CONTRIBUTE TO THE REDUCTION IN INFANT AND CHILD MORTALITY AND MOBILITY THROUGH IMPROVED KNOWLEDGE

SUB-GOAL: IMPROVED UTILIZATION OF FOOD BY PREGNANT/LACTATING WOMEN AND CHILDREN UNDER THE AGE OF 24 MONTHS.

SO1: Improved health status of women and children

IR1: Improved infant feeding practices
IR2: Improved nutritional status of children
IR3: Improved maternal and newborn care

SO2: Developed sustainable community structures for the health of women and children

IR1: Transition from center based to community based health care

Types of Activities	Geographical Location. (provinces)	Sites/ Projects (districts)	Scale & Quantity	Unit	% of Title II	Expected Determination
Community training on child survival	-Nyanza -N. Eastern -Semi-arid communities (see districts to the right)	-Homa Bay, Suba - Tana, Lamu - (s-arid) Laikipia, Nyandarua, Nyeri				CE 216.2(c)(2)(i)
Community organization and mobilization	A	A				CE 216.2(c)(2)(i)
Targeted monthly food rations	A	A				CE 216.2(c)(2)(xi)
Community based data collection	A	A				CE 216.2(c)(2)(iii)
Child growth monitoring	A	A				CE 216.2(c)(2)(iii) and 216.2(c)(2)(viii)
Counseling and home visits	A	A				CE 216.2(c)(2)(i) and 216.2(c)(2)(viii)
Provision and distribution of de-worming medicine, iron, folic acid & vitamin supplements	A	A				CE 216.2(c)(2)(viii)
Complementary activities	A	A				216.3(a) (2) (iii) Environmental Guidelines for Small-Scale Activities in Africa.

Annex D.6

ENVIRONMENTAL SCREENING/REPORT FORM
FOR NGO/PVO ACTIVITIES & GRANT PROPOSALS
[See EDM Annex F]

Annex D.6

Preamble for Africare Uganda Food Security Initiative (UFSI): FY 1998 IEE

Here's an IEE that puts roads under an umbrella procedure. The process used was devised collaboratively by the Cooperating Sponsor and the Mission Environmental Officer. This is NOT the only way to handle roads under an umbrella screening and review process. In Mozambique, for example, the CSs are using a screening and review process that entails use of a specific form for roads that was already in use for roads being funded by the Mission itself. USAID/Tanzania has an IEE process for non Title II roads that is a combination of the process in place in Mozambique and Uganda. Thus, sponsors contemplating roads may wish to consult with USAID/Mozambique (or USAID/Madagascar which has a similar process for roads) or look at other variations.

Some CSs will also have community-proposed (demand-driven) activities that are not roads or in which roads are only one possibility among a variety of interventions. Under such circumstances, the more generic environmental screening and review process described in Annex F would be more applicable.

DRAFT (2 October 1997)

INITIAL ENVIRONMENTAL EXAMINATION AND REQUEST FOR A CATEGORICAL EXCLUSION

PROGRAM/ACTIVITY DATA:

Title of Activity: Uganda Food Security Initiative (UFSI): FY 1998 IEE
Program/Activity Number: FFP-G-00-97-00040-00
Country/Region: Africare/Uganda
Funding Begin: 1 Oct 97 **Funding End:** 30 Nov 01
Sub-activity Amounts: N/A

Resource Levels: Commodities (dollar equivalent, incl. Monetization): $ 4,665,690
Total metric tonnage request: 16,089 MT
202(e) grant: $ $ 783,978

Statement Prepared By: G. Bellas, Africare Oct 1997 and revised by Karen Menczer, USAID Mission Environmental Officer, May 1998

Environmental Media and/or Human Health Potentially Impacted (Check all that apply):
air X water X land X biodiversity (specify) X (potential deforestation) human health __ other __ none

Environmental Action(s) Recommended (Check all that apply):

X 1. Categorical Exclusion(s)

X 2. Initial Environmental Examination:

X Negative Determination: no significant adverse effects expected regarding the proposed activities, which are well defined over life of DAP/PAA. Prepare IEE-
X without conditions (no special mitigation measures needed; normal good practices and engineering will be used)

X with conditions (special mitigation measures specified to prevent unintended impact)

X Negative Determination: no significant adverse effects expected, but multiple sites and sub-activities are involved which are not yet fully defined or designed

T Umbrella IEE prepared
X condition agreed to regarding an appropriate process of environmental capacity building and screening, mitigation and monitoring.

__ Positive Determination: IEE confirms potential for significant adverse effect of one or more activities. Appropriate environmental review needed/conducted.

__ EA to be/being/has been (circle one) conducted. Note that the activities affected cannot go forward until the EA is approved.
__ Deferral: one or more elements not yet defined, will not be implemented until amended IEE is approved.

SUMMARY OF FINDINGS:

Based on the environmental review presented in this IEE, the following determinations are made:

1. A **Categorical Exclusion** is recommended for training and technical assistance activities in support of the proposed agricultural production/postharvest handling/nutrition programs pursuant to 22 CFR 216.2(c)(2)(i). These activities will not have adverse effects on the environment.

2. **A Negative Determination** (22 CFR 216.3(a)(2)(iii)) is recommended for physical interventions under the agricultural production/postharvest handling/nutrition programs (i.e., provision of agricultural inputs such as improved seed, and hand tools); and for monetization of commodity imports. These activities will not result in adverse environmental impacts.

3. **A Negative Determination with Conditions** (22 CFR 216.3(a)(2)(iii)) is recommended for proposed soil conservation/soil fertility interventions and rural road improvement. These activities involve physical interventions which could result in environmental impacts. The conditions presented in this IEE are intended to make certain that these activities will be implemented and monitored by Africare, in conjunction with its local partners, in a manner which ensures that they have no significant environmental impacts.

Potential environmental impacts (identified in this IEE) of the planned soil conservation/soil fertility activities shall be mitigated by adopting the measures detailed in Section 4.1 of this IEE.

Community road improvement activities shall be implemented in accordance with environmental criteria adapted for Uganda - specific circumstances from USAID/Mozambique, USAID/Madagascar and USAID/Cambodia approved rural road environmental criteria. Local partners, a District Engineer's representative, and Africare's on-site road engineer will be trained to use the criteria to conduct Environmental Reviews (ER). ERs shall be submitted to Mission Environmental Officer for approval prior to beginning rehabilitation work. Local implementation partners will be made fully aware of, and made responsible for adhering to the environmental mitigation and monitoring requirements presented in this IEE and in follow-on ERs.

Proposed community road improvements do not pass through undegraded forest nor do they pass adjacent to protected areas. Road rehabilitation will not indirectly affect undegraded forest nor protected areas.

New activities introduced into the project which are substantively different from those presented in this IEE will require submission of an amended IEE to USAID/Uganda. No activities will be conducted prior to receiving approval of the amended IEE.

This IEE does not cover activities involving assistance for the use or procurement of pesticides or activities involving procurement, transport, use, storage, or disposal of toxic materials, which will require an amended IEE submitted to USAID/Uganda.

Annex D.6

USAID APPROVAL OF ENVIRONMENTAL ACTION(S) RECOMMENDED:

Clearance:
Mission Director: _____Date: _____
Donald Clark

Food for Peace Office Director: _____Date: _____
W. Tom Oliver

Concurrence:
Bureau Environmental Officer: _____Date:_____
Paul E. des Rosiers

Approved _____

Disapproved _____

File No:_____ (AID/W)

CLEARANCES:

Mission Project Manager: _____ Date: _____
Greg Farino

Mission Environmental Officer: _____ Date: _____
Karen Menczer

Regional Environmental Advisor: _____ Date: _____
Charlotte Bingham

Africa Bureau Environmental Officer: _____ Date: _____
Carl Gallegos

General Counsel: _____ Date: _____

Annex D.6

INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM/PROJECT DATA:
Program Number: FFP-G-00-97-00040-00
Country/Region: Uganda/Africa
Program/Activity Title: Uganda Food Security Initiative (UFSI)

1.0 BACKGROUND AND PROJECT DESCRIPTION

1.1 Background

Africare has recently begun implementation of the Uganda Food Security Initiative (UFSI) in the southwestern district of Kabale in support of the national efforts being made by the Government of Uganda to increase food production. Agriculture has been cited as the "engine of economic growth". The strong correlation between agricultural growth and poverty reduction in Uganda is based on the large number of poor rural farmers who derive their incomes from agriculture.[19] The Government of Uganda has articulated several key means of raising rural incomes. Among these are increased agricultural production; improved trunk, feeder, and community roads; and better dissemination of information on agricultural markets, prices, and technology. In addressing many of these issues the UFSI is at the same time addressing the USAID/Uganda Mission Strategic Objectives (SO1) of helping to increase rural household incomes and the GHAI objective of enhancing food security in the Greater Horn of Africa region.

For decades Kabale District has been a key food producing region of Uganda. However, as a result of high population density and intensive land use, the district is rapidly approaching a soil degradation crisis which, if it continues, will render significant areas of land useless for cultivation. While terracing and other soil conservation measures have long been used in the region, they are increasingly neglected, in part due to the pressure to maximize planted areas. In association with declining agricultural productivity, Kabale District is faced with increasing levels of nutrition deficiencies. According to a 1993 World Bank study, with a rate of 54%, Kabale District has the country's highest level of stunting of children (lower than normal height-for-age)[20].

Kabale District Agricultural Production Unit ranks production and post harvest interventions as top priorities. The National Agricultural Research Organization of the Ministry of Agriculture (NARO) has developed improved yielding varieties of seed and planting stock suitable to the area for crops such as beans, potato, sorghum and maize. Unfortunately, dissemination of the improved varieties is inadequate. The post harvest handling unit of the Kawanda Agricultural Research Station has researched and identified a variety of post harvest handling and storage interventions that could significantly reduce the loss rate of harvested and stored crops, but these also have not adequately reached Kabale farmers.

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2 Background to the Budget, 1995-1996: Economic Performance and Medium Term Strategy 1995/96-1997/98", Republic of Uganda, Ministry of Finance and Economic Planning, June 1995.

3 Uganda: Agriculture - World Bank Country Study; The World Bank, 1993.

The rural road system in Kabale District is inadequate for providing farmers with an efficient means for transporting agricultural products to market and is a constraint on expanded extension efforts. While feeder road improvements are currently being carried out at the district level by the Ministry of Local Government, improvements to the network of smaller "community roads", which connect villages and farms to the feeder roads, are the responsibility of the Local Councils. Often steep terrain or stream crossings present challenges which the rural population does not have the technical or financial resources to overcome. Improvements to these farm-to-market access routes will have a direct impact on lowering production and transportation costs, thus raising income among the rural farming families of the district.

1.2 Project Description

The Uganda Food Security Initiative is a multi-year integrated rural development project which will operate in three counties in Kabale District. The overall goal of the project is to improve food security in Uganda thus strengthening the country's role in enhancing food security for the Greater Horn of Africa. The specific objectives of the UFSI are: to increase the quantity of food available for home consumption and commercial sale in Uganda; improve farm family access to food for home consumption in Kabale District; and enhance household utilization of food in Kabale District. Africare intends to accomplish these goals and objectives through four areas of intervention:

- Monetization of Commodity Imports. Africare proposes to import and monetize, through Agricultural Cooperative Development International (ACDI), up to 16,089 MT of hard winter wheat. This activity will supply a desired high energy commodity to the country, complement locally available soft wheat, encourage the growth of the local flour milling industry, and generate local currency needed to implement UFSI activities.

- Agriculture Production/Postharvest Handling/Nutrition. These interventions will involve providing information and inputs to farmers on improved farm practices such as the use of improved seed varieties and weeding; provide training in organic farming, promoting techniques for decreasing postharvest losses such as appropriate drying and storing methods; and providing education to farm families related to improved dietary and sanitation practices as well as maternal and child nutrition. Twenty-one villages in the sub-counties of Kaharo, Kitumba, and Bubare have been targeted for this assistance.

- Soil Conservation/Soil Fertility. These activities are intended to increase awareness of destructive farming practices and promote terrace construction/maintenance, agroforestry interventions, crop rotation, and zero grazing practices. These activities will be implemented in the 21 targeted villages.

- Community Road Improvements. This intervention will involve providing technical and financial assistance to Local Councils, typically at the parish level (LC3), to improve existing village level farm-to- market roads. The objective of this intervention is to make sufficient improvements so that these roads can provide year round vehicle access for farmers to efficiently transport agricultural products to market. The types of improvements which will be undertaken are all small-scale and will primarily utilize local materials and village-based manual labor, and available machines, where feasible. Typically the individual community road segments to be improved are under 10 km in length, with a total of 120 km of road scheduled for improvement during the five-year implementation period of the project. The Local Council at the district level (LC5) is committed to maintaining the roads once they have been improved.

UFSI staff will take an interdisciplinary, participatory rural appraisal (PRA) approach in working with district and community level organizations to establish long-term, sustainable solutions to the identified household food security problems. For the village based-components of the project, the UFSI will focus on simple small-scale interventions that can be easily organized, carried out, sustained, and replicated. USFI will make full use of local agencies as implementing partners.

1.3 Purpose and Scope of IEE

This IEE, to be included in the 1999 PAA, presents a review of the reasonably foreseeable effects on the environment of the actions proposed under the UFSI. The IEE provides the basis for a threshold decision as to whether an Environmental Assessment or an Environmental Impact Statement will be required.

Adherence to the procedures in this IEE is not in lieu of any environmental assessment procedures required under Ugandan law, nor can adherence to Uganda's environmental procedures be substituted for compliance with the procedures in this IEE. However, efforts will be made to ensure a maximum degree of compatibility of the two respective assessment information requirements.

2.0 COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

2.1 Country Overview

Despite impressive economic recovery from the disastrous mismanagement during the period 1971-86, Uganda's per capita income level of $225 USD (an increase from $170 in 1990) places it in the ranks of the world's poorest countries. Nearly 90% of the population are rural dwellers, making their living from increasingly fragmented smallholder agriculture. Approximately 85% of rural households have an average of two hectares or less for all food, cash-crop, and livestock needs; in many cases this total is split between a number of non-contiguous plots.

In 1995 the total population of Uganda was estimated at 18.4 million, with an annual growth rate of 2.5%. Poverty and population growth represent major sources of pressure on the country's rich natural resource base.

Although not a large country by African standards (241,000 km^2), Uganda is among the continent's richest countries with respect to its natural environment. Nearly 20% of the national surface area is covered by bodies of water, most notably Lake Victoria. Seven of Africa's 18 biogeographic regions (the highest concentration on the continent) and some 90 vegetation communities are represented. Occupying a transition zone between East African savanna systems and the moist tropical forests of the Congo Basin, Uganda's highly diverse landscape includes rift valleys, highlands and mountain ranges, papyrus swamps, acacia

savannas, and an extensive network of interconnected rivers and lakes. Pronounced differences in elevation help define Uganda's agro-ecological zones: the Albert Nile valley along the northwestern border with Sudan is just 600 m above sea level, while the Rwenzori mountain range, along the western border with the Democratic Republic of Congo, and Mt. Elgon on the southeastern border with Kenya, exceed 5,000 and 4,000 m respectively. Annual rainfall varies from 500 mm in the arid northeast to over 2000 mm in mountainous areas and along the larger lakes.

Forest and woodland cover has declined in modern times, from an estimated 45% of land area in 1890 to around 21% at present. Agricultural conversion has played a major role in this process, although urbanization, infrastructure development, harvesting of wood fuels, and logging are also factors. Population pressure has increased sharply: population density per unit of land is now more than four times higher than in 1950. Cropland increased by 18% between 1980 and 1990.

2.2 Kabale District

Kabale District is located in southwestern Uganda with Ntungamo and Rukungiri Districts to the north, Kisoro District to the west, and the Republic of Rwanda to the south and east. Kabale District covers an area of 1,827 km^2 It is divided into four administrative counties including the Municipality of Kabale and is further divided into 22 sub-counties.

Altitudes in Kabale District range from 1,200 m to over 2,300 m above sea level. The topography is dominated by steep hills with typical slopes of 25% to 35%. Long northwest trending ridges form valleys which are generally 400 m to 500 m lower in elevation. Valley bottoms are typically nearly level swamp lands which, in relatively recent times, have been partially drained and are now used for grazing and crops. Located within Kabale District is Lake Bunyonyi which is approximately 20 km long and from 1 to 2 km wide. It is reported to be the second deepest lake in Africa.

Temperatures in Kabale District range from a mean maximum of 23°C to mean minimum of 10°C. The district receives an average annual rainfall of 1,000 - 1,480 mm and has two rainfall seasons. The two agricultural seasons for short rotation crops are March - May, harvesting in June - August and September - December, harvesting in January - March. The long rotation crops, such as sorghum and sweet potatoes, are grown from September - July, with harvesting in August.

The soils of the district are mainly sandy loam volcanic andosols and nitosols. Although the steep terrain subjects these soils to soil erosion, they are moderately fertile and can support vegetables, legumes, bananas, coffee, and other food crops and livestock. Anti-erosion bunds with natural grass and in a few cases planted elephant grass are common features forming a terrace landscape. Mineral fertilizers are, for the most part, not used and even manuring generally only occurs on fields close to homesteads. The major crops grown in Kabale District are sweet potatoes, sorghum, beans, Irish potatoes, field peas, maize, wheat, and vegetables. Sorghum is the main cash crop. Few families keep cattle, while small stock (goats, sheep, pigs, poultry) are kept by most families. The animals are grazed on marginal hill land, valley bottoms, roadsides, and interseasonal fallows. Trees are found around homesteads and in small woodlots. They are mainly eucalyptus and black wattle.

Kabale District is one of the most densely populated districts in Uganda with a total population of 483,846 (projected from 1991 census) and a population density of about 265 persons per sq km . Of the total population, 111,285 are women between the ages of 15 - 49. The people are Bakiga, a Bantu speaking ethnic

group. Their major occupation is subsistence farming. The land tenure system is customarily private land ownership. Over 95% of the population in Kabale District is rural and land is scare with most of the farm families owning or controlling less than one hectare. The household size averages between 6 and 10 people. The homesteads are found mainly in the valleys with a few on the slopes. The slopes and ridge tops are otherwise completely cultivated with terraced plots. The family is the main source of labor. Hired labor is sometimes used where people have small families or are aged and do not have relatives in the area. Labor is also used in exchange for renting land for the season by those who do not have enough land. Women and children are mainly responsible for farming and taking care of the home. The men are engaged in off-farm activities such as building and maintaining the home, fencing, and employment often outside the district.

2.3 Uganda Environmental Policies and Procedures

The Uganda Environment Statute of 1995 establishes general principles for environmental management in Uganda as well as requirements for environmental planning at both national and local (district) levels; a framework for environmental impact assessment (EIA); requirements for adoption of environmental standards; environmental management measures for sensitive resources; provisions for environmental restoration orders; and other requirements. EIA guidelines and standards have recently been finalized. The development of both the Statute and the implementing regulations for environmental review was influenced considerably by USAID technical assistance. As a result, the regulations and processes in place closely resemble those of the United States.

3.0 EVALUATION OF ENVIRONMENTAL IMPACT POTENTIAL OF PROJECT

3.1 Introduction

Many of the proposed UFSI activities are either training oriented or very small-scale and as such will have little or no direct effect on the environment. There are, however, some aspects of the proposed interventions which, unless carefully implemented and monitored, could potentially result in negative environmental effects.

3.2 Monetization

Monetization of commodity imports, which is the funding mechanism for the UFSI, is being carried out by ACDI. This process of import and sale of wheat at market prices will involve sea and land transportation, storage, and some packaging activities all of which will utilize existing infrastructure. Therefore there is limited present or future impacts to the environment anticipated from this intervention.

3.3 Agricultural Production/Post Harvest Handling/Nutrition

The village-based activities planned under this group of interventions are primarily training oriented but will include the provision of some agricultural inputs such as improved seeds and hand tools. UFSI will not supply or promote the use of agricultural chemicals.

The input of improved seeds is intended to increase farmers' yields. The traditional practice of obtaining seed from the annual harvest has, over time, lead to a degradation of seed quality. UFSI, through a local implementing partner, will assist farmers in obtaining high-quality sanitized seeds to enhance the yields from their farms. The source of these seeds will be institutions such as Kaleyengere and Kawanda Research Stations as well as commercial seed growers sanctioned by the government of Uganda. Given that the

provision of this input will be limited to seeds for crops which are currently grown in the District, there is no foreseeable environmental impact as a result of this activity.

UFSI will also assist in the construction of simple home-based food storage systems. While this is a physical activity, because of its scale it is unlikely to have any adverse affect on the environment.

UFSI will not fund activities involving assistance for the use or procurement of pesticides without submitting an amended IEE to USAID/Uganda.

This component will not result in the conversion of natural areas, such as swamp and forest, to agricultural land. Because agricultural productivity will be increased, there will be less need to clear additional land for crops. See Table 1 for a breakdown of potential environmental impacts and mitigation measures.

3.4 Soil Conservation/Soil Fertility

While project interventions related to soil conservation and soil fertility are primarily training activities on the part of the UFSI and local partners, when implemented by the participating farmers they have a potential for environmental impact. UFSI intends these impacts to be positive, and to improve the deteriorating environmental condition in Kabale; and any unintentional or unavoidable adverse effects will be kept to an absolute minimum. The following activities have some potential for affecting the environment:

- Soil conservation and soil fertility enhancement using agroforestry interventions. This activity, to be implemented by a local partner, will be a comprehensive program aimed at promoting the establishment of fodder producing hedgerows, tree crops for fallowing, and wood lots on slopes which are inappropriate for tilling. The highly defined fixed-duration program held in interested participating villages will include formal training, field trips to demonstration plots and successful farm applications, provision of seedlings and tools, work sessions, and follow up visits. There are few adverse environmental impacts, short or long-term, envisioned as an outcome of these activities. The program will, however, involve the propagation of exotic as well as native tree species, and if not well designed or monitored, this could result in uncontrolled spread of a particularly aggressive species or in the introduction of new pests into an area. Mitigation measures are detailed in the next section.

- Soil conservation and soil fertility workshops. These short duration workshops are intended to promote construction and maintenance of terraces and other erosion control techniques such as grass strips, minimal tilling, and zero grazing. Soil fertility enhancement through crop rotation and organic farming techniques will be emphasized. The introduction of chemical fertilizers will not be a UFSI activity. The workshops will primarily be training activities which will likely also include tool distribution. Little negative environmental impact is anticipated as a result of the activities promoted other than the possible adverse health effects of increased handling and concentration of animal waste near homesteads as a result of the promotion of zero grazing. Mitigation measures are detailed in the next section. The retention of natural woody vegetation for wind breaks, erosion control, and boundary markings will help promote forest conservation and decrease the area cleared for agriculture.
  See Table 1 for a breakdown of potential environmental impacts and mitigation measures.

3.5 Community Road Improvements

More than any other component of the USFI, the Community Road Improvement activities will result in direct physical effects on the environment. However, if these roads are properly designed, carefully constructed, and regularly maintained, there is likely to be a net improvement on the present conditions of uncontrolled soil erosion on the typical existing non-engineered, poorly maintained community road. In addition to the needed financial and material inputs, UFSI will provide the Local Councils with technical assistance to evaluate the environmental impacts of the proposed community road activities. Besides direct environmental impacts, road rehabilitation could result in indirect environmental impacts. The environmental criteria/environmental review process detailed in section 4.2 will ensure that direct and indirect environmental impacts are evaluated and that negative environmental effects are minimal.

The road improvement activities are small-scale and will typically be undertaken with manual labor, although mechanical labor (bulldozer, grader, compactor) will be used as necessary and where possible. The construction activities and the potential environmental impacts include:

- Clearing of right of way. Potential environmental impacts include loss of arable land, loss of vegetation, and possible soil erosion during and immediately after construction.

- Limited road widening typically involving cut and fill on hillsides. Potential environmental impacts include increased soil erosion and minor failures of cuts until stabilized with vegetation, and loss of vegetation.

- Drainage improvements such as road side ditches and cross drainage culverts. Potential environmental impacts include concentration of flow causing gully formation and erosion at culvert outfalls.

- Addition of fill to cross valley bottom land. Potential environmental impacts include loss of wetland vegetation and altering of natural water courses.

- Installation of culverts at stream crossings. Potential environmental impacts include constriction of channel flow resulting in upstream flooding.

- Improved road surface material (gravel) and grading in some locations. Potential environmental impacts include water ponding in abandoned borrow pits and creating breeding grounds for mosquitos. In addition, the use of a motor grader will create dust during operation.

After improvements are completed there will be an inevitable increase in traffic on the community roads. This will likely result in an increase in dust, noise, and possibly traffic accidents. In addition, there may be a greater population concentrated along the road.

4.0 RECOMMENDED MITIGATION MEASURES, CRITERIA, MONITORING, AND EVALUATION

4.1 Mitigation Measures for Soil Conservation/Soil Fertility Interventions

- To the extent that exotic tree, shrub, or grass varieties are introduced into the area, UFSI will ensure

that these are well tested, non-nuisance varieties approved by the Government of Uganda, Ministry of Agriculture.

- Inputs of seedlings to any group or individual will include a variety of plant species.

- If improved seed, treated with material toxic to humans, will be dispensed to farmers, UFSI staff will ensure that warning labels are intact, and that end-user awareness is incorporated into the UFSI extension service. UFSI will provide field workers involved with dispensing seed and monitoring its use, training in safe handling and use of treated seed.

- In conjunction with soil conservation and soil fertility workshops, the concerns and costs of chemical inputs will be emphasized.

- In association with the promotion of zero grazing activities, training will emphasize the need for proper handling of animals and animal waste.

4.2 Environmental Criteria for Community Road Improvements

The full spectrum of environmental impacts of road improvement can only be evaluated and mitigated on a site-specific basis. Most importantly, to assess indirect and cumulative impacts of rural road upgrade, site-specific information is necessary.

Therefore, this IEE sets up an umbrella process of environmental review. Environmental criteria will be developed to guide a reviewer through a site-specific Environmental Review (ER). An ER will be conducted for each segment, and submitted for MEO approval prior to beginning repair activities. The umbrella process will ensure that the BEPs are implemented; and that site-specific analysis is conducted, environmental concerns are assessed, potential impacts mitigated, and indirect and cumulative effects are considered for each segment.

Environmental Criteria for community road improvements will be revised from already approved criteria in use in other USAID missions and they will be submitted to BHR/BEO for project files. The USAID/Uganda MEO will train relevant UFSI partners to use the environmental criteria, and to conduct an ER. Africare will be responsible for submitting ERs for MEO approval prior to beginning repair activities. If, based on the ER, MEO determines that a significant impact could result from rehabilitation activities, UFSI will be notified that work must not begin until an EA is conducted and approved. BEO will be notified in the case of possible significant impacts; otherwise the MEO will approve the ER (with or without conditions), and repair work may begin.

The ER should require approximately one field day/segment (</= 10 km), and the ER will be approximately three pages in length plus maps of the road segment showing baseline data and areas of concern. The ER will consist of a field check of the baseline environment at the site of the road segment; an evaluation of the potential environmental effects of the proposed action; an analysis of the indirect effects, with emphasis on the potential for increased migration into the area due to road repair (both positive and negative effects) and effects of possible changes in farming strategies (subsistence versus cash crop); and site-specific mitigation measures recommended to minimize environmental impacts, direct (using BEPs established in this IEE and others developed during on-site review) and indirect.

In addition, Section 118 of the Foreign Assistance Act requires that "the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands must be conducted in compliance with an Environmental Assessment (EA)." The USAID/Uganda MEO has determined, through a field check of the proposed road segments, through maps and interviews, that roads proposed for upgrade pass through land under cultivation, villages, and small tracts of eucalyptus. Proposed road upgrades do not pass through relatively undegraded forest. If during the ER, reviewer finds that a segment passes through relatively undegraded forest, an EA must be conducted prior to beginning repair, and the ER should include notification of this. USAID/Uganda MEO will then notify BHR/BEO.

4.3 Promotion of Environmental Review and Capacity Building

Africare intends to carry out most of the activities of the UFSI through a variety of contract and sub-grant arrangements with local implementing partners. While these local partners will be given comprehensive responsibility for implementation of various project activities, the objective and detailed scope of work for a given activity will be clearly established. Contracts, letters of understanding, and other types of formal agreements will be the norm. Within this framework, relevant environmental mitigation and monitoring measures established in this IEE will be incorporated into the agreements with local partners.
In addition, UFSI staff will strive to sensitize local government agencies and NGOs, which have less formal relationships to the project, to the environmental issues associated with project implementation. All local partners involved with project activities which have a potential for environmental impact will be given a copy of the USAID Africa Bureau Environmental Criteria for Small-scale Activities in Africa (June 1996).

4.4 Monitoring and Evaluation

During the five year UFSI implementation period, Africare is required to monitor and evaluate the project's success against indicator benchmarks. Africare is designing a Monitoring and Evaluation (M and E) Plan which will incorporate the monitoring of environmental indicators into this program. Specifically, UFSI will carry out the following monitoring activities related to the soil conservation/soil fertility and community road improvement interventions.

Soil Conservation/Soil Fertility:

- UFSI will monitor the type and mix of trees and shrubs which are being supplied to farmers participating in agroforestry programs to ensure that they are well tested, non-nuisance varieties approved by the Government of Uganda, Ministry of Agriculture.

- Where zero-grazing practices have been promoted, UFSI will monitor the sanitary conditions in and around animal enclosures, and if determined to be necessary, will initiate additional training in the proper handling of the animals and animal waste.

Community Road Improvements:

- During the design, layout, and construction phases of each road improvement project, UFSI will monitor activities to ensure that the recommended mitigation measures are incorporated into the work, and that ERs are carried out as required.

- The integrity of the completed road improvements will be checked after the first heavy rain and at three month intervals for one year. Specific indicators that will be monitored include formation of

gullies in roadside ditches, on road surfaces, or on adjacent slopes affected by the work; soil erosion at culvert outfalls; stability of cut and fill slopes; and reestablishment of vegetation along right of way and borrow areas.

- UFSI will take responsibility for coordinating any remedial action which is required within the first year of completion of the road improvements.

- Upon completion of each road improvement project, UFSI will formally notify the Local Council at the district level (LC 5) that it is officially responsible for implementing the road maintenance program according to their agreement. After three months this will be followed up to confirm that appropriate arrangements have been made.

- UFSI will monitor the implementation of any mitigation measures required and/or conduct additional monitoring as required in the site-specific ERs.

USAID/Uganda will:

- Assist in designing rural road environmental criteria and provide training in using the criteria so that on-site UFSI staff can conduct ERs.

- Review and approve ERs for each road repair segment.

- Review UFSI reports on results of environmental mitigation and monitoring activities.

- Incorporate into Mission field visits and consultations with UFSI staff, field examination of the environmental impacts of activities and feedback on mitigation and monitoring.

- Report on implementation of mitigation and monitoring requirements as part of the summary of activities and their status based on monitoring reports submitted by Africare.

- Assist Africare to monitor and evaluate activities after implementation with respect to environmental effects that may need to be mitigated.

5.0 SUMMARY OF FINDINGS:

Based on the environmental review presented in this IEE, the following determinations are made:

1. A **Categorical Exclusion** is recommended for training and technical assistance activities in support of the proposed agricultural production/postharvest handling/nutrition programs pursuant to 22 CFR 216.2(c)(2)(i). These activities will not have adverse effects on the environment.

2. **A Negative Determination** (22 CFR 216.3(a)(2)(iii)) is recommended for physical interventions under the agricultural production/postharvest handling/nutrition programs (i.e., provision of agricultural inputs such as improved seed, and hand tools); and for monetization of commodity imports. These activities will not result in adverse environmental impacts.

3. **A Negative Determination with Conditions** (22 CFR 216.3(a)(2)(iii) is recommended for proposed soil conservation/soil fertility interventions and rural road improvement. These activities involve physical

interventions which could result in environmental impacts. The conditions presented in this IEE are intended to make certain that these activities will be implemented and monitored by Africare, in conjunction with its local partners, in a manner which ensures that they have no significant environmental impacts.

Potential environmental impacts (identified in this IEE) of the planned soil conservation/soil fertility activities shall be mitigated by adopting the measures detailed in Section 4.1 of this IEE.

Community road improvement activities shall be implemented in accordance with environmental criteria adapted for Uganda - specific circumstances from USAID/Mozambique, USAID/Madagascar and USAID/Cambodia approved rural road environmental criteria. Local partners, a District Engineer's representative, and Africare's on-site road engineer will be trained to use the criteria to conduct Environmental Reviews (ER). ERs shall be submitted to Mission Environmental Officer for approval prior to beginning rehabilitation work. Local implementation partners will be made fully aware of, and made responsible for adhering to the environmental mitigation and monitoring requirements presented in this IEE and in follow-on ERs.

Proposed community road improvements do not pass through undegraded forest nor do they pass adjacent to protected areas. Road rehabilitation will not indirectly affect undegraded forest nor protected areas.
New activities introduced into the project which are substantively different from those presented in this IEE will require submission of an amended IEE to USAID/Uganda. No activities will be conducted prior to receiving approval of the amended IEE.

This IEE does not cover activities involving the use or procurement of pesticides or activities involving procurement, transport, use, storage, or disposal of toxic materials, which will require an amended IEE submitted to USAID/Uganda.

Annex D.6

ENVIRONMENTAL CRITERIA FOR COMMUNITY ROAD REHABILITATION

BACKGROUND

As required by USAID Environmental Procedures, an Initial Environmental Examination was conducted on the Africare UFSI Title II Program, and a Conditional Negative Determination for community road improvements was issued by the Bureau of Humanitarian Relief (BHR) Bureau Environmental Officer (BEO) in USAID/Washington. This decision means that road improvements are not expected to result in adverse environmental impacts, provided that environmental criteria are followed. This document contains the environmental criteria that must be used to plan, design, implement, and monitor activities to ensure adverse environmental impacts do not occur.

PHILOSOPHY OF ENVIRONMENTAL REVIEW

USAID is required by law to ensure that environmental factors and values are integrated into its decision making process, and to assess the environmental effects of its actions. But not only does USAID view the environmental review process as a legal requirement, it is also one of the best practical methods to incorporate the views of partners/collaborators/beneficiaries, and to guarantee that environmental aspects are considered and integrated into all phases of a project.

Besides specific environmental procedures that USAID must comply with to minimize adverse environmental effects of its actions, USAID must also deny financial assistance for: the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands unless a formal Environmental Assessment is conducted.

Therefore, these environmental criteria are for use only in cases where there is no undegraded forest. USAID-Africare field checks have confirmed that planned community road improvement activities in Kabale District will not pass through relatively undegraded forest.

ROLES AND RESPONSIBILITIES

Use of these environmental criteria constitutes the "Environmental Review" (ER) of the activity (road rehabilitation/ repair/maintenance). Each road segment will go through an ER. The report to be submitted (by Africare to USAID/Uganda's Mission Environmental Officer - MEO) documenting the process of using these environmental criteria is called the "Environmental Review Document" (ERD). An ERD should be submitted for each road segment (it is up to the Environmental Reviewer to define "segment," however, every stretch of road to be repaired must have an ER completed prior to construction).

Africare has the ultimate responsibility to ensure that ERs are carried out as necessary, and that USAID receives the appropriate ERD. Africare should ensure that all those responsible for, and involved in road rehabilitation and maintenance, including beneficiaries, have the chance to participate in ERs.

The principal person(s) responsible for using the environmental criteria (roles to be assigned by Africare), is speaking for the environment (this includes the human environment, i.e., sociocultural aspects). The ER Specialist must remove her/himself from any other role while conducting the ER. Others involved in

planning, design, implementation, maintenance, and monitoring will be concerned with engineering aspects, funding aspects, employment aspects, etc. But the ER Specialist speaks for the environment.

TIMING AND LEVEL OF EFFORT

These criteria are designed to be used at all stages of the project: planning and design; implementation; maintenance; and monitoring. The ER is a process involving field observation and discussions with local people and experts. The ERDs that Africare will provide to USAID document that process and analyze the results of the process.

The level of effort for an ER should be commensurate with the expected extent of environmental impacts. Mainly, the ER Specialist should use common sense when determining the level of effort necessary for each ER. An estimate, from field checks of the project area, is that an ER for a typical 10 km stretch of repair work will require one to two days of field time, including on-site interviews and fieldwork. The ERD should normally be approximately a three page report (one page-indirect effects; one page-direct effects; one page-best engineering practices/ mitigation, and monitoring) plus maps. However, the report may be adjusted according to information that is elicited from the fieldwork and interviews.

USE OF ENVIRONMENTAL CRITERIA - GENERAL

These environmental criteria do not purport to contain the full range of environmental impacts that may result from road repair; nor do they contain all possible questions regarding road repair activities and their effect on the environment. They are a framework to guide the ER Specialist, and as questions and issues become apparent, they should be included in the ERD. The ER should be viewed as a learning process for all involved, and so that future ERs will have the benefit of experience, any information deemed useful should be appended to these criteria.

These criteria are not meant to be a technical design guide. Technical design aspects are in the road engineer's realm. The ER Specialist will no doubt use the road engineer's expertise to assist in conducting the ER, and may design a mitigation measure that will require the road engineer to modify his design. But it is not part of the ER Specialist's job to design the technical aspects of road rehabilitation.

The ER should be just as concerned with increasing the possible positive benefits as it is with decreasing the negative effects. Therefore, the ER Specialist should document where the road repair activities are having a positive, as well as a negative, effect, and try to build on the positive.

These environmental criteria are to be used specifically for community road improvement activities. They are designed to evaluate environmental impacts from the repair of community roads designated in Figure 1, "Community Roads System Map." Through field checks by USAID/Uganda's MEO and Africare, potential environmental impacts of repair work of those roads designated in Figure 1 are filtered down to:

1. Direct Impacts

Potential environmental impacts that are at the location of the road repair (on-site) and a direct effect of repair activities.

- Erosion/sedimentation increased
- Drainage pattern altered
- Vegetative cover altered
- Dust pollution increased

2. Indirect Impacts

To the extent possible, from field checks and review of documents, these issues have been determined not to be significant. However, typical of indirect impacts, they are difficult to predict, do not necessarily become obvious at the time of project implementation, and are sometimes difficult to link to the project activity - although a link may exist. Therefore, it is critical that the ER Specialist understands all forces acting upon the environment in the project area so that a reasonable prediction of indirect impacts can be made. These criteria will give the ER Specialist tools to help make these predictions.

- Effect on forest cover extent
- Land use changes
- Effect on water availability (quality and quantity)
- Sociocultural changes
- Changes in wildlife populations
- Changes in farming practices

STEPS FOR ENVIRONMENTAL REVIEW

Step 1

Define the Road Segment and Repair Activities

In step 1, the ER Specialist will use a map to define the road segment under consideration (location, length, type of road); and will review the construction/engineering plan to determine the specific actions of concern.

Possible actions of concern:

- bridge or culvert repair/replacement
- movement of roadfill material
- side casting of material (temporary or permanent)
- brush cutting
- constructing passing lanes
- mining of roadfill material from borrow pits
- land-take

Step 2

Assessment of Direct Environmental Impacts

First, the ER Specialist should review the objective of the road repair--to improve access from where to where?; to improve access for whom?; where is the demand and where is the supply? Is the selected segment the most rational choice to fulfill the purpose or is there another possible choice? If there are other possible routes that will accomplish the same objectives, document them, since later it may become necessary, due to degree of environmental impacts along the chosen route, to search for alternative routes.

To evaluate direct impacts along the chosen segment, the ER Specialist should have a clear picture of the exact actions that will take place: repair directly on the road; repair to culverts/drainage systems beneath the

road; construction of passing areas along the road; road widening; mining material from borrow pits; road realignments (if necessary to complete a road segment, however, these criteria assume that realignments will be for very minor stretches of the roadway, only where the original alignment is impossible to repair, or where a realignment will benefit the natural environment).

In addition, the ER Specialist must obtain information on the type of construction--mechanical and/or manual that will be used to undertake repairs. Each type of construction method will have particular concerns that go with it.

The ER Specialist must go to the location (including borrow pits) of each action (see list of possible actions of concern under step 1), and evaluate the effect of the action on the environment. In addition to looking at each discrete action, look at the road segment as a whole, and imagine the construction process along the entire road segment.

We know from preliminary field checks by USAID-Africare that potential impacts have been filtered down to:

- Erosion/sedimentation increased
- Drainage pattern altered
- Vegetative cover altered
- Dust pollution increased

Increases, decreases, or other types of changes in the above could affect natural resources of concern. Will the action affect:

- waterways parallel to and/or perpendicular to the road segment or in the vicinity of the road repair.
- drinking water sources (natural waterways or wells).
- wetlands (depressions that contain water or waterlogged soils - of course this depends on the season during which the field check is conducted - however, regardless of the season, there will be evidence in the soil, vegetation, or microgeography of the area to determine if there is a wetland present, i.e, (a swamp).
- other natural vegetation adjacent to the road (shrubby vegetation, forested areas, live fences).
- prime agricultural land.

Step 2B

Rating the importance of the natural resource:

The ER Specialist may wish to talk to local people to determine the importance of the natural resource, rather than solely relying on the field check. Some questions to ask to determine the importance of the natural resource are:

Waterway/Wetland:

Is this a source of drinking water or does it flow into a drinking water source?

Are people fishing along the waterway?

Is the water flowing or is it still? (if water is flowing, there may be a fishery resource, and could indicate wildlife habitat; if the water is still, it may be a wetland of value, where aquatic species lay eggs, where wildlife may feed).
Natural Vegetation:

Does the vegetation support important wildlife populations/species? (forest, shrubby areas, woodlands may be prime wildlife habitat)

Is the shoulder of the road sloping, and the vegetation serving to hold soil in place?

Are live fences mitigating dust pollution?

Are live fences providing wildlife habitat?

If the answer is yes to any of the above, the natural resource is important. The "possible actions of concern" could affect these natural resources, and best engineering practices (BEPs) should be implemented (see annex 2). Implementation of BEPS is probably sufficient to ensure impacts will be minimal. Although BEPs are standard practices, the ER Specialist needs to document the areas of concern, and the BEPs that should be implemented to ensure these areas will not be adversely affected.

If the answer is no to all the above questions, the resource may not be important, and BEPs may not be warranted. The ER Specialist is the judge, and must determine how important the resource is, and if it requires protection against possible impacts. All decisions must be documented in the ERD.

Remember, the environmental review process is not only for decreasing the negative effects, it is for increasing the positive effects. Therefore, if a degraded natural resource (an unimportant resource) could benefit by implementing BEPs, the ER Specialist must determine if this is a worthwhile effort, and document the necessary BEPs.

There may be potential impacts that cannot be mitigated using the BEPs in Annex 2. In this case, the ER Specialist may design other BEPs/mitigation measures. Or if the ER Specialist determines that a natural resource is important, but is unable to design any BEP/mitigation measures to protect it, the ER Specialist will need to bring this to the attention of Africare, Kampala Office. The particular action affecting the resource of importance may need to be deleted from the design plans; or an alternative route which will accomplish the same objectives may need to be chosen, and an ER conducted on it.

The result of this assessment of direct effects should be documentation - a map and narrative - of the specific areas of concern, the specific repair activities of concern, and the BEPs chosen to mitigate impacts.

Step 3

Assessment of Indirect Environmental Impacts

The ER Specialist must next evaluate the potential for indirect impacts. This will involve discussions with local people, review of landuse maps, if available, and prediction.

This is where the ER Specialist will need to be especially thoughtful and creative because there are no standard procedures for predicting indirect effects nor standard practices for minimizing them.

To assess indirect impacts, the ER Specialist should have a clear picture of the region: Who will benefit as a result of road repair? What areas will the road make accessible that were previously inaccessible? Now that these areas have become accessible, what can be expected to occur (i.e., increased trade in timber products, increased trade in wildlife products, increased migration to the area, increased provision of health services, increased availability of economic opportunities to local people etc.).

Some of these potential long range outcomes my be positive for the environment, some may be negative. If negative outcomes are predicted, are there any actions that can be taken to offset the negative effects? (see mitigation measures in Annex 3).

Included in this evaluation should be a consideration of what would happen if the road was not repaired (No Action).
This step will result in a short narrative discussion of findings from interviews with local people and with environment/ development NGOs working in the area, and results of the map review.

The narrative should answer the questions:

- How will the road affect extent of forest cover?
- How will the road affect land use?
- How will the road affect the quality and quantity of water availability?
- What sociocultural changes are expected as an outcome of the road repair?
- How will wildlife populations be affected?
- How will the road work affect farming practices (i.e., growing high value crops instead of subsistence?)

In summary, what changes will the road repair bring over a five year period? How will the affected area look in five years?

Step 4

Final Confirmation of Absence of Relatively Undergraded Forest; Absence of Threatened/Endangered Species; and Effect of Activity on Protected Areas

This portion of the ERD should be conducted in close coordination with the District Environmental Officer.

The absence of relatively undergraded forest (as defined in Annex 1) along the road segment was confirmed by Africare-USAID field check, as discussed above. The ER Specialist should confirm this finding in the ERD.

If the ER Specialist determines that relatively undegraded forest my be present along the road, the Africare Project Manager must be notified, and he must alert the USAID/Uganda MEO. Further ecological studies may be needed to make the final confirmation; an Environmental Assessment may be needed to prior to construction; or that road segment may need to be deleted from repair plans.

USAID-Africare field and map checks confirmed the absence of legally protected areas in the vicinity of road improvement activities. The ER Specialist should confirm through field check, and state in the ERD whether legally protected areas may be affected by the proposed activity. If the ER Specialist finds that repair work may affect protected areas, the notification process described above should be implemented.

The ER Specialist must confirm the absence of threatened or endangered species (TES) by coordinating with the District Environmental Officer and by reviewing available documentation such as District Environmental Plans, State of the Environment Reports, etc. The ER Specialist may find the most effective means of confirming the presence and effect on TES is to coordinate with a local environmental NGO and share the design plans with them. Again, if activities may affect TES, follow notification procedures outlined above.

Step 5

Develop Environmental Monitoring Plan

At this point: The ER Specialist has identified natural resources of importance; identified possible actions that could affect those resources; identified BEPs that will protect them; devised a possible long-range scenario for the region; and developed mitigation measures to ensure the long-range scenario will be positive for the environment.

To ensure that the BEPs/mitigation measures are implemented, and
that no unforeseen impacts have occurred, one or more compliance checks will be necessary.

Rather than adding additional reporting requirements, compliance checks can be incorporated into Africare's Monitoring and Evaluation Plan, and reported on to USAID accordingly. If BEPs/mitigation measures required in the ERD have not been implemented, Africare, Kampala must be notified immediately, and remedial action must be taken.

Step 6

Presentation to, and Discussion with Team

Prior to finalizing the ERD, the ER Specialist should present the findings to the UFSI Team, and as necessary, to the affected communities. Be prepared to discuss any BEPs or mitigation measures recommended. Make sure the people responsible for final design and repair understand what is required regarding BEPs/mitigation measures. Incorporate relevant comments from the Africare Team into the ERD. Determine who will be responsible for conducting compliance checks and documenting the results in Reports to USAID.

THE ERD PACKAGE

The ERD must be submitted through Africare to USAID/Uganda's MEO for approval prior to construction. Allow sufficient time between submitting the ERD and construction for Africare, Kampala and the MEO to review and approve the ERD.

The ERD should be a narrative, as discussed above. It should also include maps showing the location of the road segment under consideration and areas/actions of concern. Copies of any other maps that were used to make determinations/assumptions should also be included. The following ERD format should be followed:

- Location maps (Big picture)
- Sketch route with actions and natural resources of concern (step 1 of criteria)
- Narrative with reference to sketch map

  - Direct environmental impacts (step 2)
  - Indirect environmental impacts (step 3)
  - Confirmations (step 4)

- BEP and mitigation measures (narrative and sketch map)

  - For direct impacts
  - For indirect impacts

- Monitoring and evaluation (step 5)
- Document presentation to team and community (step 6)

Annex 1

RELATIVELY UNDEGRADED FOREST DEFINITION

Definition:

Terrestrial broadleaf forest formations not classified as "mosaic" or "secondary."

Relatively undegraded forest "along" or "adjacent to" the road segment is determined to mean relatively undegraded forest within two kilometers on either side of the road segment. This determination of "impact zone" is made based on the topography of the area: steep slopes and hilly; movement is constrained due to few connecting roads or paths. There is little commercial activity and no industrial activity in the vicinity of the road repair activities. Transport is mainly by bicycle or foot. Trade and other commercial activities are mostly limited to adjacent communities.

Annex 2

BEST ENGINEERING PRACTICES

BEPs to decrease erosion/sedimentation:

- Compact road materials timely and properly
- Provide minimal slope on roadside
- Minimize vegetation removal on roadside
- Revegetate slopes where vegetation was removed or destroyed during construction
- Use erosion control barriers (concrete, filter fabric, whatever is available)
- Do not stockpile construction material adjacent to waterways/woodlands or on slopes
- Cover stockpiled material with fabric or other material, as available

BEPS to avoid obstructing waterflow/to enhance drainage pattern:

- Provide adequate culvert size and type
- Do not stockpile construction material in waterway or woodland
- Confine construction activities to original road footprint
- Provide bridge or culverts to ensure adequate water and fish passage
- Conduct construction activities in the dry season
- Provide for drainage in low-lying areas to ensure wetlands on both sides of the roadway will receive water flow
- Return areas to original or improved (to enhance drainage/improve wetland condition) contours following construction
- In roadside ditches on steep grades, install masonry check structures and drop inlets to control gully formation
- Provide liberal use of cross drainage culverts and offshoots (discharge points)
- Install rock energy dissipaters at culvert outfalls as necessary to prevent erosion

BEPs to minimize alteration of vegetative cover:

- Minimize brush cutting along the roadside--retain or replant live fences
- Do not stockpile material on vegetated areas
- Confine construction activities to original footprint, except where it is necessary to reduce an unacceptable grade or minimize cut and fill
- Keep road width to a minimum
- Revegetate areas where vegetation was removed or destroyed during construction
- Retain tree(s) along the roadside
- Construct passing lanes in areas with natural resources of low importance
- Use manual labor rather than mechanized where protection of natural resources is important

BEPS To Minimize Dust Pollution:

- Use low dust, standard road surface materials
- Cover stockpiled material with fabric
- Retain live fences
- Compact road materials timely and properly

- Do not leave soil surface exposed; revegetate immediately
- Plant tree and hedge buffers between road and homes

BEPS To Minimize Land-Take Issues:

- Involve communities at all steps in the road rehabilitation process including designing road width, right of way, and alignments; timing of construction activities; and planning for future maintenance.

BEPS TO Minimize Impacts from Borrow Pit Excavation:

- Limit borrow excavation to banks rather than pits and use a number of smaller sources
- Revegetate after use.

Annex 3

ENVIRONMENTAL MITIGATION: INDIRECT EFFECTS

Broad categories of possible mitigation measures to ensure forest cover, land use, water availability, wildlife, and sociocultural aspects, including small farming practices, will be affected positively by road repair activities could include:

- Environmental Education
- Agroforestry
- Water provision/sanitation activities
- Community Development Plans

The ER Specialist should use these categories as guidance in developing enforceable mitigation measures. Coordinate with the District Environmental Officer and Education Officer to elaborate on possible mitigation measures. Also, coordinate with interested local environmental NGOs.

This list should be expanded and details added as more is learned from the ER process. The ER Specialist should also use this opportunity to involve other donors, and to provide recommendations to USAID and other donors on possible future initiatives.

PROJECT ACTIVITIES	POTENTIAL ENVIRONMENTAL IMPACTS	RECOMMENDED MITIGATION ACTION	DEGREE OF ENVIR IMPACT (Assuming Mitigation)
1. MONETIZATION			
A. Sale of Wheat at Market Rates	no negative impacts anticipated		
2. AGRICULTURAL PRODUCTION / POST HARVEST HANDLING / NUTRITION			
A. Improved Seeds, Tools & Training (no introduction of commercial fertilizers or pesticides)	no negative impacts anticipated		
B. Organic Farming Workshops (promote increase in organic material, weeding, ...)	no negative impacts anticipated		
C. Post Harvest Handling Workshops (improved drying and storage methods...)	no negative impacts anticipated		
D. Nutrition Workshops (improved dietary and sanitary practices, maternal and child nutrition)	no negative impacts anticipated		
3. SOIL CONSERVATION / SOIL FERTILITY			
A. Agroforestry Interventions (promote hedgerows to stabilize terraces and retain soil, tree crops for fallowing, tree planting on slopes inappropriate for tilling)	problems with uncontrolled spread of exotic species pest problems with mono-cropping	uncontrolled spread not a problem in area because of intense demand for land and fuel, introduce only well tested, non-nuisance varieties approved by GOU introduce a variety of species	
B. Soil Conservation Workshops (promote terrace construction and maintenance...)	no negative impacts anticipated		
C. Soil Fertility Workshops (promote crop rotation., organic farming	no negative impacts anticipated		

PROJECT ACTIVITIES	POTENTIAL ENVIRONMENTAL IMPACTS	RECOMMENDED MITIGATION ACTION	DEGREE OF ENVIR IMPACT (Assuming Mitigation)
techniques, and provide training in hazards and costs of commercial fertilizer use...)			
D. Zero Grazing Workshops (promote manual harvest of fodder.....)	concentration of animal waste near homes	in conjunction with soil fertility interventions, promote safe collection and use of waste as organic fertilizer	
4. COMMUNITY ROAD IMPROVEMENTS			
A. Planning & Design			
Staking	minor loss of vegetation	limit clearing to only that required	minimal
B. Construction			
clearing of right of way	loss of vegetation, increased soil erosion	keep design width to min req'd to achieve objective of all-weather vehicle access, re-vegetation	moderate short-term impacts, minimal to no long-term impact
cut & fill on hillsides (primarily by manual labor - to widen roads or minor realignment where required to reduce grade or minimize cuts)	increased soil erosion, minor failures of cuts	heavy reliance on manual labor vs earth moving equipment, keep design width to min req'd to achieve objective of all-weather vehicle access, extensive tree & bush planting along cut & fill slopes	moderate short-term impacts, minimal long-term impact or actual improved condition
drainage improvements (roadside ditches and cross drainage culverts)	concentration of flow causing gully formation, erosion at culvert outlets	drop structures or checks in roadside ditches on steep grades, drop inlets at cross drainage culverts, liberal use of cross drainage culverts and outboard offshoots (discharge points), promote vegetation in roadside ditches, rock energy dissipaters at culvert outlets	anticipate reduced impacts compared to typical existing condition of uncontrolled erosion on poorly constructed roads and tracks with steep gradients
culvert placement at stream crossings	constriction of channel flow,	install sufficient number and size of culverts to minimize upstream ponding	minimal
fill across swamps (in conjunction with culvert placement)	loss of vegetation, altering of water courses,	use existing road alignment, locate culverts and install sufficient number	minimal impact (swamp areas are now actively drained and

PROJECT ACTIVITIES	POTENTIAL ENVIRONMENTAL IMPACTS	RECOMMENDED MITIGATION ACTION	DEGREE OF ENVIR IMPACT (Assuming Mitigation)
	loss of wetlands	and size to minimize altering of water courses or ponding, keep design road width to min req'd to achieve objective of all-weather vehicle access	typically used for grazing or crop production)
road surface (granular material in select areas and use of motor grader on some roads)	borrow pits could pond water, grader will create dust	limit borrow source excavation to banks rather than pits, use a number of smaller borrow sources	minimal
C. Operations			
increased traffic	increase dust, noise and accidents	limit improvements to min req'd to achieve objective of all-weather vehicle access without encouraging high speed or use of community roads over feeder roads, extensive tree, & hedge planting along right of way and especially between road and homes	
road maintenance (carried out by LC5 through local manual labor contracts - primarily filling holes and clearing ditches, culvert inlets, and offshoots)	no negative impacts anticipated		

Annex E:
Sample Tables and Environmental Checklists

E.1 Example Summary Table

E.2 Example Leopold Matrix

E.3 Example and Template Mitigation and Monitoring Forms

From the *TANAPA Environmental Management Plan Guidelines for Road Improvements* (September 2001) (Tanzania National Parks). Created as a result of a USAID Environmental Assessment of a roads program for Tanzania's National Parks.

Example Summary Table: Synopsis of Environmental Decisions for DAP/PAA Activities by [PVO]: FY 1998

Note 1: This is an example only. Information entered is preliminary and illustrative, based on Title II PVO=s activities in Ethiopia; it parallels the Strategic Objective and Intermediate Results (IR) structure of the DAPs, which is meant to facilitate linkage to regular planning and results reporting tools]
Note 2: % of T II = proportion of Title II resources apportioned to the line items, with subtotals if possible.]

Geographic attributes and operating principles: USAID-funded DAP activities are sited ... *[give overall details on broader distributional factors and operating principles]*

Types of Activities/ Interventions/Components: *[develop under sub-headings of major activities, with more detail rather than less]*	**Geographic Distribution, Location** *[this may be adequately addressed at top left]*	**Sites/Projects (number, other)** *[at lowest practical level]*	**Scale & Quantity** *[give as much detail as practical]*	**Unit** *ha,etc. [> 1 unit is poss.]*	**% of Title II Resources**	**Expected Determinations** *[preliminary only: CE, ND, or PD]*
IR 1: Increased Agricultural Crop Production						
Farmers training in: general agriculture, irrigation, agronomy, vegetable production, etc.	Tigray, Oromyia, SNNPR	Adama, Damota II, Kite Awalaelo, Shone, and Tiya	approx. 500 farmers trained for 3-6 days: FY 98	people	2.5	CE with provisions for training in environmental sustainability principles and practices
Agricultural extension and demonstration of improved agricultural practices (e.g., improved seeds, fertilizers, planting methods, crop protection)	Tigray, Oromyia	Adama, Kite Awalaelo	300 farmers to field days on 5 cooperative farmers= fields	number of events/ farmers	2	CE with provisions for training in environmental sustainability principles and practices
Agricultural credit provisionCtied to those trained in program	Tigray, Oromyia, SNNPR	Adama, Damota II, Kite Awalaelo, Shone, Tiya	cash to be disbursed to 1,560 farmers	funds/ number of farmers	2	CE or ND with conditions when indirect env. harm could result from lending activities
Types of Activities/ Interventions/Components: *[develop under sub-headings of major activities, with more detail rather than less]*	**Geographic Distribution, Location** *[this may be*	**Sites/Projects (number, other)** *[at lowest*	**Scale & Quantity** *[give as much detail as practical]*	**Unit** *[more than one is poss.]*	**% of T II**	**Expected Determinations** *[preliminary only]*

	adequately addressed at top left]	*practical level]*				
Earth fill dam construction	Tigray, Oromia	Kite Awalaelo, Tiya	5 dams, ea. 1 M m3 capacity over 5 yrs. 2 dams, ea. 0.2 M m3 capacity, 1999 & 2000	no./cu.m.	30	PD, which could be addressed through PEA, including ponds, microbasins, water supply, etc.
Diversion of river water for irrigation (Ariver diversion@)	Tigray	Kite Awalaelo	10 km diversion scheme 99-01	km	2	PD or ND with conditions
Road rehabilitation/construction - feeder roads maintenance - ford construction - small wooden bridge construction	Tigray, Oromyia Adama, Damota, Kite Awalaelo, Shone, Tiya	45 PAs	380 km of roads in and 14 small bridges will be constructed during the five years under the FFW program	km	12	ND with conditions? PEA may be done
Subtotal %						
Types of Activities/ Interventions/Components: *[develop under sub-headings of major activities, with more detail rather than less]*	**Geographic Distribution, Location** *[this may be adequately addressed at top left]*	**Sites/Projects (number, other)** *[at lowest practical level]*	**Scale & Quantity** *[give as much detail as practical]*	**Unit** *[more than one is poss.]*	**% of T II**	**Expected Determination** *[preliminary only]*
IR 2: Increased Household Income						
Farmers= training in micro-enterprises and business skills (basketry, beekeeping, agroforestry, soap and candle making, pottery, etc.)	Adama, Damota II, Shoneand Tiya in Oromia and SNNPR	90 PAs	Over 5 years, 230 farmers in beekeeping; 2,500 in agroforestry; 2,100 in IGA	no.	1.8	CE with provisions for training in environmental sustainability principles and practices
Tree crop seedling production and distribution (coffee, fruit trees)			100,000 to 1,000,000 farmers	no.	2	ND

Subtotal %						
IR 3: Improved Health Status in Target Areas: health and nutrition education, food supplementation						
Training in nutrition, food storage and preservation					1	CE
Potable water supply Pond construction/rehabilitation			65 ponds max 40,000 cu.m	no./cu.m.	5	PD or ND with conditions TBD relating to mitigation and monitoring
Types of Activities/ Interventions/Components: *[develop under sub-headings of major activities, with more detail rather than less]*	**Geographic Distribution, Location** *[this may be adequately addressed at top left]*	**Sites/Projects (number, other)** *[at lowest practical level]*	**Scale & Quantity** *[give as much detail as practical]*	**Unit** *[more than one is poss.]*	**% of T II**	**Expected Determinations** *[preliminary only]*
Drilling bore holes	Adama, Kilte Awlaelo and Shone in Tigray; Oromia and SNNPR	35 PAs	35 bore holes; 2 with 150 m depth at Adama; 3 @ 120 m depth at Shone and 30 with 60 m depth at Kilte Awlaelo during 5 yrs.	no.; m depth	4	ND with conditions relating to aquifer protection, use of proper engineering; water committees will be formed and trained
Water management committees formed and functioning; linked to bore hole, water supply activities				no.	2	CE with provisions for training in environmental sustainability principles and practices
Constructing demo latrines		Tiya	5 in 1997	no.	0.5	CE with provisions for hygiene mitigation

Subtotal %						
IR 4: Natural Resource Base Maintained						
Farmer training (soil and water conservation techniques, mud technology, fuel efficient mud stove making, etc.)					2	CE with provisions for training in environmental sustainability principles and practices
Tree seedling production/nurseries		... community nurseries, PVO	11.5 M seedlings	no.	2.5	CE or ND w/good practices and technical accuracy
Tree seedling planting		... sites	11.4 Million	no.	2	ND without conditions
Hillside terrace construction		.. sites	370 km during 5 yrs.	km	4	ND with conditions involving a subsequent screening and review process with mitigation measures identified
Hillside terrace maintenance		.. sites	3000	km	2	ND with conditions
Check dam construction		.. sites	25	no.	2	ND with conditions
Soil bund construction		.. sites	1990	km	3	ND with conditions
Microbasin construction for tree establishment		.. sites	125,000 basins max 2 sq.m. in 1998- 99	no.	1	ND with conditions
Biological conservation measures (area closure, living mulches, etc.)		59 sites	50 closures of avg. 100 ha	no.	3	ND with conditions: activities must be defined and separately screened
Subtotal %						
IR 5: Emergency Response Capacity Maintained						

Studies and plans			5	no.	0.5	
Subtotal %						
Grand Total %						

Acronyms: ADP: Area Development Program; CE: Categorical Exclusion; EA: Environmental Assessment; ND: Negative Determination; PD: positive Determination; PA: Peasant Associations; PEA: Programmatic Environmental Assessment; TBD: to be determined.

Annex E.2: Sample Road Improvements Environmental Impact Matrix

Legend

Adverse Impact Level		Beneficial Impact Level
●	Low	❍
●	Medium	❍
●	High	❍

Impact Category ⇒	Physical Resources													Ecological Systems										Landscape					Socio-Economic													
Activities ⇓	Soil Erosion	Debris Deposition	Siltation	Soil Compaction	Surface Runoff	Hydrology	Topography	Drainage	Wetlands	Surface Water Quantity	Surface Water Quality	Ground Water Quantity	Ground Water Quality	Habitat Change	Species Diversity	Alien Species	Vegetation	Poaching	Wildlife Movement	Animal Harassment	Ecological Function	Exceptional Resources	Tropical Forest	Scenic Quality	Wilderness Quality	Viewshed	Carrying Capacity	Visitor Experience	Human Settlement	Compatibility w/ Policies	Cost to Agency	Benefit to Agency	Costs to Communities	Benefits to Communities	Health	Disease Vectors	Noise Levels	Dust Levels	Risks/Hazards	Employment	Local Economy	Tourist Industry
Construction																																										
Vegetation clearing	●	●	●	●	●				●	●	●	●		●	●		●		●		●	●	●	●	●	●		●						❍				●	●	❍	❍	
Construction camp	●		●	●	●				●	●	●		●	●	●	●	●	❍	●	●	●	●	●	●	●	●		●	●	●		❍			●	●	●		●			
Quarry management	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●		●		●	●	❍	●	❍	●	●	●	●	●	❍	❍	
Trucking gravel	●		●	●	●						●				●	●			●	●			●	●	●	●	●	●			●			❍	●		●	●	●	❍	❍	
Cutting & filling	●		●	●	●	●	●	●	●	●	●	●		●	●		●		●	●	●	●	●	●	●	●		●									●	●	●	❍		

Impact Category ⇒	Physical Resources													Ecological Systems										Landscape					Socio-Economic													
Activities ⇓	Soil Erosion	Debris Deposition	Siltation	Soil Compaction	Surface Runoff	Hydrology	Topography	Drainage	Wetlands	Surface Water Quantity	Surface Water Quality	Ground Water Quantity	Ground Water Quality	Habitat Change	Species Diversity	Alien Species	Vegetation	Poaching	Wildlife Movement	Animal Harassment	Ecological Function	Exceptional Resources	Tropical Forest	Scenic Quality	Wilderness Quality	Viewshed	Carrying Capacity	Visitor Experience	Human Settlement	Compatibility w/ Policies	Cost to Agency	Benefit to Agency	Costs to Communities	Benefits to Communities	Health	Disease Vectors	Noise Levels	Dust Levels	Risks/Hazards	Employment	Local Economy	Tourist Industry
Blasting	●	●	●	●	●	●	●	●		●	●	●			●		●		●	●	●	●	●	●	●	●		●							●		●	●	●			
Construction material use	●		●						●		●				●	●								●	●			●						○				●	●		○	
Management of spoil	●		●	●	●			●	●		●			●	●						●		●	●	●	●		●										●		○		
Storage of diesel/oils									●		●		●	●	●		●				●	●	●						●	●			●		●					●			
Waste management									●		●		●	●	●		●				●	●	●	●	●	●		●	●	●	●	○	●		●	●		●	●			
Water use	○		○		●				●	●	●	●	●	●	●		●		●	●	●		●						●	●			●					○			○	●
Operation																																										
Vehicle Traffic Movement	●		●	●	●			●	●	●	●		●	●	●	●	●	○	●	●	●	●	●	●	●	●	●	●		●	●	○	●	○	●		●	●	●			●
Road maintenance	●		●	●	●	●		●	●	●	●			●	●	●	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●	○		○	●		●	●	●	○	○	○
Maintenance of machinery									●		●		●		●						●			●		●		○			●	○		○					●	○	○	●
Tourist activities	●		●	●	●			●	●		●			●	●	●	●	○	●	●	●	●	●	●	●	●	●	●			●	○	●	○	●	●	●		●	○	○	○
Waste management									●		●		●	●	●	●	●				●			●	●	●		●		●	●	○		○	●	●	●		●	○		●

Impact Category ⇒	Physical Resources													Ecological Systems										Landscape					Socio-Economic														
Activities ⇓	Soil Erosion	Debris Deposition	Siltation	Soil Compaction	Surface Runoff	Hydrology	Topography	Drainage	Wetlands	Surface Water Quantity	Surface Water Quality	Ground Water Quantity	Ground Water Quality	Habitat Change	Species Diversity	Alien Species	Vegetation	Poaching	Wildlife Movement	Animal Harassment	Ecological Function	Exceptional Resources	Tropical Forest	Scenic Quality	Wilderness Quality	Viewshed	Carrying Capacity	Visitor Experience	Human Settlement	Compatibility w/ Policies	Cost to Agency	Benefit to Agency	Costs to Communities	Benefits to Communities	Health	Disease Vectors	Noise Levels	Dust Levels	Risks/Hazards	Employment	Local Economy	Tourist Industry
Off-road driving	●		●	●	●	●		●	●		●			●	●		●	○	●	●	●	●	●	●	●	●		●		●	●	○						●	●			●
De-commissioning																																											
Ripping old road	●		●		○			○	●	○	●	○			●						●			○	●	●					●	○										
Shaping	○		○	●	○		○	○	○	○	●			○	●		○				●		○	○	○	○		○			●	○					○		●	○		
Revegetation	○		○		○	○		○	○	○	○	○		○	●		○				●		○	○	○	○		○			●	○					○			○		

Table 4. TANAPA Environmental Mitigation/Enhancement Form for Road Improvements for Serengeti National Park [SAMPLE ONLY] (To be submitted with annual *Environmental Management Workplan*)

Adverse Impact Description: Soil Erosion **Impact No. 1** **Year: 2001**

Road Segment (junction to junction or road name): _____

No.	a. Description of Mitigation/Enhancement Measure	b. Description of Needed Followup	c. Followup Dates	d. Unit(s)/ Individuals Responsible (Initials)		e. Cost high(h); medium (m); low(l); very low (vl)	f. Mitigation Achieved (If yes, provide date. If no, elaborate below))
1.1	Planning and Design			Unit	Indiv		
1.11	Develop and provide TANAPA design stands to control erosion	Quarterly Review of Progress		TANAPA Headquarters Engineering and Planning Manager		L-M	
1.12	Develop standards for following contours, avoiding gradients greater than 10%, or long downhill straight stretches	Quarterly Review of Progress		TANAPA Headquarters Engineering and Planning Manager		L-M	
1.13	Use a multidisciplinary team in selecting new routes	On-going		ER Coordinator And TANAPA Planning Manager			
1.2	Construction						
1.2.1	Minimize amount of clearing			Works		L	
1.2.2	Limit earth moving to dry seasons			Works		L	

No.	a. Description of Mitigation/Enhancement Measure	b. Description of Needed Followup	c. Followup Dates	d. Unit(s)/ Individuals Responsible (Initials)	e. Cost high(h); medium (m); low(l); very low (vl)	f. Mitigation Achieved (If yes, provide date. If no, elaborate below))
1.2.3	Protect disturbed areas			Works	M	
1.2.4	Store topsoil for respreading			Works	L	
1.2.5	Installation of temporary erosion protection	Check to see protection is still in place		Works	M	
1.2.6	Installation of permanent erosion protection	Check to see protection is still in place		Works	H	
1.2.7	Revegetation of disturbed areas	Check to see reveg doing OK		Works	M	
1.2.8	More drainage turnouts as required based on erosion	Clean as required		Works	M	
1.2.9	Drainage check dams as required based on erosion	Repair as required		Works	M	
1.2.10	Higher quality murram or surfacing based on continuing road damage			Works	H	
1.2.11	Sufficient culverts for good distribution of surface runoff			Works	M	
1.2.12	Minimize cuts/fills in sensitive areas (wetlands)			Works	H	
1.2.13	Install oil/water separators for maintenance yard surface runoff			Works	H	
1.3	Operation					
1.3.1	Maintain drainage structures	Clean as required		Works	M	
1.3.2	Maintain roadway surface	Grade as required		Works	M	

No.	a. Description of Mitigation/Enhancement Measure	b. Description of Needed Followup	c. Followup Dates	d. Unit(s)/ Individuals Responsible (Initials)	e. Cost high(h); medium (m); low(l); very low (vl)	f. Mitigation Achieved (If yes, provide date. If no, elaborate below))
1.3.3	Close roads that may be damaged during wet season			WIC	H	
1.3.4	Use higher grade murram on heavily-used route			Works	H	
1.3.5	Temporarily close road to allow environment to recuperate			WIC	H	
1.3.6	Install/maintain water-catchment trenches	Clean as required		Works	M	
1.3.7	Fill potholes, remove downed trees/limbs	As required		Works	M	
1.3.8	Control fuel/oil/wastes to prevent water contamination	Inspect Yearly		Works	H	
1.3.9	Ensure drainage turnouts sufficient to allow runoff percolation	Inspect Yearly		Works	M	
1.3.10	Minimize surface water use for roads during dry season			Works	M	
1.3.11	Prewet murram prior to dry season; store to keep damp			Works	M	
1.3.12	Monitor fuel tanks and fuel piping for leakage	Monthly		Works	M	
1.3.13	Collect/remove all waste oil	Monthly		Works	M	
1.3.14	Install concrete fueling pads			Works	H	
1.4	Decommissioning (Restoration)					
1.4.1	Reroute / decommission original road segment			WIC	H	
1.4.2	Ensure successful vegetation	Verify reveg survival		Ecologist	M	

No.	a. Description of Mitigation/Enhancement Measure	b. Description of Needed Followup	c. Followup Dates	d. Unit(s)/ Individuals Responsible (Initials)	e. Cost high(h); medium (m); low(l); very low (vl)	f. Mitigation Achieved (If yes, provide date. If no, elaborate below))
1.4.3	**Provide drainage/shaping as required to prevent erosion/siltation**	**Verify erosion not occurring**		**Works**	**M**	

Problem(s) Encountered:

Nature of needed followup action:

Responsible individual for followup:

Schedule for followup:

Other comments:

Signature of Preparer: _____ **Date:** _____

Table 5. TANAPA Road Improvements Environmental Monitoring Form for Serengeti National Park [SAMPLE ONLY] (To be submitted with annual *Environmental Management Workplan*)

Adverse Impact Description: Soil Erosion **Impact Number:** 1 **Year:** 2001

Road Segment (junction to junction or road name): _____

No.	a. Mitigation/Enhancement Measure/ Issues/Elements to be Monitored	b. Unit(s)/ Individuals Responsible		c. Indicator(s For Monitoring	d. Monitoring Method Used	e. Monitoring Frequency	f. Monitoring Cost high(h); medium (m); low(l); very low (vl)	g. Problem Encountered Check if yes, an elaborate below	h. Monitor Date(s):
	Design	**Unit**	**Indiv**						
	Construction								
1	Minimize amount of clearing	Works		Erosion	Visual inspection	daily	L		
2	Limit earth moving to dry seasons	Works		Erosion	Visual inspection	daily	L		
3	Restore disturbed areas	Works		Erosion	Visual inspection	Start, midterm, finish	M		
4	Store topsoil for respreading	Works		Erosion	Visual inspection	Start, midterm, finish	L		
5	Installation of temporary erosion protection	Works		Erosion	Visual inspection	Start, midterm,	H		

No.	a. Mitigation/Enhancement Measure/ Issues/Elements to be Monitored	b. Unit(s)/ Individuals Responsible	c. Indicator(s For Monitoring	d. Monitoring Method Used	e. Monitoring Frequency	f. Monitoring Cost high(h); medium (m); low(l); very low (vl)	g. Problem Encountered Check if yes, an elaborate below	h. Monitor Date(s):
					finish			
6	Installation of permanent erosion protection	Works	Erosion	Visual inspection	Start, midterm, finish	H		
7	Revegetation of disturbed areas	Ecologist	Reveg and erosion	Visual inspection	Start, midterm, finish	M		
8	Reroute / decommission original road segment	Ecologist	Reveg and erosion	Visual inspection	Start, finish, +1 year	L		
9	More drainage turnouts as required based on erosion	Works	Erosion	Visual inspection	Start, finish, +1 year	M		
10	Drainage check dams as required based on erosion	Works	Erosion	Visual inspection	Start, finish, +1 year	M		
11	Higher quality murram or surfacing based on continuing road damage	Works	Road surface deterioration	Visual inspection Visual inspection	Start, finish, +1 year	M		
12	Sufficient culverts for good distribution of surface runoff	Ecologist	Vegetative effects each side of road	Visual inspection photos	Start, finish, +1 year	M		
13	Minimize cuts/fills in sensitive areas (wetlands)	Ecologist	Vegetative effects each side of road	Visual inspection	Start, finish, +1 year	M		
14	Install oil/water separators for maintenance yard surface runoff	Works	Oil in separator	sample	monthly	M		

No.	a. Mitigation/Enhancement Measure/ Issues/Elements to be Monitored	b. Unit(s)/ Individuals Responsible	c. Indicator(s For Monitoring	d. Monitoring Method Used	e. Monitoring Frequency	f. Monitoring Cost high(h); medium (m); low(l); very low (vl)	g. Problem Encountered Check if yes, an elaborate below	h. Monitor Date(s):
	Operation							
15	Maintain drainage structures	Works	Erosion & siltation	Photos	yearly	M		
16	Maintain roadway surface	Works	Surface condition	Photos	yearly	M		
17	Close roads that may be damaged during wet season	Works	Surface damage	Inspect	Start of wet season	H		
18	Higher grade murram on heavily-used route	Works	Surface condition	Photos	yearly	M		
19	Temporary road closure to allow environment to recuperate	Works	Surface condition	Photos	yearly	H		
20	Install/maintain water-catchment trenches	Works	Erosion & siltation	Photos	yearly	M		
21	Fill potholes, remove downed trees/limbs	Works	Multiple tracks	Inspect	3 months	M		
22	Fuel/oil/wastes controlled to prevent water contamination	Works	Oil on ground	Inspect	3 months	M		
23	Drainage turnouts sufficient to allow runoff percolation	Works	Erosion & siltation	Photos	yearly	M		
24	Minimize surface water use for roads during dry season	Works	Lack of surface water	Inspect	Midway through dry season	L		
25	Prewet murram prior to dry season; store to keep damp	Works	Moisture evident	Inspect	Midway through dry	L		

No.	a. Mitigation/Enhancement Measure/ Issues/Elements to be Monitored	b. Unit(s)/ Individuals Responsible	c. Indicator(s For Monitoring	d. Monitoring Method Used	e. Monitoring Frequency	f. Monitoring Cost high(h); medium (m); low(l); very low (vl)	g. Problem Encountered Check if yes, an elaborate below	h. Monitor Date(s):
					season			
26	Monitor fuel tanks and fuel piping for leakage	Works	Oil on ground	Inspect	3 months	M		
27	Collect/remove all waste oil	Works	Oil on ground	Inspect	3 months	M		
28	Install concrete fueling pads	Works	Oil on ground	Inspect	3 months	M		
	Decommissioning (Restoration)							
29	Ensure successful revegetation	Ecologist	Reveg and erosion	Photos	Start, finish, +1 year	M		
30	Provide drainage/shaping as required to prevent erosion/ siltation	Works	Reveg and erosion	Photos	Start, finish, +1 year	M		

Problem(s) Encountered:

Nature of needed followup action:

Responsible individual for followup:

Schedule for followup:

Other comments:
Signature of Preparer: _____ **Date:** _____

TANAPA Road Improvements Environmental Management Plan - Mitigation Status
(To be submitted with annual *Environmental Management Workplan*)

Adverse Impact Description: _____ Impact No. _____ Year _____

Road Segment (junction to junction or road name): _____

No.	a. Description of Mitigation/Enhancement Measure	b. Description of Needed Followup	c. Followup Dates	d. Unit(s)/ Individual(s) Responsible (Initials)		e. Cost high(h); medium (m); low(l); very low (vl)	f. Mitigation Achieved (If yes, provide date, If no, elaborate below)
	Design			**Unit**	**Indiv**		
	Construction						

No.	a. Description of Mitigation/Enhancement Measure	b. Description of Needed Followup	c. Followup Dates	d. Unit(s)/ Individual(s) Responsible (Initials)		e. Cost high(h); medium (m); low(l); very low (vl)	f. Mitigation Achieved (If yes, provide date, If no, elaborate below)

No.	a. Description of Mitigation/Enhancement Measure	b. Description of Needed Followup	c. Followup Dates	d. Unit(s)/ Individual(s) Responsible (Initials)		e. Cost high(h); medium (m); low(l); very low (vl)	f. Mitigation Achieved (If yes, provide date, If no, elaborate below)

Problem(s) Encountered:

Nature of needed followup action:

Responsible individual for followup:

Schedule for followup:

Other comments:

Name of Preparer (Print): _____

Title of Preparer: _____

Signature of Preparer: _____ Date: _____

TANAPA Road Improvements Environmental Management Plan - Monitoring Sheet
(To be submitted with annual *Environmental Management Workplan*)

Adverse Impact Description: _____ **Impact No.** _____ **Year** _____

Road Segment (junction to junction or road name): _____

No.	a. Description of Mitigation/ Enhancement Measure/Issues/ Elements to be Monitored	b. Unit(s)/ ndividual(s) Responsibl (Initials)		c. Indicator(s) Used for Monitoring	d. Monitoring Method Used	e. Monitoring Frequency Needed	f. Monitoring Cost High(h) Medium (m) Low(l) Very low (vl)	g. Problem Encountered Check if yes, an elaborate below	h. Dates Monitored
		Unit	Indiv						
	Design								
	Construction								

No.	a. Description of Mitigation/ Enhancement Measure/Issues/ Elements to be Monitored	b. Unit(s)/ ndividual(s) Responsibl (Initials)		c. Indicator(s) Used for Monitoring	d. Monitoring Method Used	e. Monitoring Frequency Needed	f. Monitoring Cost High(h) Medium (m) Low(l) Very low (vl)	g. Problem Encountered Check if yes, an elaborate below	h. Dates Monitored
	Operation								

Annex E.3

No.	a. Description of Mitigation/ Enhancement Measure/Issues/ Elements to be Monitored	b. Unit(s)/ ndividual(s) Responsibl (Initials)		c. Indicator(s) Used for Monitoring	d. Monitoring Method Used	e. Monitoring Frequency Needed	f. Monitoring Cost High(h) Medium (m) Low(l) Very low (vl)	g. Problem Encountered Check if yes, an elaborate below	h. Dates Monitored
	Decommissioning (Restoration)								

Problem(s) Encountered:

Nature of needed followup action:

Responsible individual for followup:

Schedule for followup:

Other comments:

Name of Preparer (Print): _____

Title of Preparer: _____

Signature of Preparer: _____ **Date:** _____

Annex F: Programmatic Environmental Assessment (PEAs)

F.1 What Are Programmatic Assessments?

Programmatic Approaches

Occasionally it is necessary and/or helpful to carry out an environmental assessment a sector (agriculture, road construction, etc.) or a larger program that will eventually contain several projects or sub-grants. Such an overall assessment is known as a Programmatic Environmental Assessment (PEA) and can serve as a general assessment of a sector or provide the basis for future environmental reviews, at either project or sub-project level.

The basis for PEAs lies in Section 216.6(d) of Reg. 216:

> *(d) PROGRAM ASSESSMENT: Program Assessments may be appropriate in order to:*
>
> *-- assess the environmental effects of a number of individual actions and their cumulative environmental impact in a given country or geographic area, or*
>
> *-- the environmental impacts that are generic or common to a class of agency actions, or*
>
> *-- other activities which are not country-specific.*
>
> *In these cases, a single, programmatic assessment will be prepared in A.I.D./Washington and circulated to appropriate overseas Missions, host governments, and to interested parties within the United States. To the extent practicable, the form and content of the Programmatic Environmental Assessment will be the same as for project Assessments. Subsequent Environmental Assessments on major individuals actions will only be necessary where such follow-on or subsequent activities may have significant environmental impacts on specific countries where such impacts have not been adequately evaluated in the Programmatic Environmental Assessment. Other programmatic evaluations of classes of actions may be conducted in an effort to establish additional categorical exclusions or design standards or criteria for such classes that will eliminate or minimize adverse effects of such actions, enhance the environmental effect of such action or reduce the amount of paperwork or time involved in these procedures. Programmatic evaluations conducted for the purpose of establishing additional categorical exclusions under '216.2(c) or design considerations that will eliminate significant effects for classes of action shall be made available for public comment before the categorical exclusions or design standards or criteria are adopted by A.I.D. Notice of the availability of such document shall be published in the Federal Register. Additional categorical exclusions shall be adopted by A.I.D. upon the approval of the Administrator and design consideration in accordance with usual agency procedures.*

The concept of sectoral or programmatic assessment is not new to the donor community, although USAID was the first to apply it to international development assistance. For example, the World Bank has published an outline of the essential elements of such assessments (*World Bank EA Sourcebook* Update No. 4, October 1993), which contains much basic information on the process. The description of a PEA in subsequent sections of this Annex draws heavily on the World Bank concept of sectoral assessment.

The *World Bank EA Sourcebook* Update No. 15, June 1996, provides guidance on Regional Environmental Assessment. Regional EA in the Bank=s terminology, differs from other forms of EA because of its distinct emphasis on the spatial setting, but is closely allied to Sectoral EA. The term Strategic Environmental Assessment (SEA) has gained favor as a concept to refer generically to sectoral, programmatic, policy, or regional EA. While there is considerable debate about the use of various terms, all these terms, in general, refer to forms of EA that are broader than a project-specific EA. *The International Study of Effectiveness of Environmental Assessment, Strategic Environmental Assessment*, Ministry of Housing, Spatial Planning and the Environment, Publication #53 (Sadler and Verheem, 1996) provides a comprehensive review of SEA.

Advantages of a Programmatic Approach

The following advantages of PEAs are worth highlighting:

- Sectoral EAs can prevent serious environmental impacts through analysis of sector policies and investment strategies, before major decisions are made.
- They can assist in forming a long-term view of the sector and can increase the transparency of the sectoral planning process (i.e., show the reasoning behind development plans), thereby decreasing the opportunities for purely political decisions that might be environmentally harmful.
- They are suitable for analysis of institutional, legal, and regulatory aspects related to the sector, and for making comprehensive and realistic recommendations regarding, for example, environmental standards, guidelines, law enforcement, and training, thus reducing the need for similar analysis in later EA work.
- They provide opportunities to consider alternative policies, plans, strategies or project types, taking into account their costs and benefits, particularly the environmental and social costs that are often ignored in least-cost project planning.
- PEAs help to alter or eliminate environmentally unsound investment alternatives at an early stage, thus reducing overall negative environmental impacts, while also eliminating the need for project-specific EAs for all these alternatives.
- They are well-suited to consider cumulative impacts of multiple ongoing and planned investments within a sector, as well as impacts from existing policies and policy changes.
- They are valuable for collecting and organizing environmental data into usable information and, in the process, identifying data gaps and needs at an early stage, and for outlining methods, schedules, and responsibilities for data collection and management during program or project implementation.
- They allow for comprehensive planning of general sector-wide mitigation, management, and monitoring measures, and for identifying broad institutional, resource, and technological needs at an early stage.
- They provide a basis for collaboration and coordination across sectors, and help to avoid duplication of efforts and policy contradictions between sector agencies and ministries.
- They may strengthen preparation and implementation of sub-projects by recommending criteria for environmental analysis and review, and standards and guidelines for project implementation.

F.2 When Is a PEA Approach Appropriate?

When Are PEAs Recommended instead of EAs?

An Environmental Assessment (EA) or Programmatic Environmental Assessment (PEA), in USAID=s procedures, is a document that is typically drawn up for actions that normally have a significant (adverse) effect on the environment. (If actions have a significant effect on the United States, the global environment, or areas outside the jurisdiction of a nation, an Environmental Impact Statement is prepared.)

PEAs assess the environmental effects of multiple actions and their environmental impact in a given country or geographic area in order to determine the additive, synergistic, cumulative effects of discrete activities in a development context (for example, multi-donor efforts in a particular region of a country). They may also be applied when the environmental impacts are generic or common to a class of actions, or to other activities which are not country-specific.

The PEA can serve as a reference document from which Supplemental or individual Environmental Assessments, which can be done more efficiently or with a better foundation because of the PEA, are spawned, typically called tiering. For example, the *USAID PEA for Locust and Grasshopper Control in Africa and Asia* is a classic application, from which 20 subsequent country Supplemental EAs have been tiered.

If a positive determination under USAID regulations is made with the resulting legal requirement for an EA, there is no reason to require a PEA, especially if it is likely to call for Supplemental EAs, unless such an approach makes sense. It may be more efficient to do a first EA and use it as a model for others, thus having saved at least one EA process in this way. Even better is to do one PEA and have it result in a process of environmental documentation that is simpler than the EA. When PVOs have similar activities they might want to do a PEA together with the Mission and cover broadly their common issue activity types. However, no PEA should be done without close Mission interaction and agreement about its purposes.

Based on the processes, types of impacts and recommendations made in the PEA with respect to mitigative measures and monitoring, the specific conditions appropriate to a particular setting and activity would be identified in subsequent, activity or geographic-specific IEEs. The PVOs would commit themselves to the set of conditions laid out in the IEE.

Criteria for Choosing PEA

Three situations may trigger PEA work:

The first type of situation is development of a portfolio in one particular sector (e.g., agriculture) or where there is a series of independent projects in a given sector. Types of projects in this first context may include:

- a national or sub-national sector program,
- a series of projects in the same sector,
- a large project with sectoral implications,
- a sectoral intermediate credit operation, or
- a sectoral investment operation.

The second situation would be a case where a PEA is prepared to complement the planning process. These PEAs may be triggered by USAID when a broad set of issues lies beyond the immediate purview of a project.

In the third situation, a series of issues or interventions are expected to proceed in parallel with a particular project. This PEA approach may be appropriate, for example, in sectors with a reputation for widespread and well-known environmental damage, e.g., the livestock sector or water supply efforts, where previous water drilling has led to desertification. Although the particular project supported by USAID may not create any

significant additional problems, you may want the kind of information provided by a PEA to justify program design options.

The following questions will help identify when a sectoral approach may be particularly appropriate and useful in a project or program where Reg. 216 applies. If the answer to the following question is positive, PEA should be seriously considered:

- Is the sponsor considering any activity in a sector with significant environmental issues?
- If the answer to the next three questions is also positive, a PEA is highly recommended:
- Are there major existing environmental problems associated with the sector, and/or sector-wide potential environmental impacts resulting from the proposed program or series of projects?
- Is there a clear potential for significant environmental improvement or avoidance of major problems in the sector?
- Are there clear policy, regulatory, and/or institutional weaknesses having to do with environmental management in the sector?

In addition, some conditions increase the potential value of PEAs but are not sufficient or completely necessary requirements:

- Is the program or project still at an early planning stage or at a new major investment phase, where important strategic decisions have not yet been made?
- Are conditions in the sector relatively stable and predictable (rather than changing rapidly and unpredictably) allowing for a medium to long-term planning horizon and allowing a better chance of gaining long-term value from the PEA?
- Are the implementors likely to give weight to the findings and recommendations?

F.3 PEAs in Operation

What Should Be in a PEA?

These sections are illustrative, not required. (See sample table of contents in this Annex).

Section 1. Project Description
The nature and objectives of the program, plan, series of projects or other context to which the PEA is attached should be described, and the main environmental issues associated with the sector and these programs identified.

Section 2. Baseline Data/Affected Environment
This section should describe and evaluate the sector=s current environmental situation. Where a project-specific EA would describe conditions such as ambient air and water quality or existing impacts from pollution around a proposed project site, the PEA should concentrate on the issues and problems that are typical of the sector as a whole. For example, occupational health may be a concern across enterprises within a specific industry; seepage of heavy metals into streams and groundwater may be a recurring problem in the mining sector; or deforestation may result from activities in the agriculture sector. Another important function of the PEA is to note major data gaps.

Section 3. Environmental Impacts (or Consequences)
The single most difficult challenge in PEAs is to produce a precise impact analysis in the face of uncertainties related to final investment decisions and their individual and combined impacts. In recent years, advances have been made in the technologies for assessing cumulative impacts in relation to development plans and

programs. Means include quantitative modeling, forecasting, and various qualitative analyses. If any proposed sub-project is expected to cause particularly significant impacts, the PEA should recommend an appropriate course of action to address them, including carrying out project-specific EAs.

All cumulative effects should be considered: positive and negative, direct and indirect, long-term and short-term. Aggregate problems such as sewage discharge, acid rain, ozone depletion, and deforestation usually result from several activities, sometimes stemming predominantly from a single sector. Cumulative impacts on environmentally important and sensitive areas and assets, such as coastal zones and wetlands or inland water resources, are also important when the sector activities heavily affect these areas and/or resources.

The PEA is an appropriate instrument for considering issues related to long-term sustainable development. Specifically, the PEA may discuss how a proposed investment program may influence long-term productivity of environmental resources affected by the program.

Section 4. Analysis of Alternatives (This section is often considered earlier as Section 2.)
A PEA's major purpose is to analyze alternative design options and strategies in terms of environmental costs and benefits. For example, if a proposed agricultural program emphasizes conversion of wetlands to rice production, alterative approaches would be intensification of production in existing fields, conversion of other land types, crop rotation, etc.

All major activities under consideration, in addition to the option being considered, should be considered at this stage, whether complementary or alternative to the USAID option chosen. The other options may include investments by the private and the public sectors. A comparative analysis of alterative programs is recommended, applying indicators of environmental and social impacts and methods to evaluate and compare the indicators and, ultimately, the alterative options. If several donors are involved in the sector, the PEA should review their existing and/or planned activities and suggest ways to coordinate efforts.

The PEA can also be used to evaluate the environmental effects of sector policy alternatives. For example, changes in tax and subsidy rates on the use of natural resources may influence rates and methods of extraction.

If appropriate, the analysis should conclude with a list of sector proposals, ranked according to environmental preference. The analysis of impacts and alternatives should result in an optimal investment strategy, in terms of environmental and social costs and benefits.

Section 5. Mitigation Plan (This section is sometimes combined with Section 7.)
Mitigation measures are usually detailed and technical, and therefore are normally addressed in project-specific EAs. However, if planned or existing production and process technologies in a sector are relatively uniform, the PEA could recommend broad options for eliminating, reducing to acceptable levels, or mitigating environmental impacts. This is particularly important in the case of PVO/NGO-type programs where interventions tend to follow a similar pattern of design. PEA mitigation and monitoring recommendations should draw on findings from the analysis of policy, legal, and institutional issues as well as the analysis of impacts and alternatives. USAID provision of guidelines for use in several sectors is important here. Such guidelines provide environmentally sound development principles that could reduce the amount of mitigation needed later.

A PEA is an effective tool for designing and recommending mitigation measures and monitoring that can be implemented only at the national or sectoral level for regulatory or economic reasons. Similarly, in a sector program involving multiple investments, the PEA may be better placed than project-specific EAs to consider sector-wide mitigation solutions that require economies of scale to be cost-effective. Construction of a solid waste recycling plant for an entire country is one example.

Note: When specific screening and review procedures are processed, or specifications for a set of activities are defined, these form the basis of a separate chapter. For certain types of infrastructure activities, such as roads or dams, it is important to *include recommendations for the requirements to be put into bids and tenders* for construction contractors.

Section 6. Environmental Management and Training
One of a PEA=s main outputs should be an institutional plan for improving environmental management in the sector based on findings of the previous sections. The plan might recommend training existing staff, hiring

additional staff, reorganizing units or agencies, or redefining roles and responsibilities. This section might also include recommendations on policy and regulatory instruments for environmental management and enforcement in the sector. A screening process to separate sub-projects needing a project-specific EA from those not requiring further analysis should be designed, if it is not already in place.

Section 7. Environmental Monitoring Plan
The PEA should provide general guidelines for long-term, sector-wide environmental monitoring to ensure adequate implementation of investments. A monitoring plan should use the findings of the baseline data section to measure progress in mid-term review and final evaluation. The plan should also recommend measures needed to collect and organize missing data.

Section 8. Public Consultation
Public consultation is an integral part of the EA process, whether a project-specific EA or PEA is being prepared. However, since a PEA normally covers an entire sector (in a national or subnational context) and is conducted before concrete investment decisions are made, it is not always possible to consult representatives of all potentially affected people during its preparation. It is often more feasible and appropriate to carry out consultations with national NGOs (for example, for nature protection), scientific experts, relevant government agencies, and perhaps industrial and commercial interests as well. A successfully implemented consultation process will help ensure public support for the final sector program.

See the Sample Table of Contents for a Rural Road Rehabilitation PEA, at the end of this Annex.

Observations on PEA in Practice

A classic PEA is beneficial when a broad examination of a class of impacts is needed, typically in situations where previous environmental assessments have not been performed, and there is little past experience to use as a guide. The PEA serves as the document of reference, from this programmatic perspective, for subsequent Supplemental or individual Environmental Assessments, which can be done more efficiently or with a better foundation because of the PEA.

The PEA can also be useful when considering a very unusual or special ecosystem in which a variety of activities might occur and for which special considerations need to be studied, for example, a coastal zone, major wetlands ecosystem or buffer zone surrounding a protected area.

Sometimes the PEA is applied in examining the impacts of activities in a regional or geographic setting to determine the additive, synergistic, or cumulative effects of discrete activities in a development context (for example, water resource development in a state, province, or district or multi-donor efforts in a particular region of a country). This type of PEA is often referred to as a **Strategic Environmental Assessment** (see C.1.1 above). To be useful, it must consider impacts at the planning or policy level of a variety of planned and unplanned interventions undertaken by the private sector, governments, donors, etc. Thus, it typically needs to be performed or sponsored by a government that has jurisdiction over the area (or it could be an entire sector, such as power) in question.

One might call a rolled-together series of EAs in one document a PEA. Such a document could cover a set of similar activities, **if** sufficient information were known about the specific situation of each, and some processing efficiencies could be achieved. For example, if four dams with similar structural characteristics exist in the same region with similar ecosystems, one might roll the four together in one document. However, if specific characteristics were not known, then the PEA **optimally** would provide a set of generic information about dam impacts and a **procedure or process to be followed.**

The observation has been made that EAs or PEAs are better than IEEs, because they involve the host country in participation. However, there is no reason that stakeholder participation cannot occur through other levels of environmental documentation, such as an IEE. Thus, the need for public participation need not be a criterion that triggers a PEA (or an EA).

When the PEA is applied to groups of project activities in the same sector, these lessons learned merit consideration:

- PEAs are helpful when they address issues for which there is little generic information available and/or when there is substantial commonality among impacts from a project activity.

- PEAs are not *usually* useful for routine activities for which manuals of impacts and mitigative measures already exist. (*Nevertheless, there are exceptions.)*

- An EA may be needed legally for a routine activity for which manuals and the like exist, but there is no reason to require a PEA, especially if it is likely to call for Supplemental EAs. An EA of the specific intervention(s) would be as useful as, and less costly than, an ambiguous PEA that did not provide sufficient guidance on design and mitigative measures to allow future EAs to be avoided. Thus, an EA that serves as a model, or a PEA that results in simpler environmental documentation than individual EAs, is more efficient.

- Activities that are presumed to require an EA in USAID=s Reg. 216, which lack reference to scale or magnitude, will need documentation, justification, or a rationale to show why an EA (or PEA) was not necessary.

Practical Considerations and Potential Obstacles

- Where USAID activities are concerned, no PEA should be considered without close Mission interaction and agreement about the purposes it will and will not serve.

- Multi-purpose/multi-sector PEAs are difficult to accomplish and should be approached carefully. They generally require a large budget. Effective PEAs for PVOs are likely to be linked to a particular sector within a delimited geographic region that has shared characteristics and other commonalities.

- PEAs should not be linked to a particular implementor, just because an element is common to all sectors. This approach does not translate into useful PEA practice. For example, you would probably not choose to do a PEA for PVO A's multiple activities. One could do a PEA more efficiently for activities of several PVOs operating within the same sector, e.g., dam and irrigation interventions of PVOs A, B and C. If the implementor is responsible for a broad set of related interventions in a sector, a PEA might be warranted for that implementor, or the PVO could have many types of interventions such that several PEAs are warranted.

- A good-quality PEA (or EA) process, from a Scope of Work through scoping, data collection, analysis, preparation, internal review, and external review typically takes up to one year. With aggressive workers and committed reviewers, six calendar months is feasible. Experience has shown that approximately six to eight person-months of effort is usually needed, with a minimum of three person-months, not counting effort for Mission Environmental Officers or Project/Results Package Managers. If document translation is required to achieve host-country participation, an additional level of effort is needed.

- PEAs should not be viewed as a convenience, but rather as a serious, analytical process that takes time to do properly. To the extent that PEAs are not necessary and are not squarely on target with respect to achieving larger purposes that can be easily and generically applied, *other forms of environmental documentation to accomplish environmentally sound and sustainable activities are to be preferred*, because they are less time-consuming, more targeted, and more useful.

- PEAs should be applied judiciously to situations in which they can be genuinely useful as a planning tool.

Attachment to Annex F: Sample table of contents for a PEA

USAID/MADAGASCAR
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT OF RURAL ROAD REHABILITATION ACTIVITIES[21]

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[21] Source: Bingham, C., E. Loken, M. Enders, S. Gupta, R. Hanchett and T. Herlehey. 1995. USAID.

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Annex G:
Umbrella IEEs and Subgrant Environmental Screening

Includes Attachment:
Environmental Screening and Report Form for NGO/PVO Activities and Grant Proposals

NOTE: The "umbrella" process described in this Annex was designed by USAID's Bureau for Africa together with PVOs carrying out activities under umbrella grants in which there is a proposal review and sub-granting process. A screening process is applied by the PVO during the subgrant activity-design stage, and mitigation measures thereby identified are built into implementation. The process is intended to be adapted by its users to their requirements.

Applicability to Title II activities. This process has not yet been fully evaluated for applicability to Title II program contexts. Food for development resources may not be commonly used to provide grants to sub-recipients, but sub-granting does occur, and perhaps will be used increasingly in the future. Thus, the umbrella review process could be adapted to determine the need for environmental mitigation. Also, the screening process could be adapted to downstream review of activities whose specific design is completed after the DAP is approved. Note that the reporting and accountability provisions are subject to change under Title II.

G.1 When is an umbrella IEE used?

An "umbrella" IEE[22] addresses multiple sets of activities generally expected to be small in scale and where their nature is unknown or insufficient specific information is available (such as engineering designs or siting data), when the IEE and/or DAP is being prepared (See Figure F.1).

As mentioned in Section 4.2, an umbrella IEE may be appropriate if:

- the proposal consists of multiple activities,
- most of the activities are small-scale **but not yet fully designed**, AND
- a environmental review process can be designed by the partner which will review activities as they are designed, and substantially satisfy the requirements of Reg. 216. This review process is a "condition"

This situation occurs most frequently when a Partner intends to implement a sub-granting program in which as-yet unidentified sub-recipients submit proposals for activities.

An alternative to the umbrella IEE is doing an **IEE with a deferral of those activities for which insufficient information is available,** which will then require amendment of the IEE before you obligate funds for, or implement, that activity (also as described in Section 4.2).

Partners can apply the "umbrella" to only a **portion** of the IEE. For example, consider a DAP that incorporates both community-designed activities and a discrete soil and water conservation project. The community-designed activities lend themselves to an "umbrella process," while the conservation project is well defined at

[22] Within USAID this has sometimes been referred to as a "programmatic IEE" concept, not to be confused with the Programmatic Environmental Assessment (PEA) described in Annex F.

the time of DAP submission and thus would be treated in the IEE as an activity outside the "umbrella." A negative determination with conditions applies to all activities covered by the umbrella process.

G.2 What is an umbrella IEE and how does it work?

As stated above, the "umbrella" IEE process is applied when a proposal includes one or more sets of small-activities that are not fully defined at the time of the proposal. The IEE itself defines a subsidiary environmental screening and review process. This screening and review process is an official "condition" of the IEE, and the umbrella portion of the IEE thus receives a "negative determination with conditions." This subsidiary environmental review process is applied to these small-scale activities *as they are defined* (i.e., when design and siting decision are being made).

The *existence and application* of the subsidiary environmental review process is one condition of the IEE. Other conditions include:

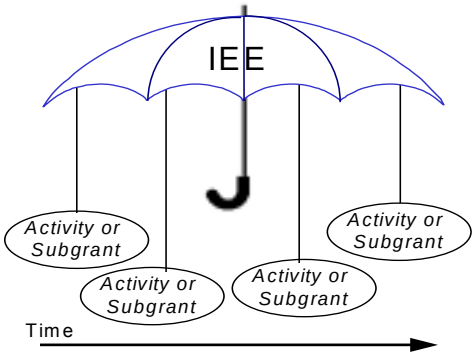
- demonstrated PVO capacity to carry out environmental reviews (e.g., staff may be required to complete environmental compliance training),
- applying environmental best practice to planning and design,
- conducting monitoring and mitigation as appropriate, and
- reporting on the status of environmental compliance in the Annual TII Results Report, as well as to the Mission Environmental Officer, as requested.

If you use the "umbrella" IEE with post-IEE environmental reviews, you should not implement the specific activity or group of similar activities until the subsidiary screening and review process is complete. In some cases, the subsidiary screening and review results may require the approval of the USAID Mission.

Note that with each umbrella IEE, the respective Mission and Partner will determine what level of sub-activity review and approval will be carried out by the USAID Mission, if any. (As with all IEEs, the concurrence of the BEO is also required.) The Partner should discuss approval requirements with the Mission when considering an "umbrella" IEE.

Approval of the "umbrella" IEE means that, in most cases, approval of the subsequent environmental reviews (for specific activities or generic sets) is by the Partner or Mission. USAID/Washington concurrence is typically NOT required. The exception is if an activity appears likely to trigger a positive threshold decision).

Figure F.1: Multiple Activity DAP with Activities to be More Fully Designed at a Later Date



Prepare Umbrella IEE

- Negative Determination with Conditions (agreement between PVO/NGO & USAID)

- As part of conditions, PVO/NGO:
  - demonstrates environmental assessment capacity (for example, through training or in other ways)
  - screens activities and sites as appropriate
  - follows environmental review process as part of planning & design
  - prepares monitoring & mitigation plans
  - PVO/NGO summarizes status of environmental compliance process as appropriate in annual Title II results report

G.3 Implementing subsidiary environmental review: the Environmental Screening Form

The subsidiary environmental review process established by an umbrella IEE process is set out in an Environmental Screening Form (ESF). The ESF guides its user through the subsidiary screening, review and mitigation process for each set of activities as they are designed. The form itself is normally an integral attachment to the approved IEE.

A sample ESF is attached to the end of this Annex. It is meant to be **specifically tailored for the requirements of a particular set of activities and a particular national or regional context.**.

One particularly useful application of the "umbrella" and the ESF is with small-scale road building and repair. A special ESF has been adapted from USAID/Tanzania, USAID/Uganda, USAID/Mozambique, USAID/Madagascar, and USAID/Cambodia approved rural road environmental criteria and requires that Partners, local partners, and on-site road engineer be trained to use the criteria to conduct Environmental Reviews (ER). Annex D contains an example of an umbrella IEE applied to roads activity.

G.4 A template and guidance for writing an umbrella IEE

Because an umbrella IEE or IEE component addresses activities for which specific information in not available, standardized umbrella IEE language can be used. This section provides this generic language for an

umbrella IEE involving subgrants by the lead partner to sub-recipients. It provides section-by-section advice on writing such an umbrella IEE around the basic IEE outline.

Note: This section *supplements* the basic concepts set out in Chapter 4, "Writing the IEE."
As you read this section, it will be helpful to refer to the umbrella IEE in Annex D:CRS/Kenya's DAP *Catholic Relief Services—USCC Kenya Program for FY 1998*, as an example.

If you are using the umbrella process as one component within a larger IEE, be aware as you read the instructions below that you will have to modify the language as appropriate.

Abbreviations used in the template

- Country name = C
- Primary Partner or Cooperating Sponsor = S
- DAP/PAA or Proposal Title = T

IEE Section 1.0: Background and Project Description

You may find it helpful to review the questions and guidance in Section 4 of the EPTM, but you will need to interpret the questions generically.

1.1 Background

Briefly describe the background of your suite/set of activities and the reasons why they are not well defined. For example, is it because of the need to maintain design flexibility, is it because the activities to be undertaken will be in response to participant generated needs and proposals, or is it for other reasons?

1.2 Current Activity Description

Briefly describe the goals and purposes and types of results expected. Indicate the sectors in which you will work and the types of interventions that are likely. Describe the level of funding, disbursement and implementation arrangements, including whether the activities are food for work, monetization or entail grants to communities or groups

1.3 Purpose and Scope of Amended IEE

Generally this is not needed unless you have already prepared an IEE and plan to amend it so that it uses the umbrella process.

IEE Section 2.0: Country and Environmental Information

Organize this section by location or activity, whichever is most appropriate. This section should provide a brief overall portrait of the setting in those geographic areas where you are planning interventions. Depending on the nature of your DAP or PAA, the Area could be an entire country, several regions, scattered locations, or a specific region.

Briefly describe environment (including physical, biological, health, socio-economic, and cultural aspects) of the proposed activities= locations. Indicate general environmental issues and trends. Because not all locations for future interventions have been identified and because of the variety of environmental situations that might be encountered, this section of the IEE can be neither comprehensive nor detailed.

IEE Section 3.0: Evaluation of Project/Program Issues with Respect to Environmental Impact Potential

Describe impacts for each activity or sets of activities, using the same organizational framework you adopted for IEE Sections 1 and 2.

If an activity has no impact potential, or a component may be a Categorical Exclusion, briefly note this.

First, provide a brief synopsis of potential interventions. You may simply list these and describe with whatever information you have. Then describe, if you have information, the generic kinds of environmental impacts.

If your knowledge of potential environmental impacts is limited, insert the following or similar wording:

> *The physical and topographic conditions, climate, soils, and ecosystems as well as social and economic characteristics that could be encountered are quite variable. Because the specific characteristics and locations of these activities are not definitive, the potential for adverse environmental impacts cannot be excluded until additional information about project design and location becomes available. Each, therefore, requires environmentally sound design and review to determine the specific nature and magnitude of potential impacts. Activities do share the common characteristic of being small in scale.*

In addition, you need to think about the potential for cumulative adverse environmental effects as a consequence of multiple activities in a setting or region–those impacts that result when the effects of your actions are added to the existing situation and or other reasonably foreseeable actions, regardless of what organization or agent is undertaking them. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. You probably will not be able to mitigate the effects of activities for which you are not responsible. Nevertheless, where feasible, you should try to coordinate your activities with others, help others to recognize potential impacts of their activities or play a role in fostering an environmentally sound overall development plan.

IEE Section 4.0 Recommended Mitigation Actions (Including Monitoring and Evaluation)

Under an umbrella IEE, you and USAID commit to following specific procedures for screening, post-IEE environmental reviews, mitigation, and monitoring (see Figure F.1). You and USAID also commit to promoting environmental assessment capacity building for your staff and partners. You could consider and adapt the language below (in italics) for this purpose[23]:

> **4.1 Recommended Planning Approach**
> *The development activities proposed for support are typically presented and considered as discrete interventions, in isolation from other planned community developments. This document argues strongly for the adoption of an integrated approach toward activity planning and implementation. Although such an approach toward program planning and management is more complex and time-consuming up-front, it will reap significant dividends over the longer term in the form of more cost-effective, sound, and sustainable community investments and improved natural resources management. For maximum efficiency and effectiveness, these review procedures are intended to be applied within the context of development plans, natural resource management plans, or land use plans developed for the areas in which the activities will take place.*
>
> **4.2 Environmental Screening and Review**
> *These environmental screening and review procedures specify how activities will be examined on an individual basis to comply with the determinations (see Section 5.0) of this IEE in accordance with Reg. 216, Section 216.3(a)(2). These procedures are intended to result in environmental accountability and soundness, by requiring that USAID/[Insert Country name = C from here on] or the CS/sub-recipients put in place specific mechanisms to promote environmental review capacity and other environmental capacity for the implementing partners. To ensure that interventions are designed in a sound and sustainable manner (see Section 4.1), the Mission Environmental Officer (MEO) and/or USAID Project Manager will work with the appropriate implementing partners to achieve compliance with these procedures.*

[23] The relationship between the Partner(s) and USAID may differ from that characterized herein. **The sample language should be adapted to the situation at hand.**

[Insert Cooperating Sponsor = S from here on] is the primary implementing partner of the [Provide DAP or PAA Title here =T from hereon]. [Specify other implementing partners and their roles.]

These procedures are based on use of a Screening Form, presented in Attachment 1. USAID/ C will facilitate the refinement of this form with S and the [Regional Environmental Officer (REO): Insert if one exists] and the Bureau Environmental Officer (BEO) to meet project needs and to incorporate, where appropriate, information that will identify any need for environmental assessment in accordance with C's environmental assessment policy and procedures.

Adherence to the procedures in this IEE cannot be considered in lieu of C's requirements or vice versa. Efforts will be made, however, in the refinement of the Screening Form to dovetail respective assessment information requirements to the maximum extent allowable.

This IEE does not cover pesticides or other activities involving procurement, use, transport, storage or disposal of toxic materials, and any situation dealing with such will require an amended IEE, except to the extent covered in Category 2 of the Screening Form attached.

Activities or proposals will be individually screened using the attached Screening Form, which uses a four-tier categorization process:

Category 1: *Activities that would normally qualify for a categorical exclusion under Reg. 216 (e.g., community awareness initiatives, training at any level, provision of technical assistance, controlled experimentation exclusively for the purpose of research, and field evaluation that is confined to small areas and carefully monitored, etc.) Certain, specifically defined, small-scale activities entailing rehabilitation of water points and construction or rehabilitation of facilities have also been placed in this category.*

Category 2: *Activities that would normally qualify for a negative determination under Reg. 216, based on an environmentally sound approach to the activity design and incorporation of appropriate mitigation and monitoring procedures. For example, the design followed, and the manager has access to and will follow, a series of guidelines for the design of small-scale, environmentally sound activities in forestry, natural resource management, infrastructure, etc.*

Category 3: *Activities that have a clear potential for undesirable environmental impacts and typically under Reg. 216 require an Environmental Assessment, such as those involving land development, planned resettlement, penetration road building, substantial piped water supply and sewage construction, large-scale irrigation projects, and projects involving the procurement and/or use of pesticides, or of large-scale or area-wide application of pesticides. All activities listed in Reg. 216 (Sect. 216.2[d][1]) are automatically included, unless they are small-scale and qualify for a negative determination in accordance with the criteria listed under Category 2.*

Category 4*: This category groups activities that either USAID cannot fund or for which specific findings must be made in an Environmental Assessment prior to funding. Interventions that are likely to jeopardize a critical habitat for threatened or endangered species or degrade a protected area must be placed in this category. Category 4 covers activities that trigger provisions of Sections 118 or 119 of the Foreign Assistance Act, which generally relate to degradation of national parks or protected areas, introduction of exotic species, or effects on tropical or undegraded forest lands.*

S will employ the Screening Form provided as Attachment 1 and to be refined as needed in consultation with the [REO: Insert if one exists] or BEO and the Environmental Review Reports prepared as a result of the categorization process to evaluate activities and/or proposals. Preferably, the direct or actual implementor of an activity will prepare the forms and the environmental reviews, which will be reviewed by S prior to submittal to USAID/ C . [Insert this sentence if appropriate: Proposals seeking support from the T must also comply with any of its approval criteria and review procedures, which will also include this requirement for environmental screening and review, as well as any other S or USAID/ C requirements designed to ensure developmentally sound and sustainable activities for the T .]

An Environmental Review Report shall be prepared for all Category 2 activities. The MEO or Mission Director, or Acting Director, on behalf of USAID/_C_, shall be responsible for clearances on the category determination and Environmental Review Reports. It is assumed that the majority of activities will fall within Categories 1 and 2, and will, therefore, be approvable locally by USAID/_C without further external review. This delegation of responsibility, without regard to dollar amount of activities, is predicated on the assumption that appropriate and environmentally sound implementation and environmental monitoring and mitigation procedures will be in place. The MEO, should he/she have questions, will pass Category 2 activities and their reviews to the [REO: Insert if one exists] and BEO for consultation. An Environmental Review Report shall also be prepared as the first step for all Category 3 activities to help the [REO: Insert if one exists] and BEO determine if an Environmental Assessment is required. While an Environmental Review Report may be prepared for Category 4 activities, it is recommended that developers of activities and proposals consult with the USAID MEO and Project Manager before preparing elaborate documentation. All Category 3 and 4 activities (if there are any) shall be subject to additional environmental evaluation, as deemed appropriate, in consultation with the BEO and REO, and shall be passed on to the [REO: Insert if one exists] and Bureau Environmental and Legal Officers for further review and clearance.

Prior to the approval of an activity, results of the environmental categorization must be available and considered. For Category 2 projects, Environmental Review Reports, including MEO review and, if needed, [REO: Insert if one exists] or BEO review, must be performed prior to funding. For any Category 3 or 4 activities, approval cannot be given until the Environmental Review and any additional environmental documentation as determined by the BEO have been prepared and cleared. S may, if it desires, categorize or review categorization of activities, based on use of the screening form, prior to proposers receiving approval and proceeding with final design. This procedure would allow activities in Category 1 (no environmental review required) to be carried out and allow the proposer to undertake appropriate environmental documentation according to the procedures for Category 2, 3, or 4 activities. Hence, such awards will contain clauses stating that funding of Category 2, 3, or 4 activities is contingent on findings, recommendations and clearance of the environmental documentation.

The MEO and/or Project Manager shall on a routine (semi-annual) basis pass to the [REO: Insert if one exists] and BEO an updated summary of activities and the results of the environmental categorization and review process to keep them apprised of the type/nature, scale, funding levels, and implementation status of the individual activities approved under the process described in this IEE and any corresponding mitigation and monitoring requirements. Reference to this process will also be made in the Mission's R4 submittal.

4.3 Promotion of Environmental Review and Capacity-Building Procedures

The procedures described above and incorporated within the Screening Form are intended to ensure environmental accountability and soundness, on the assumption that the Mission has the following additional elements in effect to build environmental capacity with_S and its partners:

- *The proposer/implementing agent and its appropriate partners will help design, conduct, participate in, and apply environmental assessment and management training, in conjunction with USAID and host country resource organizations and agencies, such as the Regional Environmental Assessment Training Course, and pursue follow-up training to assist these partners in properly fulfilling the screening and review requirements in conjunction with concerned_C organizations and agencies;*

- *The proposer/implementing agent and its appropriate partners will also be encouraged to apply appropriate_C environmental assessment policies and procedures; and*

- *A monitoring and evaluation process will be put in place and used by_S and its appropriate partners, in collaboration with any concerned_C authorities, and USAID project management.*

4.4 Environmental Responsibilities

USAID/ C assumes responsibility for environmental review and decision-making for all USAID-assisted T activities as outlined below:

- *Through S, and with the assistance of partners (as appropriate), proposers will submit proposals that take into consideration potential environmental impacts and their mitigation, including avoidance, and will design the activities with an environmental monitoring system in place.*
- *S, with the assistance of partners (as appropriate), will use the Screening Form to categorize proposals, and the MEO will review and pass on to the [REO: Insert if one exists] and BEO any Category 3 or 4 and, as he/she determines, some Category 2 activities.*
- *The proposer/implementing agent for an activity, with the assistance of appropriate partners, will ensure implementation of agreed-on mitigating measures and environmental impact monitoring.*
- *USAID/ C's MEO and the Project Manager will be ultimately responsible for monitoring environmental impacts of all project-financed activities, as further specified below (Section 4.5).*
- *Periodic visits of the [REO: Insert if one exists] or BEO will also be requested for advice, refresher training, and confirmation that environmental processes are in place.*

4.5 Monitoring, Evaluation, and Mitigation

*An **environmental monitoring, evaluation, and mitigation process** will be established and used by the implementing partners in collaboration with USAID. USAID-supported activities shall incorporate appropriate mitigation and monitoring procedures as listed below.*

- *The proposer/implementing agent and its partners will use the Environmental Guidelines for Small-Scale Activities in Africa (or other appropriate references) to assist them in determining what potential impacts should be of concern for different types of development activities in various settings. Using the information from this and other documents cited therein, S will determine which impacts to mitigate and monitor for the particular development activity.*
- *The proposer/implementing agent and its partners must identify in each proposal and in the accompanying environmental review reports all proposed environmental mitigation and monitoring requirements.*
- *Once the environmental review reports are approved, the mitigative measures and monitoring procedures stated in the environmental review report shall be considered a requirement.*
- *The implementing agent/partner, with assistance of other appropriate partners, shall be responsible for implementation of agreed-on mitigation measures and monitoring of impacts .*
- *All periodic reports of the implementing partner, under these procedures, to USAID/ C shall contain a section on environmental impacts, success or failure of mitigative measures being implemented, results of environmental monitoring, and any major modifications/revisions to the project, mitigative measures or monitoring procedures.*

USAID/ C is ultimately responsible for ensuring conformity with the procedures spelled out above, including environmental categorization and review procedures. With particular respect to monitoring, evaluation and mitigation, the Mission is responsible for:

- *monitoring and evaluation of activities after implementation with respect to environmental effects that may need to be mitigated, a process that should be integrated into the Mission=s pertinent Performance Monitoring and Evaluation Plan;*

- *review of the implementing partner=s reports with respect to results of environmental mitigation and monitoring procedures;*

- *incorporating into Mission field visits and consultations with implementing partners periodic examination of the environmental impacts of activities and associated mitigation and monitoring (assistance in preparing guidelines or with the monitoring and evaluation can be solicited from the [REO: Insert if one exists] or BEO); and*

- *reporting on implementation of mitigation and monitoring requirements as part of the summary of activities and their status that is passed to the [REO: Insert if one exists] and BEO.*

IEE Section 5.0 Summary of Findings

Incorporate the language below:

This Initial Environmental Examination (IEE) satisfies the conditions of the environmental procedures for umbrella activities and delegation of environmental review responsibility to Missions for PVO/NGO umbrella-type projects (Cable 95 STATE 257896).

Environmental Determinations

Based on environmental review procedures, promotion of environment review, capacity building, and monitoring, evaluation, and mitigation procedures specified in this IEE, to which the Mission commits itself, the following environmental determinations are recommended:

*1. A **Categorical Exclusion** is recommended for project-financed technical assistance, training and education, institutional strengthening, regional communications and information exchange activities that have no physical interventions and no direct effects on the environment pursuant to 22 CFR 216.2(c)(1)(i) and 216.2(c)(2)(i), (iii) and (v) [Insert others if applicable]. **The screening form will be used to confirm this determination for each activity.** This categorical exclusion does **not** apply to education, technical assistance, or training if such includes activities directly affecting the environment, such as construction of facilities, per 216.2(c)(2)(i), **nor** to studies, projects, or programs intended to develop the capability of recipient countries to engage in development planning when designed to result in activities directly affecting the environment, per 216.2(c)(2)(xiv).*

*2. A **Negative Determination with Conditions** is recommended for all other activities entailing community development. This IEE specifies a set of steps to ensure adequate environmental review of USAID-supported activities, including capacity-building elements. This negative determination is also conditioned on the provision of supplemental project technical assistance and training support to augment existing efforts. These capacities will be developed and implemented in close collaboration with the USAID/ C and partners.*

Conditions

USAID's support for the T will follow a formalized environmental review process for its activities. A key component of this review process is the use of a Screening Form (Attachment 1) to categorize activities, and review and screen them for potential environmental impacts.

The USAID Mission assumes responsibility for environmental review, with clearance by the Mission Environmental Officer (MEO) or USAID Director or Acting Director in accordance with the environmental review procedures outlined herein for Category 1 and Category 2 activities. All activities classified as Category 3 or 4, based on the procedures for categorization and review (in the unlikely event there are any), and possibly some in Category 2, at the discretion of the MEO, will be

subjected to additional environmental review, as deemed appropriate, in consultation with the [REO: Insert if one exists] and Bureau Environmental Officer (BEO), and will be passed to the Bureau Environmental and Legal Officers for further review and clearance.

__S__ may, if it desires, categorize or review categorization of activities, based on use of the screening form, prior to proposers receiving approval and proceeding with final design. This procedure would allow Category 1 activities that are in Category 1 (no environmental review required) to be carried out and for the proposer to undertake an appropriate environmental review in accordance with the procedures for Category 2, 3, or 4 activities. No activities classified in Category 2, 3, or 4 will be funded until the environmental documentation required by this IEE has been prepared, reviewed, and cleared. Hence, such awards will contain clauses stating that funding for such activities is contingent on adherence to the findings and clearance of the environmental documentation.

Partners implementing the__T's__ USAID-supported activities will help design, conduct, participate in and apply appropriate environmental assessment/design and implementation/mitigation procedures for each activity. The Project will support appropriate environmental training and will do follow-up training to assist these partners in properly fulfilling this review requirement, in conjunction with concerned__C__ organizations and agencies.

An environmental monitoring, evaluation and mitigation process shall be established and used by the implementing partners, including grantees, in collaboration with USAID. Updated summaries of activities and their status, based on the procedures described in this IEE, will be submitted periodically to the REO and BEO to keep them apprised of the type, scope and implementation status of the activities and their corresponding mitigation and monitoring requirements. Reference to this process will be made in the Mission'ss annual R4 submittal.

This IEE does not cover pesticides or other activities involving procurement, use, transport, storage, or disposal of toxic materials, and any situation dealing with such will require an amended IEE, except to the extent covered in Category 2 of the screen form attached.

Adherence to the procedures in this IEE is not in lieu of any environmental assessment procedures required by the__C__, nor can adherence to host country environmental procedures be substituted for compliance with the procedures in this IEE. Efforts will be made, however, in the development or revisions of the Screening Form to dovetail respective assessment information requirements to the maximum extent allowable.

Attachment to Annex G: Environmental Screening & Report Form for NGO/PVO Activities and Grant Proposals

NOTE: This form was designed by USAID's Bureau for Africa with PVOs carrying out activities under umbrella-type or co-financing grants in which there is a proposal review and sub-granting process. The ESF is applied during the activity-design stage, and mitigation measures thereby identified are built into implementation. It has not yet fully evaluated or adapted for applicability to Title II programming contexts. It may occur that CSs will provide grants to sub-recipients, and the ESF process could be adapted to determine the need for environmental mitigation. Also, the ESF could conceivably be adapted to downstream review of activities which are more fully designed after the DAP is approved.

Background

USAID, as a "re-engineered, learning institution," has introduced major changes in its new operations systems, with a strengthened focus on results (not activities), greater accountability and empowerment, teamwork, participation and customer orientation. For example, USAID operating units and collaborators have been given greater flexibility to adapt to changes during implementation. The underlying rationale is to focus on results, while still managing inputs and monitoring outputs properly, and to give those responsible (including the host country partners) for achieving results the flexibility to change approaches and tactics as situations change or lessons are learned.

The present Environmental Screening and Reporting Form (ESF) is designed to be consistent with the Initial Environmental Examination process, and to assist USAID Missions and their implementing partners design and implement activities in an environmentally sound manner in accordance with all salient agency policies and procedures. Use of the ESF will greatly reduce the need for review and approval of activities at the regional or Washington levels.

Introduction to Use of this Form

This form is to be utilized to screen activities based upon the umbrella IEE which is attached. *This form is intended to be adapted to individual circumstances*. Thus, its final contents and conditions of use are to be refined and jointly determined among the affected partnersCPVO, NGO, USAID, host country agencies, etc. To the extent possible, the form should reflect host government environmental policies and procedures.

In using it, adjustments can be made in consultation with the Regional Environmental Officer (REO, if one exists) and Bureau Environmental Officer. It is strongly advised that the Mission Environmental Officer make on-site visits prior to finalization of the ESF, and that the ESF be rational and fully defensible and without ambiguity as to how the conclusion was reached that the activity(ies) will have no significant impact.

ENVIRONMENTAL SCREENING/REPORT FORM FOR NGO/PVO ACTIVITIES & GRANT PROPOSALS [to be adapted by PVOs to their situations]

PVO/NGO: _____

Other Implementing Partner(s)[if Appropriate]_____

Activity Name: _____

Duration (proposed start and completion dates): _____

Geographic Location: _____

Activity Description (paragraph(s) describing purpose/outputs and potential environmental impacts):

[add space as needed]

Determine the Nature of the Activity

a. **Environmental Review Report Needed.** Does the activity include funds to support any physical natural resource management activities (e.g., land clearing, irrigation), or any community and rural development services (e.g., agroforestry, tree-planting), infrastructure (e.g., dams or water catchments), public facilities (e.g., water and sanitation systems), road construction or rehabilitation? Does it involve development of income-generating or resource management systems? It will likely require an Environmental Review of the kind described in Step 4 of this form. Determine which Category the activity falls under, to establish the need for the Environmental Review.

b. **No Further Environmental Review Required.** Does the activity exclusively provide technical assistance, training, institutional strengthening, or research, education, studies or other information analysis, awareness-building or dissemination activities *with no foreseeable negative impact on the biophysical environment*? This probably qualifies as a Category 1 activity—no further environmental review or action may be necessary. Complete form to establish this circumstance.

c. **Multiple Categories.** Many DAP or PAA activities will have components in more than one category. Simply mark all that apply. The form will guide you to the appropriate next steps.

Step 1. Determine Category of Activity.

- **Africa Bureau *Category 1* -- no further environmental review needed:**

  ► ***Does the activity involve (mark yes, if applicable)*:**

  ___ Provision of education, technical assistance, or training. Does *not* qualify for "Category 1" if such programs include activities directly affecting the environment.

  ___ Community awareness initiatives.

  ___ Controlled experimentation exclusively for the purpose of research and field evaluation confined to small areas (normally under 4 ha., i.e., 10 acres) and carefully monitored (when no protected or other sensitive environmental areas could be affected).

___ Technical studies and analyses and other information generation activities not involving intrusive sampling of endangered species or critical habitats.

____Document or information transfers.

___ Nutrition, health care or family planning. Such programs do *not* qualify for "Category 1" if (a) some included activities could directly affect the environment (construction, water supply systems, etc.) or (b) biohazardous (esp. HIV/AIDS) waste is handled or blood is tested.

___ Rehabilitation of water points for domestic household use, shallow, hand-dug wells or small water storage devices (when no protected or other sensitive environmental areas could be affected). *Note that USAID guidance on potable water requires water quality testing for arsenic, coliform, nitrates and nitrites.*

___ Construction or repair of facilities if total surface area to be disturbed is under 10,000 sq. ft. (approx. 1,000 sq. m.) (*and* when *no* protected or other sensitive environmental areas could be affected).

___ Support for intermediate credit arrangements (when *no* significant biophysical environmental impact can reasonably be expected).

___ Programs of maternal and child feeding conducted under Title II of Public Law 480.

___ Food for development programs under Title III of P.L. 480, when <u>no</u> on-the-ground biophysical interventions are likely.

___ Studies or programs intended to develop the capability of recipients to engage in development planning. Do *not* mark "yes" if these involve activities directly affecting the environment.

- **Africa Bureau *Category 2* -- Negative environmental impacts possible, environmental review required (specific conditions, including monitoring, may be applied):**

***Note*:** The Environmental Review (Step 4 below) must address why there will be no potential adverse impacts on protected areas, endangered or threatened species or their critical habitat; or relatively undegraded forest, i.e., justify your conclusion that the proposed Category 2 activities do not belong in Category 3 or 4. Even for activities designed to protect or restore natural resources, the potential for environmental harm exists (e.g., re-introduction of species, controlled burning, fencing, wildlife water points, spontaneous human population shifts in response to activities undertaken, etc.). *If you do not find an exact match listed here for the activity you are undertaking, and it is not in Category 1, 3 or 4, then use the last item in Category 2 to describe the activity and treat it as Category 2 for purposes of environmental review.*

► ***Does the activity involve (mark yes, if applicable*):**

___ Small-scale activities in agriculture, NRM, sanitation, etc. (*list and scale to be defined mutually among the appropriate partners* -- NGO, donor, host country agencies, REDSO, etc.).

___ Controlled experimentation exclusively for the purpose of research and field evaluation *(areas of 4 ha. or more,* i.e., 10 acres) and carefully monitored, when neither protected or other sensitive environmental areas could be adversely affected nor threatened and endangered species and their habitat jeopardized.

___ Small-scale construction or rehabilitation of facilities or structures in which the surface area to be disturbed exceeds 10,000 sq. ft and funding level is not in excess of $200,000 and where no protected or other sensitive environmental areas could be affected.

___ Minor construction or rehabilitation of rural roads less than ca. 10 km (with no change in alignment or right of way), with ecologically sensitive areas at least 100 m away from the road and not affected by construction or changes in drainage; likewise, no protected areas or relatively undegraded forest should be within 5 km of the road.

___ Nutrition, health care or family planning, *if* (a) some included activities could directly affect the environment (construction, water supply systems, etc.) or (b) biohazardous (esp. HIV/AIDS) *waste is handled or blood is tested*.

___ Construction or rehabilitation of small-scale water points or water storage devices for domestic or non-domestic use, not covered in Category 1, when neither protected or other sensitive. environmental areas could be adversely affected nor endangered and threatened species

jeopardized *Note that USAID guidance on potable water requires water quality testing for arsenic, coliform, nitrates and nitrites.*

___ Quantity imports of commodities such as fertilizers.

___ Food for Development programs under Title II or III, involving known biophysical interventions with potential to cause environmental harm (e.g., roads, bore holes).

___ Support for intermediate credit institutions when indirect environmental harm conceivably could result .

___ Institutional support subgrants to NGOs/PVOs when the activities of the organizations are known and raise the likelihood of some environmental impact.

___ Technical studies and analyses and other information generation activities that could involve intrusive sampling, including aerial surveys, of endangered species or critical habitats.

___ Small-scale use of USEPA-registered least-toxic *general-use pesticides*, limited to NGO-supervised use by farmers, demonstration, training and education, or emergency assistance. Environmental review must be carried out consistent with USAID Pesticide Procedures as required in Reg. 16 [22 CFR 216.3(b)(1)].

___ Other activities not in Category 1 and not in Category 3 or 4. Specify:_____

_____

_____

► ***Were the following used by the PVO/NGO in designing the above Category 2 activities (mark yes, if applicable)?***

____*USAID/AFR's Environmental Guidelines for NGO and PVO Use in Africa*

____Any applicable Programmatic Environmental Assessments:

_____

Other(s):_____

- **Africa Bureau *Category 3* -- Significant environmental impacts likely. Environmental review required, and Environmental Assessment likely to be required:**

►***Does the activity involve (mark yes, if applicable):***

___ River basin or new lands development

____Planned resettlement of human populations

____Penetration road building, or rehabilitation of roads (primary, secondary, some tertiary) over 10 km length, and any roads which may pass through or near relatively undegraded forest lands or other sensitive ecological areas

____Substantial piped water supply and sewerage construction

____Major bore hole or water point construction

___ Large-scale irrigation

___ Water management structures such as dams and impoundments

___ Drainage of wetlands or other permanently flooded areas

___ Large-scale agricultural mechanization

___ Agricultural land leveling

___ Procurement or use of restricted use pesticides, or wide-area application in non-emergency conditions under non-supervised conditions

___ Light industrial plant production or processing (sawmill operation, agro-industrial processing of forestry products)

___ Potential to significantly degrade protected areas, such as introduction of exotic plants or animals

___ Potential to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests)

The above Category 3 activities are consistent with USAID criteria for activities that normally require a USAID-specific document with a defined format and procedure, called the Environmental Assessment (EA). It is recognized that some of these categories are ambiguous. Mark "yes" if they apply, and show in the Environmental Review (Step 4) the extent and magnitude of activities and their impacts, so that USAID and its partners can determine if an EA is necessary or not.

- **Africa Bureau *Category 4* -- Activities not fundable or fundable only when specifically defined findings to avoid or mitigate the impacts are made, based on an Environmental Assessment[24]:**
  < *Does the activity* involve (yes, no, N/A):
  ___ Actions determined likely to significantly degrade protected areas, such as introduction of exotic plants or animals
  ___ Actions determined likely to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests)[25]
  ___ Conversion of forest lands to rearing of livestock
  ___ Planned colonization of forest lands
  ___ Procurement or use of timber harvesting equipment
  ___ Commercial extraction of timber
  ___ Construction of dams or other water control structures which flood relatively undegraded forest lands
  ___ Construction, upgrading or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands.

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24 Per Foreign Assistance Act Sect. 118 & 119 relating to overseas assistance affecting Tropical Forestry and Biodiversity.

25 Per USAID Environmental Procedures, §22 CFR 216.5, on Endangered Species

Step 2. Summarize and Itemize Activities. List activities by all categories to which *Yes* was answered.

Category of activities as determined below (add entries as required):

Activity/Sub-Activity	Funding:	Category

Step 3. Determine Need to Prepare Environmental Review.

If all activities are in Category 1, sign and date the form. For any activities in Category 2 and 3, prepare an Environmental Review Report assessing all of these activities' impacts. For Category 3 activities, further documentation would be required, once USAID has confirmed the applicability of Category 3, based on the Review. If Category 4 is possible, consult USAID before proceeding with the Environmental Review to determine if activities can be funded and/or whether required EA findings could be made.

For all Category 2 and 3 activities, proceed to Step 4 to prepare Environmental Review.

Step 4. Prepare Environmental Review.

Suggested Format for Environmental Review

The Environmental Review should be about 5-10 pages long (more if required) and consist of following sections:

1. **Background, Rationale and Outputs/Results Expected** -- summarize and cross-reference proposal if this review is contained therein.
2. **Activity Description --** Succinctly describe location, siting, surroundings (include a map, even a sketch map). Provide both quantitative and qualitative information about actions needed during construction, how intervention will operate and any ancillary development activities that are required to build or operate the primary activity (e.g., road to a facility, need to quarry or excavate borrow material, need to lay utility pipes to connect with energy, water source or disposal point or any other activity needed to accomplish the primary one but in a different location). If various alternatives have been considered and rejected because the proposed activity is considered more environmentally sound, explain these.
3. **Environmental Situation** -- Affected environment, including essential baseline information available for all affected locations and sites, both primary and ancillary activities.
4. **Evaluation of Activities and Issues with Respect to Environmental Impact Potential** -- Include impacts that could occur before construction starts, during construction and during operation, as well as any problems that might arise with restoring or reusing the site, if the facility or activity were completed or ceased to exist. Explain direct, indirect, induced and cumulative effects on various components of the environment (e.g., air, water, geology, soils, vegetation, wildlife, aquatic resources, historic, archaeological or other cultural resources, people and their communities, land use, traffic, waste disposal, water supply, energy, etc.) Indicate positive impacts and how the natural resources base will be sustainably improved.
5. **Environmental Mitigation Actions (**including **monitoring** and **evaluation) --** For example, indicate means taken to avoid, reduce or compensate for impacts, such as restoration of borrow or quarry areas,

replanting of vegetation, compensation for any relocation of homes and residents. Indicate how mitigative measures will be monitored to ensure that they accomplish their intended result or what monitoring might be needed for impacts that one is uncertain about.

6. **Other Information** (as appropriate) -- where possible, include photos of the site and surroundings; list the names of any reference materials or individuals consulted.

Note: Specific plans for monitoring of key environmental indicators and mitigation of impacts during activity implementation are especially important; these must be addressed in the review. Information on monitoring results and mitigation of impacts are to be included in all progress reports. Important information and a criterion for evaluation of environmental soundness is showing how the activity is part of or guided by an integrated, community-based resource and land use plan or planning and management framework that considers the appropriate use of multiple resources.

Drafted by: _____ Date:

Reviewed by: _____ Date:

Clearances: (modify as appropriate)
Title II or FFP Officer: _____ Date:

MEO (including recommendation that an EA be prepared, if called for):
_____ Date:

USAID Mission Director (if responsibility not delegated to MEO):
_____ Date:

Attachment: [applicable umbrella PVO project IEE]