

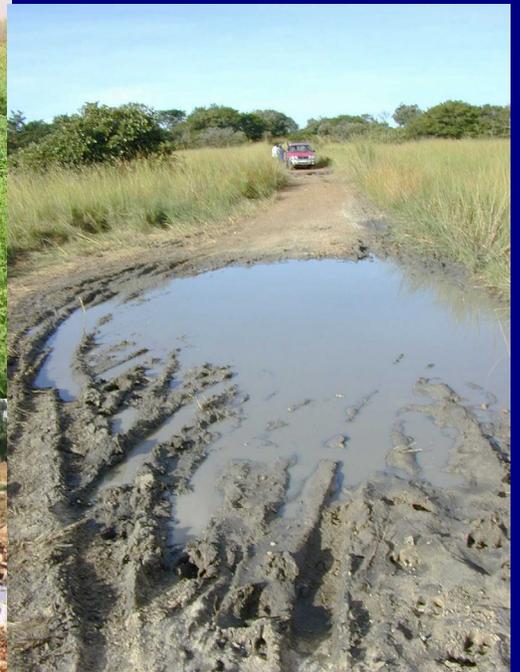


USAID ENVIRONMENTAL PROCEDURES TRAINING MANUAL

for

USAID Environmental Officers and
USAID Mission Partners

Africa Edition:
March 2005



USAID
FROM THE AMERICAN PEOPLE

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.

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

**Africa Edition
March 2005**



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and USAID/ANE**

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

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 Procedures¹ (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.

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

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

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*
-

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

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.

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.encapafrika.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	<ul style="list-style-type: none"> rehabilitation of older schemes or new construction river diversions dam and pond construction land leveling digging/boring wells 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> potable water supply latrines & sewerage water catchments wells & ponds 	<ul style="list-style-type: none"> groundwater aquifer drawdown or depletion waterborne disease transmission contamination of groundwater deforestation, overgrazing, trampling of vegetation around wells
Health Services Programs	<ul style="list-style-type: none"> immunizations AIDS/HIV treatment 	<ul style="list-style-type: none"> medical and biohazardous wastes disposal of used/spent needles
Rural Infrastructure	<ul style="list-style-type: none"> construction and/or rehabilitation of secondary and tertiary (farm to market) roads construction of public buildings (health posts, schools) 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> soil and water conservation, e.g., bunds, terracing, etc. reforestation land clearing exotic species introduction, e.g., non-indigenous seed 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> introduction and application of pesticides use of dip vats 	<ul style="list-style-type: none"> 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.

- USAID’s environment home page is a useful portal to many of the agency’s environmental resources and publications (http://www.usaid.gov/our_work/environment/).
- 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.encapafrika.org).

Africa Bureau also maintains a database of environmental documentation submitted for projects in Africa region. This database is accessible through the ENCAP site.

USAID environmental officers in the Africa Region also have access to the “AFR Environment Officers Knowledge Exchange Site” at <http://encap.sharpoint.afr-sd.org/envofficers/default.aspx>.

- The Bureau for Asia and the Near East (ANE) maintains a number of pertinent resources and documents at www.ane-environment.net. These include a searchable database of the environmental documentation submitted for ANE-based projects and decisions rendered.
- Other Bureaus also maintain environmental resource sections of their websites, including the Europe and Eurasia Bureau (<http://www.ee-environment.net>), and the Bureau for Latin America and the Caribbean (http://www.usaid.gov/locations/latin_america_caribbean/environment/compliance.html).

NOTE: 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.

Environmentally Sound Design & Implementation Guidance. There are many handbooks on environmentally sound design and management of sectoral activities. 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

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)

an annotated sector-by-sector bibliography (available for download at www.encapafrika.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:

- While Food Aid Management (FAM) no longer exists, FAM members continue to maintain FAM's extensive on-line library of environmental resources, including best practice resources and environmental documentation submitted to USAID by its partner organizations (www.foodaid.org).
- 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:

**Figure 2-1: the EIA process:
screening to full impact study**

	Stage of the EIA process	Performed on	USAID terminology
Increasing complexity ↓	Screening	All activities	
	Preliminary Study	All but emergencies and the lowest-risk activities	IEE (Initial Environmental Examination)
	Full EIA study	Highest-risk activities (as identified by screening or the preliminary study)	EA (Environmental Assessment study)

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.

³ See, for example, USAID’s *Topic Briefing: Introduction to EIA* available for download at www.encapafrika.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.

Screening must be performed on a COMPLETE list of activities

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

In this manual, “activities” = desired accomplishment or output (e.g., a road, placing land under irrigation, etc.)

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

You do not screen at the level of actions, however. You screen at the level of activities.

2.1. Step I: Identify & summarize ALL of your proposed activities.

The essential first step is to list out ALL proposed activities and provide some basic information about each. This basic information includes location and an indication of the size of the activity.

This information should be organized in a *summary table*. A sample Summary table is provided (Table 2.1). Annex E includes an example of a completed 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.

What is an activity?

To list out your proposed activities, you must understand what is meant by the term “activity” in a Regulation 216 context.

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.

Activities consist of or include a set of *actions*, which occur over the whole lifecycle of the activity. Consider a road activity: Actions begin with the planning and design phase (e.g., site selection, choice of materials and equipment, community consultation, obtain rights-of-way, etc.). Additional actions occur during the construction phase: (clearing, digging, filling, transporting materials or even establishing a construction workers’ camp). Other actions occur during operation or implementation (vehicular traffic, maintenance).

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When you screen activities, you must be aware of the actions that each activity includes or consists of. You do not screen at the level of actions, however. You screen at the level of activities.

How do I make sure my activity list is complete?

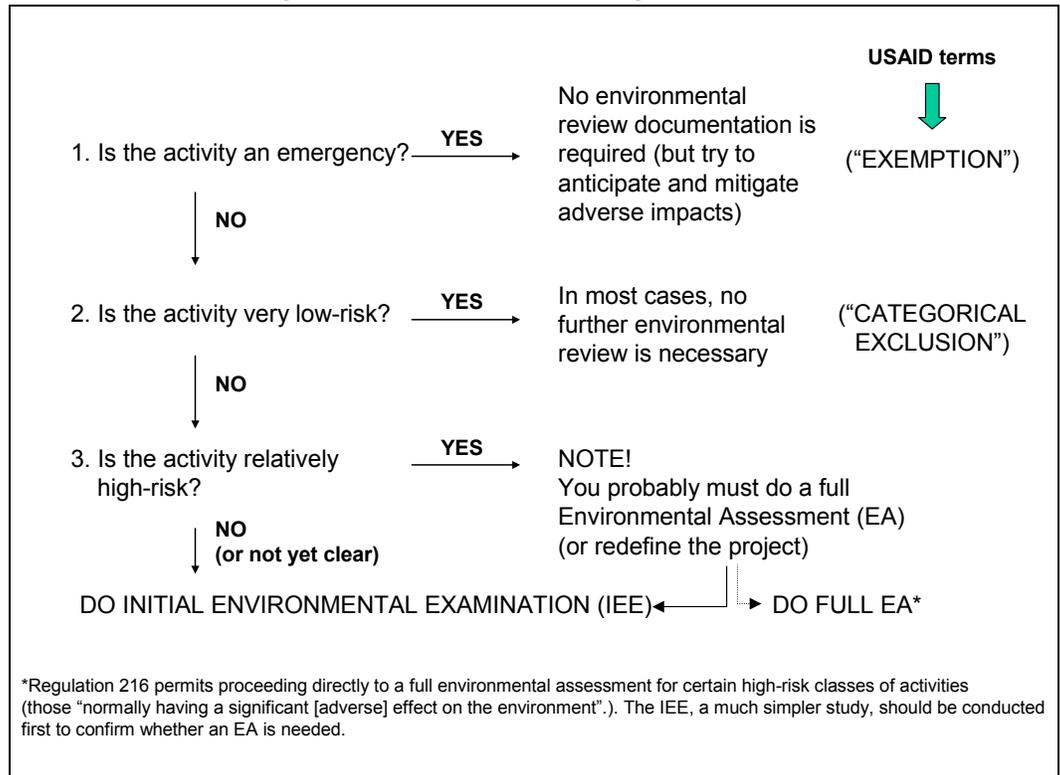
To make sure that your activity list for screening is complete, follow these rules:

- 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?
- Make sure your activity list includes all the major *components* of your project. For example, a small scale irrigation project might involve construction of a diversion or a dam, water distribution canals, leveling of land, possible relocation of farmers, and so on.
- Your list should include the entire life-of-project (LOP) activities, even if some were begun long before submission of Reg. 216 documents.

Table 2.1: Sample environmental compliance summary table

Project or IR name Proposing organization		site information		indications of typical quantity & scale @ each site		screening result				Recommended IEE Threshold Decision				
Activity	number of sites	location (if multiple sites, where distributed)	e.g., budget, size in Ha	unit	note	Exempt	Categorical Exclusion	IEE required	IEE required & high-risk	if categorical exclusion, provide Reg 216 citation	Negative determination	Negative determination w/ conditions	Positive determination	Deferral
e.g. rehabilitation of market access rd	5 to 8	Central Region	5	km	average segment length		X							
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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. In these situations, an immediate response is required and no alternative are available.

As the name implies these actions are not subject to Reg. 216. Nevertheless, prudent and sound environmental practices should be applied. See Box 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.

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**

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.)

- **NOTE: See Annex B.2 for information about “exemptions” as they apply to Title II-funded Emergency and Developmental Relief Programs. Activities carried out in response to persistent, protracted or complex emergencies lasting more than a year are likely NOT exempt.**

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.

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.

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.

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

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 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.)

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

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 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.

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

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 section overviews the outcomes of the IEE, and IEE terminology. Chapter 4 provides detailed instructions for preparing the IEE.

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.

- **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.

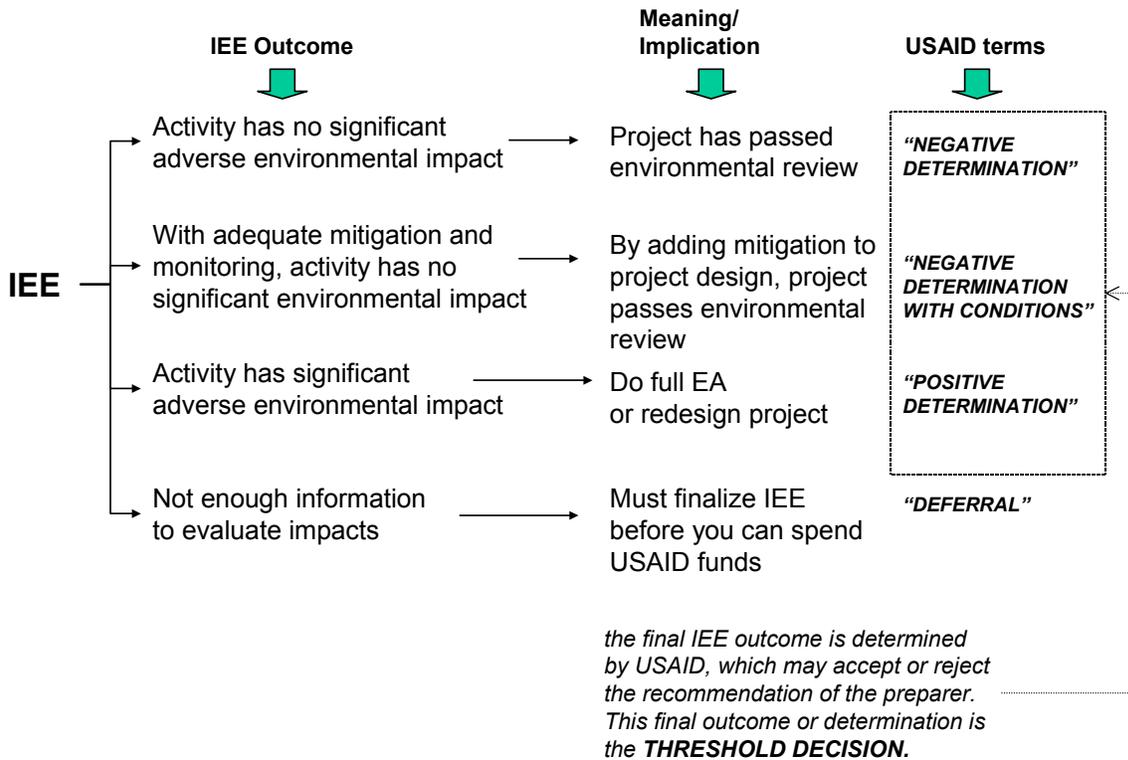
- **Positive Determination:** A positive determination results if the IEE indicates there could be significant adverse effects. This means that an Environmental Assessment (EA) must be completed and approved⁶ before USAID can obligate funds or an activity can be implemented. *No irreversible commitments 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

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.”)

- **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 **THRESHOLD 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.

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.

Figure 2-4: Screening Process with USAID terminology

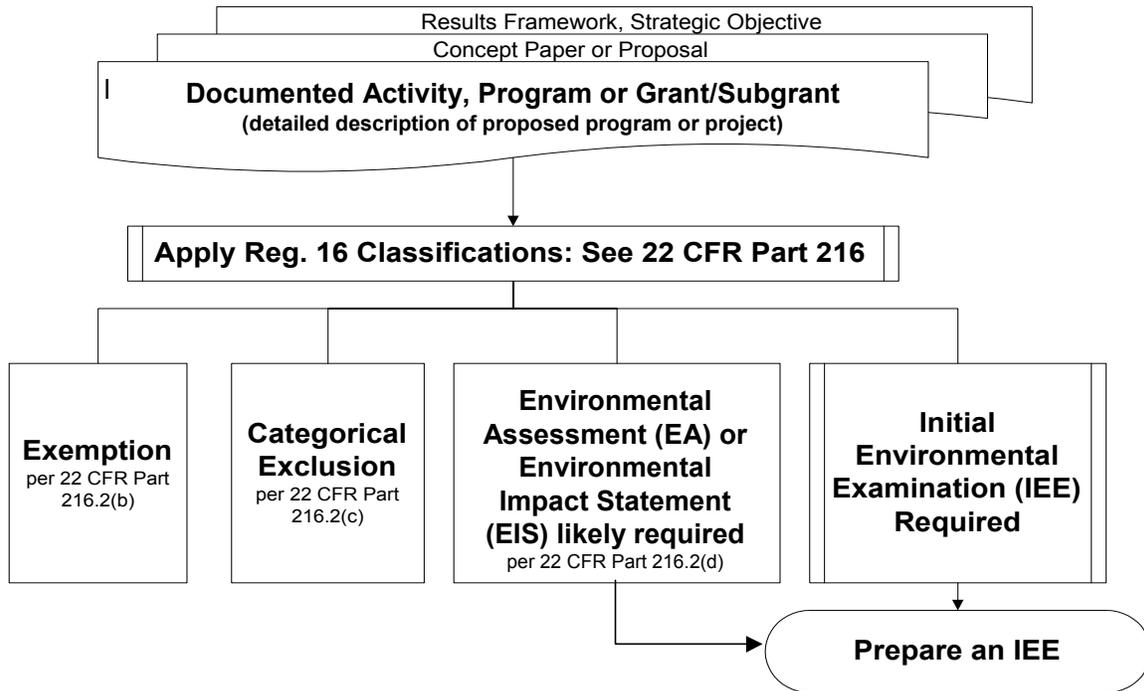
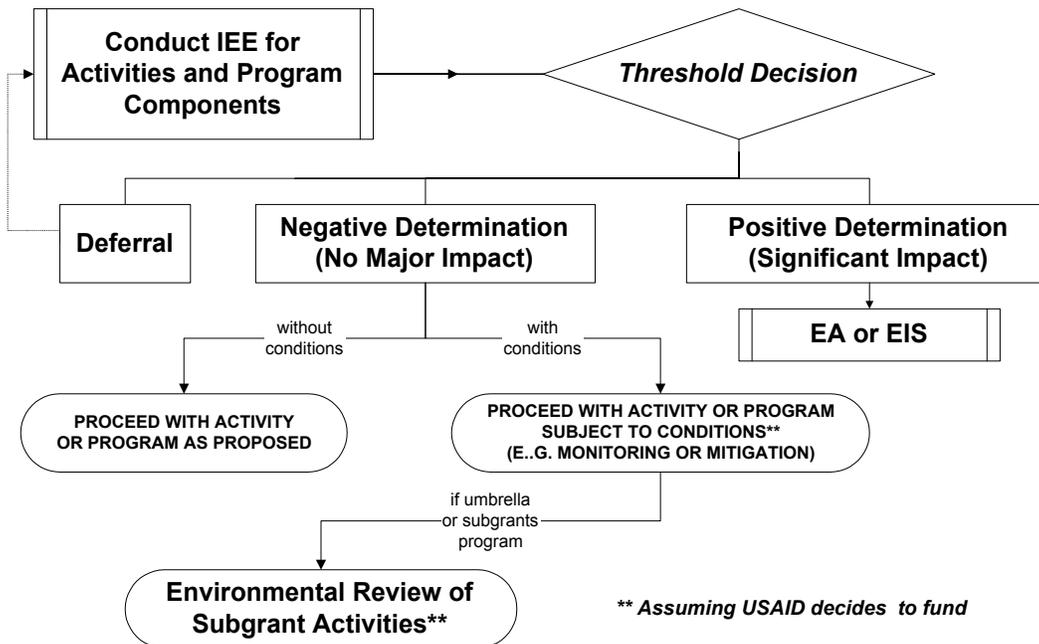


Figure 2-5: IEE outcomes with USAID terminology



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. ←

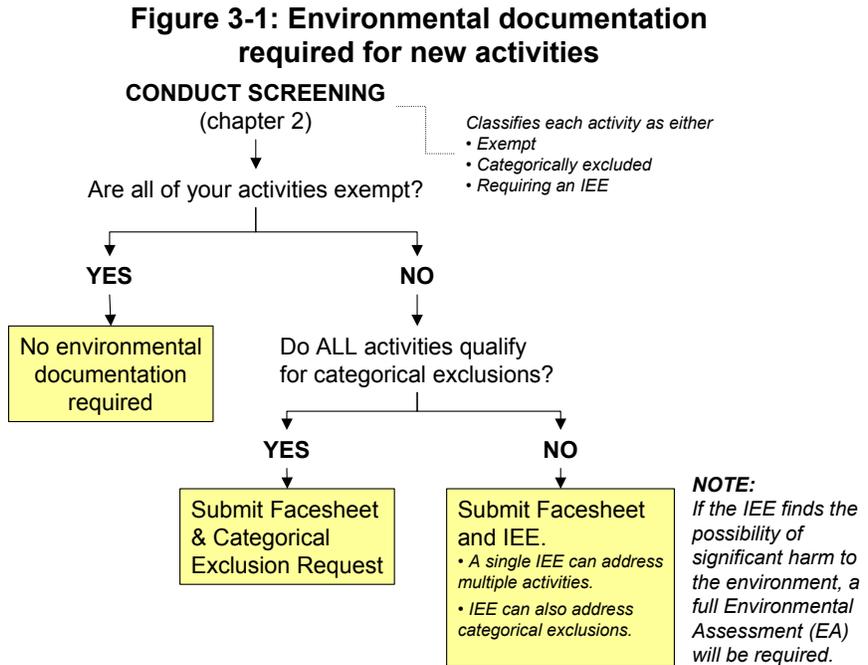
For New Activities:

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.



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.

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).

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.

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 is found in Annex C.

It is used when ALL activities qualify for categorical exclusions.

The Categorical Exclusion request

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

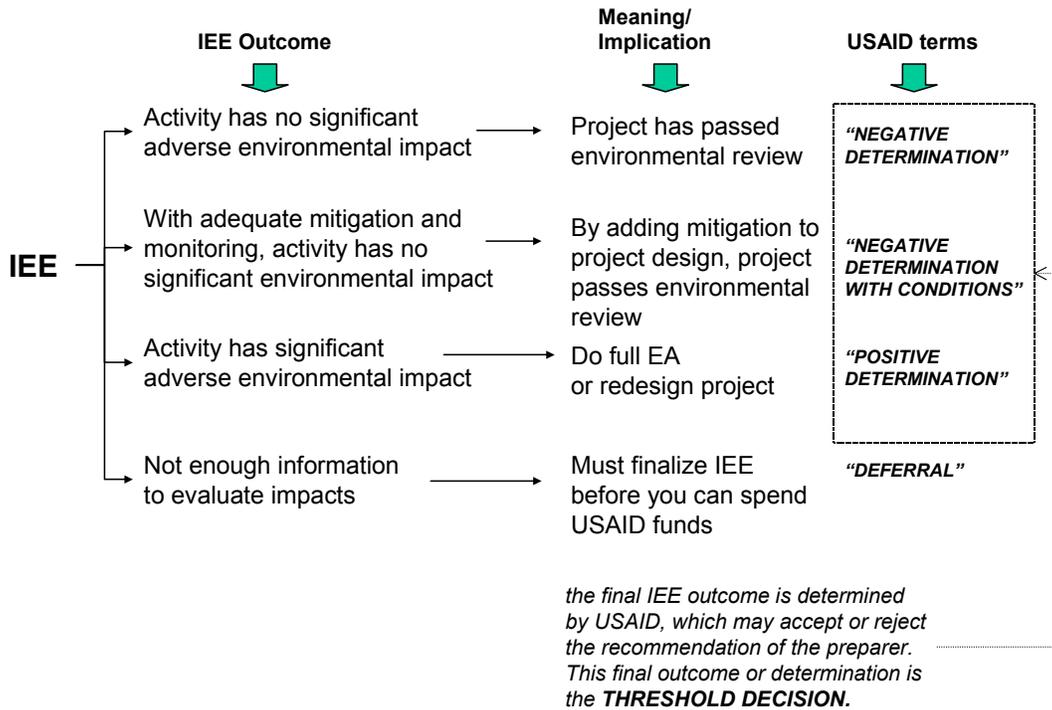
You must conduct an IEE unless screening shows that ALL your activities are either exempt or categorically excluded. The IEE should cover ALL activities whose screening result is “IEE required.” Writing the IEE is the subject of the next chapter.

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/Activity/Preparer Data:

1 Background and Activity Description

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

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 sector/activity.)*

3 Evaluation of Environmental Impact Potential

4 Recommended Determinations and Mitigation Actions

(Includes Monitoring and Evaluation)

- 4.1 Recommended Threshold Determinations & Conditions *(includes justification of categorical exclusions identified during screening)*
- 4.2 Mitigation, Monitoring and Evaluation

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 typically 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/ Washington.

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”**

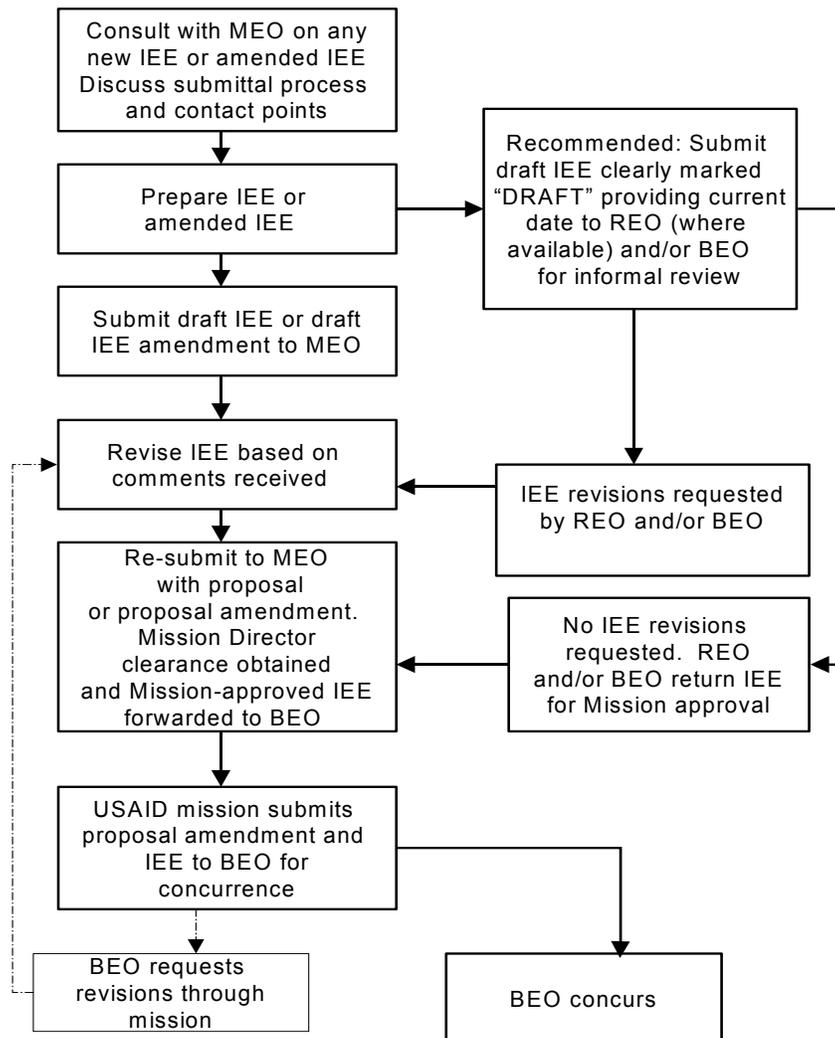
Advance USAID review of draft documentation is recommended.

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.

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

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 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 scoping 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 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.encapafrika.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 section 4 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.

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 activity addressed by the IEE, IEE preparers *recommend* one of these threshold decisions to USAID. USAID can accept or reject this determination.

Box 4.A IEE Basic Outline

Program/Activity/Preparer Data::

- 1 Background and Activity Description**
 - 1.1 Purpose and Scope of IEE
 - 1.2 Background
 - 1.3 Description of Activities
- 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 sector/activity.)*
- 3 Evaluation of Environmental Impact Potential**
- 4 Recommended Determinations and Mitigation Actions** *(Includes Monitoring and Evaluation)*
 - 4.1 Recommended Threshold Determinations & Conditions *(includes justification of categorical exclusions identified during screening)*
 - 4.2 Mitigation, Monitoring and Evaluation

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.

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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	<p>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.</p> <p>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.</p> <p>Examples of “classic” IEEs and amendments are found in Annex D.</p>
Well-defined, closely related activities at multiple sites	Multi-site IEE	<p>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:</p> <ul style="list-style-type: none"> ▪ 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.). <p>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.</p> <p>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.).</p> <p>An example of a multi-site IEE is included in Annex D.</p>
Some activities not yet fully defined	IEE with deferral	<p>A <i>deferral</i> 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.</p> <p>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.</p> <p>An example of an IEE with deferral is included in Annex D.</p>

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 <i>only</i> 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	<p>The “umbrella” IEE may be applicable under the following conditions:</p> <ul style="list-style-type: none"> ▪ 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. <p>Umbrella IEEs are commonly used for subgrant programs and proposals that contain activities to be identified by communities.</p> <p>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.</p> <p>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.]</p> <p>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.</p> <p><i>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.</i></p> <p>Examples included:</p> <p>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.</p>

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.

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).

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.

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.

Box 4.D Preferred writing style for IEEs

Keep writing simple and clear. Use short sentences. Avoid the passive tense.

Be brief. If supporting documents are needed, attach them or refer to them. Do not reproduce large passages in the IEE.

Use bullets, tables and other formatting techniques to (1) make organization clear and (2) reduce length.

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*
-

In this manual:

“Activities” mean 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.)

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 subsection on “purpose and scope of the IEE” (1.1) to answer the following questions: Is this the first IEE being prepared for the proposed activity(ies) or an amendment? Are certain activities in the program not being covered? Why? (e.g., they are expected to end in the near future, or are deferred.)What other IEEs cover the sector, or SO, if any?
- Use the background subsection (1.2) to describe why the activities are desired and appropriate. (For example, what development need do they address? How does they fit into the Mission and/or the host country strategy/program? Also note any other contextual information that should be brought to the attention of an IEE reviewer.)
- Under the activities subsection (1.3) 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.

What is the definition of an activity?

The definition of an activity was discussed in Section 2.1

Briefly, 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. Accomplishing an activity requires a set of *actions*, which take place over the lifecycle of the activity.

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.

What information do I provide about the proposed activities?

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	<p>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.</p> <p>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?</p>
Construction/Site preparation	<p>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?</p>
Operation	<p>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?</p>
End-of-life	<p>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?</p>

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

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

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?

- **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 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.

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.

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.

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)

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

Impact matrices are highly recommended.

**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.

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
-

- 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.

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 alternative¹¹ 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:

<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ 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 4.1**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 months 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 section 4 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 columns 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
- Include your summary table in Section 4.1

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 in 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.

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.

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.

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 specific 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.)

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

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.

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.encapafrika.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.

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

Testing should include arsenic

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.)

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 they 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 Asia and the Near East* (available for download at www.ane-environment.net). 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)

4.7. Step 6: The Environmental Compliance Facesheet

Completing the Environmental Compliance Facesheet is the last step in the IEE process. 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)
- Types of screening/IEE outcomes being recommended (Categorical Exclusions, Negative Determinations, Negative Determinations with Conditions, Deferrals)

The Facesheet also:

- requests a one or two paragraph summary of the activities covered by the IEE.
- Requests an summary of the IEE's findings. This can be provided in table form.

Chapter 5.

Frequently Asked Questions about Environmental Compliance

The following are questions most frequently posed by users of the *Environmental Documentation Manual 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 rationale 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 (see Table 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 or 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 be 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:

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.

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- 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);
- 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 qualify 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.

- See Annex B.2 for information about "exemptions" as they apply to Title II-funded Emergency and Developmental Relief Programs. Activities carried out in response to persistent, protracted or complex emergencies lasting more than a year are likely NOT exempt.

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 significant¹⁵ effects upon the environment of the United States, areas outside any nation’s jurisdiction or endangered or threatened species or their critical habitat*

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.

[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 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

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(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 intensity 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

“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;*

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- (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

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).

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.

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.*”

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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 Guidance regarding Regulation 216 compliance requirements of Title II activities

B.3 ADS excerpts relevant to Regulation 216 compliance

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

ENVIRONMENTAL PROCEDURES¹

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.

<u>Sec.</u>	<u>Topic</u>
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

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.

U.S.C. 4371 *et seq.*)(NEPA). They are intended to implement the requirements of NEPA as they effect the A.I.D. program.

(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.

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(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 or 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)(1)(ii) and (iii) of this section, but is not required for projects, programs or activities under paragraph (b)(1)(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 an 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 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.

(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

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(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)(1) 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 Environmental 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

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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)(1) 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)(1)(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)(1)(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)(1)(i) above.

(iv) Notwithstanding the provisions of §216.3(b)(1)(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

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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)(1)(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 §216.1(c)(12) and (13) of these procedures.

(c) Other Effects: Content and Form

An Environmental Impact Statement relating to paragraphs (a)(1) 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:

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(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 Guidance regarding Reg 216 compliance requirements of Title II activities

This section contains guidance issued by USAID regarding environmental compliance requirements for Title II – funded activities. (These are Food for Peace/Monetized Food Aid activities.)

Contents:

- 1. FY05 Title II DAP/CSR4 Review Guidance to Missions**
(Excerpt; 16Jan04)
- 2. FFP Information Bulletin 04-04:
USAID Environmental Procedures (22 CFR 216) Compliance and
FFP Programs (12May2004)**
- 3. Attachment to FFPIB 04-04:
Guidance Notes for implementation of Reg. 216 for PL 480 Title II
Programs (24May2004)**

1. EXCERPT: FY05 Title II DAP/CSR4 Review Guidance to Missions 16 January 2004

Source: pg 12 & 13 Cable ID: STATE 011496 161751Z

<excerpt>

Approval Documentation:

22. Compliance with Regulation 216 is required of all Title II Development Activities. All Title II DAPS should include an initial environmental examination (IEE). IEEs or IEE Amendments must be cleared by the Mission Director or his/her designee, be sent to FFP for clearance, and from FFP to the DHCA or geographic bureau environmental officer for final concurrence. All CSR4s should include an Environmental Status Report (ESR) detailing the actions they have undertaken with regards to their previous approved IEE.

2. FOOD FOR PEACE INFORMATION BULLETIN (FFPIB) 04-04

Date: 12 May 2004

MEMORANDUM FOR ALL FOOD FOR PEACE OFFICERS

TO: USAID/W and Overseas Distribution Lists
FROM: DCHA/FFP, Lauren R. Landis, Director
SUBJECT: USAID Environmental Procedures (22 CFR 216)
Compliance and FFP Programs

FFPIB 04-04

Background:

Ensuring environmental quality is essential to accomplishing USAID's mission of reducing food insecurity and increasing resiliency in local populations. Over the years, FFP has demonstrated a high level of environmental responsibility in its strict adherence to and compliance with environmental regulations for programs funded with Title II resources. The purpose of this FFPIB is to clarify the requirements for application of USAID's Environmental Procedures (Title 22 of the Code of Federal Regulations, Part 216 (22 *CFR* 216, or "Reg. 216")) to FFP programs. Not only does the environmental stewardship resulting from Regulation 216 enhance the sustainability of our programs, but pursuant to Federal statute and Executive Order, it is our legal obligation to comply with 22 CFR 216.

All FFP programs involving PVOs and grantees must submit an Initial Environmental Evaluation (IEE) for clearance by both the FFP Director and the DCHA Bureau Environmental Officer (BEO) before funds can be obligated. Preparation of FFP program IEEs is the responsibility of the PVO requesting Title II resources.

Programs implemented by the World Food Program (WFP) are not subject to the USAID Environmental Procedures. WFP has outlined, in a Policy Issues Paper on WFP and the Environment (1998), their commitment to environmentally sustainable interventions in relief, recovery and development, and provided an outline of their plan for enforcement and adoption of sound environmental practices in their operations. Of course, this must also be coupled with due diligence on the part of the FFP Country Backstop Officer (CBO) and SO team to verify on a case by case basis that sound environmental standards are being upheld.

Almost all development and relief activities affect the environment in some way. The goal of USAID's environmental procedures is not to prevent all such impacts. Instead, the procedures are intended to assure that environmental issues receive adequate consideration in design and implementation ([The USAID Environmental Procedures Training Manual](#) (EPTM), (Africa Bureau, 2003)).

An IEE 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 Environmental Impact Statement will be required. The determination is based on the types of proposed activities, their respective potential for causing adverse effects on the environment or human health, and the applicable mitigation measures detailed in a proposal.

Even activities that could qualify as *categorical exclusions* require compliance paperwork clearly stating the nature of the intended activities, their potential impact on the environment, and justification for a categorical exclusion based on a meaningful environmental threshold determination.

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The primary *exemption* available is for international disaster assistance in which an immediate response is required and NO immediate alternatives are available (e.g., emergency relocation of flood victims, establishment of refugee camp for rural populations caught in civil strife, or emergency medical infrastructure for victims of war).

While in very few circumstances such an exemption would not require a formal written clearance, it is the policy of FFP that both Emergency and Non-Emergency programs will provide documentation of 22 CFR 216 compliance for their proposed program activities.

Any other exemptions available under 22 CFR 216 are extremely rare, and would require formal written approval from the Administrator or Assistant Administrator, and consultation with the White House Council on Environmental Quality. The EPTM clarifies the formal requirements for an exemption to apply.

There will be no special documentation required in the event that the transfer of up to 10% of in country stocks takes place between approved Title II DAP programs to meet emergency disaster requirements or to improve efficiency of operation (as described in Regulation 11, Section 211.5 (o)). There is of course, the inherent responsibility to utilize best practices and sound program design to ensure environmental stewardship.

Responsibilities:

SO teams are responsible for ensuring full compliance with 22 CFR 216. This includes designing, monitoring and modifying all programs, results packages and activities to ensure that the environmental consequences of all actions taken by USAID are considered and that appropriate environmental safeguards are adopted. The SO team is also responsible for keeping its relevant BEO informed on upcoming 22 CFR 216 actions through informal contacts, and for ensuring that all of its 22 CFR 216 environmental reviews are accomplished in a timely fashion, so as not to unnecessarily delay the implementation of any activities. (*ADS 204, Environmental Procedures.*)

For further clarification or guidance on 22 CFR 216 and IEE requirements, refer to the following:

- [ADS 204, 22 CFR 216](#),
- Guidance Notes, supplementary to this document
- [The Environmental Documentation Manual for PL 480 Title II Cooperating Sponsors](#),
- [“A Cooperating Sponsor's Field Guide to USAID Environmental Compliance Procedures”](#) (PDF, 165K), developed by Catholic Relief Services and FAM ([Food Aid Management](#)),
- [The USAID Environmental Procedures Training Manual](#) (AFR Edition, May 2003)
- Contact Paul des Rosiers, DCHA BEO or Lisa Witte, FFP/PTD.

Attachment to FFPIB 04-04: Guidance Notes for implementation of Reg. 216 for PL 480 Title II Programs

Drafted by: Julie March and Walter Knausenberger
May 24, 2004

The goal for Title II programs from an environmental perspective is to do no significant harm through the intended or unintended environmental consequences of P.L. 480 activities. Ultimately, the desired effect on the

environment will be benign to beneficial, resulting in enhanced sustainability for the land and ecosystems of the vulnerable target populations. Design considerations for Title II programs should be informed by the environmental considerations, and one process should inform the other. Design of programs and consideration of environmental impact should be done in conjunction with each other to the extent possible. The purpose of these Guidance Notes is to highlight what is necessary for applying Regulation 216 to P.L. 480 Title II programs, which should encourage the design of programs that have considered potential environmental consequences and possible mitigation measures at length.

For Development Programs:

As a result of the FFPIB, nothing will have changed with regard to current procedures or processes for applying Regulation 216, USAID’s Environmental Procedures to new and existing Development Programs.

For Emergency & Developmental Relief Programs:

As a result of the FFPIB, changes in programming may or may not be required. Specifically, if the emergency response qualifies as a “rapid onset” disaster and specifically falls under the categories that would lead to an “exemption” declaration, nothing changes. The number of proposals that would qualify for an “exemption” is small though, and in general, most new activities will require a screening process. To clarify, “exemptions” are essentially emergency situations and include International Disaster Assistance (IDA), i.e., situations in which an immediate response is required and no immediate alternatives are available. Examples include 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. See 22 CFR 216.2 (b) (2) for other applicable situations and procedures. For persistent, protracted, or complex emergencies lasting more than a year, then the regular Title II Environmental Status Reporting (ESR) process would be invoked.

Resources to help prepare documentation:

The guidance provided below draws heavily from existing documents, specifically [The Environmental Documentation Manual for PL 480 Title II Cooperating Sponsors](#) (USAID/FAM Environmental Working Group, February 1999), and the USAID [Environmental Procedures Training Manual AFR Edition](#), (EPTM) March 2002. The EPTM and several other valuable Regulation 216 training materials are available on the ENvironmental Assessment CAPacity Building Program ([ENCAP](#)) website.

Please use this short guidance as an introduction to the process. The real instruction for preparation of an IEE should come from one of the sources listed above, which will guide you through the step-by-step process to environmental compliance.

Steps to preparation and compliance:

What follows are highlights of the steps required to ensure Regulation 216 compliance of a Title II program.

Determining who is responsible for documentation is the first step.

- The IEE and accompanying documentation for Title II programs is the responsibility of the cooperating sponsors.
- Environmental documentation must be provided for nearly all Title II programs before an “irreversible commitment of resources” can take place.
- Partners should seek Mission review and clearance prior to official submission of the proposals to Washington. Partners should first submit the documentation to the USAID Mission Environmental Officer (MEO). The MEO reviews, and at his option, passes it on to the Regional Environmental Officer (REO), if one exists, for clearance. The signature of the Mission Director is required. Then the FFPO or MEO passes it to the DCHA Bureau Environmental Officer (BEO). For non-presence countries, the REO

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needs to clear. For Food for Peace Programs, the Mission Food For Peace Officer should also clear prior to submission the DCHA BEO.

- **To summarize:** *required* signatures at the Mission are the MEO and Mission Director. Signatures required at the DCHA level are the Food for Peace Office Director, and the DCHA BEO/W.

All other signatures on the Environmental Compliance Face Sheet are optional, and others can be added if the situation calls for it.

What forms need to be filled out and in what order?

Initial Screening

There are a series of steps to determine the appropriate response for the specific activities proposed. In short, the process begins with a screening step where all activities are elaborated and the risk analyzed for the life of the activity (LOA). Generally, all but the lowest risk activities require further analysis. The screening process will help identify activities which may be exempt, or categorically excluded due to the inherently low risk nature of the activity. For a complete listing of activities which usually qualify for categorical exclusion, see the EPTM (2-5). Some examples include training and direct feeding.

The initial screening will allow for complete listing of all actions intended by the Title II program, and the likely mitigation actions and threshold determinations.

The Environmental Compliance Face Sheet

The cover document necessary for compliance of Title II programs is the [Compliance Face Sheet](#). It summarizes the activities proposed and discusses the outcomes of an initial screening process. The Initial screening “examines the nature of activities and sorts them into risk categories.”

If ALL of the activities are **exempt**, no environmental documentation is required. This will be rare.

If ALL activities for the Life of the Activity are **categorically excluded**, only the Facesheet and Categorical Exclusion request forms must be completed. *The Categorical Exclusion Request* is required when screening indicates that ALL activities should be categorically excluded. This form will require a brief description of the activities and a justification for the exclusion request based on the relevant provision of the Regulation 216 legislature.

For all other cases, if there is an activity that is not exempt or categorically excluded, an Initial Environmental Evaluation must be completed (IEE). For complete definitions and clarification on exemptions, see the guides referenced.

The IEE or IEE Amendment is required unless screening shows that ALL activities are exempt or categorically excluded. An IEE is a review of the reasonably foreseeable effects on the environment of a proposed action. The basic outline will be covered here. For a detailed description of the parts of the IEE, as well as a step-by-step guide to completing your IEE, see the EPTM. It is important to remember that the IEE should reflect only pertinent information related to the proposed activities, not an entire ecological and environmental study of all of the ecosystems of a given country. They should be location and activity specific. It is preferred if the IEEs are kept to under 20 pages.

An outline of the major parts to be included in the IEE follows.

IEE Outline (EPTM 3-5):

Compliance Face Sheet

1. Background and Activity Description

Background

- 1.1 Description of Activities
- 1.2 Purpose and Scope of IEE

2. Country and Environmental Information (baseline)

- 2.1 Locations Affected
- 2.2 National Environmental Policies and Procedures (of host country)

3. Evaluation of Environmental Impact Potential

4. Recommended Mitigation Actions

- 4.1 Recommended IEE determinations (includes justification of categorical exclusions identified during screening)
- 4.2 Mitigation, Monitoring and Evaluation

Once the IEE is completed and submitted, it is the responsibility of the Country Backstop Officers and SO teams to ensure that the clearance process proceeds and to oversee implementation of mitigation measures discussed in the IEE. This process is enhanced by yearly reporting in the form of an Environmental Status Report.

The Environmental Status Report (ESR) is submitted as part of the annual program report. It is required for all previously approved programs whether those were approved under a categorical exclusion, an IEE, EA or PEA. Before any renewal or extension of an existing emergency or developmental relief program is approved, an ESR should be submitted and approved as well.

Suggestions for Ease of Implementation:

At the Mission level and within the PVOs, there already exists a wealth of experience for performing IEEs and preparing environmental documentation. This knowledge should be shared by those who have it and sought by those less familiar with the process proposed.

There are some excellent documents available that cover preparation of IEEs and terminology, including examples of completed paperwork. These should be consulted, as should the BEO and REO.

This process should not hold up the submission of a proposal or significantly delay any proposal review. By using IEE guidance such as the Environmental Documentation Training Manual, it should be possible to quickly produce a draft. Remember, the information provided should cover activities and potential impacts and mitigation measures for these activities, not address all environmental issues within a given country.

The clearance process for the IEE need not be a lengthy one, especially if it is well prepared. Ideally the IEE will accompany the Emergency and DRP package and must accompany the DAP package. But the IEE can/should be sent around also, separately, concurrently, to those on the IEE clearance track. Then when the IEE is cleared (and the DRP/DAP is making its rounds, perhaps having been revised itself), prior to final clearance, the revised/cleared IEE can be reconnected with the proposal. But in any case, the IEE needs to be cleared as a separate document. This approach allows us to maintain more flexibility, so the two clearance/review processes move on parallel tracks.

The concept of preparing multi-agency IEEs through an alliance of Title II PVOs in a given country has begun to be introduced as a valid potential approach to streamlining the documentation process. We recommend it be considered by willing parties.

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The idea of determining the potential environmental impacts of each activity may appear daunting yet much information already exists on this process. The first step would be to consult the PVO and mission environmental staff or MEO in country.

Additionally, there are several manuals available on the ENCAP website that detail typical activities and suggest some potential negative impacts. Some examples include “[Environmental Guidelines for Small Scale Activities in Africa](#)”, Bureau for Africa, September 2003 (draft), and “[Environmental Guidelines for Development Activities in Latin America and the Caribbean](#)”, EPIQ/ USAID, May 2002, draft. This would be a good place to start to begin to identify potential issues, which should be monitored. Best Practice guidelines for different types of activities should also be consulted. Some examples are found at the ENCAP [resources page](#) and the Latin America and Caribbean Bureau Environmental Compliance and [resources page](#), and include documentation on topics such as “[Low-Volume Roads Engineering: Best Management Practices Field Guide](#),” “[Inorganic Fertilizer Use in Africa Environmental and Economic Dimensions](#),” and [Environmental Guidelines for Micro-hydroelectric Projects](#), as well as other sector-specific guidance.

Finally, it is important to remember that the goal of using environmental regulations and procedures is to ensure that attention is given to potential negative impacts and possible mitigation measures or alternative programming possibilities. The goal is not to prevent every potential impact on the environment, but certainly “to do no significant harm.”

Resources to Consult:

- [The Environmental Documentation Manual for PL 480 Title II Cooperating Sponsors](#),
- “[A Cooperating Sponsor's Field Guide to USAID Environmental Compliance Procedures](#)” (PDF, 165K), developed by Catholic Relief Services and FAM ([Food Aid Management](#)),
- [The USAID Environmental Procedures Training Manual](#) (AFR Edition, May 2003), also available at www.afr-sd.org/Publications/EDM/EDM_FRNT.pdf

B.3 ADS excerpts relevant to Regulation 216 compliance

This section contains USAID Automated Directives System (ADS) excerpts relevant to Regulation 216 compliance and other required environmental analysis and review.

To be assured of having the most recent ADS versions, access the ADS on-line at www.usaid.gov/policy/ads/.

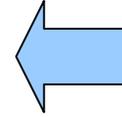
This section includes:

ADS 201—Planning (excerpts)

ADS 202—Achieving (excerpts)

ADS 204—Environmental Procedures (complete)

ADS 201—Planning 03/19/2004 Revision
Excerpts pertaining to requirements for
Environmental Review and Analysis

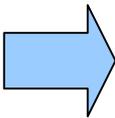


Note: key text is indicated by an arrow and is also underlined or bracketed

201.3.7.1 Statement of Strategic Objective
Effective Date: 01/31/2003

MANDATORY. At the time of approval, a Strategic Objective must

- Represent a developmentally significant result that is expected to affect ultimate customers.
- Form the results standard by which the Operating Unit is willing to be judged in terms of its effectiveness in managing for results.
- Be achievable in a foreseeable and limited time period, using the resources provided directly to the Operating Unit and other resources that may be mobilized by development partners. In other words, the Strategic Objective level results should be within the manageable interest of the Operating Unit.
- Link to one principal Agency goal, one principal Agency objective, and one Agency Pillar as defined in the most current Agency Strategic Plan. A Strategic Objective may be linked to other Agency goals, objectives, and Pillars on a secondary basis, if appropriate. SOs, such as cross-cutting or PD&L, which by definition cannot be linked to one Agency goal, may be linked to multiple goals in consultation with the bureau's development program office and PPC/SPP.
- Present a defined geographic focus and direct the selection and design of the assistance activities to be implemented during the proposed Strategic Plan timeframe.
- Be expressed in terms of a result or impact that permits objective measurement and is clear, precise, and gender disaggregated as appropriate.
- Incorporate the findings of mandatory technical analyses (gender, environment and conflict mitigation, as appropriate) and incorporate actions that will overcome any identified, significant obstacles to achieving desired results under the SO.



Distinct results. In most cases, Strategic Objectives should be uni-dimensional, each representing a distinct result that is expected from USAID intervention in addressing a development problem. If multiple foci will be combined into one Strategic Objective, compelling rationale should be provided for how the approach will help achieve the result. For example, the Strategic Objective might be

- Implemented in an integrated manner, so that related results are achieved by the same activity that takes place in the same location.
- Achievable by a common set of Intermediate Results and causal linkages represented in the Results Framework.
- Inseparable and mutually reinforcing for component results. (Achievement of each facilitates the achievement of the other.) An example might be "Increased Use of Family Planning and Maternal and Child Health (MCH) Services," which combines family planning and MCH.
- The degree of precision of the end result of a Strategic Objective will vary according to

several factors, including

- Stability of country environment;
- Knowledge available to planners;
- Certainty of multi-year budget levels; and
- Extent to which USAID or local implementing partner(s) control outcomes, due to the many actors that affect a desired result.

201.3.8.2 Environmental Analysis **Effective Date: 01/31/2003**

MANDATORY. This analysis is required by Sections 118(e) and 119(d) of the Foreign Assistance Act of 1961, as amended, and may not be waived, modified, or eliminated by the responsible Bureau for country-level Operating Unit Strategic Plans.

- **Biodiversity:** All country-level Operating Unit Strategic Plans must include a summary of analyses of the following issues: (1) the actions necessary to conserve biological diversity, and (2) the extent to which the actions proposed meet the needs thus identified. For additional information, contact the Biodiversity Team based in the Bureau for Economic Growth, Agriculture, and Trade (EGAT).
- **Tropical Forestry:** For country-level Strategic Plans that cover countries that have any part of their territory within the tropics, each Strategic Plan must also include (1) a summary of their analyses of the actions necessary to achieve conservation and sustainable management of tropical forests and (2) the extent to which the actions proposed meet the identified needs. For additional information, see the additional help document, [PPC Summary Description of FAA sections 118\(e\) and 119\(d\) Requirements for Preparing Strategic Plans](#), and contact the Forestry Team, a part of the Bureau for Economic Growth, Agriculture and Trade (EGAT).

Exemption. This analysis is not mandatory for Pillar or Regional Strategic Plans that cover multiple countries (although in many cases the analysis may be desirable).

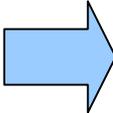
Note: The Environmental Analysis described above is not the same as the Environmental Review described in **201.3.12.2** section b. (The latter is a Federal requirement for the obligation of funds.) Given the interrelated character of environmental issues, Operating Units may wish to save time by conducting the Environmental Analysis and the Environmental Review during the development of the Strategic Plan. Given, however, that Environmental Reviews often require relatively detailed knowledge about planned activities, it may not always be possible to conduct the Environmental Review while developing the Strategic Plan.

201.3.9 Additional Technical Analyses for Developing Strategic Plans *Effective Date: 01/31/2003*

201.3.9.1 Overview
Effective Date: 01/31/2003

Beyond the mandatory requirements above, Operating Units may be required or may choose to conduct additional analyses. Such additional analysis should be specified in the official planning parameters.

Often a careful review of the available literature on a topic of interest will reveal high quality, already-completed analyses. For example, World Bank macro-economic analysis and sector assessments are often readily available and may be used as references or in lieu of new USAID-funded analysis. In addition, many donors post their country development strategies on the Internet, thus providing a valuable resource during donor coordination planning.



Analyses are often interdependent. For example, an agricultural sector analysis may also include gender as well as environmental analysis, thus approaching the sector from a more holistic point of view. It is, therefore, helpful for planners to determine at the outset what kind of information is needed and in what detail, keeping in mind costs and the time required to review the information.

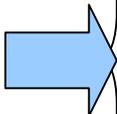
Additional technical analysis may be needed for the purpose of designing and approving specific activities. To the maximum extent practicable, technical analysis conducted as part of developing a Strategic Plan and/or planning a new Strategic Objective should also provide the analytical basis for subsequent approval of activities by the Operating Units.

The Operating Unit and relevant Bureaus are responsible for verifying that sufficient technical analysis has been completed and is referenced in the Strategic Plan. As described in 201.3.10.3, the issuance of a Management Agreement confirms that the proposed Strategic Plan and Strategic Objectives meet the analytical requirements.

201.3.12.2 Pre-Obligation Requirements
Effective Date: 01/31/2003

MANDATORY. Operating Units must ensure that all pre-obligation requirements labeled as “mandatory” in this ADS section have been met before USAID-appropriated funds are obligated and activities approved. The completion of these requirements must be adequately documented.

<excerpted>



b. Environmental Review. An Initial Environmental Examination (IEE), Request for Categorical Exclusion (CE), Environmental Assessment (EA), or other appropriate action under the USAID Environmental Procedure must be completed for the program, activity, or substantive amendment and approved by the relevant Bureau Environmental Officer before the obligation of funds as mandated by Federal Law. (see the mandatory references [22 CFR 216](#) and [ADS 204](#).)

Adequate review of environmental considerations normally requires a relatively detailed description and analysis of planned interventions; recommended, mitigative measures; and

local public participation in the review process.

If Operating Units do not allocate resources and define such details at the pre-obligation planning stage, they must, at minimum, request and receive from their Bureau Environmental Officer a written approval of their request to defer review and incorporate appropriate conditions precedent to disbursement. This approval will ensure proper environmental review before disbursement. Operating Units must be prepared to modify and fund revisions to the SO and its activities, if necessary, in accordance with the USAID Environmental Procedure.

- **Biosafety.** If an activity will potentially involve the use of genetically modified organisms in research, field trials, or dissemination, the activity must be reviewed and approved for compliance with applicable U.S. requirements by the Agency Biosafety Committee in Washington before the obligation of funds and before the transfer, testing, or release of biotechnology products into the environment.
 - The biosafety review that is reviewed and approved is limited to the safety aspects of the proposed activity and often involves external peer review or demonstration of comparable safety oversight by other expert U.S. federal agencies. This biosafety determination is separate from, and should precede and inform, the [22 CFR 216](#) environmental impact assessment process. Since it precedes the 22 CFR 216 process, Operating Units should budget adequate time and funding in the design process for this review. It is difficult to predict the amount of time needed, since reviews are highly dependent on the amount of analysis and information provided, whether other expert Federal Agency biosafety reviews have been completed, whether additional information will be required, and whether external peer reviews will be undertaken. Therefore, it is important for an Operating Unit to contact USAID/Washington as early in a design process as possible to ensure timely handling.
 - Biosafety review cannot be waived or delegated to the field. Additional ADS guidance on compliance with this requirement is in development and will be incorporated into the ADS as it becomes available. Please consult directly with Agency biosafety staff, such as the Agency Environmental Coordinator, who is based in the Bureau for Economic Growth, Agriculture and Trade and the Bureau for Global Health if there is a potential for the use of genetically modified organisms.
- **Global Climate Change.** If an Operating Unit will potentially undertake global climate change activities, the Global Climate Change team based in the Bureau for Economic Growth, Agriculture and Trade (EGAT) must review and approve the activity for compliance with the Knollenberg Amendment, as described in the mandatory reference, [Guidance on Complying with the Knollenberg Amendment for Climate Change-Related Programs](#).

**201.3.12.5 Activity Planning Step 1:
Develop an Operationally Useful Results Framework**
Effective Date: 01/31/2003

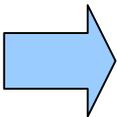
Operating Units should adapt the high-level Results Framework approved in the Strategic Plan by adding additional detail that further demonstrates the causal linkages between planned activities (at the operational level) and the approved results (at the Strategic Objective level). An Operating Unit can develop a more detailed Results Framework by thinking through what other results (at the Intermediate Results level or below) are needed to achieve the approved Strategic Objective, and also identifying the categories of ultimate customers to be affected by each result. (see **201.3.7**) An illustrative Results Framework is shown in Figure 201D.

**201.3.12.6 Activity Planning Step 2:
Conduct Activity-level Analyses as Needed**
Effective Date: 01/31/2003

Much of the analytical work needed to plan activities is normally conducted as part of preparing the Strategic Plan. Operating Units should review past Agency and development partner experience, including Agency policy documents, alternative development approaches, best practices, evaluations, and other development literature in designing activities. See comprehensive list of resources in [ADS 200.4](#) and **201.3.9.8**, or consult the Development Experience Clearinghouse (see [ADS 203.3.12](#)) for Agency experience.

*Additional analysis may be needed before the approval of individual activities. Operating Units should conduct those analyses that they conclude are needed to plan detailed and rigorous activities to achieve the intended results. Topics of analysis may include economic, financial, environmental, gender, the utilization of faith-based and community organizations, other technical, sector, institutional, and/or cost-benefit analyses. Operating Units should determine the type and level of analysis needed. Further description of these potential analyses follows:

- **Economic Analysis.** Economic analysis helps determine whether a particular development program or activity is a worthwhile investment for the country. (see the additional help document, [Economic Analysis of Assistance Activities](#))
- **Financial Analysis.** Financial analysis helps determine the adequacy of the funds and helps ascertain whether monetary benefits are larger than activity costs. This analysis can be used to judge whether activity results will be produced at the lowest practicable costs, and whether potential activities are financially sustainable. Financial Analysis determines if there are adequate funds to achieve results at the lowest practical costs. (see the additional help document, [Guidelines for Financial Analysis of Activities](#))
- **Environmental Analysis.** Drawing upon the previous environmental analysis during strategic planning (201.3.8.2) and the information from the pre-obligation requirement for environmental impact (201.3.12.2 section b), Operating Units should incorporate the environmental recommendations into activity planning. Often additional environmental analyses may be useful to activity design and should be undertaken at this time.

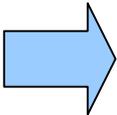


**201.3.12.13 Activity Planning Step 9:
Additional Planning Considerations**
Effective Date: 01/31/2003

Operating Units should identify and conduct any additional steps and analyses that were not performed during Strategic Plan or SOAG development. There are numerous additional implementation details that are normally considered and documented at the activity planning stage. While most of these issues must be addressed as practical and legal matters before implementing activities, the Agency does not rigidly require that all these considerations be documented at the activity planning stage. Accordingly, internal documentation methods may vary significantly among Operating Units, depending on the nature of the activities and the “comfort-level” of decision-making officials.

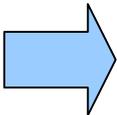
At this point in the process, additional planning considerations include

- Identification of authorized signatories who have the authority to represent the parties on implementation letters.
- Assurance that procedures are in place for obtaining specific clearances required for activities in host countries that are not covered by country-level reporting. (see [ADS 203.3.9](#) on Activity Information Sheets)
- Completion of any remaining environmental review requirements described in [201.3.12.2](#) section b. For example, if an Operating Unit received permission from its Bureau Environmental Officer to defer environmental review at the pre-obligation stage, the Operating Unit must complete the appropriate environmental review – either an Initial Environmental Examination (IEE), Request for Categorical Exclusion (CE), Environmental Assessment (EA), or other appropriate action under the USAID Environmental Procedure – before approving an activity or disbursing funds. (see the mandatory references, [22 CFR 216](#) and [ADS 204](#))



**201.3.12.14 Activity Planning Step 10:
Determine and Meet Remaining Pre-Obligation Requirements**
Effective Date: 01/31/2003

This step applies only when funds have not already been obligated at the Strategic Objective Level. (see [201.3.12.2](#)) By completing steps one through nine above, Operating Units will have met many of the pre-obligation requirements related to adequate planning. At this point, remaining pre-obligation requirements should be reviewed in detail based on knowledge that is now available on the scope and nature of planned activities, the entities involved, and their proposed relationship with USAID. This review will make it possible to meet the requirements related to environmental reviews, statutory reviews, gender analysis, and Congressional notification. If the obligating official is different from the approving official, it may be helpful to use the additional help document, [Model Checklist for Pre-Obligation Requirements](#). For more information about country prohibitions and restrictions, see [201.3.3.4](#).



If an activity will be implemented in one or more host countries but will not be managed by country-based USDH staff and captured in country-level reporting, a standard one-page Activity Information Sheet must be prepared by the Activity Manager, as described in [ADS 203.3.9](#).

**201.3.12.15 Activity Planning Step 11:
Prepare Activity Approval Document (AAD)**
Effective Date: 01/31/2003

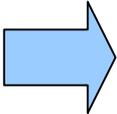
MANDATORY. Operating Units must document all program-funded activities in writing through an acceptable Activity Approval Document. The Activity Approval Document certifies that appropriate planning for the activity has been completed. Program-funded activities may cover a range of outputs and encompass multiple A&A instruments.

There is no required standard format for Activity Approval Documents. Different types of documentation may be used in different situations, and are generally referred to as “Activity Approval Documents.” Approving officials, obligating officials, SO Teams, and others who may be involved in the Operating Unit’s activity design and approval process are responsible for exercising proper judgment in determining when planning is adequate and sufficiently documented to support activity approval. Any existing Mission Orders may also be consulted to determine the most appropriate documentation for a given Operating Unit. At a minimum, Activity Approval Documents must

- Describe briefly the activity or activities including planned inputs and outputs and the Intermediate Results and Strategic Objective to be achieved with the activity(ies).
- Demonstrate that all pre-obligation requirements have been met. If funds have not yet been obligated, clearly state that no obligation will be incurred before the Congress is properly notified and funds are made available.
- Record approval of any applicable waivers of policy or regulations.
- Clarify who is responsible for management of the activity inside and outside USAID.
- Summarize how the environmental review requirements set forth in 201.3.12.2 section b have been met.
- Outline the most significant gender issues that need to be considered during activity implementation, and describe what outcomes are expected by considering these issues or, if the Operating Unit determines that there are no significant gender issues, provide a brief rationale to that effect.
- Describe the methods of implementation and financing selected as described in ADS 202.3.8.1.

Documentation may be completed for individual activities or for groups of activities. Examples include

- An Action Memo encompassing one or more activities and including descriptive documentation that meets the minimum requirements above.
- A Modified Acquisition and Assistance Request Document (MAARD) signed by an authorized official with supporting Appendices that meet minimum documentation requirements. Appendices could include an offeror’s proposal, waivers, and additional documentation prepared by the Operating Unit.
- A cable authorized by the approving official that provides approval for specific activities with the minimum documentation specifically referenced in the cable.



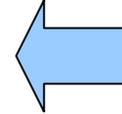
ENVIRONMENTAL PROCEDURES TRAINING MANUAL

- A bilateral obligation instrument such as a SOAG when the USAID obligating official is the same as the approving official and adequate documentation describing the activities is explicitly referenced in the agreement. If not explicitly referenced, a separate action memo should be used.
- An Implementation Letter under a bilateral obligating agreement (SOAG). Minimum documentation should be annexed or explicitly referenced, and the letter should be signed by a USAID official authorized to approve the activity.

Since the AAD is a document internal to the Operating Unit, the Operating Unit has the authority to amend it as needed. Often one approval document can cover multiple activities to avoid repetitive approvals while also leaving clear audit documentation.

ADS 202—Achieving 03/19/2004 Revision
Excerpts pertaining to requirements for
Environmental Review and Analysis

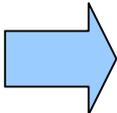
Note: key text is indicated by an arrow and is also underlined or bracketed



202.3.4.6 Maintaining Official SO Team Files

Effective Date 01/31/2003

***MANDATORY.** SO Teams must ensure that they have adequate official documentation on agreements used to implement USAID-funded activities, resources expended, issues identified, and corrective actions taken. Operating Units and their SO Teams must maintain the following list of standard documentation for the duration specified by Agency rules on document retention, as stipulated in [502](#) (USAID Records Management Program) and associated Mandatory References, [Records Disposition Schedule—Agency Wide \(USAID/W and Missions\)](#); and [Strategic Objective Document Disposition Schedule](#).

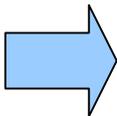


- .. <excerpts>.
- Environmental reviews (including 22 CFR 216 documentation)
- .. <excerpts>

202.3.6 Monitoring Quality and Timeliness of Key Outputs

* EFFECTIVE DATE: 01/31/2003

Monitoring the quality and timeliness of outputs produced by implementing partners is a major task of CTOs and SO Teams. Outputs are specifically described in contract Statements of Work, and grant agreement program descriptions. Outputs are critical to achieving results. Delays in completing outputs, or problems in output quality, provide an early warning that results may not be achieved as planned. Timeliness of key outputs may affect the achievement of performance targets that the SO Team presents in the Annual Report. Early action in response to problems is essential in managing for results.



Monitoring compliance with 22 CFR 216 environmental determinations is part of this task. Environmental reviews should be actively managed throughout the life of the SO to ensure environmental soundness of activities, as provided in [204.3](#), [204.5.4](#), and Mandatory Reference [22 CFR 216](#).

**ADS 204 - Environmental Procedures
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03/19/2004 version

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E204.5.8	Decision-Making Authority
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ADS 204 - Environmental Procedures

* This chapter provides policy and essential procedures about how to apply 22 CFR 216 to the new USAID assistance process in order to ensure that assessments of the environmental consequences of all programs, activities, and substantive amendments thereto, are in full accordance with the requirements of Title 22 of the Code of Federal Regulations, Part 216. **(See Mandatory Reference [22 CFR 216](#))**

204.1 Authority

1. [Section 117 of the Foreign Assistance Act of 1961](#), as amended.
2. National Environmental Policy Act, [42 USC 4371](#), et seq.
3. [Executive Order 12114](#) dated January 4, 1979, regarding environmental review of Federal agency actions outside the United States.
4. [Title 22 of the Code of Federal Regulations, Part 216 dated October 9, 1980](#), codifies USAID's environmental procedures (cited as 22 CFR 216).

204.2 Objective

Environmental sustainability is integral to USAID's overall goal. To meet this goal environmental considerations shall be incorporated into results planning, achieving, and monitoring. This Chapter defines what USAID and its operating units will do to integrate environmental issues into its programs to meet USG environmental requirements.

204.3 Responsibility

* 1. Operational Bureaus

Operational Bureaus are responsible for overseeing and supporting their Operating Units to ensure that environmental review in accordance with 22 CFR 216 is fully integrated into the decision-making process, including planning and approval of all programs and activities needed to implement the Bureau and its Operating Units' Strategic Plan. **(See Mandatory Reference [22 CFR 216](#))**

2. Operating Units

Operating Units are responsible for allocating adequate staff and financial resources to their Teams to effectively implement the Agency's environmental procedures. Operating Units also hold their Strategic Objective Teams accountable for meeting these requirements and continuously monitoring their results.

3. Strategic Objective, Strategic Support Objective, or Special Objective Teams (SO Teams)

SO Teams are responsible for ensuring full compliance with 22 CFR 216, the Agency's environmental procedures. This includes designing, monitoring, and modifying all programs, results packages, and activities to ensure that the environmental consequences of all actions taken by USAID are considered and that appropriate environmental safeguards are adopted. The SO Team is also responsible for keeping their relevant Bureau Environmental Officer informed on upcoming 22 CFR 216 actions through informal contacts and the R4; and for ensuring that all of its 22 CFR 216 environmental reviews are accomplished in a timely fashion so as not to unnecessarily delay implementation of any activities.

4. Mission Environmental Officer and Regional Environmental Officer (MEO and REO)

MEOs and REOs are responsible for advising SO Teams on how best to comply with 22 CFR 216 requirements, how SO Teams can effectively monitor implementation of approved mitigative measures, and how SO Teams can obtain additional environmental expertise to assist them. MEOs and REOs also liaise with their relevant Bureau Environmental Officers on 22 CFR 216 issues affecting SO Teams in their Operating Units.

5. Bureau Environmental Officer (BEO)

BEOs are responsible for overseeing the effective implementation of 22 CFR 216 throughout all Operating Units in their Bureau through timely decision making and adherence to consistent and strong environmental principles that lead to environmentally sound development.

6. Agency Environmental Coordinator (AEC)

The AEC is responsible for overseeing the effective implementation of 22 CFR 216 throughout the Agency. This includes monitoring its implementation, resolving disputes, advising in selection of BEOs, and liaising with the President's Council on Environmental Quality and the public.

204.4 Definitions (See [ADS GLOSSARY](#))

ACTIVITY
 CEQ REGULATIONS
 ENVIRONMENT
 ENVIRONMENTAL ASSESSMENT
 ENVIRONMENTAL IMPACT STATEMENT
 ESSENTIAL PROCEDURE
 INITIAL ENVIRONMENTAL EXAMINATION
 MINOR DONOR
 OPERATING UNIT
 PROGRAM ASSISTANCE APPROVAL DOCUMENT (PAAD)
 PROGRAM ASSISTANCE INITIAL PROPOSAL (PAIP)
 PROJECT IDENTIFICATION DOCUMENT (PID)
 PROJECT PAPER (PP)
 RESULTS PACKAGE
 RESULTS REVIEW AND RESOURCES REQUEST (R4)
 SIGNIFICANT EFFECT
 SPECIAL OBJECTIVE
 STRATEGIC OBJECTIVE
 STRATEGIC OBJECTIVE TEAM
 STRATEGIC PLAN
 STRATEGIC SUPPORT OBJECTIVE
 THRESHOLD DECISION

Acronyms used in this chapter are:

22 CFR 216 - Title 22 of the Code of Federal Regulations, Part 216. These are USAID's

environmental procedures and are sometimes referred to colloquially as Reg 16.
 AEC - Agency Environmental Coordinator
 BEO - Bureau Environmental Officer
 EA - Environmental Assessment
 EIS - Environmental Impact Statement
 IEE - Initial Environmental Examination
 MEO - Mission Environmental Officer
 REO - Regional Environmental Officer
 SO - Strategic Objective/Strategic Support Objective/Special Objective
 SO Team - The team managing an SO. See the ADS glossary for further detail.

204.5 POLICY

The following are the official Agency policies and corresponding essential procedures:

204.5.1 MANDATORY COMPLIANCE WITH 22 CFR 216

- The environmental procedures are codified in a Federal regulation. USAID must and shall 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 this chapter of the 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 this chapter and 22 CFR 216. If there are questions, consult your BEO, the AEC, or Agency legal counsel. **(See Mandatory Reference 22 CFR 216)**

E204.5.1 Mandatory Compliance with 22 CFR 216 - N/A

204.5.2 OPERATIONAL BUREAUS

Incorporated into their normal Results Review and Resources Request (R4) process each operational Bureau shall review and approve, with the guidance of their Bureau Environmental Officer, the R4 environmental section described below in 204.5.3 Bureaus shall provide each Operating Unit the resources necessary to complete environmental reviews for programs and activities in the Strategic Plan or any modification of it.

E204.5.2 Operational Bureaus - N/A

204.5.3 OPERATING UNIT

Each USAID Operating Unit shall prepare and submit an environmental section as an integral part of their R4. This section will consist of two parts:

- the first part will include a discussion of any issues that the Operating Unit may wish to raise with respect to implementation of mitigation measures, monitoring provisions or other implementation requirements agreed to pursuant to 22 CFR 216 during activity design; and,
- * - the second part will be an illustrative schedule of upcoming activities that may require 22 CFR 216 review. While this schedule will necessarily be notional due to the desired flexibility in allowing teams to revise and develop new activities, it will allow the BEO to better plan for work loads in order to have shorter turn around times on reviews and approvals of 22 CFR 216 documents. The schedule will also serve the operating unit

as a planning document for budgeting its time and money resources to ensure that all 22 CFR 216 requirements are met in a timely way and will not become an impediment to speedy action. **(See Mandatory Reference 22 CFR 216)**

Operating Units shall take necessary steps to ensure that each SO Team integrates timely and effective environmental review in the decision-making process for programs and activities and that sufficient money and staff are allocated to the SO Teams to accomplish the work.

Operating Units shall also take necessary steps to ensure that no irreversible commitments of resources for programs or activities are made by any of its Teams before environmental review is completed and its findings considered for the program or activity.

Operating Units shall undertake the required environmental planning analyses for its strategic plan as outlined in chapter 201.5.10g.

E204.5.3 Operating Unit - N/A

204.5.4 STRATEGIC OBJECTIVE, STRATEGIC SUPPORT OBJECTIVE AND SPECIAL OBJECTIVE TEAMS (SO TEAMS)

* Each SO Team shall actively plan how it will comply with 22 CFR 216 requirements for each activity it undertakes, actively monitor ongoing activities for compliance with approved IEE, EA, or EIS recommendations or mitigative measures; and modify or end activities that are not in compliance. When an SO Team chooses to create Results Package (RP) Teams, it may delegate the implementation of these responsibilities to them. In these cases the SO Team is responsible for ensuring that the RP Teams have adequate time, staff, authority, and money to implement these responsibilities. **(See Mandatory Reference 22 CFR 216)**

E204.5.4 Strategic Objective, Strategic Support Objective and Special Objective Teams (SO TEAMS)

Operating Unit and SO Team Procedures

Each Operating Unit and SO Team shall develop effective essential procedures to:

- * - ensure that adequate time and resources are available to complete all environmental work required under 22 CFR 216 before funds are obligated (this environmental work includes IEEs, Categorical Exclusions, requests for deferrals or exemptions of environmental reviews and if appropriate, Scoping Statements and their related EAs or EISs) **(See Mandatory Reference 22 CFR 216)**. More specifically these environmental reviews include;
- completing an IEE or justification for a Categorical Exclusion or Exemption, in accordance 22 CFR 216, for each program or activity at the earliest time in the planning and design process when sufficient information is known about the program or activity to permit a meaningful environmental threshold determination; it is essential that this review be done as early as possible in the design process in order to allow adequate time for more detailed subsequent environmental review and concurrence, as well as integrating environmental mitigations into the design process, should this be required;

- completing Scoping Statements and EAs or EISs (if required) at the earliest time in the design process when sufficient information is known or being developed to undertake these analyses;
- forwarding each environmental document to the BEO for review and concurrence, allowing a reasonable amount of time for this process;
- providing reasonable notification to the affected public and, as feasible, encouraging public participation, review and comment on Scoping Statements and their related EAs or EISs. Public is defined for EAs to include directly affected people in the host country, host country governments. It is USAID's policy that interested U.S. parties should also be involved when they show an interest. For EISs including the U.S. public is a regulatory requirement.
- considering the content and findings of environmental documents in the design and approval of each program and activity before an irreversible commitment of resources is made for the program or activity;
- incorporating environmental features and mitigative measures identified in IEEs, EAs, and EISs, as appropriate, in the final design and implementation of programs or activities.
- Actively monitor and evaluate whether the environmental features designed for the activity resulting from the 22 CFR 216 process are being implemented effectively and whether there are new or unforeseen environmental consequences arising during implementation that were not identified and reviewed in accordance with 22 CFR 216.
- Based on the above described monitoring and evaluation initiate, modify or end activities as appropriate.
- Provide the Operating Unit with any issues on environmental compliance and a schedule for any activities which must be reviewed under 22 CFR 216 to facilitate advance planning and provide information for the environment section of the R4.

204.5.5 MISSION ENVIRONMENTAL OFFICER (MEO) AND REGIONAL ENVIRONMENTAL OFFICER (REO)

*

Each Mission Director shall appoint a Mission Environmental Officer. These officers normally serve as a core member of each SO Team in the Operating Unit in order to advise the Teams on specific needs and approaches to meet 22 CFR 216 requirements. The MEOs frequently take the lead in overseeing 22 CFR 216 document preparation on new activities and monitoring compliance on ongoing activities. However, the ultimate responsibility and accountability for successfully meeting 22 CFR 216 requirements belongs to every member on the Team and in particular to the team leader. **(See Mandatory Reference 22 CFR 216)**

In some cases a regional support mission may exist and have a Regional Environmental Officer who is available to the cluster of Operating Units it supports. In these cases the Regional Environmental Officer provides technical support and regional coordination to Mission Environmental Officers.

E204.5.5 Mission Environmental Officer (MEO) and Regional Environmental Officer (REO) - N/A**204.5.6 BUREAU ENVIRONMENTAL OFFICER (BEO)**

- * After consultation with the AEC, the Assistant Administrator (AA) for each operational Bureau in Washington shall appoint a qualified BEO based in Washington. This includes all regional Bureaus plus all operational Central Bureaus (i.e. G and BHR). The BEO reviews and provides guidance on the environmental section of the R4; monitors overall 22 CFR 216 compliance of all Operating Units in the Bureau; approves all 22 CFR 216 documents, and performs the other specific functions described in 22 CFR 216. When staffing patterns permit, each AA shall also appoint a qualified Deputy BEO who can act on official 22 CFR 216 actions when the BEO is absent. **(See Mandatory Reference 22 CFR 216)**

E204.5.6 Bureau Environmental Officer (BEO) N/A**204.5.7 AGENCY ENVIRONMENTAL COORDINATOR (AEC)**

- * The AEC shall oversee Agency-wide implementation of 22 CFR 216 to support the process in achieving its intended results. The AEC shall advise the Administrator, AAs, and other senior Agency management about issues that arise under 22 CFR 216, and with advice from the Office of the General Counsel, interprets how 22 CFR 216 should be applied to new or unusual situations. Specific additional responsibilities are described in 22 CFR 216. **(See Mandatory Reference 22 CFR 216)**

E204.5.7 Agency Environmental Coordinator (AEC) - N/A**204.5.8 DECISION-MAKING AUTHORITY**

Within the operating unit the officer who has the authority to obligate funds for a program or activity signs the request for IEE, Categorical Exclusion or Exemption of the program or activity; and, if appropriate the Scoping Statement and EA or EIS (note: all of these 22 CFR 216 terms are defined in within 22 CFR 216). This officer submits these documents to the BEO for review and written concurrence. In certain cases outlined in 22 CFR 216 additional reviews and approvals in Washington may be required (e.g. requests for Exemptions, Deferrals, and EISs). After receiving the BEO's written concurrence the Operating Unit's decision-making officer must consider the environmental findings and recommendations made in the approved IEE, EA, or EIS when designing and approving funding for a program or activity. Additional decision procedures are described in 22 CFR 216. **(See Mandatory Reference 22 CFR 216)**

E204.5.8 Decision-Making Authority - N/A***204.6 Supplementary Reference - N/A**

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Annex C: Africa Bureau Environmental Compliance Forms

This Annex contains templates and forms for use in preparing environmental documentation for Africa Bureau under USAID's procedures. (Note: forms used by other bureaus may differ.)

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

These forms are available for download at www.encapafrika.org.

C.1 Africa Bureau IEE/CE Request Facesheet

C.2 Africa Bureau Request for Categorical Exclusion (Annotated outline)

C.3. Annotated IEE Outline

C.4 Environmental Status Report Facesheet (Title II activities)

C.5 Environmental Status Report Instructions and Format

FACESHEET
For INITIAL ENVIRONMENTAL EXAMINATION
and/or
REQUEST FOR CATEGORICAL EXCLUSION

PROGRAM/ACTIVITY DATA:

Program/Activity No:

Country/Region:

Program/Activity Title:

Funding Begin:

Funding End:

LOP Amount:

Sub-Activity Amount:

IEE Prepared by:

Current Date:

Is this an IEE/CE Amendment If "Yes," Filename & Date of Original IEE
(Yes/No)?:

ENVIRONMENTAL ACTION RECOMMENDED: (Place X where applicable)

Categorical Exclusion:

Negative Determination: *

Positive Determination:

Deferral:

ADDITIONAL ELEMENTS: (Place X where applicable)

CONDITIONS* _____ PVO/NGO: _____

*NOTE: negative determinations may include and be contingent upon mitigation and monitoring conditions specified in the IEE

SUMMARY OF FINDINGS:

(please limit to this page whenever possible, but at most three pages without clearances)

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED:

(Type name under signature line)

CLEARANCE:

Mission Director: _____ Date: _____

CONCURRENCE:

Bureau Environmental Officer: _____ Date: _____
Brian Hirsch Approved: _____
Disapproved: _____

Filename: _____(USAID/AFR BEO)

ADDITIONAL CLEARANCES: (Add as appropriate; type name under signature line)

Mission Environmental Officer: _____ Date: _____

Activity Manager: _____ Date: _____
(Cognizant Technical Officer, etc.)

SO Team Leader: _____ Date: _____

Regional Environmental Officer
(RCSA, REDSO, WARP): _____ Date: _____
Rob Clausen, Walter Knausenberger or Jean Saint-Cyr

Environmental Analyst &
Policy Advisor (AFR/SD): _____ Date: _____

OPTIONAL CLEARANCES:

General Counsel
(Africa Bureau): _____ Date: _____

Regional Legal Advisor: _____ Date: _____

C.2 Annotated outline: Request for Categorical Exclusion

Must be submitted with “FACESHEET For INITIAL ENVIRONMENTAL EXAMINATION and/or REQUEST FOR CATEGORICAL EXCLUSION.” (See Annex C.1, immediately above.)

Use headings exactly as given below. The request for Categorical exclusion should normally not exceed 1-2 pages. Form is available for download from www.encapafrika.org.

Request for Categorical Exclusion

PROGRAM/ACTIVITY DATA:

Program/Activity No:

Country/Region:

SO# and Program/Activity Title:

1. BACKGROUND AND ACTIVITY DESCRIPTION

Provide 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.

Continue on an additional page if necessary

2. JUSTIFICATION FOR CATEGORICAL EXCLUSION REQUEST

Cite appropriate language from Reg. 216, especially 22 CFR 216.2(c). Where necessary, make the case for its application to the activities described above.

Continue on an additional page if necessary

Here is an example citation:

”The items described justify Categorical Exclusions, pursuant to 22 CFR §216.2(c)(1) and (2), for

which an Initial Environmental Examination, or an Environmental Assessment are not required because the actions do not have an effect on the natural or physical environment.

SO 8 interventions, as currently planned, fall into the following classes of action:

- (a) education, technical assistance and training (216.2(c)(2)(i));
- (b) analyses, studies, and workshops (216.2(c)(2)(iii));
- (c) document and information transfer (216.2(c)(2)(v)); and
- (d) activities that will develop the capability of recipient countries to engage in development planning (216.2(c)(2)(xiv)). As currently planned, no interventions will directly affect the environment.

If during implementation, activities are considered under SO 8 that are outside the above framework, activities other than those described in the subject categorical exclusions, and that may directly affect the environment (such as construction or rehabilitation of facilities), an IEE or amended Request for a Categorical Exclusion shall be submitted, as appropriate.

C.3 Annotated Initial Environmental Examination (IEE) Outline

Program/Activity Data

For Title II DRP IEEs	For non-Title II IEEs
DRP Program/Activity:	Program/Activity Number:
CS Name, Country/Region:	Country/Region:
	Program/Activity Title:

1. Background and activity/program description

1.1 Purpose and Scope of IEE

What does the IEE cover, why is it needed, is it an amendment, and if so, why? What other IEEs cover the sector, or SO, if any? .

1.2 Background

Describe why the activity is desired and appropriate, with some relevant context..

1.3 Description of Activities

Outline the key activities proposed for funding. A current activity description should be provided, paraphrasing and shortening as much as needed. Some suggested subheadings:

1.2.1 Results Framework

1.2.2 So Activities Results Framework

2. Country and environmental information (baseline information)

Recommended subheadings:

2.1 Locations Affected

2.2 National [or applicable] Environmental Policies and Procedures

[of the host country, and including policies both for environmental assessment and development or other policies pertaining to the sector]

Section 2 is critical and should briefly assess the current physical environment that might be affected by the activity. It should draw on the Country Strategy and supportive analysis (such as the Environmental Threats and Opportunities Assessment, Conflict Vulnerability Assessment, etc.).

While we are seeking to streamline IEEs, we also need to try to maintain the integrity of relevant analysis that sheds light on the interventions in the SO. This may be a standard we cannot always meet.

Our objective should be to add analysis which has a bearing upon the substance of the sector involved, we don't want irrelevant "fill" material in here. Ideally some thoughtful analysis should be there, or at least compact, up-to-date, relevant info to the sector, e.g., on the environment-conflict links. It is worth drawing attention, in the IEE (which seeks to ensure that we avoid harm, in the most basic biophysical sense), to the SO's opportunities for improving environmental management and governance.

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.

Cross-referencing. One approach which might be an appropriate expedient is to refer to an earlier IEE's write-up for this Section, as long as it is in the same strategy period, and reasonably recent and relevant (say, less than 3-5 years old). If one were to use this approach, here's how it should be done, so the file can be found online: "See IEE for SO1 -- Increased rule of law and transparency in governance, 27rwand4.iee, at <http://www.afr-sd.org/documents/iee/docs/27rwand4.doc>. "

The BEO Actions Tracker is a reliable resource, typically kept current within at least six months.

3. Evaluation of 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. Recommended threshold decisions and mitigation actions (including monitoring and evaluation)

4.1 Recommended Threshold Decisions and Conditions

4.2 Mitigation, Monitoring and Evaluation

FOR AN UMBRELLA IEE (see Annex G), THE FOLLOWING MIGHT BE USED:

- 4.1 Recommended Threshold Decisions and Conditions
- 4.2 Recommended Planning Approach
- 4.3 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

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.

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 environmental documentation

Type of original documentation (circle one)	Categorical exclusion request	IEE	EA/PEA
---	-------------------------------	-----	--------

Date of most recent documentation: _____

_____ No revisions or modifications needed. Documentation for all activities still applicable.

_____ Amended documentation submitted, based on attached report, summary, etc.

_____ Documentation 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.]

B. Status of Fulfilling Conditions in the IEE, including Mitigation 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.

C.5 Environmental Status Report 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?

If yes, 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. Mission concurrence

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. List of conditions

For each component of the program, list or reproduce (as an Annex to this report) the mitigation 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. Compliance/implementation status

Describe status of complying with the conditions. Examples of the types of questions a Sponsor should answer to describe "status" follow.

Mitigation.

- 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?

Monitoring

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- What is being monitored, how frequently and where?
- What action is being taken (as needed) based on the results of the monitoring?

Note: In some situations, a CS will need to note that the monitoring program is still being developed with intent to satisfy the conditions.

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. Environmental screening form activity

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 recent examples of approved CEs and IEEs from the Africa Bureau covering a diverse set of situations and activities.

Only a small number of documents can be presented here.

For access to all of all Africa Bureau IEEs and Categorical Exclusion requests since 1996, access the *BEO Actions Tracker*. This is a web-accessible, searchable database available at www.afr-sd.org/iee/ and via link from www.encapafrika.org. The database provides html summaries and full-text documents in Word and PDF formats.

D.1 Central African Republic Water & Sanitation Project (IEE)

Aug 2004.

Water & sanitation provision; health & hygiene training, HIV/AIDS education

Categorical Exclusion & Neg. Determination w/ conditions

D.2 Ethiopia Marketing, distribution and promotion of insecticide treated nets (IEE (PERSUAP) Amendment)

July 2004

Amendment of PERSUAP(IEE) to address introduction of retreatable ITNs

Neg. Determination w/ conditions

D.3 South Africa SO8: Increased use of HIV/AIDS & Other primary Health Care Services (IEE)

June 2004

Multiple Primary Health Care activities

Categorical exclusion; Neg. Determination w/ conditions

D.4 Ethiopia Relief to Development (IEE)

October 2002

Includes multiple activities under two SO2 using both Title II & DA funds;

**Categorical exclusion; Neg. Determination w/ conditions;
Deferral**

D.5 Kenya

CRS/Kenya Development Activities Proposal (IEE)

July 1998

Multiple rural development activities using Title II funds; includes subproject review.

Categorical exclusion; Neg. Determination w/ conditions;

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INITIAL ENVIRONMENTAL EXAMINATION OR CATEGORICAL EXCLUSION

PROGRAM/ACTIVITY DATA:

Program/Activity Number: 623-007.01
Country/Region: REDSO/ESA Limited Presence Countries Office
Program/Activity Title: **Central African Republic (CAR) Water and Sanitation Project**

Funding Begin: FY2004 **Funding End:** FY2005 **LOP Amount:** US\$300,000.

IEE Prepared By: Ephantus Wahome, Regional Environmental Procedures and Policies Specialist; REDSO/ESA.

Current Date: August 31st, 2004. .

IEE Amendment (Y/N): N If "yes," Number & date of original IEE:

ENVIRONMENTAL ACTION RECOMMENDED: (Place X where applicable)

Categorical Exclusion: Negative Determination:
Positive Determination: Deferral:

ADDITIONAL ELEMENTS: (Place X where applicable)

CONDITIONS PVO/NGO:

SUMMARY OF FINDINGS:

The aim of the Central African Republic (CAR) Water and Sanitation Program is to provide clean water and sanitation, health and hygiene training, and HIV/AIDS education to the selected five (5) communities in the country, as executed by Living Waters International (LWI) in conjunction with UNESCO. The program interventions are mainly geared towards providing clean water sources to school aged children and communities who depend on contaminated or muddy seasonal rivers and streams for drinking water, and for watering, cleaning and feeding their livestock.

The purpose of this IEE is to provide environmental threshold determinations for the proposed program activities for supplying water to selected communities in the Central African Republic (CAR). The IEE covers all the activities that are proposed for the program, so as to ensure environmentally-sound project design.

1. Categorical Exclusions are recommended for the following classes of activities:

- per 22 CFR 216.2(c)(2)(i) for activities involving training and education for operation and maintenance of the borehole and pump; training of teachers in health, hygiene and HIV/AIDS education, and for technical assistance for drilling the borehole, and installation and maintenance of water pumps.
- Per 22CFR216.2(c)(2)(iii) for activities involving workshops and consultative meetings for establishment of stakeholder committees, and human health services improvement.
- Per 22CFR216.2(c)(2)(v) for activities involving document and information transfers, specifically for required analyses and studies for hydro-geological surveys and water quality testing.

2. A Negative Determination with Conditions is recommended pursuant to 22 CFR 216.3(a)(2)(iii) for physical interventions which include: mobilization of LWI personnel and equipment to the drilling site

which may require clearing bushes creation of access foot paths and tracks to the drilling site, creation of temporary dwelling and storage units for the LWI personnel and equipment; bush clearing, ground preparation and borehole drilling; and construction of pump house, latrines and water selling kiosks.

For Water Supply & Sanitation

The activities that under Negative Determination with Conditions must be implemented using established best practices, to address potential adverse environmental adverse impacts, and appropriate mitigation and monitoring measures. The proposed interventions for which the environmental guidelines are recommended include:

- Selected borehole site preparation involving bush clearing and ground preparation, creation off site access routes, and borehole drilling.
- Digging of latrine pits.
- Construction of structures for pump house, latrines and water selling kiosk

Water quality testing is essential for determining that the water from a constructed water source is safe to drink and to determine a baseline so that any future degradation can be detected. Among the water quality tests which must be performed are tests for the presence of arsenic. The USAID/EGAT Bureau completed these guidelines, and the Africa Bureau has packaged them in a document titled, “[Guidelines for Determining the Arsenic Content of Ground Water in USAID-Sponsored Well Programs in Sub-Saharan Africa](#).” The LWI team must assure that the standards and testing procedures described in this guideline document are followed for potable water supply activities under this program.

Implementation will apply best practices guidelines as described in the USAID Africa Bureau document, *Environmental Guidelines for Small-Scale Activities in Africa* (EGSSAA). This document may be located at: www.encapafrica.org. Specifically, *water supply and sanitation activities* should be conducted in a manner consistent with the good design and implementation practices described in EGSSAA [Chapter 16: Water Supply and Sanitation](#). The SO Team and implementing partners should closely examine this chapter, as it provides a thorough discussion of program design and implementation issues that can help avoid numerous preventable problems. Another useful reference to consult for good water and sanitation design and implementation principles is the document, “Guidelines for the Development of Small Scale Rural Water Supply and Sanitation Projects in Ethiopia,” by Catholic Relief Services and USAID, July 31, 2003. LWI is expected to complete the Water & Sanitation Project Development Checklist in the CRS guidelines. The purpose of the checklist is to ensure that partners actively consider the indicators and guideline statements in the development and implementation of water & sanitation projects. The checklist should be completed during the appropriate phase of project development (planning, implementation, sustainability) as well as on an annual basis as part of the Environmental Status Report. Each guideline statement should be checked off when the condition described by the statement is either achieved or is being implemented. Guideline statements that are not checked off should be noted by the partner and an explanation given why it was not achieved.

For small-scale Construction:

- All construction activities will be conducted following principles for environmentally sound construction, as provided in [Chapter 3: Small Scale Construction](#) of the USAID Environmental Guidelines for Small-scale Activities in Africa, which can be found at www.encapafrica.org.
- For the rehabilitation of existing facilities, and for construction of facilities in which the total surface area disturbed is less than 10,000 square feet, the condition is that these activities will be conducted following principles for environmentally sound construction, as provided in the Small Scale Construction chapter of the USAID Environmental Guidelines for Small-scale Activities in Africa, which can be found at: www.encapafrica.org.

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New activities introduced into the project which are substantively different from those presented in this IEE will require submission of an amended IEE to the USAID/REDSO Limited Presence Countries Chief. No activities will be conducted prior to receiving approval of the amended IEE by the BEO/AFR.

Monitoring and Evaluation: As required by ADS 204.5.4, the LWI personnel will actively monitor ongoing activities for compliance with approved IEE recommendations, and modify or end activities that are not in compliance. If additional activities are added to this program that are not described in this document, an amended environmental examination must be prepared, as stated above.

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED: (Type Name Under Signature Line)

CLEARANCE:

Mission Director: _____/Nancy Hardy, Acting for/ _____ Date: 3 Sept. 2004
Andrew Sisson

CONCURRENCE:

Bureau Environnemental
Officer (Acting): _____/cleared/ _____ Date: 9/15/04
Paul DesRosiers Approved: X
Disapproved: _____

File No: 34CAR1_Watsan_Project.Doc

ADDITIONAL CLEARANCES: (Type Name Under Signature Line)

Program Officer, REDSO/LPC: _____ Date: _____
Flynn Fuller

Senior Regional Environmental
Officer: _____/cleared/ _____ Date: 2 Sept. 2004
Walter Knausenberger

Region Environmental Advisor: _____/cleared/ _____ Date: 14 Sept 2004
Brian Hirsch

INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM/ACTIVITY DATA:

Program/Activity Number: 623-007.01
Country/Region: REDSO/ESA Limited Presence Countries Office
Program/Activity Title: Central African Republic (CAR) Water and Sanitation Project

1.0 BACKGROUND AND PROJECT DESCRIPTION

1.1 Purposes and Scope of IEE

The purpose of this IEE is to provide threshold determinations for the proposed Water and Sanitation Development Program activities for supplying water to selected communities in the Central African Republic (CAR). The IEE covers all the activities that are proposed for the program, so as to ensure environmentally-sound project design & implementation.

The program interventions will provide clean water sources to school aged children and communities who depend on contaminated or muddy seasonal rivers and streams for drinking water, cleaning and feeding their livestock. The program interventions will also encourage improved community management and use of water sources.

1.2 Background and Description of Program Activities

The scope of the proposed Central African Republic (CAR) water and sanitation program involves the provision of clean water, sanitation facilities improvement, providing health and hygiene training, and HIV/AIDS education in five (5) communities in the country. The choice of the communities is geared towards a deliberate effort to promote education for girls who bear the brunt of ferrying heavy loads of water for domestic use from a very early age and at the expense of their education. The main objective of the program is to provide a lasting solution to the desperate need for reliable source of clean, safe drinking water and sanitation in the country follows:

- Alleviate water scarcity by providing water to the selected communities through the constructing of boreholes in the peri-urban and rural areas surrounding Bangui and the rural communities and rehabilitating pumps on existing wells.
- Promote good management of the available water resources.
- Ensure sustainability of the water resource that will be made available through the drilling boreholes and training community leaders in borehole maintenance and water management.
- Drastically reduce the time and energy used by women and children to acquire water, therefore investing this energy in other self enhancing projects.
- Encourage the enrollment and retention of the girl child who more often than not bears the brunt of household chores, particularly collecting water.
- Improve performance of the students through availing them more study time which they previously used in collecting water to study.
- Promote health and hygiene through training and by installing VIP latrines so that girls can maintain their dignity.
- Promote HIV/AIDS education through the ABC program at each location.

The program will use hospitals, health clinics and schools as ideal entry points for hygiene and sanitation

awareness activities among selected communities and school children. The reason is because hospitals, health clinics and schools can play a very vital role in helping to mobilize communities to participate in water and sanitation activities. They will be the first locations chosen for the water and sanitation projects. Each project will benefit the local people in the institution (if a school or hospital site is available) and others in the surrounding villages. This will include VIP latrines that will be installed at each location, for boys and girls. Health and Hygiene materials will be provided along with the training of teachers necessary to implement the standards at the household level. HIV/AIDS education will also be established at each location and will be centered on the ABC program. A local water board or committee will be established to collect a minimal fee to be used to maintain each project. If the project is at a school or hospital then the benefiting institution will assume the role of the water board or committee.

1.3 Expected Program Impact

The provision of reliable and adequate sources of clean, safe drinking water and latrines will improve the water and sanitation standards within the schools and surrounding communities. It is expected that the hygiene standards of the school children and that of the adults in the selected communities will be dramatically improved. Through the training of the children, the health in the local household will improve greatly as the children teach their siblings good health and hygiene practices. Water-related illness such as typhoid, amoeba, diarrhea and dysentery will be greatly reduced. The strain on the girls to provide water before and after classes will be reduced as the water will be located at a convenient distance. The physical well-being of the pupils will improve due to less strain caused by the demand of looking and transporting water. The children will be able to remain in school as their health will not be jeopardized by taking water from unsanitary sources. The provision of sanitary facilities at each location will change the quality of sanitation for the community.

The education standards of the school will be greatly improved as the extra time, energy and effort that previously went to fetching of water will be placed in school work. Further, it is anticipated that the presence of a reliable water source at the hospital, school or community will be a launching pad for addressing other societal problems. It is with the provision of sustainable sources of clean water that other avenues for undertaking many poverty alleviation projects in the community.

2.0 COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

Agriculture is the mainstay of The CAR economy with about 80% of the population dependent on subsistence agricultural for survival. Where the timber, cotton and coffee industries once thrived and were supplemented by the diamond trade there is now desperation. Car's rural population mainly relies on rain-fed agriculture for their livelihoods. However, the recent conflict has made the agricultural production in rural areas an exercise of chance. As a result the rural population has borne a disproportionate burden of poverty that has been worsening in the recent past.

Globally, a country is categorized as 'water stressed' if its annual renewable freshwater supplies are between 1,000 and 1,700 cubic meters per capita per annum, and 'water scarce' if its renewable freshwater supplies are less than 1,000 cubic metres per capita per annum. The CAR's natural endowment of fresh water through many rivers and streams produce an abundant supply and needs only to be tapped to meet the needs of the people. Access to adequate water supply is a fundamental need and also has considerable health and economic benefits to any society. Lack of adequate water contributes to poor health, especially to children. Consequently, access to water is a critical element in the reduction of under-five mortality and morbidity. Access to water also means that the considerable amount of time women and children spend collecting water could be spent more effectively on other tasks, improving their economic productivity, a vital component in poverty alleviation efforts.

Lack of clean, safe water as well as poor health and sanitation serve to entrench poverty due to low productivity. Low levels of agricultural production are unable to provide economic stability for the country during dry seasons. According to UNICEF the water and sanitation condition of The CAR is desperate at best. In the capital city of Bangui there is a current **epidemic of Hepatitis E** in the suburbs which are not serviced by the city's municipal water system. The hand dug wells in these areas are between 3-5 meters deep and are often located near grave yards. The only solution is to drill and case past the contaminated aquifers above the problem areas to a depth where natural filtration is sufficient to sanitize the water to be consumed. The communities affected by Hepatitis E are peri-urban areas where at least 40,000 people are at risk. Dr. Leodegal Bazira director of the Bangui office of The World Health Organization (WHO) has pleaded for assistance in the form of 5 high capacity boreholes which will combat the Hepatitis E epidemic. The WHO has declared the outbreak of Hepatitis E to be "an epidemic which constitutes the need for emergency action." LWI stands ready to assist as soon as funding is available.

The rural communities are fairing better in some respects. There are an adequate number of hand-dug and machine drilled wells to service a large portion of the rural communities we visited around Bangui. The problem in these communities is that many of the pumps are broken. These pumps were installed from 1990-1995 under a partnership program between the governments of The CAR and Japan. The pumps have not been maintained and as many as 50% of the pumps inspected were in various stages of disrepair. Vandalism is a major cause of the current state of many existing boreholes. Some pumps were sabotaged while others were completely taken during the recent conflict. Therefore these wells that once provided clean, safe water now sit idle causing the digging of unsafe hand dug wells which promotes the various diseases people suffer as the effects of drinking dirty water. We conducted several arsenic tests on boreholes and river water and found no levels of arsenic contamination which exceeds the acceptable limits. Outside of Bangui the coverage of water and sanitation is as low as 2 % in the eastern provinces to as much as 33% in some areas north and west of Bangui.

The hand dug wells are typical rural water sites in rural communities. They are contaminated due to surface pollution from a variety of sources such as animal feces and the like. We collected a water sample from one of these hand dug wells and after 2 days the water was still a muddy yellow color. We also tested for arsenic and found it to be less than 0.05mg/l. The solution in the rural areas is to drill small capacity boreholes and install hand pumps to meet the needs of the communities. A barter system would be the most successful way to fund the maintenance of the boreholes in most rural communities.

While the situation surrounding Bangui is desperate it is not hopeless. If we act quickly to construct safe boreholes in the peri-urban areas, repair the broken pumps and construct new boreholes for the needy rural communities. Adequate funding from the donor community will be needed to meet the needs of the masses but there is hope.

There was a general decline in the provision of health services to the people of The CAR preceding the conflict. All services ceased during the recent conflict and are currently inadequate to meet the needs of the people. Infant and under-five mortality rates have been on the rise. The HIV/AIDS pandemic has compounded the deteriorating health standards, in some instances reversing the earlier gains. The pandemic has resulted in a steep rise in the number of orphans, growing destitution, and unprecedented levels of poverty. There is a current epidemic of Hepatitis E in the suburbs which surround Bangui.

Poor sanitation is another major public health problem that causes disease and even death. Diarrhea, which is spread easily in an environment of poor hygiene and inadequate sanitation, kills many people each year, most of them children under five. In CAR, water and sanitation access are the keys to reducing child mortality from water borne diseases, the overall health burden has not decreased over the decade.

Improvements in safe water supply, and in particular in hygiene and sanitation, could reduce the incidence of diarrhea by about one fifth and the number of deaths due to diarrhea by more than half.

Rural schools in The CAR face tremendous problems due to lack of access to clean water coupled with poor sanitation. The greatest burden is borne by girls who are often forced to drop out of school. The disparities in both primary and secondary school retention between girls and boys are evident. In many cases girls are unable to stay in school long enough to complete and graduate into secondary schools.

Women, whose societal role is to provide water for the household, usually travel long distances and spend many hours in search of water. Faced with these constraints, many mothers deploy their girls either to look after siblings or perform domestic chores, including collecting water. In dry areas, a number of schools have to close during the drought period due to lack of water. Poor management of existing water supplies compounds the situation. The inability of the community to manage its water supply on a sustainable basis has resulted in breakdowns which occasion the closure of schools, the movement of livestock and the dismantling of settlement centers.

The CAR population is projected to have grown to 3.75 million in 2005, with about 70% living in the rural areas.

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

The major activities for Central African Republic (CAR) water and sanitation program are mainly for community clean water supply (from boreholes), sanitation facilities improvement (using latrines) providing training for LWI personnel on the operation and maintenance of borehole and water pumps, and providing to teachers on health and hygiene and HIV/AIDS education.

The possibility for causing harm to the biophysical environment or human health will arise from activities for digging boreholes, installation and maintenance of water pumps, digging and maintenance of latrines, and the location of latrines in relation to boreholes, due to possible contamination of borehole water through seepage of effluents from the latrine pit.

3.1 Activities Not Likely to Result to Change In Environment

Some of the project activities under Phases II, III, V, VI, and all the activities in Phases I, VII, and VIII, VI, involve borehole site hydro-geological survey (where this does not include ground excavations activities), establishment of water committees with stakeholders, mobilization of personnel and equipment to the borehole site, water sample collection for chemical analysis; selling water from kiosks to local residents, supply and testing of water pump; training of LWI water personnel on operation and maintenance of borehole and pump; and, training of teachers in hygiene and HIV/AIDS education. These activities will not have a direct effect on the environment.

3.2 Activities Likely to Result to Change in Environment

Some of the project activities in Phases II, IV, and V, involve drilling the boreholes; installation of casing and slotted borehole screen; installation of gravel pack to prevent sand production; developing and jet cleaning the borehole; installation of filtration equipment, drop pipe and submersible pump; 24-hour pump testing and capping of the borehole casing and construction of concrete slab; construction of pump houses, latrines and water kiosk; installation of water storage tank; and installation of a diesel generators. These activities will have a direct effect on the environment.

The proposed types of interventions and their potential for causing adverse environmental impacts are as provided in the list below. The proposed interventions for mitigation and monitoring of these adverse impacts are provided in Section 4 of this IEE document.

Drilling the Boreholes

Potential adverse impacts are likely to be caused by bush and ground clearing before drilling, construction of temporary dwelling and storage units for the drilling personnel and equipment, construction of access routes to the borehole sites, ground preparation before drilling, and land-use change and overgrazing around the borehole site, due to increased uncontrolled human and livestock populations.

Land-use change and overgrazing could lead to increased soil erosion, degradation of water quality, adverse effects on quantities of water yields, altered hydrology and flooding, increased deforestation, damage to valuable ecosystems and habitats, damage to scenic quality and tourism. Also, human health and safety risks could be caused by disposal of human and other wastes during the drilling period, possible contamination of borehole water due to location of the boreholes too close to existing latrines, and failure to prevent the entry of surface run-off water into the boreholes.

Construction of Pump Houses and Water Kiosks

The construction of small-scale structures, including temporary dwelling and storage units for the drilling personnel and equipment will have a number of unique aspects. In general, construction activities share common features and potential adverse environmental impacts. These include sedimentation of streams and surface water due to sediment production through erosion and transport, contamination of water supplies, social impacts, spread of disease and damage to the aesthetic beauty of the borehole site area.

Water and Sanitation Interventions

The human health benefits of water and sanitation activities are enormous, and generally far outweigh any potential negative impacts of such activities. Still, the potential for adverse environmental impacts from water and sanitation activities exists, and it is the responsibility of program designers and implementers to avoid such impacts to the extent possible. Specific potential adverse environmental impacts caused by water and sanitation activities are given as follows:

Potential adverse impacts from water supply activities:

1. Depletion of fresh water resources (surface and groundwater)
2. Chemical degradation of the quality of potable water sources (surface and groundwater)
3. Creation of stagnant (standing) water near the boreholes that could create breeding opportunities for water-borne disease vectors.
4. Increased human health risks (e.g. from arsenic content in groundwater).

Potential adverse impacts from sanitation activities:

1. Increased human health risks from contamination of surface water, groundwater, soil, and food by human waste, agricultural chemical residues and disease pathogens
2. Ecological harm from degradation of stream, lake, estuarine and marine water quality and degradation of land habitats due release of human waste.

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4.0 RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

4.1 Recommended Threshold Decisions and Conditions

The recommended environmental **Threshold Decisions** and conditions are as given in **Table 1**.

TABLE 1: Threshold Determinations for Various Implementation Phases of Water and Sanitation Program Activities

Activities	Threshold Determinations
Phase I : Documentation	
Carrying out of a hydro-geological survey to provide the necessary indicators for drilling in the selected locations; and, establishment of stakeholders water committees.	Categorical Exclusion as per 22 CFR 216.2 (c)2(i)(iii)
Phase II : Drilling the Borehole or Installation of the Filtration System	
Mobilization of LWI personnel and equipment to the borehole site and twenty four (24) hour pump test on the borehole per government regulations; and collection of water samples for chemical analysis.	Categorical Exclusion per 22 CFR 216.2 (c)2(i)(iii) and (v)
Drilling the borehole to the recommended depth; furnishing and installing 6" diameter casing and slotted borehole screen as needed to the total depth and installation of gravel pack to prevent sand production; developing and jet cleaning the borehole to remove all debris and loose sand follows; capping of the borehole casing and construction of 1.0 m square by 6" thick concrete slab to seal around the borehole.	Negative Determination with Conditions as per 22CFR 216.3 (a)(2)(iii)
Phase III Pump Installation	
Supplying and installing an appropriate submersible pump with the necessary down hole electrical safety cable. Installation of two (2) inch drop pipes to the required depth pumping depth in the borehole.	Negative Determination with Conditions as per 22CFR 216.3 (a)(2)(iii)
Phase IV: Construction of Pump House, Latrines and water Kiosk	
Selling water to the area residents at minimal charges, to secure funds to meet recurrent costs of running the project, such as diesel, repairs, and wages for the bore-hole care taker.	Categorical Exclusion as per 22 CFR 216.2 (c)2(i)(iii)
Construction of pump house, from where the	Negative Determination with Conditions as per

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electrical accessories will be stored and operated, construction of VIP latrines, and construction of a water kiosk at one corner of the selected location..	22CFR 216.3 (a)(2)(iii)
Phase V: Supply of Water Storage Tank	
Supply of a 23,000 liters water storage tank that will be placed on top of the pump house. The water tank will be a reservoir for water pumped out of the borehole to be distributed to the schools and the surrounding community.	Categorical Exclusion as per 22 CFR 216.2 (c)2(i)(iii)
Phase VI: Supply of Diesel Generator	
This will involve the supply and connection of a diesel generator of an appropriate size to the power source at the borehole or water filtration site.	Negative Determination with Conditions as per 22CFR 216.3 (a)(2)(iii)
Phase VII: Training LWI Personnel on Operation and Maintenance of Borehole, or Water Filtration System.	
This involve the training of a person(s) provided by the community on the operation and maintenance of the borehole or filtration system, and the care-taker of the borehole or filtration system and its accessories, to be able to carry out the daily operations and sell water to the surrounding community at the kiosk, including the daily maintenance of the water supply system to ensure project sustainability.	Categorical Exclusion per 22 CFR 216.2 (c)2 (i)(viii)
Phase VIII: Training Teachers in Health, and Hygiene and HIV/AIDS Education.	
This will involve training teachers in health and hygiene and HIV/AIDS education, providing each community with a set of instructional materials approved by the World Health Organization for education in these areas, and awarding proficient teachers with certificates acknowledging their accomplishment and authorizing them to train others in health and hygiene and HIV/AIDS prevention.	Categorical Exclusion per 22 CFR 216.2 (c)2 (i)(viii)

4.2 Mitigating Measures:

The **environmental compliance considerations** for the LWI Water and Sanitation Program will involve supplying water and sanitation to selected communities in the Central African Republic (CAR), in conjunction with the UNICEF. The intervention will encourage improved community management and use of water resources, and as such involves biophysical activities. The LWI program will comply with USAID environmental regulations and be environmentally sound.

This IEE makes several threshold decisions relative to the planned borehole drilling, borehole

rehabilitation, filtration systems, improved latrine construction, and training and education in health and hygiene and HIV/AIDS. A Negative Determination is made for the borehole and latrine works and associated biophysical activities, including any structures, with specific conditions associated with the implementation of this work, as laid out in detail in the IEE, and referring as well to the expected application of USAID Africa Bureau Environmental Guidelines for water and sanitation activities (<http://www.encapafrica.org/SmallScaleGuidelines.htm>), as well as water and sanitation guidelines developed for PVO and community-level interventions by CARE, CRS and others for USAID funded programs. These guidelines have been provided to LWI Water and Sanitation Project personnel.

It should also be noted that capacity-building (especially training) in environmentally sound design will be part of the assistance provided to the CAR infrastructure agencies and to the NGO counterparts and communities. The LWI's engineers and the Regional Environmental Advisors located in REDSO/ESA will all be available to monitor and oversee activities for compliance with environmental regulations. All procurement and tender documents will incorporate technical criteria that relate, as appropriate, to the conditions laid out in the IEE and reflected in this LWI authorization document. In sum, the LWI Program combines enough environmental assessment, mitigation, capacity-building and oversight activities to give confidence that the program will remain in compliance with the letter and spirit of USAID environmental (22 CFR 216, ADS 204).

Water and Sanitation conditions:

Both water supply and sanitation activities should be conducted in a manner consistent with the good design and implementation practices described in *EGSSAA Chapter 16: Water Supply and Sanitation*. The SO Team and implementing partners should closely examine this chapter, as it provides a thorough discussion of program design and implementation issues that can help avoid numerous preventable problems. Another useful reference to consult for good water and sanitation design and implementation principles is the document, "Guidelines for the Development of Small Scale Rural Water Supply and Sanitation Projects in Ethiopia," by Catholic Relief Services and USAID, July 31, 2003.

Water quality testing is essential for determining that the water from a constructed water source is safe to drink and to determine a baseline so that any future degradation can be detected. Among the water quality tests which must be performed are tests for the presence of arsenic. Any USAID-supported activity engaged in the provision of potable water must adhere to Guidance Cable State 98 108651, which requires arsenic testing. That 1998 cable also anticipates "practical guidelines on sampling and testing for arsenic" that were then under development. The EGAT Bureau completed these guidelines, and the Africa Bureau has packaged them in a document titled, "[Guidelines for Determining the Arsenic Content of Ground Water in USAID-Sponsored Well Programs in Sub-Saharan Africa](#)." The SO team must assure that the standards and testing procedures described in this guideline document are followed for potable water supply activities under this program.

Small scale construction conditions

- All construction activities will be conducted following principles for environmentally sound construction, as provided in *Chapter 3: Small Scale Construction* of the USAID Environmental Guidelines for Small-scale Activities in Africa, which can be found at www.encapafrica.org.
- For the rehabilitation of existing facilities, and for construction of facilities in which the total surface area disturbed is less than 10,000 square feet, the condition is that these activities will be conducted following principles for environmentally sound construction, as provided in the Small Scale Construction chapter of the USAID Environmental Guidelines for Small-scale Activities in Africa, which can be found at: www.encapafrica.org.
- For the construction of any facilities in which the total surface area disturbed exceeds 10,000 square feet (1,000 square meters), the program will conduct a supplemental environmental review according

to guidance in Annex G of the Africa Bureau Environmental Procedures Training Manual (EPTM). Construction may not begin until such a review is completed and approved by the Mission Environmental Officer.

As the program will involve some construction and water and sanitation facilities development, the implementing parties will be expected to:

1. Follow best engineering practices with qualified professional expertise, including opportunities for energy and water efficiencies.
2. Identify and mitigate any direct impacts on the existing physical environment or surrounding socio-economic environment caused by the construction of and presence of the system. These impacts relate to resource use, earthmoving and construction, and impacts on neighboring populations.
3. Identify and mitigate any problems that might undermine or threaten the provision of positive education or health impacts provided by the constructed or reconstructed infrastructure – schools, training centers, water and sanitation facilities, etc. This is related to appropriate design, materials, construction, and management of the system.

4.3 Monitoring, Evaluation

An **environmental monitoring, evaluation and mitigation process** will be established and used by the implementing partners in collaboration with USAID. USAID-supported sub-grants shall incorporate appropriate mitigation and monitoring procedures as listed below.

- Project implementers are expected to utilize the *Environmental Guidelines for Small-Scale Activities in Africa* and other -specific information to assist them in determining what potential impacts should be of concern for different types of development activities in various settings;
- The LWI, with the assistance of appropriate implementing partners, must identify in each grant proposal all proposed environmental mitigation and monitoring requirements. The implementing agents will determine, based on the proposal, those impacts for which mitigation and monitoring are considered necessary;
- The mitigative measures and monitoring procedures stated in the report shall be considered a requirement;
- The sub-grantee, with assistance of the appropriate implementing partners shall be responsible for implementation of agreed-upon mitigation measures and monitoring of impacts;
- All the LWI project periodic reports to the implementing agents and from them to USAID/ REDSO 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.

The LWI project team is ultimately responsible for assuring conformity with the procedures spelled out above, including environmental categorization and review procedures. With particular respect to monitoring, evaluation and mitigation, the LWI team 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 overall Water and Sanitation Project, Performance Monitoring Plan;
- Evaluation of implementing agents' and/or grantees' reports with respect to results of environmental mitigation and monitoring procedures;
- Incorporating into LWI field visits and consultations with grantee periodic examination of the environmental impacts of activities and associated mitigation and monitoring (assistance of the

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- REO or REA in preparing guidelines or assisting with the monitoring and evaluation can be solicited); 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 and which is to be summarized in the Mission's Annual Report.

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AMENDED PESTICIDE EVALUATION REPORT AND SAFER USE ACTION PLAN INSECTICIDE TREATED MATERIALS IN ETHIOPIA USAID/Ethiopia

PROGRAM/ACTIVITY DATA:

Country/Region: Ethiopia, East Africa
Program/Activity Title: SO 14: Human Capacity and Social Resiliency Increased and SO 16: Market –Led Economic Growth and Resiliency Increased
Sub-activity Name: Marketing, distribution and promotion of insecticide treated nets by three implementing partners (Grantees): CRS, GOAL and NetMark.

Grantee	Funding Begin	Funding End	Funding Level FY 2003 in US\$
CRS	2003	2004	184,005
GOAL	2003	2004	555,000
NetMark	2003	2007	300,000

PERSUAP Prepared by: Population Services International (PSI)

Daniel Crapper, PSI/Ethiopia Country Director and
Dr Desmond Chavasse, PSI/Ethiopia, Director of Malaria Control

Approval Final Action Form Prepared by: Susan Anthony, HPN, USAID/Ethiopia, Yesuf Abdella, MEO, USAID/Ethiopia, Walter Knausenberger, SREA, USAID/REDSO, and Mary Hobbs, REO, USAID/REDSO

Current Date: July 21, 2004

SUMMARY OF FINDINGS:

This environmental examination addresses all USAID activities in Ethiopia that directly or indirectly support the distribution of insecticide treated nets (ITNs). These include USAID-supported ITN activities of GOAL International, Catholic Relief Services (CRS) and Netmark.

This amended document is a revision to the April 2004 PERSUAP (34 Ethiopia 2 LLITN SO 14 and SO 16), which anticipated support only for long-lasting insecticide treated nets (LLITNs) and which did not anticipate support for the distribution, re-treatment and use of re-treatable nets.

This Pesticide Evaluation Report & Safer Use Action (PERSUAP) was prepared in accordance with guidance contained in the USAID Bureau for Africa's '*Programmatic Environmental Assessment (PEA) for Insecticide-Treated Materials in USAID Programs in Sub-Saharan Africa*' (2002). To the extent possible, relevant analysis in that PEA is cited herein rather than repeated. This document focuses on elements that are specific to the activities in question and risk mitigation measures that can be taken within these activities.

The Initial Environmental Examination (IEE) for previous USAID/Ethiopia's SO 8: Increased Use of Primary and Preventive Health Care Services (approved May 16, 2001), and the Initial Environmental Examination (IEE) for the current USAID/Ethiopia SO 14: Human Capacity and

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Social Resiliency Increased, both specified a **Negative Determination with Conditions** for the malaria control if in fact social marketing of ITNs was to be undertaken by the Mission's health program. The condition was that a brief PERSUAP based on pesticide procedures specified in 22CFR216.3(b) be completed for this activity, in accordance with the Africa Bureau's Programmatic Environmental Assessment of ITN Use in Africa (2001). In December, 2003, USAID/Ethiopia began plans to launch an ITN program.

The USAID/Ethiopia SO 14 IEE (July 2004) made the further stipulation that no distribution or use of re-treatable nets could be undertaken until such time as the existing PERSUAP was amended to explicitly cover the re-treatment of nets.

The present PERSUAP is in response to the launch of such a program but under the two new SOs; SO 14: Human Capacity and Social Resiliency Increased and SO 16: Market-Led Economic Growth and Resiliency Increased. USAID Ethiopia submitted a new Country Strategy, approved in March, 2004, that includes an expanded emphasis on malaria prevention and control and specific interventions to expand the availability of insecticide treated bed nets through the commercial sector.

On the basis of the present and amended PERSUAP of USAID Ethiopia's malaria control programs using ITNs, a **Negative Determination with conditions** is recommended for activities in Ethiopia. This PERSUAP addresses USAID's Pesticide Procedures pursuant to 22 CFR216.3 (b)(1)(i)(a – l) and with the approval of this Final Action Form, explicitly permits the acquisition and use of insecticides in ITNs, including both re-treatable nets and retreatment kits (K-O Tab) and long lasting insecticide treated nets (LLITNs) according to the best practices identified herein.

USAID-Ethiopia is committed to the implementation of the National Malaria Prevention and Control five-year strategy (2001-2006) to combat malaria, supported by the Roll Back Malaria (RBM) global movement, in which ITNs play a central role in the disease prevention strategy. Following the recent (January 2004) World Health Organization Pesticide Evaluation Scheme (WHOPES) recommendation of the use of LLITNs (with two brands recommended – PermaNet© 2.0 and Olyset ©), a recent RBM mission to Ethiopia (15-20 February 2004) hosted by the Ministry of Health called for a long-term shift to exclusive use of LLITN. This is not only the most promising approach to achieving the necessary ITN coverage with this intervention but also the safest approach.

However because of the higher cost of LLITNs such as Permanet and Olyset, local distributors in Ethiopia were unwilling to sell them without subsidies. Therefore the Netmark program made the decision to distribute bundled nets with K-O Tabs as they are more affordable for most Ethiopians and because distributors agreed to market them.

The conditions to be met are listed in the Section 3 of this PERSUAP as "Safer Use Action Plan" commitments. The main commitments are as follows:

1. USAID/Ethiopia will ensure the quality and efficacy of the LLITN purchased, that they contain what they are supposed to contain, and that the LLITNs are achieving the level of mosquito control required to reduce transmission.
2. USAID/Ethiopia will incorporate environmental questions into the general health impact monitoring plan for LLITNs.
3. USAID/Ethiopia will make all appropriate efforts to assure that the packaging, storage, transport and disposal of ITN retreatment pesticides, if needed, distributed by its programs comply with WHO Pesticide Evaluation Scheme guidelines, and of the USAID ITM PEA

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In accordance with ADS 204, the SO team has responsibility for monitoring to assure that the activities examined are implemented in compliance with the conditions established in this examination. Specifically, any activities which USAID supports to directly or indirectly influence other vector management interventions (larval control, interior residual spraying, etc.) will require an amendment of this examination or subsequent examination to likewise address the requirements of the Pesticide Procedures for such additional uses.

As required by ADS 204.5.4, the SO team must actively monitor ongoing activities for compliance with approved IEE recommendations, and modify or end activities that are not in compliance. If additional activities are added to this program which are not described in this document, an amended environmental examination must be prepared. For example, any activities USAID supports to directly or indirectly influence other vector management interventions (larval control, interior residual spraying, etc.) will require an amendment of this examination or subsequent examination to likewise address the requirements of the Pesticide Procedures for such additional uses. The SO team will also ensure that provisions in this IEE for mitigative measures and the conditions specified herein, along with the requirement to monitor, will be incorporated as appropriate in RFA/RFPs, APSs, contracts, cooperative agreements, grants and sub-grants.

APPROVAL OF AMENDED PERSUAP RECOMMENDED:

CLEARANCE

Mission Director: _____/s/_____
William Hammink

Date: 08/03/04

CONCURRENCE:

Bureau Environmental _____/s/_____
Officer: Paul des Rosiers

Date: 11/17/04

Approved: X

Disapproved: _____

File No: 35Ethiopia1_LLITN_PERSUAP_SO14and16_amend.doc

CLEARANCE

General Council _____
(Africa Bureau): Mary Alice Kleinjan

Date: _____

ADDITIONAL CLEARANCE

Environmental Analyst
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Date: 11/16/04

Mission Environmental Officer: _____/s/_____
John McMahon

Date: 08/03/04

Activity Manager: _____/s/_____
Susan Anthony

Date: 08/03/04

Regional Environmental Officer: _____/s/_____
Mary Hobbs

Date: 08/03/04

PESTICIDE EVALUATION REPORT AND SAFER USE ACTION PLAN FOR INSECTICIDE TREATED MATERIALS IN ETHIOPIA

I. Background and Project Description

I.1. Malaria in Ethiopia

In Ethiopia, malaria is prevalent in around three quarters of the country, rendering over 40 million people at risk. In much of Ethiopia, malaria-prone zones are based on topography and outbreaks follow a seasonal transmission pattern. Based on the climatic situation, three broad risk zones or groups can be identified in Ethiopia as follows.

- High-lands: These areas have an elevation exceeding 2,500 meters. Due to the elevation, malaria transmission does not occur at all. Fifteen percent of the country's population lives here. Risk of malaria infection is low.
- Mid-lands: These areas have an elevation between 1,500 and 2,500 meters. Malaria transmission is unstable here. Transmission occurs for a short period each year, leaving the population with little or no natural protective immunity, which can build up with repeated exposure. Malaria epidemics are therefore common. Seventy five percent of the country's population lives here. There is a medium risk of malaria infection.
- Low-lands: These areas are below 2,500 meters. Malaria transmission is relatively high compared to the Mid-lands. Ten percent of the population lives here at high risk of malaria.

Generally, areas lying below 2,000 meters altitude are at risk for malaria. In addition, transmission of malaria is closely linked with the rainy seasons. The major transmission season follows the June to September rains and occurs September to December. The minor transmission season occurs between April to May following the February to March rains. Due to this seasonal and unstable transmission pattern, the general population has little or no malarial immunity and epidemics are common and characterized by high mortality.

Annually, an average of 400,000 to 600,000 positively tested malaria cases are reported by the Ministry of Health (MoH) Planning and Programming Department¹. However, the actual number of malaria cases that occur annually is estimated to be between four to five million. MoH figures show that during the 2000/2001 malaria season, malaria was the leading cause of outpatient visits and admissions to public health facilities and the third largest cause of inpatient deaths².

I.2. National Malaria Control Strategy

The Government of Ethiopia has expressed its desire to combat malaria, and was one of the signatories of the Abuja declaration in April 2000, committing itself to a target of 60% net coverage for those most at risk by 2005. The Malaria Control Team at the Ministry of Health has since prepared the National Five Years Strategic Plan for Malaria Control in Ethiopia (2001-2005) to combat malaria, supported by the Roll Back Malaria (RBM) global movement, in which insecticide treated nets (ITNs), play a central role in the disease prevention strategy. In July 2003, a five year National Strategic Plan specifically for ITN scaling-up, coverage and utilization was prepared by the MoH and is awaiting final approval. A recent draft discussion paper prepared by

¹ Health and Health related indicators, Planning and Programming Department, MoH, EY 1994 (2001/2002).

² National Strategic Plan for scaling-up coverage and utilization of insecticide treated nets (ITNs) in Ethiopia (2003-2007) MoH.

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RBM has identified that, globally, the Abuja targets are a long way from being realized and highlights the need for new and revitalized efforts by all RBM partners, calling for a significant and rapid scaling up of activities that will “*expand coverage for preventative interventions using all appropriate delivery systems, to reach and exceed Abuja targets.*”³

Following the establishment of the Health Sector Development Program (HSDP), which focuses on primary health care services, the National Five Year Strategic Plan for Malaria Control in Ethiopia (2001-2005) was developed with four main elements:

- Disease management (early diagnosis and effective treatment);
- Selective vector control;
- Malaria prevention and control in pregnancy; and
- Epidemic prevention and control.

The current challenge to malaria control efforts in Ethiopia is to translate existing control strategies into well coordinated implementation plans and bringing these to scale at the national level. USAID Ethiopia HPN Office is an active member of National Malaria Control Support Team and the International Malaria Reaping committee review (February, 2004). USAID through the country Mission as well as OFDA have supported the country strategy intensively over the past year particularly in response to the 2002-2003 drought.

- USAID Ethiopia carried out (May-June 2003) the malaria situation analysis that led to the early warning of the possible major malaria epidemics in July-October 2003,
- USAID coordinated the emergency multi-agency task force at the national level for monitoring and evaluating malaria outbreaks in the drought affected regions (July-August,2003);
- OFDA/USAID, through a grant to UNICEF, funded emergency supplies of anti-malaria drugs for health facilities which decreased the mortality of malaria related diseases in drought affected areas;
- USAID/HPN Office funded the SNPPR to strengthen the capacity of the health sector through training 900 community based malaria control agents (CBMCAs), supervision, and follow up review meetings.

The government position on ITNs is very positive and the GFDRE has come out in favor of the expanded use of Long Lasting ITNs to the extent feasible to acquire the amount needed for the funds available. However due to higher retail cost, LLITNs remain out of the reach of many Ethiopians, so bundled nets with retreatment kits will continue to be used for the foreseeable future.

I.3. Selective Vector Control

Insecticide treated nets

Use of insecticide treated mosquito nets in particular is relatively new in Ethiopian communities. Since its introduction in the country in early 1990s, the promotion of their use has been mainly by NGOs in the form of small efficacy trial projects covering few populations. The 2000 Demographic and Health Survey found that nationally, just 1.1% of households had any type of mosquito net, and of these, less than 20% were treated with insecticide. A household study of

³ “Scaling up for sustainable impact”, RBM strategic orientations 2004-2008 – draft three, for discussion, 16 October 2003

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2,700 women in 2003 in SNNPR, a region of high transmission risk, also reported a rate of net use of just 1%⁴, indicating no significant improvements over the last three years.

Since then very slow progress has been made in the promotion of ITNs and the establishment of a commercial market for nets as well as insecticides. In 2001 the Ministry of Health included ITNs in the National Five Year Strategic Plan for Malaria Control as one of the key strategies for malaria prevention. However, despite commitments made at the Abuja conference of 2000, import tariffs as well as value added tax (VAT) remain high, at 15%. In 2000 the MoH issued a set of standards, based on WHO recommended quality standards for mosquito nets and public health insecticides, “Guidelines for the use of Bednets in Ethiopia” – Malaria and other vector-borne diseases control unit, Epidemiology and AIDS Department of the Federal Ministry of Health, January 2000. Most importantly, the fact that the five year National Strategic Plan specifically for ITN scaling-up, coverage and utilization has not yet been approved by the minister of health means that guidelines and implementation strategies are not yet clear.

The creation of a favorable environment coupled with increasing awareness and demand from the population are among the key challenges remaining for improving the supply side for ITNs in the country. Current ITN availability and use is low, and Ethiopia will need to significantly increase program activities if it is to reach its Abuja commitments.

To date, the main provider of ITNs has been the government, with support from organizations such as UNICEF and WHO, who provide ITNs through health centres at a cost recovery price of around \$2.10. Through May 2003, the MoH reported that less than 20% of the 917,000 nets procured by WHO and UNICEF since 2000 had been distributed to the general population. Some NGOs also distribute ITNs for free through supplementary and therapeutic feeding centers, which have been operational particularly during the recent famine that has affected Ethiopia in 2002 and 2003.

In the private sector, nets are available from \$5.23 for an untreated net to up to \$17 for a long lasting ITN (LLITN). Most of the untreated nets are imported illegally and irregularly from Kenya and availability is limited. There are no formal ITN distribution channels that reach beyond the capital city Addis Ababa, which is not itself malarial. There are presently no local manufacturers of ITNs. There is currently one social marketing project active in one region since 2004 selling high quality mosquito nets co-packed with a single dose of insecticide. Both private sector and NGO net imports are affected by high tariff barriers that remain in place despite Ethiopia’s commitments under the Abuja agreement.

The major problems faced for going to scale with ITNs in Ethiopia therefore are:

- Still insufficient awareness of both urban and rural population of the existence of ITNs and their potential benefit for health as well as economic burden to the families.
- Insufficient supply of commercial or subsidized ITNs in both rural and urban areas resulting in poor availability and visibility, and high prices of the products (nets as well as insecticides)

For all these problems cost/affordability is not the only but a key issue. This is true for the stocking of nets at rural shops and other outlets as well as for the ability to actually buy nets or insecticide re-treatment by the affected population and any strategy to increase the use of ITN in Ethiopia must take this into account.

⁴ SNNPR Household Health Survey, SNNPR Regional Health Bureau and John Snow Inc, September 2003.

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A major step towards going to scale with ITNs has been the approval of the malaria component of the Ethiopia country proposal to the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria. This award of \$38 million over two years may enable the government to realize its aims under its national strategic plan. The government is currently considering using part of these funds to procure and distribute up to a million free LLITNs for a time-limited period of up to one year.

I.4. Indoor residual spraying

The National Malaria Prevention and Control five-year strategy (2001-2005) recommends indoor residual spraying (IRS) in certain epidemiologically selected areas. Locally manufactured DDT is the only insecticide currently used, though the government aims to phase this out some time in the future.

The National Malaria Prevention and Control five-year strategy (2001-2005) acknowledges certain factors that have hampered the effectiveness of IRS, including low spray coverage (7-15% compared to the required 50% plus), a lack of systematic selection and inappropriate targeting of malarious localities, and poor technical quality of IRS (including worn out equipment, lack of trained staff, and poor supervision). These factors are linked to existing resource constraints.

USAID funds neither directly nor indirectly support IRS activities.

I.5. Environmental management and larval control

Environmental management for vector control has been implemented in several areas of the regional states, particularly in urban and semi-urban areas, refugee camps, development projects and irrigation scheme areas (including those supported by USAID).

The main activities include community participatory clearing of water bodies and filling and draining of holes and other potential breeding sites. However, this approach has had its difficulties, including poor and unsustainable community participation, and difficulties in identifying potential breeding sites. There is little scientific evidence to support this approach.

I.6. USAID Five year malaria strategy in the context of the Integrated Strategic Plan

Since malaria is currently the leading cause of death in children under five and among adults, malaria prevention and control strategies were included within the new Ethiopia ISP Health: SO 14 “Human Capacity and Social Resiliency Increased”,

- IR 14.1 “Use of high impact health, family planning, and nutrition services, products, and practices increased” and
- sub IRs 14.1.1 “Community support for high impact health interventions increased” and 14.1.2 “Availability of key health services and products improved”.

The Safety Net Program, which is put as IR 4 under SO 16: Market –Led Economic Growth and Resiliency Increased, also may include some distribution of ITNs.

The goals are to emphasize the prevention of malaria through the expanded use of bed nets and more timely and appropriate treatment of mothers and children through strengthened diagnosis and treatment. Specific activities include:

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1. Increased access to insecticide treated mosquito nets through the commercial sector and USAID Ethiopia's new Safety Net programs,
2. Improved diagnostic procedures through training and laboratories,
3. Increased malaria prevention through community wide utilization of insecticide treated mosquito nets with emphasis on children under 5 years of age and pregnant women.

I.7 USAID partners

The new Mission Strategic Plan, Strategic Objectives 14 and 16, involves the use of insecticides associated with ITNs and LLITNs. For these specific objectives, the following partners will play a key role in implementation.

I.7.1. Catholic Relief Services

CRS' proposed interventions under IR 4 of the SO16 have been designed in recognition of past failures on the part of most government and NGO programs to deliver long-term improvement in community livelihood security that links them to current long-term development programs within the targeted woredas. CRS' agricultural recovery program will reduce asset loss, promote positive coping strategies, and help increase income sources. The multiple use of water component will support agricultural recovery through irrigation as well as investing in the health and nutrition asset through reduction in water-borne diseases. In order to 'do no harm' this component will also include malaria mitigation measures such as environmental sanitation, distribution of insecticide treated bed-nets and health education on malaria and associated prevention and care seeking. In order to enable behavior change CRS/ET will work with the woreda officials to facilitate ITN distribution. Where possible, provision of ITNs will be linked to EGS activities allowing the nets to be "earned" and so increasing the value within the household.

I.7.2. GOAL International

GOAL is an Irish non-governmental organization founded in 1977 and involved with emergency relief, rehabilitation and development operations. GOAL has been working in Ethiopia since 1984. A variety of programs have been carried out in Ethiopia including emergency relief, health and rural development. GOAL was active during the 2002/2003 crisis carrying out emergency supplementary feeding in three regions of Ethiopia and emergency school feeding in four regions. In addition, GOAL has long-term development programs focusing on primary health care, nutrition, income diversification and street children programs. In 2003, GOAL undertook an emergency malaria control program in Sidama Zone of southern Ethiopia. This consisted of free distribution of long-lasting ITNs to beneficiaries of the supplementary feeding program. In addition GOAL assisted the regional Health Bureau with the emergency malaria control program for Sidama Zone.

GOAL's post emergency malaria control program will commence in April 2004 and will focus on two main activities:

- Distribution of long-lasting ITNs
- Training and support of Community Malaria Control Agents

I.7.3 NetMark

NetMark Plus is an eight-year, \$65.4 million dollar Global Health Bureau project designed to reduce the impact of malaria in sub-Saharan Africa through the increased use and sustainable supply of insecticide treated mosquito nets (ITNs), and insecticide treatments kits for nets, through partnership and joint investment with a wide range of international and local commercial partners. Core partners on NetMark include The London School of Hygiene and Tropical

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Medicine, Exp. Momentum (formerly Group Africa) and FCB Advertising. Commercial partners include BASF, Bayer AG, Siamdutch Mosquito Netting Company, A-Z Textiles, ExxonMobil, Vestergaard Frandsen, Syngenta, Mossnet Industries, Harvestfield Industries, and Sunflag Nigeria

NetMark began its activities in Ethiopia in early 2004 and will concentrate on four areas:

- 1) General promotion of ITN and net re-treatment kits;
- 2) Strengthening of the capacity of commercial partners to deliver ITNs and re-treatment kits;
- 3) Work with OFDA and NGOs to develop an ITN voucher system for the new USAID/Ethiopia Safety Net program;
- 4) Promotion of local production of long lasting ITNs as a long term goal.

1.8. Purpose and Scope of PERSUAP

This PERSUAP presents a review of the reasonably foreseeable effects on the environment of the proposed actions for the distribution of ITNs and retreatment kits and Long Lasting Insecticide Treated Nets (LLITN's) under USAID's SO 16 & 14. The purpose of this PERSUAP is to provide the necessary environmental requirements pursuant to Regulation 22 CFR 216. The aim is to ensure environmental compliance for the proposed activities so that adverse environmental impacts are minimized.

2 Pesticide Evaluation Report⁵

This section presents an environmental review and risk/benefit assessment regarding the use of deltamethrin (soluble concentrate 1% and likely the 25% wettable tablet -- K-O Tab home treatment kits), as well as Permanet©2 LLITNs. It will also address issues regarding the environmental, institutional and social setting within which the insecticide is used. All SO 14 partners (GOAL, CRS and NetMark) are handling, storing, packaging and disposing the insecticide carefully and will distribute and educate the population about the products.

Netmark/Ethiopia will market deltamethrin as a retreatment kit using K-O Tab. The packaging includes an insert with written directions for use and disposal in Amharic (the common language in Ethiopia), illustrated instructions, a tablet wrapped in metallic foil, and a pair of gloves, altogether in a sealed plastic bag. The home treatment kit will be offered as a package with an untreated net (made in Tanzania). The kit will be sold through kiosks, clinics, pharmacies and other appropriate retail outlets.

2.1. USEPA, Ethiopian and WHO Registration Status (factor a)

All products used by USAID partners will be registered in Ethiopia before use; Table A gives the details of the products and registration status.

⁵ This treatment parallels the "12 factors" in the USAID's Pesticide Procedures, 22 CFR216.3 (b)(1)(i)(a – l).

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Table A: Registration Status for LLITN proposed for use by USAID in Ethiopia

	Product and Manufacturer	Pesticide Active Ingredient	Registration USEPA	Registration WHOPEs	Registration GFDRE
GOAL, CRS, NetMark	PermaNet © 2.0 VESTERGAARD-FRANSEN K-O Tab packaged in a kit containing a tablet in metallic foil, plastic gloves and an easy to understand instruction leaflet in Amharic, with illustrations.	Deltamethrin (55mg a.i./m2) based LLITN	Yes No. 432-763	Yes (RBM 5 th update on LLITNs, 5 January 2004)	Pending, in process – application presently with DACA K-O Tab is registered by the GFDRE for treatment of nets.

D.2 Ethiopia ITNs

The Registration of PermaNet© 2.0 by the manufacturer is under process in Ethiopia with the Drug Administration Control Authority (DACA), with the full support of the Ministry of Health, WHO and UNICEF.

Note: USAID's *Pest Management Guidelines (1991)* generally limit the use of pesticide active ingredients in USAID programs to those that are registered for the same or similar uses by the USEPA.

2.2. Basis for Selection of the Pesticide (factor b)

USAID-Ethiopia ITN activities plan to use both long-lasting insecticide treated nets (LLITN) and ITNs with K-O Tab treatment kits. In an ongoing field study of the LLITN “PermaNet© 2.0 ” carried out jointly by several partners in Uganda (principle investigator: Albert Kilian) these LLITN have been shown to maintain insecticide effect 3-4 times longer compared to conventionally treated nets with 60% of nets showing minimal required effectiveness after 12 months and 30% after 20 months. The improved second generation LLITN (PermaNet© 2.0) showed 100% optimal effectiveness after 6 months of use in a rural area. Although the question whether and if so when this LLITN needs re-treatment is not yet finally answered, LLITN clearly are to be considered the best option since they pose the least amount of risk to both individuals and the environment.

However, due to cost factors and difficulty in finding distributors to market the higher cost LLITNs in Ethiopia, Netmark has opted to distribute ITNs with K-O tab retreatment kits. Until such time as LLITNs become more affordable and more easily available in Ethiopia, ITNs with retreatment kits are likely to be the net of choice. Netmark/Ethiopia will be promoting use of K-O Tabs, the single-use water dispersible tablets. This particular insecticide was chosen because it is effective, easily available, and safe.

The active ingredient used in both LLITNs and retreatment kits is deltamethrin, a synthetic pyrethroid, which is recommended by WHO Pesticide Evaluation Scheme for public health use with insecticide-treated materials (2nd, 3rd and 4th WHO Pesticide Evaluation Scheme report respectively). Their suitability for this use is largely due to their low toxicity to humans and high toxicity to insects. The WHO Pesticide Evaluation Scheme evaluation specifically for the

deltamethrin based LLITN “PermaNet© 2.0” was issued in January 2004, and gave a positive recommendation.

In addition, ITNs are considered a less toxic vector control alternative to many other options, such as blanket spraying of households.

2. 3. Extent to which ITN activity is part of an Integrated Vector Management Program (IVM) (factor c)

USAID/Ethiopia supports other malaria-control interventions as part of an IVM approach, as proposed by the Ministry of Health in the National Five Year Strategic Plan for Malaria Control. See above (I.3.) for more details on selective vector control in Ethiopia.

2. 4. Proposed Methods of Application, including Safety Equipment: (factor d)

Application methods and safety equipment used by USAID activities are summarized below:

Proposed Method of Application - Home Treatment Kit

Treatment will be done at home by the end-users using a home treatment kit. The kit will contain one K-O Tab wrapped in metallic foil, gloves and instructions for use in Amharic (including graphic illustrations) and instructions on post-treatment safety measures.

The K-O Tab is added to 0.5 liters of water to treat a synthetic net at 20 mg/m² or to 2 liters of water to treat a cotton net at 20 mg/m². The most important consideration in choosing an insecticide for home treatment is safety-- for the person treating the net and other household members, especially children. According to WHO, packaging should be firm and re-sealable and designed so that the pesticide can be applied from the package. When the package is in a form in which a child might be able to get at its contents, its size should be such that the child could consume the whole contents without adverse effects. The amount of insecticide and its presentation as water-based formulation ensure that this is the case. Evidence shows that people only buy one or two doses to treat nets as and when they need to (i.e. large amounts are not likely to be found at the household level). Furthermore, at the household level, Ethiopians have experience with other products such as kerosene, gasoline, bleach, and agricultural insecticides that require special handling and storage.

Nets will be treated with 25% deltamethrin contained in a water dispersible tablet. For the largest net type about one liter of treatment solution (active ingredient plus water) are applied per large net (ca. 150 sq. ft.). The generally low mammalian toxicity of pyrethroids is certainly an important safety feature of the group, but there are other considerations to address. Information follows regarding general safety of synthetic pyrethroid insecticides.

The instructions that accompany the tablet have been tested in Ethiopia for ease of comprehension and use. The instructions show the proper treatment process and disposal of the gloves, excess insecticide and the insecticide packet. Since the insecticide manufacturers and the WHO currently recommend the use of gloves, these are provided for dipping and the instructions advise washing of hands and the basin after dipping.

When dipping large numbers of nets in communal operations (especially using EC formulations), it is recommended that eye-goggles and a respiratory mask be use (Zaim et al, 2000).

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While LLITNs are seen as the future for bednet social marketing as an effective malaria control intervention, it is acknowledged that re-treatment of conventional nets currently in circulation in Ethiopia will remain an important consideration for program managers at least for three years.

Safety Considerations for use of LLITNs:

Table B: Application method and safety equipment for LLITNs used by USAID-Ethiopia

Program	Product	Method of Application/Safety Equipment
GOAL and CRS	PermaNet© 2.0 (LLITN)	Nets are pre-treated by manufacturer. Re-treatment has not been planned. Precautions for worker health and safety have been implemented for workers who will be packaging the pre-treated nets, including the use of long gloves and long-sleeved shirts.

2. 5. Acute and Long-Term Toxicological Hazards, either Human or Environmental (factor e)

The Africa Bureau January 2002 “Programmatic Environmental Assessment for Insecticide-Treated Materials in USAID Programs in Sub-Saharan Africa” (ITM PEA)⁶ examined in depth the potential adverse environmental and health effects of insecticide-treated nets and other materials for use in malaria vector control programs and the mitigation measures available to minimize those potential adverse effects. As described in that assessment, the environmental and health risks from pesticides used for treating mosquito nets come primarily from pesticide products used in the re-treatment of nets. The PEA determines that the risks to human health and the environment from re-treating nets are acceptably slight, and recommends measures to reduce those risks to the extent practicable.

The generally low mammalian toxicity of synthetic pyrethroids is an important safety feature of the group, and there is little human hazard with the concentrations of pyrethroids employed. Zaim et al. (2000) recently compiled the available data on the safety of pyrethroid-treated mosquito nets. They conclude that even with frequent exposure to low concentrations – those recommended for treatment of ITNs – the risk of toxicity of any kind to humans is remote.

However, as all pyrethroids are very toxic to fish, amphibians, arthropods and other aquatic animals, procedures for use of cyfluthrin and other pyrethroids require that any insecticide waste, or packaging, be kept out of aquatic ecosystems. Waste insecticide should be kept away from aquatic environments: fish and other aquatics highly susceptible. This is not a serious problem as the quantity involved will be small and some training in handling insecticides is required.

Information follows regarding environmental and human safety of synthetic pyrethroid insecticides.

⁶ Hirsch B., *et al.* U.S. Agency for International Development, Office of Sustainable Development. January 2002. "Programmatic Environmental Assessment for Insecticide-Treated Materials in USAID Activities in Sub-Saharan Africa." http://www.afr-sd.org/documents/iee/docs/32AFR2_ITM_PEA.doc or http://www.afr-sd.org/documents/iee/32AFR2_ITM_PEA.pdf

Environmental Fate:

- Very easily biodegraded and photo-degraded, so only persist for a short time.
- Rapidly metabolized in soils and animal tissues (i.e., they are not bio-accumulative -- no build up in individuals or food chains).
- Effects on animals (test systems):
 - No evidence of mutagenicity
 - No evidence of teratogenicity
 - No evidence of oncogenic effects
 - No evidence of sensitization (allergic reactions).

Effects on Non-Target Organisms:

- Very toxic to fish, frogs and aquatic insects, crustaceans and other arthropods
- Very toxic to honey bees, but
- Low toxicity to mammals and even less toxic to birds

Thus, washing of pyrethroid-impregnated nets in water bodies should be avoided. It is possible that the amount of insecticide released into streams during washing could have a pronounced, if transitory, effect on aquatic life. This is dependent on washing practices, the amount of pyrethroid lost during washing, resultant concentrations in streams and the toxicity of the particular pyrethroid to aquatic life. Although no formal studies have been conducted, several unpublished unquantified observations have been made. In the first two years of a major expansion of the BITNET ITN program in Malawi, there were no reports of unusual die-offs or other ecological effects related to ITN use and re-treatment (Chavasse, pers. commun, Nov. 2000).

Adverse effects on humans: The alpha-cyano pyrethroids (cypermethrin, deltamethrin, lambda cyhalothrin, etc.) will produce itching or burning sensation in some people. This lasts for only a short time – this is known as *skin paraesthesia* or irritation of the skin's nerves. This is a reversible early indication of exposure, and is not a toxic effect. But people who handle nets should be made aware of this mild symptom.

Inappropriate handling or ingestion of deltamethrin during spraying, or impregnating clothing, have been known to cause convulsions (Barlow & Sullivan 2000; Briggs 2000).

Over-the-Counter (OTC) products, safety factor and Acceptable Daily Intake (ADI). As Zaim et al. (2000) point out, the ADI is the daily exposure to the insecticide residue which, over the entire lifetime of a person, appears to be without appreciable risk, on the basis of all facts known at a given time. The ADI is calculated from the “no observed adverse effect” level (NOAEL), with a safety factor of 100. It has been pointed out that if all the insecticide on a net were absorbed completely through the skin of an individual over a six month period, the amount absorbed would be very low, close to the estimated ADI (acceptable daily intake) which is 0.05 mg/kg for permethrin, and a little less for deltamethrin and cyhalothrin.

Zaim et al.(2000) suggest that the supply of insecticide 'over the counter' (OTC) for treatment of nets by householders as having special safety concerns because OTC products will be used by relatively untrained persons and potentially misused by children. Clearly these products are about as safe as a synthetic chemical insecticide can be.

2. 6. Effectiveness of Requested Pesticides for Proposed Use (factor f)

Numerous studies demonstrate the effectiveness of using mosquito nets impregnated with pyrethroids to prevent the spread of malaria and drug resistance. A review of 18 studies of the effectiveness of ITN's (11 of those in Africa) found that for 1000 children protected with insecticide treated nets, about six lives could be saved each year. ITN's have also been found to reduce mild episodes of malaria by nearly one half, under most transmission conditions. Although resistance of vector species to pyrethroids has been recorded in West and South Africa (*A. gambiae* and *A. funestus* respectively), it appears that such resistance is not yet evident in Eastern Africa. In addition, a recent large-scale study in West Africa demonstrated a significant reduction of malaria transmission and morbidity by ITNs in an area of high prevalence of pyrethroid resistance. This indicates that the expellant effect of the tested pyrethroid was sufficient to achieve the effectiveness in spite of the inability to kill mosquitoes resting on the nets.

Since the insecticides used for LLITN (here deltamethrin) are identical with those conventionally used, the effectiveness does not have to be proven again. Here the question is rather how long the insecticide lasts under typical conditions of usage and washing. Studies of this nature are under way (see also section 2.2).

2. 7. Compatibility with Target and Non-Target Ecosystems (factor g)

The pyrethroids will not be broadly applied: the insecticides will not be sprayed and/or wind or water carried. The only provision (see above) is to keep waste from streams, ponds, etc. The amounts to be used in individual units is small, 20 milliliters or less, and the objective is to have all the liquid soaked up by the net, leaving no excess. What minimal pesticide-related waste materials that may remain will be discarded in pit latrines, where the alkaline environment quickly degrades pyrethroid residues.

The effect on non-target ecosystems has been described above (II.E): handling and application procedures require that all pyrethroids be kept safely away from aquatic ecosystems. Washing of nets optimally will be done in basins away from natural bodies of water, and the rinsate will be discarded into pit toilets, compost pits, and the like -- not into bodies of water. In any case, according to a review by Briggs (2000), current evidence suggests that the long-term impact of washing pyrethroid-treated nets in bodies of water is at most likely to be transient and aquatic fauna likely to recover after exposure ends.

2. 8. Conditions under which pesticide is to be used (factor h)

The predominant use pattern will be in human-modified biophysical environments (villages, homes, estates) with relatively few intrinsic concerns with respect to non-target ecosystems and fauna. Natural bodies of water will be the predominant natural feature to be concerned about. There are four main situations:

Scenario 1. Home treatment with single-dose, over-the-counter, do-it yourself units. Use will be very restricted to villages, specifically houses: broad hydrologic, soil, and geographic considerations are not applicable. Quantities to be used are very small, and individual treatments will have very small amounts of waste materials. Biophysical environments are already modified. Proximity to standing bodies of water is a factor to consider.

The insecticide will be used at very low concentrations only on bed-netting material to be placed in the houses as protection against malaria vector species. They are unlikely to come in contact with flora and fauna. Treated (impregnated) nets should not be washed in natural aquatic ecosystems.

Scenario 2. Public health clinic-based group re-treatment, using various models, but typically where the Health Surveillance Agents are the trainers, and the patients, especially pregnant women buy or bring their nets. Perhaps ten to 100 nets are treated in one session directly at the clinic or at a nearby village.

Method of Storage

The ITNs ordered by our commercial partners will arrive already bundled. The ITNs and treatment kits will be kept in the central and regional warehouses of each partner. The ITNs are packaged in plastic bags compressed in bales of 50 ITNs each. When ordered separately, treatment kits come in carton boxes packed by Bayer. Both will be stored on wooden pallets. The treatment kit will carry international and Ethiopian warning signs for insecticides. Distributors will be trained on stock rotation using the FIFO system: First In, First Out to keep the optimum validity of the insecticide. Each batch of K-O Tab and each tablet will carry an expiration date.

2. 9. Availability and effectiveness of other pesticides or non-chemical control (factor i)

Seven pyrethroid insecticides recommended by World Health Organization Pesticide Evaluation Scheme for ITN use are available. In Ethiopia deltamethrin is the insecticide currently distributed (bundled) on the market for use with mosquito nets (in the form of K-O Tab). There are few available non-chemical control measures (biological control) that can be used with ITN's and which are currently explored with respect to effectiveness in certain settings (such as larvivorous fish, see section 2.3).

2. 10. Ethiopia's ability to regulate or control the distribution, storage, use and disposal of the pesticides (factor j)

Ethiopia's capabilities in this regard are nascent. Pesticides are registered by the Drug Administration and Control Authority (DACA), but this body is not thought to have sufficient storage and distribution capacity for large quantities of insecticides.

2.11. Provisions made for training users and applicators

GOAL, CRS, and Netmark will provide educational materials that will be used in interpersonal communication sessions with beneficiaries, and the nets will contain clear instructions on treatment and use in Amharic.

For the Netmark program providing nets with retreatment tablets (K-O Tab): Netmark's extensive qualitative research carried out in Senegal, Nigeria, Uganda and Zambia (and planned in August-September 2004 in Ethiopia), indicates consumer concern—and cognizance—of pesticide safety, especially for children and pregnant women. This detailed information on consumer habits will help shape the appropriate communication message for net treatment use, exposure and disposal. As the intended ITN consists of a net bundled with the K-O Tab treatment kit, net impregnation will be done at home. Detailed treatment instructions for low-literacy populations are included in the illustrated leaflet. Points of safety will be repeatedly emphasized: use gloves in treating net;

mix insecticide with the water; soak the net completely; wash hands after treating a net and drying on a bed or in the shade, and dispose of any excess solution in a hole in the ground away from any water source. (The commercial partners will use deltamethrin in K-O Tabs, water soluble 1.6 g tablets, a freeze-dried suspension concentrate (SC) produced by Bayer).

Specific promotional activities at the community level through road-shows and women's groups by a communication agency will explain and demonstrate safe net treatment and safe disposal of any excess solution. A poster with clear treatment instructions will be displayed in outlets selling ITN. This will serve both as a reminder to the shopkeeper and as an explanation of the procedure to customers.

On the public-sector side, NetMark will work closely with the Ethiopia Ministry of Health's Malaria Control Program as well as district-level and community health workers to ensure appropriate training and IEC materials for the safe use and disposal of these products.

2. 12. Provisions made for monitoring the use and effectiveness of the pesticide

The National Malaria Control Program is currently undertaking some resistance monitoring for insecticides used in ITNs and for DDT, at various sites in Ethiopia, including in Nazreth. These activities are partly funded by WHO and these will be further strengthened through GFATM funds.

Specifically for NetMark's re-treatment program: Monitoring is usually a collaboration of NetMark and the country USAID mission. USAID generally makes a recommendation to all the ITN programs that it is funding in country regarding who we need to answer to and what we are required to do. For example in Mali, NetMark is working on two levels to monitor the use and effectiveness of the pesticide. Within its own activities, a major portion of both the quantitative and qualitative evaluation will monitor use, exposure and disposal of the product, both on the household and on the community level. In addition, NetMark, in collaboration with BASICS, has facilitated efforts by WHO AFRO and USAID to build country level capacity for vector control, including insecticide resistance monitoring as well as the safe and judicious use of pesticides.

The commercial partners staff and government agents (health animators) involved in the distribution of the bundled ITN will be trained on all issues related to handling, display (e.g. the treatment kit should not be displayed next to medicine taken orally but rather next to insecticides).

K-O Tab home kit use will be examined through a Good Use Survey in 2005, to ensure comprehensibility of directions, ease, and proper use prior to the introduction. NetMark will also dedicate part of the communications campaign to basic malarial treatment and prevention education in order to complement and strengthen the country's national malaria control efforts. NetMark will develop and implement a generic behavior change campaign in order to assure that children sleep under nets and nets are treated and used properly.

NetMark plans to conduct follow-up evaluations on the effectiveness of the ITN campaigns from the point of view of treatment and re-treatment, effectiveness of training and information provided to the end-user, consumer. Provisions need to be made to include follow-up and monitoring in programs' detailed plans of action, as they are essential not only for safety, but for success and sustainability of activities.

3. Safer Use Action Plan

The following 11 actions are recommended in the PEA for ITNs in USAID Activities in Sub-Saharan Africa, prepared by the Africa Bureau in January 2002. Refer to the PEA for a more detailed description of the recommended actions (see footnote page 8). As explained above, USAID/Ethiopia's program is following these recommendations, and will make the consistency with these recommended actions a continuing requirement for the implementation of its support for ITNs.

3.1. Choose safer products.

Long-lasting nets

True "long-lasting," pre-treated nets that retain their effectiveness over the lifetime of the net would present the ideal solution to ITM pesticide risks to humans and the environment by eliminating the need for retreatment. Considering that users often wash nets up to once a month⁷, the currently-available Permanet™ that is supposed to retain efficacy for 20 washes would remain efficacious for only about 1 ½ years. Nonetheless, choosing to use such a net is still the best risk reduction measure that an ITM program can take, as it reduces the need for retreatment and thereby addresses all of the exposure opportunities.

Safer active ingredients

Only WHOPEs-recommended ITN active ingredients should be used for USAID ITN programs; WHOPEs has determined that these chemicals are particularly well suited for use with ITNs because their efficacy and relatively low toxicity to humans. Among these chemicals, the lower the toxicity of the end use products, the better. Permethrin is probably a choice to be avoided, for example, as it is only available in an EC formulation; this type of formulation contains organic solvents, making the end-use products more toxic than similar products that are water-based.

Safer formulations

Highly concentrated formulations of liquid pyrethroid products are to be avoided as much as possible, and are inappropriate for OTC sale because of the potential for accidental poisoning. Zaim, et al recommends specifically against OTC supply of high concentration permethrin (e.g. 50% EC). Table 5 provides a good comparison of the "safety factor" of the ITM pesticide products. Programs should choose the highest safety factor possible, particularly for OTC products.

Water-based formulations are the only liquid formulations that should be used for OTC distribution, including CS (capsule suspension or micro-encapsulated), EW (emulsion, oil in water) and SC (suspension concentrate) formulations. EC (emulsifiable concentrate) formulations, which are based on toxic organic solvents, should be avoided.

Even better are water-dispersible tablets. Zaim, et al makes a good case for the use of this formulation: "Solid formulations, such as water dispersible tablets (WT), have many advantages since they are easy to handle, transport and store, and there is less risk of accidental spillage and contamination than with liquids. A bittering agent should be incorporated into the product to prevent deliberate or accidental ingestion, especially by children."

Packaging

⁷ Personal communication with M. MacDonald, NetMark.

Large-volume containers should be avoided whenever possible. Distributing ITM pesticides in barrels means measuring out concentrated liquid pesticide product, presenting the opportunity for serious injury through accidental exposure. This also introduces the opportunity for repacking into inappropriate, poorly-labeled containers, increasing the chance of accidental exposure and misuse.

Regarding OTC products, Zaim, et al states, “It is strongly recommended that insecticides for home treatment of ITMs should be presented only in single unit doses. Moreover, if presented as liquid formulation in bottles, use of child-proof caps should be mandatory.”

3.2 Assure proper labeling of pesticide products.

Particularly for OTC products, but also for products to be used in mass treatment programs, labelling is a crucial risk communication tool. Zaim, et al describes the appropriate labelling as follows:

All packs should bear, durably and legibly, in local language, the following information: the formulation (Specification WHO/Y) and concentration of the active ingredient; the volume (liquid) or net weight (solid) of the contents; the manufacturer’s identity (name and address) with batch or reference number, date of production and expiry date; together with the minimum cautionary advice necessary to ensure safe and effective use. Pictograms on use of the product and disposal of contaminated materials are essential for users who may have limited literacy. For single-dose packs (i.e. bottles, sachets or tablets), care should be taken to ensure that the above-mentioned information is not easily separated from the insecticide itself.

To elaborate on Dr. Zaim’s explanation, “minimum cautionary advice necessary to ensure safe and effective use” needs to be defined for the particular situation. What is an appropriate message for one community may be different for another. Research and monitoring on the effectiveness of such label information should be part of a safe use program.

3.3 Educate consumers and employees in pesticide safety

For over-the-counter (OTC) products, consumer education materials (including the product label) and other consumer awareness efforts need to address the issue of health and safety in pesticide storage and handling, as well as the environmental risks from disposal of excess treatment solution and from washing nets.

- OTC products should be stored out of reach of children;
- Users should wear appropriate protective equipment when treating nets, including gloves, and preferably also eye protection. If needed to assure their use, gloves should be distributed with each net retreatment package;
- Excess solution should be disposed of in a latrine or garbage pit, out of reach of people and animals and where it cannot be washed into natural bodies of water (see below);
- Nets should be washed in basins of water, not in rivers and streams (see below). The hazard to aquatic organisms should figure prominently on product labels and educational materials.

If the ITN program has its own employees treating nets, then educational materials and training should target these employees as well. The program needs to assure that these employees are

themselves adequately trained in safe use of these pesticides and are capable of training others as appropriate.

3.4 Create a safe and environmentally sound workplace for net treatment facilities.

If direct net retreatment by program staff is anticipated, then the program is responsible for creating a safe and environmentally sound workplace for net retreatment. Some of the measures that should be taken are the following:

- Train staff in the safe handling of these pesticides, disposal of waste and cleanup of spills, and ensure that protective gloves are worn by anyone treating nets. Protective gloves and eyewear should be worn by anyone handling concentrated solution.
- Minimise the effects of inhaling solvent vapours by treating nets in a well-ventilated area and using shallow basins for dipping so that the vapours can escape. The best approach to this problem is to choose water-based formulations.
- Ensure insecticide is safely transported and stored, away from foodstuffs and accidental access by untrained persons and children.
- Provide materials for and operating procedures for cleaning up spills.
- Provide facilities and operating procedures for disposing of excess insecticide solution, as needed. (See below for discussion.)
- Dispose of empty pesticide containers properly. (See below for discussion.)
- Train staff in appropriate emergency response in the case of pesticide poisoning, and make certain treatment facilities have soap and water and medical charcoal available. (See below for discussion.)

3.5. Dispose of leftover insecticide solution properly.

Avoid contaminating water sources with leftover insecticide solution after net dipping or with empty insecticide containers, to avoid killing fish and other organisms in local waters. This is likely to be the greatest problem with mass treatment programs, as the potential for large volumes of remaining solution is greatest. Leftover solution should be dumped into a latrine or garbage pit. Similarly, empty liquid pesticide containers should be rinsed before disposal (see below), and the rinsate disposed of properly.

3.6. Dispose of pesticide containers properly.

A common problem with pesticide use in developing countries is the tendency to reuse pesticide containers to carry water and other materials. This exposes users to ingestion of these products. Empty containers of liquid pesticides should be rinsed out well, the rinsate dumped into a latrine or garbage pit, and they should be punctured to avoid reuse. They should then be disposed of according to FAO recommendations.⁸

3.7. Increase accidental poisoning response capacity

Accidental poisonings of some degree or another will inevitably result from the widespread distribution of ITN pesticides, and efforts should be made to increase the capacity to respond effectively. For mass net treatment facilities, workers should be trained in the appropriate

⁸ Food and Agriculture Organization of the United Nations (FAO), 1996. Pesticide Storage and Stock Control Manual. <http://www.fao.org/docrep/V8966E/V8966E00.htm>

response to accidental exposure, and the necessary materials for washing eyes and skin should be available on-site. Refer to the Annex, “Treatment of Pyrethroid Poisoning” for details on proper emergency response, or to the ITN Handbook’s (Chavasse) section on “Diagnosing and Treating Pyrethroid Poisoning.” Programs focusing on OTC products should also work with local health facilities to increase their awareness of the potential for and proper treatment of pyrethroid poisonings.

3.8. Perform quality control of ITM pesticide products.

Pesticides of poor quality – containing insufficient or too much active ingredient, impurities – are both a problem for efficacy as well as safety, as these formulation problems can affect the toxicity profile of the product. A 2001 joint report by WHO and FAO estimated that 30 percent of pesticides marketed in developing countries do not meet internationally accepted quality standards.⁹ Efforts should be made to assure that pesticide products being purchased or promoted are of good quality and contain what they are supposed to contain. Pesticide stocks should also be managed properly so as to avoid allowing the products to expire. WHO Specifications for public health pesticides, for quality control and international trade, are available on the WHO homepage on the Internet at www.who.int/ctd/whopes.

3.9. Monitor for adverse health and environmental impacts and unsafe practices.

Potential health and environmental impacts of ITN pesticides are not likely to be recognized unless ITN programs actively look for them. Assuming that ITN programs already conduct evaluation and monitoring of the efficacy of their public health intervention, the environmental issues should be built into that M and E program. For example, field evaluation teams should ascertain whether nets are being washed, with what products nets are being treated, and whether persons have become ill as a result of using these products or if they have seen dead fish.

3.10. Manage the storage, transport and disposal of pesticide appropriately.

An ITN program’s handling of pesticides affords opportunities for spills and human and environmental exposures during storage, transport and disposal of the product. The UNFAO’s “International Code of Conduct on the Distribution and Use of Pesticides” specifies appropriate pesticide management protocols, and references detailed guidelines on best practices with regard to storage, transport and disposal of pesticides. Refer to the Code of Conduct at:

http://www.fao.org/waicent/FaoInfo/Agricult/AGP/AGPP/Pesticid/Code/PM_Code.htm and the FAO Pesticide Management Guidelines at:

<http://www.fao.org/waicent/FaoInfo/Agricult/AGP/AGPP/Pesticid/Code/Guide.htm>.

⁹ “Bad Pesticides Threaten Health in Developing Countries.” NY Times. Feb. 2, 2001.

3.11. Continue in-field research to evaluate efficacy of LLITN products.

Recommendation: Research should be carried out to assure that LLITN products of adequate public health value in killing mosquitoes which land on the LLITNs, thus reducing malaria incidence, and that the quality of the nets is objectively verified in real-life situations. Stocks should be managed properly so that the LLITNs do not expire.

Ongoing research into the effectiveness of LLITNs is ongoing in many countries in sub-Saharan Africa, and results will continue to be monitored by USAID/Ethiopia.

Other activities such as monitoring of susceptibility of local vectors against used insecticides are being carried out by Ministry of Health with support from WHO.

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Acronyms

BCC	Behavior Change Communications
CRS	Catholic Relief Services
DACA	Drug Administration and Control Authority
DHS	Demographic and Health Survey
EC	Emulsified concentrate
GoE	Government of Ethiopia
HSDP	Health Sector Development Program
IEE	Initial Environmental Examination
IMCI	Integrated Management of Childhood Illness
IPC	Interpersonal Communications
ITN	Insecticide Treated Net
IR	Intermediate Result
IVM	Integrated Vector Management
LLITN	Long Lasting Insecticide Treated Net
MoH	Ministry of Health
NMCP	National Malaria Control Program
PEA	Programmatic Environmental Assessment
PERSUAP	Pesticide Evaluation Report and Safer Use Action Plan
PSI	Population Services International
RBM	Roll Back Malaria
SC/CS	Suspension concentrate/Capsule suspension
SO	Strategic Objective
USAID	United States Agency for International Development
USEPA	United States Environmental Protection Agency
WHO	World Health Organization
WHOPES	World Health Organization Pesticide Evaluation Scheme
WT	Water-soluble Tablet

INITIAL ENVIRONMENT EXAMINATION
OR
CATEGORICAL EXCLUSION

PROGRAM/ACTIVITY DATA:

Program/Activity Number: 674-008
Country/Region: South Africa
Program/Activity Title: SO8: Increased Use of HIV/AIDS and other Primary Health Care (PHC) Services

Funding Begin Under SO 3: FY98 (HIV/AIDS) & FY95 (EQUITY). **Funding End:** 2006.
SO 8 Authorized Country Strategic Plan Funding Level: \$255.00 M
Revised Strategy Phase 1: FY 2003 to FY 2006 LOP Amount: \$146.84 M

IEE Prepared By: Walter Knausenberger, SREO, USAID/REDSO/ESA, John Crowley, SO 8 Team Leader, USAID/South Africa, and Allan Hackner, Mission Environmental Officer, USAID/South Africa
Current Date: June 6, 2004

IEE Amendment (Y/N): No Original IEEs now superceded: 29 saf2.iee (6/17/1999) covering SO 8's CAPACITY and EQUITY activities.

ENVIRONMENTAL ACTION RECOMMENDED: (Place X where applicable)

Categorical Exclusion: X Negative Determination: X
 Positive Determination: Deferral

ENVIRONMENTAL ELEMENTS: (Place X where applicable)

CONDITIONS: X PVO/NGO X

SUMMARY OF FINDINGS

This IEE addresses USAID/South Africa's adjusted health strategy, SO 8: "Increased Use of HIV/AIDS and other PHC Services," including activities implemented by SO 8 with HIV/AIDS funding under the President's Emergency Plan for AIDS Relief (Emergency Plan) initiative. The SO 8 strategy adjustment is a response to the major challenges that the HIV/AIDS epidemic poses to South Africa's health system and communities and the availability of funds to address the epidemic. The program will shift its predominant emphasis from PHC with HIV/AIDS, tuberculosis (TB), and other key components *to one in which HIV/AIDS plays a far greater role and which emphasizes the integration of HIV/AIDS into PHC services*. An effective response to HIV/AIDS in South Africa is contingent upon a strong PHC system that delivers quality health care to all. The program also will continue to support the strengthening of South Africa's PHC system (e.g., family planning, child health, reproductive health).

The revised strategy has two phases. This IEE covers only Phase I, for the period 2003-2006, which corresponds to the current approved USAID/SA Country Strategic Plan (CSP). Phase II is for the period 2007-2010, with an additional level of funding expected on the order of \$200 million. An IEE amendment will be prepared for Phase II once activities are identified.

USAID/SA expects that its updated health strategy will contribute to use of HIV/AIDS and other PHC services, which will significantly contribute to the reduced impact of the disease in South Africa. To accomplish this, the Mission's SO 8 is divided into five intermediate results (IRs). In summary, they are:

- IR 8.1 - HIV/AIDS Prevention Strengthened;
- IR 8.2 – Sexually Transmitted Infection (STI) Management Improved;
- IR 8.3 - TB and AIDS Treatment Improved;
- IR 8.4 – HIV/AIDS Care and Support Expanded; and

IR 8.5 - PHC Systems and Services Improved.

USAID assistance to Voluntary Counseling and Testing (VCT) Centers, antenatal clinics and other health centers is being greatly expanded, and many women and other clients will be served throughout the country. Various proactive steps are being taken to increase the availability (and demand for) VCT and prevention of mother-to-child transmission (PMTCT) services. The support to be provided does not extend to the provision of supplies or rehabilitation of facilities (direct support). Rather it is focused on capacity strengthening to enhance access to, demand for, and quality of HIV/AIDS prevention measures (indirect support).

Recommended threshold determinations for activities under this program are summarized below. They are also detailed in Table 2.

Because the programs USAID is supporting in Eastern Cape and other Provinces will serve as a model for lessons learned in PHC and because USAID will be supporting improved HIV/AIDS/STD services, it is prudent to consider, as part of the technical assistance, ways in which generation and disposal of medical waste can be managed.

1. Categorical Exclusions are appropriate for most components of SO 8 dealing with HIV/AIDS, reproductive health and PHC, except those aspects which:

- support (directly or indirectly) blood testing, screening or treatment for HIV, sexually transmitted diseases (STDs), and TB;
- deal with clinical interventions or treatment that may entail indirectly the testing of human or animal subjects; and
- support the provision of immunization and vaccination services.

A **Categorical Exclusion** is thus recommended under the following provisions of 22 CFR 216.2(c)(2) for activities under IRs 8.1, 8.2, 8.3, 8.4 and 8.5, except to the extent that the activities directly affect the environment (such as construction of facilities), pursuant to:

- a) 22 CFR 216.2(c)(2)(i), for activities involving education, technical assistance or training programs;
- b) 22 CFR 216.2(c)(2)(iii), for activities involving analyses, studies, academic or research workshops and meetings;
- c) 22 CFR 216.2(c)(2)(v), for activities involving document and information transfers;
- d) 22 CFR 216.2(c)(2)(viii), for programs involving nutrition, health care, or 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.); and
- (e) 22 CFR 216.2(c)(2)(xiv), for studies, projects or programs intended to develop the capability of recipient countries and organizations to engage in development planning.

For specific intervention areas, **Categorical Exclusions** are recommended, per the above, for:

- PMTCT activities, except those that generate medical and biohazardous materials;
- VCT activities, except those that generate medical and biohazardous materials;
- Home-based and palliative care;
- Clinical care, except those that involve human trials or generate medical and biohazardous materials;
- Orphans and vulnerable children (VBC) support, except if small grants might involve biophysical intervention such as for income generation;
- System strengthening, except those that could entail facility repair/rehabilitation and development of potable water supplies;
- Behavior change interventions (abstinence/faithfulness, etc.), information, education, and communications (IEC), etc.;
- Social marketing (condoms, other prevention), etc.

While the above activities are categorically excluded from further environmental scrutiny, this IEE nevertheless recommends that environmental health and quality considerations be incorporated into all relevant steps along the health care continuum, as part of quality assurance and infection prevention approaches. To this end, SO 8 has an opportunity to include healthcare waste (HCW) management messages, and to provide for appropriate disposal

facilities in home-based and community-based situations. Positive messages about personal and household hygiene, sanitation, and proper disposal of condoms and other potentially harmful materials should be delivered, as appropriate, along with standard health care messages, and these messages should be included in training, protocols, and guidelines, and the success of such messages should be monitored. Examples of opportunities are the training plans for healthcare clinic staff on VCT and PMTCT services, and assistance to Department of Health (DOH) to develop and implement guidelines for quality measures.

2. HIV/AIDS, reproductive health and related interventions. Negative Determinations with Conditions, per 22 CFR 216.3(a)(2)(iii), are recommended for the components of the HIV/AIDS, reproductive health, PHC, anti-retroviral therapy (ARV), and immunization interventions that directly or indirectly result in the generation and disposal of bio-hazardous HCW. HIV/AIDS/STD and TB prevention and treatment activities could directly or indirectly involve testing and therefore contaminated blood, used syringes, sharps generation, and disposal of medical waste are concerns. USAID support to clinical research could directly result in the generation of medical waste.

While an emphasis is often placed on immunization programs and HIV/AIDS/STD blood testing, the overall issue of disposal extends also to other bio-hazardous waste, including afterbirth, body parts, contaminated materials, and toxic or hazardous materials used in laboratories and in treatment protocols. USAID is encouraged to take a proactive role, implementing or promoting best practices, to help ensure adequate application of medical waste disposal procedures.

Specifically, for the following activities, listed by IR and sub-IR, there are concerns over proper disposal:

IR 8.1: HIV/AIDS Prevention Measures Strengthened

IR 8.1.1. Increased Availability of Condoms, and VCT and PMTCT Services

- Increase VCT services for antenatal clinic (ANC) clients.
- Strengthen public-private partnerships at the community level to increase the availability (and demand for) VCT and PMTCT services.

IR 8.1.3 Increased Demand for Condoms, and VCT and PMTCT Services

- Foster partnerships with the private sector to provide VCT services to industry.

IR 8.2: Management of STIs Improved

IR 8.2.1 Increased Availability of Quality STI Services

- Increase public-private partnerships in order to expand STI prevention and treatment services (e.g., mining companies)
- Assist in fully integrating STI services into PHC facilities at the local health district and municipality level.

IR 8.3: Treatment for TB and AIDS Improved

IR 8.3.1. Increased Availability of TB and AIDS Treatment

- Integrate and expand TB screening and treatment into the PHC setting and the community (Directly Observed Therapy, Short Course—DOTS strategy).

IR 8.3.2. Improved Quality of TB and AIDS Services

- Expand TB programs using community-based DOTS guidelines among target provinces.
- Improve the quality of TB laboratory and diagnostic systems (training, compliance testing).
- Ensure sputum transfer is expedited in order to facilitate an accurate TB diagnostic process.
- Assist the DOH's plan to establish Regional Training Centers for training health care professionals in AIDS services.
- Increase private sector partnerships for ARVs.

IR 8.3.3. Increased Demand for TB and AIDS Treatment

- Incorporate TB screening into existing services (VCT, PMTCT, ANC, etc.)

*IR 8.4: HIV/AIDS Care and Support Expanded**IR 8.4.1 Increased Availability of Quality Home-Based Care (HBC) Services*

- Expand community-based home visiting and HBC, including palliative care, through NGOs, and faith-based organizations (FBOs) with a mix of direct provision and through grants to multiple community based organizations (CBOs) 8.4.1.

IR 8.4.3. Increased Access to Community Services for Orphans and Vulnerable Children (OVC)

- Expand community-based OVC projects by the Nelson Mandela Children’s Fund and Home WorldWide South Africa into target provinces of South Africa.

*IR 8.5. Other PHC Systems and Services Improved**IR 8.5.1. Increased Availability of Family Planning (FP), VCT, ANC, STI, PMTCT, and Counseling*

- Placement and expansion of VCT and PMTCT services in the PHC setting.

IR 8.5.2. Improved Quality Maternal and Child Health (MCH)/FP Services at the Local Level

- Strengthen the Expanded Program on Immunization (EPI) and Integrated Management of Childhood Illness (IMCI) interventions.
- Improve the quality of vaccination services and immunization coverage.

The RSA has medical waste disposal regulations, which are described in Section 2.2. SO 8 shall ensure that all activities involving generation of medical and related hazardous materials waste comply with RSA regulations covering this sector, as well as mitigation measures outlined below. All USAID activities shall include appropriate procedures to reduce and dispose of waste materials properly. This mitigation measure is pro-active in nature and designed to further support RSA's application of its procedures.

A Negative Determination is recommended with the following **conditions**¹:

The SO 8 Team will work with its implementing partners, to the extent possible, to:

- Ensure that for SO 8-supported activities described in the above IRs, including blood testing and laboratory support, USAID/SA’s SO 8 Team must work with its implementing partners to assure, to the extent possible, that the medical facilities and operations involved have adequate procedures and capacities in place to properly handle, label, treat, store, transport and properly dispose of blood, sharps and other medical waste. Appropriate guidance is articulated in Part II, Chapter 9 of the USAID Bureau for Africa’s *Environmental Guidelines for Small Scale Activities in Africa*, titled, ‘Healthcare Waste: Generation, Handling, Treatment and Disposal.’ It contains guidance which should inform the SO Team’s activities to promote proper handling and disposal of medical waste, particularly for small facilities. See the section titled, “Minimum elements of a complete waste management program.” The URL to consult is: <http://www.encapafrika.org/SmallScaleGuidelines.htm>. Other important references to consult in establishing a waste management program are “WHO’s Safe Management of Wastes from Healthcare Activities” http://www.who.int/water_sanitation_health/medicalwaste/wastemanag/en/.
- Ensure that a medical waste management program is developed and implemented at the relevant facilities supported by USAID. As appropriate, SO 8 should use the guidance in Annex 2, “Minimal Program Checklist & Action Plan” for Healthcare Waste Management for Small-Scale Facilities to ensure proper waste management at SO 8-supported facilities.

¹ The ability of the Team to assure such procedures and capacity is understood to be limited by its level of control over the management of the facilities and operations that USAID/South Africa is supporting, as well as available funding.

- c) Ensure precautions are taken for prevention of transmission of HIV, hepatitis B virus, and other blood-borne pathogens in health-care settings.
- d) Ensure that training and technical assistance in the management of HCW appropriate to the South African environment is provided where appropriate, and assistance is provided to develop disposal mechanisms that are cost effective and safe. Refer to the Africa Bureau's *Environmental Guidelines for Small Scale Activities in Africa* (see above).
- e) Ensure that blood safety issues are incorporated into the training and technical assistance for USAID-supported activities, where appropriate, especially for health workers whose work may expose them to blood and other body fluids.
- f) Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.
- g) Promote clinical guidelines used by providers that include specific measures to deal with bio-hazardous waste.
- h) At facilities receiving USAID support, encourage implementation of the SA Quality Assurance System, which inspects selected health facilities, to ensure that healthcare waste issues are properly dealt with. Capitalize upon the integration of the HCW management issue into the mainstreamed "access, demand, quality, and management" approach to USAID's Quality Assurance health program delivery.
- i) Make provision for the incorporation of standard practices and protocols for the safe handling and disposal of bio-hazardous materials, in consultation and coordination with MOH and other partners.

3. Clinical or Operational Research. A **Negative Determination with Conditions**, per 22 CFR 216.3(a)(2)(iii), is recommended for the components of the HIV/AIDS, reproductive health, PHC, ARV/OI which involve clinical or operational research:

IR 8.2.2 Improved Quality of STI Management

- Conduct clinical and operational research

IR 8.3: Treatment for TB and AIDS Improved

IR 8.3.1. Increased Availability of TB and AIDS Treatment

- Operations research to test models to improve TB case detection and/or treatment compliance.

A Negative Determination is recommended with the following condition:

- a) Any issues concerning human research subjects will follow National Institutes for Health (NIH) and RSA requirements in consultation with CDC advisors and the USAID Human Subjects Officer. SO 8's procedures must be consistent with U.S. NIH guidelines for research involving human subjects. See 45 CFR Part 45. Protection of Human Subjects. See the URL <http://ohrp.osophs.dhhs.gov/humansubjects/guidance/45cfr46.htm>

This condition is especially noteworthy given that USAID/SA is collaborating with WHO, CDC and National Health Laboratory Service to explore the impact of herpes on HIV; and USAID, DOH and Family Health International (FHI) are completing a feasibility study on provision of STI treatment kits in public sector facilities in South Africa.

4. A Deferral is recommended, per 22 CFR 216.3(1)(iii), for any possible small grants activities which might entail biophysical interventions (livelihoods, income generation, micro-finance, etc.) under the *sub-IR 8.3.2 Improved Quality of TB and AIDS Services* or *IR 8.4.1 Increased Availability of Quality HBC Services*, or other sub-grants programs not identified here, or yet to be devised. In the event that support to such grant activities might be

considered in the future, SO 8 shall ensure that the USAID/AFR Environmental Review and Report screening process is applied. A full set of guidelines is at: (www.encapafrika.org/SmallScaleGuidelines.tml). If SO 8 intends to implement a small grants program, this deferral shall be resolved by submitting an amended IEE.

In summary, USAID/SA's SO 8 team shall be responsible for monitoring that RSA medical waste disposal procedures and practices are being correctly applied to any immunization or blood-related testing components, and any clinical research and treatment modalities for STDs. SO8 will actively assist, through its exchange of information with CDC and the NIH, any appropriate refinement of medical waste procedures and increased dissemination of information about such procedures. Through its institutional contractor(s) and other partners, SO 8 will encourage implementation of medical waste disposal procedures in the PHC system, as part of its work to increase the quality of services and improve the sustainability of the district system.

Caveats & Responsibilities:

This IEE does not address construction or water and sanitation-related health activities or use of pesticides, support for which would require amendment of this IEE.

This IEE covers activities only for Phase I, from 2003 – 2006. An amended or new IEE will be needed for Phase II for the period 2007 - 2010.

SO 8 shall ensure that implementation partners are aware of the requirements identified in this IEE, and have the appropriate documentation in hand, so as to inform implementation decisions.

SO 8 shall make clear that -- *through RFPs, RFAs, APSs, and contracts, cooperative agreements or grants*, as may be the case -- the determinations specified in this IEE must be followed, and that implementing partners must put in place appropriate systems or management tools to ensure recommended mitigation actions are taken, and monitoring of impacts and mitigation is tracked. Engagement in the types of activities SO 8 will be implementing brings with it a heightened level of responsibility to ensure compliance with specific standards and guidelines. SO 8 should consider requesting its institutional contractors and grantees to monitor one of the indicators for IR 8.5, for example: “percent of providers in compliance with specific clinical guidelines in randomly selected health facilities.”

In accordance with ADS 204.5.4, the SO 8 Team, with assistance from the MEO and REO, must actively monitor ongoing activities for compliance with approved IEE recommendations, and modify or end activities that are not in compliance. *If there are any changes which affect the basis on which these threshold decisions were made, the SO Team shall prepare an IEE amendment.* The SO Team shall also ensure that provisions of the IEE concerning mitigation measures and the conditions specified herein, along with the requirement to monitor, be incorporated in all contracts, cooperative agreements, grants and subgrants.

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED:

CLEARANCE:

Mission Director: _____/cleared/_____ Date: June 24, 2004
Eileen Olwine, Acting

CONCURRENCE:

Africa Bureau Environmental Officer: _____/cleared/_____ Date: 11/10/2004
Paul Des Rosiers, Acting Approved: X
Disapproved: _____

File No: 35SouthAfrica1_SO8_Health_PEPFAR.doc (USAID/W AFR BEO)

ADDITIONAL CLEARANCES: (Type Name Under Signature Line)

Mission Environmental Officer: _____/cleared/_____ Date: July 2, 2004
Allan Hackner, USAID/South Africa

SO Team Leader: _____/cleared/_____ Date: June 24, 2004
John Crowley, USAID/South Africa

Senior Regional Environmental Officer: _____/cleared/_____ Date: June 8, 2004
Walter I. Knausenberger, REDSO/ESA

Regional Environmental Advisor: _____/cleared/_____ Date: August 30, 2004
Brian D. Hirsch, AFR/SD

OPTIONAL CLEARANCE:

General Counsel (Africa Bureau) _____ Date: _____
Tanya Nunn

ANNEXES AT END:

Annex 1. Acronyms

Annex 2. Healthcare Waste Management for Small-Scale Facilities: Minimal Program Checklist & Action Plan

INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM/ACTIVITY DATA:

Program/Activity Number: 674-0008
Country/Region: South Africa
Program/Activity Title: SO 8 -- Increased Use of HIV/AIDS and other Primary Health Care (PHC) Services
Program Period: FY 2003 – FY 2006. **LOP Amount:** \$146.84 million Phase I

1.0 BACKGROUND AND PROJECT DESCRIPTION**1.1 Purpose and Scope of IEE**

The purpose of this IEE is to update the threshold decisions made for the former SO 3 “*Increased use of essential PHC & HIV/AIDS services and practices*” and supercedes the IEE formulated for this SO, covered in 29saf1 (6/17/1999). The latter IEE included the HIV/AIDS/STD HIV/AIDS Capacity Building Project (CAPACITY) in 28saf2.iee, and the EQUITY project.

USAID/SA has undertaken a technical adjustment of its health strategy for the period 2003-2010. It addresses the need to adjust the current health strategy to better account for the expanding HIV/AIDS epidemic and its impact on the other health challenges facing South Africa such as TB, and ensuring the quality and availability of reproductive, maternal and child health services to all South Africans.

The adjusted Strategic Objective (now referred to as SO 8) “*Increased Use of HIV/AIDS and Other PHC Services*” reflects only a minor revision of the previous SO, but introduces significant scaling up of HIV/AIDS activities and their integration into PHC services. The SO focuses on high-impact prevention, care and support activities that can be taken that promote effective public-private partnerships especially at the community level. The SO also builds on significant progress made thus far, and expands successful elements of the existing program and the previous program focus on PHC and HIV/AIDS. This SO includes activities implemented with HIV/AIDS funding under the President’s Emergency Plan for AIDS Relief (Emergency Plan). Under the Emergency Plan the US government (USG) will provide \$15 billion over five years to combat HIV/AIDS. This initiative will focus a significant amount of these resources on the most afflicted countries in Africa (including South Africa) and the Caribbean, with the goal of achieving planned performance targets in the areas of HIV/AIDS prevention, treatment, care and support, and support services for orphans and vulnerable children (OVCs).

The Emergency Plan marks a new unified USG approach to combating the HIV/AIDS pandemic. The program is administered through the State Department by a Secretariat for the Global AIDS Coordinator (S-GAC) which determines funding allocation annual levels by country. Once the country level is set, each country’s USG mission is responsible for allocating funds between the agencies at post that support HIV/AIDS prevention, treatment and care activities. As of FY 2004, all HIV/AIDS funding that any USG agency receives is under the rubric of the Emergency Plan. In FY 2004, the USG mission in South Africa was allocated \$70 million in Emergency Plan funding which is divided among USAID, the Centers for Disease Control, the Department of Defense and the National Institutes of Health. Funding for subsequent years will be determined annually by S-GAC yearly operational plan submissions and on performance to date.

This situation provides the opportunity to update the IEE for all of SO 3 to the somewhat revised but greatly expanded SO 8. The 1999 SO 3 IEE (June 1999), with Categorical Exclusions and a Negative Determination with Conditions, effectively replaced the two prior IEEs (Table 1) and provided one vehicle for Reg. 216 monitoring and amendment should new activities be added in the future.

Table 1. Former IEEs now superseded.

SO 8 (SO 3): Increased Use of Primary Healthy Services and HIV/AIDS Prevention/Mitigation Practices					
674-0320	SO3 -- Increased use of essential primary health care and HIV/AIDS services and practices (EQUITY). Provided umbrella ND for all SO 3 activities. Present IEE amends this one.	CE, NDC	1995& 1998-2003	29saf1	06/17/99
674-0324	HIV/AIDS/STD Capacity-Building Project (CAPACITY Project)	CE	1998-2003	28saf2	02/09/98

This amended IEE covers only Phase I, for the period 2003-2006, which corresponds to the current approved USAID/SA CSP, and includes activities implemented by SO8 under the Emergency Plan. This IEE does not address construction, or water and sanitation-related health activities nor use of pesticides, support for which would require amendment of this IEE.

1.2 Description of Activities: USAID/SA Health Strategy.

While the Emergency Plan will dictate the parameters of USAID/SA’s HIV/AIDS program (which represents approximately 85 percent of the Mission’s health program budget), the guiding principles of the adjusted health strategy provide a valid framework for the Mission health program. This revision of the health strategy builds on the experiences and accomplishments of the EQUITY project since 1997 and pilot HIV/AIDS activities since 2000. The portfolio has evolved from a focus on PHC in a single province to a multi-dimensional portfolio that is heavily engaged in HIV/AIDS prevention and mitigation activities. The PHC component has expanded coverage from the Eastern Cape Province to encompass more than half the South African population with the inclusion of three additional provinces--NorthWest, Mpumalanga, and KwaZulu-Natal. The Mission’s HIV/AIDS portfolio is new relative to its PHC activities with substantial and sustained HIV/AIDS initiatives beginning only in 2000. Prior to 2000, the Mission had only limited and ad hoc activities in the HIV/AIDS area, e.g., condom social marketing, operations research on reducing STIs among high-risk populations through presumptive periodic treatment. Today the bulk of USAID/SA’s HIV/AIDS assistance is concentrated in the Eastern Cape, KwaZulu-Natal, NorthWest, Mpumalanga and Limpopo along with the urban townships surrounding the Johannesburg and Cape Town metropolitan areas.

The updated health strategy focuses on activities which draw upon USAID’s core competencies in technical assistance, public-private partnerships, system strengthening, and identifying and testing “better practices” that can be taken to scale. These are:

- Integrating key HIV/AIDS prevention activities into the PHC system, e.g., VCT, PMTCT, STIs and condoms;
- Strengthening key elements of the PHC system (e.g., drug logistics, quality of care, supervision, information systems, monitoring and evaluation, etc.) at the local health district and municipality level;
- Leveraging effective public-private partnerships, especially at the community level;
- Building effective health management systems at the local health district and municipality levels; and
- Strengthening community networks to respond to the HIV/AIDS epidemic.

The updated strategy will provide assistance in:

- Integrating TB, VCT, PMTCT into PHC facilities;
- Strengthening the quality of PHC services;
- Strengthening community support systems for pregnant women, their partners and children;
- Strengthening community support systems for OVC;
- Working with NGOs and developing opportunities to strengthen their response to managing the HIV/AIDS pandemic;
- Accessing care and treatment services for HIV-related diseases; and

- Promoting behavior change among high risk groups, particularly youth.

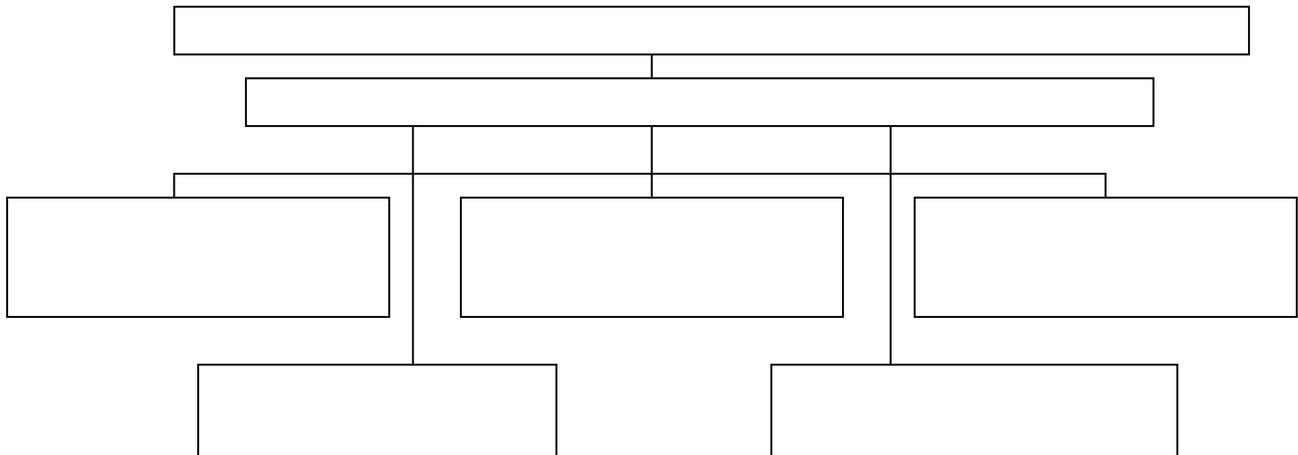
While the USAID health program will be defined by the strategy, the focus of HIV/AIDS activities will be determined by the thrust to achieve South Africa’s Emergency Plan targets over the next five years—500,000 HIV positive people under treatment; 1.8 million HIV infections averted; and two million HIV/AIDS affected people receiving care and support. The specific technical areas which the Emergency Plan targets dovetail with those of the Mission strategy are: PMTCT, VCT, abstinence, prevention of HIV transmission, clinical and palliative care, OVCs, lab support, and monitoring and evaluation.

Key IRs and Phase I Activities: 2003-2006

- IR 8.1: HIV/AIDS Prevention Measures Strengthened
 - IR 8.1.1 Increased Availability of Condoms, and VCT and PMTCT Services
 - IR 8.1.2 Improved Quality of Condoms, and VCT and PMTCT Services
 - IR 8.1.3 Increased Demand for Condoms, and VCT and PMTCT Services
- IR 8.2: Management of STIs Improved
 - IR 8.2.1 Increased Availability of Quality STI Services
 - IR 8.2.2 Improved Quality of STI Management
 - IR 8.2.3 Increased Demand for STI Services
- IR 8.3: Treatment for TB and AIDS Improved
 - IR 8.3.1 Increased Availability of TB and AIDS Treatment
 - IR 8.3.2 Improved Quality of TB and AIDS Services
 - IR 8.3.3 Increased Demand for TB and AIDS Treatment
 - IR 8.3.4 Improved Management of TB and AIDS Support Systems
- IR 8.4: HIV/AIDS Care and Support Expanded
 - IR 8.4.1 Increased Availability of Quality Home-Based Care (HBC) Services
 - IR 8.4.2 Increased Availability of Psychosocial Initiatives
 - IR 8.4.3 Increased Access to Community Services for OVC
- IR 8.5 Other Primary Health Care (PHC) Systems and Services Improved
 - IR 8.5.1 Increased Availability of FP, VCT, ANC, STI, PMTCT, and Counseling
 - IR 8.5.2 Improved Quality MCH/FT Services at the Local Level
 - IR 8.5.3 Strengthened Support Systems (Management and Supervision)

To understand the relationships between the intermediate results and the principal casual factors of availability, demand, quality and management, (Figure 1) below presents each planned lower level result as it aligns with the program’s IRs and the causal factors.

Figure 1. Results Framework.



The revised strategy has two phases. Phase I is for the period (2003-2006) which corresponds to the currently approved USAID CSP for South Africa. The proposed budget for the technical revision to the health strategy is \$146.84 million over three years (FY2003 – FY2006). The budget reflects the increasing threat of HIV/AIDS to South Africa’s development and the changes in the composition of health funding (“earmarks”) that the Mission has received since the beginning of the EQUITY project from predominately child survival funding (with a small amount of population funds) to predominately HIV/AIDS funding. The core budget **excludes** funding that may be made available through the President’s Emergency Plan for AIDS Relief (PEPFAR). Phase II is for the period (2007-2010) and the proposed budget for that period is \$203.30 million. The SO authorization will be structured to accommodate both core and initiative funding.

EQUITY. The objectives and principal interventions of USAID/SA’s current PHC program (EQUITY), which dates from 1995, will be continued and expanded in the updated strategic plan. This includes: strengthening the district health systems, increasing the availability of reproductive health services for youth, strengthening the district health information system; improving the distribution and availability of essential PHC drugs; enhancing the quality of clinical services; strengthening health management and supervision systems; and facilitating the integration of HIV/AIDS, STI and TB programs into PHC services. The assistance will be concentrated in the five historically disadvantaged provinces: Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, and NorthWest. Within these provinces, USAID assistance will be further concentrated in those districts that have been identified as priorities by the Provincial Departments of Health.

The PHC program originally focused its assistance efforts in the Eastern Cape Province. The successful elements of the program are now being replicated in Mpumalanga, NorthWest, and KwaZulu-Natal Provinces. Some program elements will be adopted nationwide such as drug and condom logistics and health information systems. Examples of successful programs, which will be replicated and expanded in the updated strategy, are youth-focused reproductive health services and system strengthening at the district and sub-district level. Certain ongoing HIV/AIDS initiatives will carry forward under the revised strategy. Chief among these are:

- Local grants for care and support for vulnerable households;
- National, provincial and local operations research;
- PMTCT and VCT programs;
- TB and opportunistic infections initiatives; and
- STI management.

Small grants program. The EQUITY project established a small grants program for which priorities are: a) community governance structures (training to strengthen or establish community health committees or hospital boards); b) developing and implementing community/HBC skills and programs (training for caregivers, especially for victims of AIDS or chronic illness); c) support for youth organizations in prevention of HIV/AIDS/STDS and TB (educational materials, workshops, counselling); and d) HIV/AIDS building of CBOs and smaller NGOs (training in proposal writing, budgeting and accounting for funds).

1.3 Description of IR-level Activities

IR 8.1: HIV/AIDS Prevention Measures Strengthened

By strengthening HIV/AIDS prevention measures, such as behavior change, reduction in the number of partners, condom use, knowledge of one’s status, it is expected that use of HIV/AIDS services will increase. Furthermore, HIV/AIDS prevention measures will be strengthened by the other IRs in the USAID/SA strategy as HIV/AIDS strategies, services, care and support will be integrated and supported by the existing PHC system. There are three sub-IRs and the following indicators to reflect and measure the proposed interventions for strengthening HIV/AIDS prevention measures.

It is anticipated that the presidential initiative for PMTCT will provide substantial additive funds and therefore

increased activities under this IR.

Sub IRs	Indicators
8.1.1 Increased availability of condoms, VCT and PMTCT services	<ul style="list-style-type: none"> • (National) Number of pregnant women who receive PMTCT services • Number of VCT centers with USAID assistance • Number of clients seen at USAID-assisted VCT centers • Number of clients tested at USAID-assisted VCT centers • Number of USAID-supported health facilities providing PMTCT services • Number of women with known HIV infections seen at USAID-supported PMTCT centers • Number of condoms distributed
8.1.2 Improved quality of condoms, VCT and PMTCT services	
8.1.3 Increased demand for condoms, VCT and PMTCT services	

Table 3 lists and categorizes, by threshold determination, the illustrative activities to achieve the results for each of the Sub-IRs for IR 8.1 through 8.5.

IR 8.2: Management of Sexually Transmitted Infections (STIs) Improved

Effective management of STIs is an important component of a comprehensive HIV prevention program, as proper management of STIs may reduce the rate of HIV infection by 40 percent (Grosskurth, 1998, Lancet). USAID/SA has collaborated with the South African government to mitigate the impact of STIs over the past five years. The Mission plans to continue providing assistance in improving the management of STIs under the revised health strategy based on the premise that improved management of STIs contributes to increased use of HIV/AIDS and other primary health care services.

IR 8.2 Sub-IRs	Indicators
8.2.1 Increased availability of quality STI services	<ul style="list-style-type: none"> • Number of clients provided services at STI sites • Correct management of STIs in randomly selected health facilities.
8.2.2 Improved quality of STI management	
8.2.3 Increased demand for STI services	

IR 8.3: Treatment for TB and AIDS Improved

8.3. Sub-IRs	Indicators
8.3.1 Increased availability of TB and AIDS treatment	<ul style="list-style-type: none"> • Proportion of districts implementing the DOTS TB strategy. • Number of USAID assisted ARV treatment programs. • Number of people reached by USAID assisted ARV treatment programs. • Number of HIV infected persons receiving ARV treatment through USAID assisted programs
8.3.2 Improved quality of TB and AIDS services	
8.3.3 Increased demand for TB and AIDS treatment	
8.3.4 Improved management of TB and AIDS support services	

IR 8.4: HIV/AIDS Care and Support Expanded

The Mission proposes three sub-IRs and the following indicators to reflect and measure the proposed interventions for expanding care and support.

8.4. Sub-IRs	Indicators
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8.4.1 Increased availability of quality HBC services	<ul style="list-style-type: none"> • Number of orphans and vulnerable children (OVC) programs with USAID assistance • Number of OVCs receiving care/support through USAID assisted programs • Number of USAID-assisted community and Home-Based Care (HBC) programs. • Number of Home-Based Care visits made in last calendar year
8.4.2 Increased availability of psychosocial support initiatives	
8.4.3 Increased access to community services for OVH	

IR 8.5. Other PHC Systems and Services Improved

Sub-IRs	Indicators
8.5.1 Increased availability of youth friendly services, FP, VCT, ANC, and PMTCT, and counseling	<ul style="list-style-type: none"> • Number of USAID assisted programs that include adolescent reproductive health services • Percent of providers in compliance with specific clinical guidelines in randomly selected health facilities • Percent of pregnant women attending antenatal clinic at least three times
8.5.2 Improved quality MCH/FP services at the local level	
8.5.3 Strengthened support systems (management and supervision)	

1.4 Multi-Sectoral Response to HIV/AIDS: Cross-SO Linkages

HIV/AIDS is a cross-cutting development issue in South Africa which affects all sectors in which USAID/SA is active. Because of the cross-cutting nature of HIV/AIDS in South Africa, the Mission proposes continuing to make limited HIV/AIDS funding available to other SO teams through this revision of the health strategy. To ensure compliance with Agency guidance on the use of HIV/AIDS funding, the Mission has developed clear procedures for identifying and approving the use of HIV funds by other SO teams.

Over the past several years, many of the other SO teams have supported HIV/AIDS initiatives as part of their normal operations. The following summary of activities indicates the breadth of multi-sectoral HIV/AIDS activities supported by other SOs. (Note: environmental examination of activities conducted under other SOs is made in separate IEEs addressing those SOs.)

SO1: Democracy and Governance:

- Strengthened the justice system’s ability to respond to violence and abuse of women and children.
- Empowering the victims of sexual abuse and witnesses to provide evidence in court.
- Strengthening awareness and the respect of human rights, including the rights of HIV positive people.
- Strengthening the capacity of local government to plan for its response to the HIV/AIDS epidemic.

SO2: Education:

- The introduction of an HIV positive Muppet (Kami) into the popular series, Takalani Sesame.
- Supported a major Department of Education conference that brought together teachers, administrators, students, traditional leaders and NGO representatives to plan and manage a collaborative response to the epidemic and examine options to mitigate consequences of HIV/AIDS on students and educators.
- The integration of HIV/AIDS learning and prevention material into the National Department of Education life skills curriculum for primary school students.
- Assistance to the Department of Education to conduct a workforce analysis of the impact of HIV/AIDS.
- Assistance to the National Youth Commission for a training project aimed at increasing levels of knowledge of HIV/AIDS among youth, providing support services through counseling and support groups and promoting positive living among those living with AIDS and vulnerable groups.

SO4: Economic Capacity:

- Support for the analysis of the economic impact of HIV/AIDS on different sectors, vulnerable groups and provinces in South Africa in collaboration with the Australian’s foreign assistance agency and DFID.
- Supporting a study for the development of a macro-economic forecasting model that incorporates the impact of AIDS.
- Analysis of the economic impact of HIV/AIDS on businesses in southern Africa.

SO5: Job Creation:

- Testing programs to provide fortified food for pregnant women.
- Incorporating HIV/AIDS awareness in the training of small and medium sized enterprises.
- Exploring links with community based job creation projects for vulnerable groups, including people living with HIV/AIDS.

SO6: Housing and Environment

- Housing guarantees for HIV vulnerable households.
- Assisting housing planning at the local level to initiate foster care units and cluster housing schemes for AIDS orphans.

1.5 Implementation Modalities (Phase I)

Implementation of the strategy is structured in two phases: Phase I is for the period 2003-2006. USAID/SA anticipates using most of the existing mechanisms for implementation of Phase I, but will seek greater synergies and collaboration across mechanisms. With the exception of the EQUITY project, all the local implementing mechanisms have been operational for three or fewer years and, because they are all achieving their intended results, will thus be continued through Phase I.

In consultation with the DOH, both parties agreed to the following “guiding principles” in implementing the updated strategy (Phase I):

1. Activities that are successful and consistent with DOH priorities should be continued.
2. Activities that are successful but not yet completed should be continued.
3. Activities are to be structured and implemented to maximize sustainability.
4. NGO activities supported by USAID should be integrated in the government’s program and/or be complementary to the government’s program.
5. Focus of activities should be on the continued provision of technical assistance consistent with the government’s priorities and needs.
6. Focus of activities should be on the local health district and municipality level.
7. Maximize the use of locally available expertise.

USAID/SA remains committed to continuing the types of assistance to the DOH currently provided in the areas of PHC (the Equity Project), condom logistics (John Snow, Inc), TB (Clapp and Mayne) under the updated strategy. In addition, in Phase I USAID/SA expects to continue its partnerships with South African organizations, Hope Worldwide, the Nelson Mandela Children’s Fund, Right to Care, and the Wits Health Consortium (each of these organizations has a three year agreement with USAID plus an option for an additional three years). Furthermore, SO 8 intends to continue making available to local implementing partners the services of U.S. technical assistance organizations such as POLICY (assistance to the DOH’s HIV/AIDS Directorate), QAP (assistance to Mpumalanga, NorthWest, KZN), MACRO (assistance for the 2003 South African District Health System (DHS), and JHPIEGO (assistance to the Department of Health) FHI (assistance to Nelson Mandela Children Fund). These organizations enhance the technical and human capacity of local institutions rather than to implement service delivery activities themselves.

Historically, the health team has obligated all but field support funds through the EQUITY Bilateral Agreement with the National DOH, and then sub-obligated those funds through a series of agreements and contracts to carry

out activities in support of the Bilateral Agreement objectives. In FY 2004, with the introduction of the Emergency Plan, US\$25.7 million in Track 1.5 Emergency Plan funds, \$11.8 million of which were field support, were obligated outside of the bilateral to meet the deadlines to receive funding from the Emergency Plan. These funds were obligated directly into existing instruments and into the PACT grants management Leader with Associate Agreement (referenced below). Additional Emergency Plan funds, expected to be awarded in May 2004 out of Emergency Plan Track 2 funds, will be obligated through the Bilateral Agreement. As a guiding principle, as much future funding as possible will be obligated through the Bilateral Agreement.

Under the Emergency Plan, implementation will be planned on an annual basis pending establishment by S-GAC of country level budgets and approval by S-GAC of specific activities submitted through Country Operational Plans each September. The Mission will respond to the Emergency Plan's mandate to work with new partners, as well as continuing many of the existing mechanisms over the extended strategy period. It will seek greater synergies and collaboration across mechanisms.

To implement the program effectively with a minimal number of management units, while ensuring the quality of assistance, USAID/SA plans to expand its assistance through an umbrella grants management and technical assistance agreement. This umbrella grants/contract program is intended to provide funding to organizations in support of USAID's health strategy and the National and Provincial DOH priorities for PHC, TB, STI and HIV/AIDS.

An APS will be used to facilitate the management of proposals/applications under the Emergency Plan. The APS, which fulfills the competition requirement of procurement, will outline for the public the types of programs the USG is willing to consider funding under the Emergency Plan, the terms under which they might be funded, when applications from the public would be considered and, most importantly, the caveats surrounding the likelihood of funding, etc.

The US Ambassador heads the Emergency Plan program at post, while a USG mission-wide task force, including representatives from USAID, the Embassy, CDC, Peace Corps, Department of Defense and the National Institutes of Health, is responsible for the operational management of the program. A senior management level steering committee provides strategic direction for the program.

1.6 Target Groups and Areas

Coverage of the updated health strategy will vary according to the nature of activities within each of the IRs and will broadly reflect USAID/SA experience and activities to date, the extent of the HIV/AIDS epidemic and PHC needs, and the priorities of the South African DOH. While much of the assistance will focus at the provincial, local health district and municipality levels, selected assistance will be provided at the national level, e.g., policy, condom and drug logistics, development of selected guidelines and standards, and the District Health Information Systems. In terms of target population, the majority of assistance under this updated strategy will concentrate on women and children, vulnerable households affected and infected by HIV/AIDS, and adolescents and youth.

2.0 COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

This section focuses on the current baseline situation in health as it relates to USAID/SA's program.

2.1 Overview: Current Status of Health and the HIV/AIDS Epidemic in South Africa (2003)

The Health Care System in South Africa. South Africa has had a highly fragmented public health system that consisted of a three-tier, 14-department (ministry) "system" designed to serve the different population groups separately. Communication among the various tiers and within tiers was generally poor even within the individual population group systems -- rendering the services structurally, functionally, and politically segmented. In addition, there was no opportunity for community involvement in helping to determine priorities and provide guidance to the system. Resource allocations under apartheid neglected select geographical areas, especially large proportions of the black and rural populations. Also, the health system favoured high technology, curative health care for the minority white population which it did serve. The result was an inequitable system, and key health status indicators reflect the system's biases and ineffectiveness. All of these factors resulted in a large, majority population, which was deprived of even basic primary health care. In addition to inequity, the previous health care system itself had many weaknesses. Historically, health planning and management were centralised. Information and other management systems were ineffective and fragmented. The same was true for human resource development and other critical elements of the system. Thus, SO 3 (the precursor to SO 8) chose to concentrate on overall health system strengthening.

Child survival. The infant mortality rate among African children is nearly 10 times higher than that of White children. The life expectancy of African and Coloured children at birth is 10 years less than that of White children. While diarrhoeal disease is the major cause of death among one to four year old African and Colored children, it accounts for only four percent of deaths of White children in this age category. In 1990, 74,283 cases of TB were identified for ages one to four, and of these, African and Colored children accounted for 98 percent. As with many other countries, early weaning of babies and low birth weight are both serious child survival problems. While breastfeeding is sustained for longer periods in rural areas, the duration of breastfeeding is declining, and the benefit of providing only breast milk for a period of four to six months is not widely appreciated or practised.

Reproductive health and family planning. The quality and effectiveness of reproductive health services are clearly poorest for South Africa's historically disadvantaged population. At least 30 percent of women in rural areas give birth at home, and a significant proportion of these births are unassisted by trained persons. The most common causes of maternal mortality are sepsis, haemorrhage, and hypertension. The contribution of complications from illegal abortions and obstructed labour to the maternal mortality rate is unknown, but the evidence indicates that illegal abortions are a significant contributor. In addition, two of the main contributors of morbidity and mortality among adolescents are pregnancy and STDs, yet health programs specifically targeting youth are virtually non-existent. Family planning has been a sensitive and political issue in the past. The South African Government now has the opportunity to develop effective maternal and child health care and women's services -- as part of the PHC service package -- that will meet the needs of clients to space and/or limit **births** in order to improve the health of both the mothers and children. More accessible family planning services will eventually yield results in decreasing fertility and reducing the population growth rate -- with corresponding economic and social benefits.

STDs/HIV/AIDS. In the past seven to nine years, the HIV epidemic has continued to progress rapidly, with a doubling rate of infection every 13-15 months. Approximately three million South Africans are currently infected with HIV, and more than 8,500 have been diagnosed with AIDS. Mathematical models predict that in the next five years, at least 250,000 HIV-infected people will start to develop AIDS symptoms. In addition, the results of the October/November 1998 national antenatal HIV survey show that more than 21 percent of women attending public health antenatal clinics were infected with HIV. KwaZulu-Natal had the highest rate 33 percent. The interrelationships between HIV/AIDS and STDs have been well documented internationally, and the aggressiveness of the African HIV epidemic has apparently been due largely to the high prevalence of STDs. In South Africa, STDs have been a neglected area of health care. Furthermore, according to calculations from the national DOH, approximately one out of every twelve people in South Africa will be infected with at least one STD within the next year.

In addition, HIV/AIDS is exacerbating the problem of TB in South Africa. In 2002 there were more than 180,000 reported cases of TB and more than half of these were infectious. More than 50 percent of the TB patients are HIV positive.

The South African Government is beginning to respond aggressively to the HIV/AIDS threat, though it must be acknowledged that it has been late in doing so. The HIV/AIDS pandemic began its dramatic rise simultaneously with the fall of apartheid and the installation of South Africa's first democratically elected government when attention was focused on ensuring a peaceful and democratic transition. Recognition of the issue now extends well beyond the DOH.

Given the multi-faceted impact of the epidemic, it is clear that the strategy in South Africa will continue to be multi-sectoral. The elements of USAID's multi-sectoral approach are based on linkages between the six SOs of the Mission and are outlined in this strategy document.

2.3 Medical Waste Disposal Regulations, Policies & Practices in RSA

SO 8, with its engagement in HIV/AIDS prevention, will be directly involved in situations where medical waste issues arise, so it is prudent for USAID/SA and its partners to be aware of and capable of reinforcing the application of medical waste disposal regulations, policies and practices. The RSA follows established guidelines for medical waste disposal. Detailed RSA guidelines are available in Program Files.

The draft (2004) *Policy Guidelines for the Management of Healthcare Waste* (drafted by Johann Kluge, Department of Health, South Africa) develops practical guidance for healthcare facilities. It lists the applicable legislation as follows:

- The destruction of pharmaceutical waste should be done in compliance with Regulation 27(1) (a) (b) (c), Regulation 27(2) and Regulation 27(3) of the Medicines and Related Substances Control Amendment Act (Act 90 of 1997) as required by section 35 of the Act.
- Cognizance should be taken of the Treasury Regulations section 19.6 issued in terms of the Public Finance Management Act, 1999
- Transportation of healthcare waste from the producer of the waste to the final disposal site should be done in compliance with the pertinent legislation.
- Cognizance should be taken of the requirements of the Environment Conservation Act No 73 of 1989 and the regulations with regard to waste management.

The RSA guidelines, *South African Bureau of Standards (SABS) of Code of Practices, Handling and Disposal of Waste Materials within Health Care Facilities*, Document Number - SABS 0248:1993 -- was originally approved by the Council of the South African Bureau of Standards on 25 February 1993². These standards established specific guidelines for the segregation, collection, movement and storage of the waste materials within health care facilities. The main objective is to decrease injury to personnel and the possible risks of spreading infection due to the improper handling of waste materials. The main features of this standard are as follows: a) a series of waste categories based on the WHO Report, *Safe Management of Wastes from Health-care Activities* (A Prüs, Department of Protection of the Human Environment, 1999) has been introduced; b) a clause on pharmaceutical waste appears in the standard; c) a classification system for waste containers has been developed; d) various procedures reflect modern current infection control practices; and e) the standard has been written in such a way as to reflect the practical aspects of handling waste.

Other operative guidance and regulations in South Africa include:

- Department of Environmental Affairs and Tourism, *White Paper on Integrated Pollution and Waste Management for South Africa, A Policy on Pollution Prevention, Waste Minimisation, Impact Management and*

² Note: SABS 0248 has been withdrawn. It is replaced by SABS 10248 which was approved May 28 2004.

Remediation.

- *Guidelines for the Destruction of Schedule 5 Medicines and Substances* (May 2003). Medicines Control Council (MCC) & Department of Health, Republic of South Africa.

These guidelines should be read, and implemented by the SO 8 Team, as applicable, in conjunction with the Medicines and Related Substances Control Act (Act 101 of 1965), and its supporting regulations.

As these guidelines are constantly evolving due to harmonisation initiatives and new scientific developments, SO 8 and its institutional contractors and grantees are advised to always consult the latest information available. The Medicines Control Council endeavours to keep abreast of such developments and to keep its application requirements and evaluation procedures and policies in line with “best international practice”. All destruction must take place in accordance with local municipal regulations regarding the disposal of chemical or medicinal waste. The applicant (person requesting destruction) may be requested to prove that the method of destruction is in accordance with such regulations.

Figures 2-4 illustrate representative blood-handling and healthcare hazardous waste management practices at a top-level health care facility in South Africa, the Baragwanath Hospital in Soweto.

3.0 EVALUATION OF PROJECT PROGRAM ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

USAID/SA, in adjusting its health strategy to more strongly address the HIV/AIDS epidemic, is *greatly increasing its support to key HIV/AIDS and STI prevention and response*, emphasizing their integration into PHC services (e.g., family planning, child health, reproductive health), and *scaling up the national and provincial capacities to respond*. Integration of key HIV/AIDS prevention activities into the PHC system will involve VCT, PMTCT, STIs, and condom social marketing.

With respect to increasing the availability of VCT and PMTCT services, USAID/SA will assist the DOH in its planned phased expansion of these services within the PHC system in selected provinces (e.g., Eastern Cape, Mpumalanga, KwaZulu-Natal, NorthWest, and Limpopo). As of 2002, more than 500 VCT sites are operational nationwide and USAID assistance has increased VCT in poorly resourced areas (e.g., Eastern Cape) and in several urban areas (Soweto, Cape Town), with the number of USAID-assisted sites increasing from eight in 2001 to 109 in 2002. Integrating VCT into the PHC system is a Government of South Africa priority and USAID/SA will continue to assist in this process through the provision of technical assistance, training, community mobilization.

Given this significantly expanding engagement, it is apparent that of all the activities the updated health strategy focuses on, the main possibility for causing unintended harm to the biophysical environment or human health, arises from bio-hazardous HCW management practices in the many types of VCT and PHC facilities to be supported in the selected provinces, local health districts and municipalities.

3.1 HIV/AIDS and Reproductive Health & Primary Health Care Programs Reviewed from the Perspective of Potential for Harm to Environment and Human Health, by IR.

IR 8.1: HIV/AIDS Prevention Measures Strengthened

USAID assistance to VCT Centers, ANCs and other health centers is being greatly expanded, and many women and other clients will be served throughout the country. Various proactive steps are being taken to increase the availability (and demand for) VCT and PMTCT services. The specifics of the support to be provided do not extend to the provision of supplies or rehabilitation of facilities (direct support). Rather it is focused on capacity strengthening to enhance access to, demand for, and quality of HIV/AIDS prevention measures (indirect support).

Because the programs USAID is supporting in Eastern Cape and other Provinces will serve as a model for lessons learned in PHC and because SO 8 will be involved in HIV/AIDS/STD services, it is prudent to consider, as part of the technical assistance, ways in which generation and disposal of medical waste can be managed.

Because USAID activities could directly or indirectly result in the generation of medical waste, SO 8 shall take a proactive role to help ensure adequate application of medical waste disposal procedures. While disposal often emphasizes immunization programs and HIV/AIDS/STD blood testing, the overall issue of disposal extends also to other bio-hazardous waste, including afterbirth, body parts, contaminated materials, and toxic or hazardous materials used in laboratories and in treatment protocols. See Section 3.2.1 for more specific treatment of this issue area.

Other complementary activities of this IR will have no potential for unintended environmental impacts: technical assistance for national condom distribution; assistance to local health districts and municipalities to develop their own local health district and municipality based VCT plans; support to development of PMTCT communications programs; an ARV registry to track side effects of Nevirapine and other ARVs; and incorporation of youth-focused HIV/AIDS activities into school curricula.

IR 8.2: Management of Sexually Transmitted Infections Improved

Effective management of STIs should take into consideration the proper management of HCW, and seek to raise awareness. Most of IR 8.2 activities will have no environmental impacts per se.

Here again, as scale-up proceeds across South Africa, there is a golden opportunity to take advantage of existing plans to develop and adapt comprehensive STI guidelines and in-depth checklists, incorporating hazardous waste management messages. Likewise, this consideration should be taken into account in monitoring activities, e.g., to monitor facility compliance with standard guidelines for syndromic management of STIs.

SO 8 will need to pay special attention to ensure compliance with South African and US NIH rules when it comes to conducting clinical and operational research with human subjects. For example, USAID/SA is initiating a collaboration with WHO, CDC and National Health Laboratory Service to explore the impact of herpes on HIV; USAID, DOH and FHI are completing a feasibility study on provision of STI treatment kits in public sector facilities in South Africa).

SO 8 shall use existing guidelines and shall monitor activities to ensure appropriate application of such principles and requirement at all facilities across South Africa, certainly at least at those supported by USAID/SA. This could be included in the plans to monitor correct management of STIs in randomly selected health facilities.

IR 8.3: Treatment for TB and AIDS Improved

Treatment for AIDS encompasses more than the provision of ARV therapy, it includes the treatment for opportunistic infections such as TB. USAID/SA will continue to provide assistance in strengthening local capacity for treating opportunistic infections associated with HIV/AIDS. This program will provide technical assistance, such as to the South Africa’s National TB Control Program, to improve the capacity of public health facilities to treat opportunistic infections. Other efforts involve diverse TB education, DOH awareness-raising activities, and IEC campaigns. Assistance will be provided to the private sector with insurance schemes to increase coverage for ARVs and adopt models of HIV/AIDS treatment. Support will also be provided to strengthen information systems across all provinces, and to strengthen local health district and municipality level budgeting and financing schemes. Activities such as these have no potential for causing harm to the biophysical environment.

On the other hand, *certain elements of this IR do have the potential for unintended negative impact* if proper procedures are not carefully adhered to. In addition, there are opportunities for SO 8 to be proactive in bio-hazardous waste management. IR elements of concern are:

- Expanded TB screening and treatment programs at the primary health care setting, among the target communities and provinces.
- Improved quality of TB laboratory and diagnostic systems (training, compliance testing)
- Sputum transfer to facilitate accurate TB diagnosis.

For two other activity categories, SO 8 should be aware of the *potential for unintended harm, and should monitor for environmental consequences*:

- Operations research to test models to improve TB case detection and/or treatment compliance.
 - Small grants to community NGOs to improve and expand DOTS programs in rural, urban and peri-urban areas.
- These activities and mitigation measures are discussed below.

The very purpose of the SO 8 program is to promote improved quality of TB and AIDS services, and improved management of TB and AIDS support services, while striving for increased demand for and use of quality STI prevention and treatment services. Inherent in these interventions are activities to ensure there will be no unintended negative impacts to human health.

IR 8.4: HIV/AIDS Care and Support Expanded

“Care and support” encompasses a large range of activities that follow the WHO *continuum of care*: facility-based

care, HBC, Nevirapine treatment for PMTCT, hospice care, post-test counseling for HIV positive people, support group services for pregnant positive women and others who test positive, community-based support for orphans and vulnerable households, promotion of inter-sectoral task teams, and programs to reduce stigma. USAID/SA has focused care and support to both people living with HIV/AIDS and to OVCs affected by HIV/AIDS. For OVCs, this has included household community-based services through NGOs, linking interventions to government services and lay counseling. Interventions for people living with HIV/AIDS include treatment of opportunistic infections, hospice care in Soweto, facilitating ARV training and treatment in the private sector.

The great preponderance of support in this IR is in the form of technical assistance at the national and provincial level, such as to the DOH to implement national policies, guidelines and strategies for care and support, resulting in improved HIV/AIDS clinical, palliative, home-based and community-based services and treatments, and to provide and expand community-based care initiatives such as bereavement counseling and training, and replicate successful services in other communities. An important initiative includes increasing the availability of psychosocial support initiatives. *None of the above has the potential for direct harm to the biophysical environment.*

There is an opportunity for quality of health care messages to include HCW management material and to provide for appropriate disposal facilities in home-based and community-based situations. This is in connection with the expansion of community-based home visiting and home-based care, including palliative care, through NGOs, and FBOs with a mix of direct provision and through grants to multiple CBOs. NGOs and FBOs will work closely with local social service agencies such as health, education, and social development to ensure that vulnerable households and children have access to the social grants and support services to which they are entitled (e.g., foster care grants, child support grants, disability grants, etc.). These grants will not involve biophysical interventions apart from the provision of healthcare products and services.

IR 8.5. Other PHC Systems and Services Improved

The South African DOH and USAID/SA decision to strengthen the local health district and municipality as the vehicle to provide both PHC and HIV/AIDS services is based on the assumption that small geographic areas with decentralized management are more likely to ensure that intervention strategies meet local needs and are successful. The importance of a functional sub-local health district and municipality health system capable of integrating PHC and HIV prevention and treatment interventions is vital to slowing down the epidemic and to the success of this SO.

USAID/SA's comparative advantage lies in the experience already gained in working with the Department on improving systems, building capacity and strengthening PHC service delivery. An optimum opportunity to address environmental harm and unintended consequences is to capitalize upon the plans for adapting and expanding quality assurance models, as they target new areas, including the Eastern Cape, KwaZulu-Natal, Mpumalanga, Gauteng and NorthWest. This will involve dissemination of completed quality assessment tools for IMCI, STI and HIV/AIDS service and management.

Other interventions will focus on strengthened nutrition interventions in the PHC system, and strengthened support systems (management and supervision), and expanded training, such as of local, municipal and district hospital boards and hospital committees in target provinces. Further, the work will seek to improve and strengthen the roll out of the national DHIS system, and improve drug supply and logistics management systems.

None of these interventions have potential for direct harm to the biophysical environment.

However, the very engagement in expansion of VCT and PMTCT services in the PHC setting (IR 8.5.1), and efforts to improve the quality of vaccination services and immunization coverage (IR 8.5.2), suggests a heightened level of responsibility for compliance with specific standards and guidelines. SO should pursue this by monitoring one of the indicators for IR 8.5, for example: "percent of providers in compliance with specific clinical guidelines in randomly selected health facilities."

3.2 Thematic Review of Technical Intervention Categories for HIV/AIDS and Reproductive Health &

Primary Health Care Programs: Potential for Harm to Environment and Human Health

3.2.1 Bio-hazardous Healthcare Waste (HCW): the primary environmental and health issue.

The only activity carrying significant risk of unintended impact on the environment or humans is the blood testing service provided with the VCT Centers, and the associated bio-hazardous wastes which may be generated in the process. Given the potential for contamination while testing whole blood, the HIV testing materials that could be used under this program are considered hazardous waste. Likewise the Rapid Testing Kits (RTKs), with their packaging of various plastics, foils, reagents, capillary pipettes, etc., create solid waste that must be disposed of properly..

The mismanagement of HCW poses considerable risks to people and the environment. Healthcare workers, patients, waste handlers, waste pickers, and the general public are exposed to health risks from infectious waste (particularly sharps), chemicals, and other special HCW. Improper disposal of special HCW, including open dumping and uncontrolled burning, increases the risk of spreading infections and of exposure to toxic emissions from incomplete combustion.

Transmission of disease generally occurs through injuries from contaminated sharps. Infections of particular concern are hepatitis B (HBV), hepatitis C (HCV), and HIV. HBV, for example, can remain infectious for a week, even dried at room temperature, and the probability that a single needle stick will result in sero-conversion is approximately 30 percent. For HIV and HCV, the probability that a single needle stick will result in sero-conversion is 0.3-0.5 percent and two to five percent, respectively (WHO, 1997). In the healthcare sector alone, the WHO estimates that unsafe injections cause approximately 30,000 new HIV infections, eight million HBV infections, and 1.2 million HCV infections worldwide every year. Other risks arise from reagents (particularly laboratory reagents), drugs, and mercury thermometers.

3.2.2 Bio-Hazardous Waste Disposal

This IEE raises a minor concern in connection with the expanded community-based distribution of contraceptives: the disposal of condoms and other plastics. To date, potential issues associated with the disposal of RTKs with their diverse sets of materials have not been adequately assessed in South Africa. Management, treatment and disposal of special HCW needs to be conducted in conjunction with an overall waste management program for each locality. SO 8's support for expanding community-based distribution of contraceptives could indirectly harm the environment if materials are not disposed of properly. SO 8 should ensure, to the extent practicable, that provision is made for disposal of these materials.

3.2.3 Blood Safety

Environmental issues associated with blood safety activities center on the collection, handling, and disposal of blood and laboratory products such as sharps and syringes. In the event that USAID supports blood safety activities in collaboration with the CDC, there is potential for environmental harm. Therefore, SO 8 should ensure that provision is made, to the extent practicable, for the incorporation of standard practices and protocols for safe handling and disposal of these materials, in consultation and coordination with MOH and other partners.

3.2.4 Voluntary Counseling and Testing (VCT) (IR 8.1, etc.).

The counseling component of the VCT program does not raise environmental concerns, and in fact presents an opportunity to deliver positive messages regarding the need to properly dispose of potentially harmful materials (such as condoms).

The testing component of the VCT program could have an effect on the environment related to the collection, handling, and disposal of blood products. SO 8 should make provision for the incorporation of standard practices and protocols for the safe handling and disposal of these materials, in consultation and coordination with MOH and

other partners.

Many VCT Centers have been established around South Africa. VCT centers use different models: the VCTs may be based at hospitals, at or near other government facilities (such as a clinic), antenatal or other PHC clinics, at NGOs, CBOs, with churches, and in larger and smaller population centers. Also, some autonomous “private sector” sites may exist in South Africa (this is unconfirmed information). VCT focuses on increasing the number of users and on expanding high-quality follow-up services, which are being promoted under brand names. The VCT deals only with the “worried well,” not clinical cases or diagnosed patients.

VCT programs have been transformed by the availability of RTKs, which provide results in minutes. Formerly, blood had to be drawn in some quantity and sent to be tested at the centralized blood testing service. Results were usually not available for at least a week. The introduction of RTKs has supplanted the need to ship blood, and thus greatly reduced the risks involved in handling and transport. The exact make-up of the kits has not yet been determined, but there will be at least three different types (trademarked) introduced to provide some measure of redundancy and verification of results.

3.2.5 Prevention of Mother-to-Child Transmission (IR 8.1)

Most PMTCT activities entail counseling, referral services, and care for family members. These activities will not affect the environment. However, PMTCT also involves blood testing and ARV therapy (Nevirapine) for HIV+ pregnant women, which could have environmental impacts and will therefore require procedures and protocols for the safe handling and disposal of medical and bio-hazardous materials, including blood and other body fluids.

3.2.6 Safe Medical Injections: Immunizations and Vaccinations (IR 8.5).

Support for immunizations and vaccinations, associated with MCH/FP center activities, could result in environmental impacts; in addition, these activities raise human health concerns. Environmental and human health impacts could occur during collection, handling, and disposal of medications and laboratory products such as sharps and syringes. In the unlikely event that USAID support involves safe injection activities (e.g., in collaboration with the CDC), So should ensure provision is made for the incorporation of standard practices and protocols for safe handling and disposal of these materials, in consultation and coordination with the MOH and other partners.

3.2.7 Rapid Testing Kits³

RTKs have arisen in the past five years as by far the predominant testing procedure for assessing HIV/AIDS risk and exposure. As of 2001, HIV testing technologies could identify:

- Antibodies to HIV (e.g., Enzyme Immunoassay (EIA), rapid test, Western blot, immunofluorescence assay, particle agglutination)
- Specific HIV antigens (e.g., EIA, antigen testing)
- HIV viral nucleic acid (e.g., by polymerase chain reaction or other techniques)
- HIV (by viral culture)

Many types of specimens can be used with HIV testing technologies for HIV biological surveillance: whole blood, plasma, serum, oral fluids, and urine. The choice of specimen collected depends on logistics, populations and sites selected, and the HIV testing strategy. Specimens must be collected, tested, and stored in an appropriate manner in order to obtain accurate and reliable results.

³ Adapted from “Managing Commodities for VCT in the Era of Scaling Up. “(WHO - Blood Safety and Clinical Technology Conf., Sept. 2003, Nairobi), and from World Health Organization and Joint United Nations Programme on HIV/AIDS, 2001.

Blood (whole blood, serum, plasma) is the preferred specimen for testing because it has a higher concentration of HIV antibodies than urine or oral fluids. It also allows for additional routine testing, including syphilis, hepatitis B, and hepatitis C, and for special studies of HIV type and subtype and antiretroviral resistance (World Health Organization and Joint United Nations Programme on HIV/AIDS, 2001).

Management of a HIV/AIDS test program requires support of the goals and objectives of quality assurance systems. All testing sites must comply with the South African Rapid HIV/AIDS Testing Protocol. Continued validation of the test methods, in coordination with management review will provide a high degree of assurance that the test methods meet specifications of accuracy, sensitivity and specificity. While validation issues are beyond the bounds of this IEE, environmental issues arise based on the disposal of these kits. They contain a range of plastics, metal foils, glass capillary tubes, reagents, filter strips, etc., and should be subject to appropriate disposal procedures.

3.2.8 Incineration

It behooves the IEE author, in his capacity as promoter of environmental responsibility, to point out some issues which are admittedly beyond the immediate manageable interest of the SO 8 Team. Incineration of waste can create a chemical pollution and public health problem, especially if low-temperature incineration is involved and where large quantities of HCW are burned. Medical waste incineration is considered a leading source of dioxin and mercury emissions. These emissions contaminate fish, meat and dairy foods, and when ingested, the dioxin and mercury is stored in fatty tissues. Dioxin has been linked to endometriosis, learning disabilities, birth defects, infertility, nervous system disorders and cancer. Mercury is a potent neurotoxin and reproductive toxin.

Environmental and health problems are also associated with incinerator ash, which needs special disposal, often as a hazardous waste.

3.2.9 Addressing Operational Research Priorities (IR 8.2.2)

In the revised, expanded SO 8 Health program, support to vaccine development is dropped, but support continues for applied clinical research and pilot innovative treatment modalities to treat STDs and reduce their prevalence. On-going behavioral and operations research are important for the development and evaluation of new tools for preventing HIV transmission and for providing improved services for those living with HIV and AIDS. Under the revised health strategy, USAID will continue to provide technical and financial support to such intervention-linked research with special emphasis being given to studies that can be replicated and/or taken to scale.

This set of activities may result in environmental impacts since medical waste will be generated and will require disposal.

SO 8 does not plan to support basic research, infrastructure development, surveillance, laboratory services or operational financing. Nevertheless, to the extent that USAID provides technical assistance for protocols, sampling, ethical guidelines and development of a plan to test vaccines, SO 8 should take every caution in order to ensure that professionally recognized guidelines and procedures are adhered to.

3.2.10 Orphans and Vulnerable Children Care and Support (IR 8.4)

There are no obvious anticipated negative environmental consequences related to OVC activities. The priority is on assuring access to a basic package of care that includes treatment of TB, treatment and prevention of other opportunistic and AIDS related illnesses, and the provision of palliative care to reduce suffering and enhance the quality of life. In the updated strategy, NGOs and FBOs supported by USAID/SA will work closely with local social service agencies such as health, education, and social development to ensure that vulnerable households and children have access to the social grants and support services to which they are entitled (e.g., foster care grants, child support grants, disability grants, etc.). See the Small Grants section below.

3.2.11 Anti Retroviral Therapy (IR 8.3)

Environmental issues associated with ARV Therapy center on the collection, handling, and disposal of blood products, other body fluids, medications, and laboratory products such as sharps and syringes. SO 8 should make provision for the incorporation of standard practices and protocols for the safe handling and disposal of these materials, in consultation and coordination with MOH and other partners.

3.2.12 Palliative Care, Home-based and Community-based Services and Treatments (IR 8.4)

Expanded community-based home visiting and HBC, including palliative care, often occurs through NGOs and FBOs with a mix of direct provision and grants to multiple CBOs. Palliative care will not normally result in environmental impacts, as it involves mainly provision of a range of counseling, information, training, and referral services, none of which entail the use or generation of medical or hazardous products. To the extent that it does involve administration of HIV testing or provision of medical supplies and equipment, infection prevention and waste disposal messages should be disseminated.

3.2.13 Small Grants Programs (IR 8.3, IR 8.4)

An often used methodology to get programming to the community level is through a small grants program, administered via CBOs, NGOs, and FBOs, to provide, for example, palliative care to vulnerable households, developing and implementing community/HBC skills and programs (training for caregivers, especially for victims of AIDS or chronic illness). SO 8 is providing small grants to community NGOs to improve and expand TB programs via DOTS programs in rural, urban and peri-urban areas. SO 8 is also providing small grants for community governance structures (training to strengthen or establish community health committees or hospital boards); support for youth organizations in prevention of HIV/AIDS/STDS and TB (educational materials, workshops, and counseling); and strengthening HIV/AIDS CBOs and smaller NGOs (training in proposal writing, budgeting and accounting for funds).

Small grants are not disbursed for local governance initiatives which involve infrastructure improvements. In the event that such activities might be contemplated at some point, environmental impacts could result; therefore, an amended IEE should be prepared and an environmental screening process would need to be introduced.

3.2.14 Clinical Care (non-ARV) and Trials (IR 8.4)

As with VCT and PMTCT above, environmental impacts could result from the generation of medical and bio-hazardous wastes. SO 8 should ensure that provision is made for the incorporation of standard practices and protocols for the safe handling and disposal of these materials, in consultation and coordination with MOH and other partners.

Clinical testing involves protocols for involving human participants in drug and treatment trials. SO 8 should ensure these comply with regulations governing the use of human subjects in research (see Sect. 4).

3.2.15 Social Marketing & Other Prevention Activities

There are no anticipated negative environmental consequences related to social marketing, RTKs, VCT, and other prevention activities. These activities present an opportunity to deliver positive messages about personal and household hygiene, sanitation, and proper disposal of condoms and other potentially harmful materials.

3.2.16 Behavior Change, Abstinence, Faithfulness Messages

There are no anticipated negative environmental consequences related to abstinence/faithfulness activities. But they do present an opportunity to deliver positive messages about hygiene, sanitation, and proper disposal of condoms and other potentially harmful materials.

3.2.17 Activities *not* Funded by USAID/SA SO 8: Health Facilities' Rehabilitation or Construction

Repair, rehabilitation or construction of health facilities and provision of potable water sources and sanitation facilities are activities that could have environmental consequences; however, the SO 8 program does not intend to support any of these. In addition, SO 8 plans no interventions in malaria vector management; the use and social marketing of insecticide-treated bednets; or other pesticide use.

In South Africa, the Japanese are providing support for the construction and refurbishment of hospitals. The Belgian government is funding several DOH pilot sites to improve the integration of HIV/AIDS and TB services. The Germans are providing financial support to improve the physical infrastructure of community health facilities in the Eastern Cape and KZN.

3.3. Field Monitoring Visit by the REO to an Apex Health Care Facility Laboratory and VCT Clinic

In March 2002, the REO and the USAID/SA MEO visited a representative VCT center at the Chiawelo Perinatal Clinic, Baragwanath Hospital, Soweto, as well as Central Laboratory for the Perinatal Unit, at the Baragwanath Hospital, Soweto, South Africa. The Baragwanath attends to some 28,000 deliveries per year, and is one of the largest single hospital complexes in the world.

The Central Laboratory for the Perinatal Unit has a Standard Operating Procedures Manual for Blood Handling, as well as one for research and monitoring work with participants in trials. Bio-hazardous waste containers are provided in adequate numbers. RTKs for HIV/AIDS testing using small quantities of whole blood and serum were just becoming the predominant technology for testing mothers, one year-olds, and others. Whole blood was still being handled for other purposes, but the RTK make that less necessary. At the time, three different kits were in use and being evaluated: Determine® (Abbott Labs), Uni-Gold® (Trinity Biotech), and OraQuick® (OraSure).

Blood products are labeled with warnings such as "Bio-hazardous Waste," "Blood Precautions" or "AIDS Precautions." All containers visibly contaminated with blood are sterilized with a suitable disinfectant, like sodium hypochlorite, and the rinsates are poured down the drain. All blood and serum specimens are placed in a second container (such as an impervious bag) for transport. Soiled articles are placed in an impervious bag labeled as above before being sent for disposal. Bio-hazardous waste is collected two- to three times a week for incineration by a commercial specialist waste collection firm (at the time, Buhlke Waste (Tel. 909-7025, 866-2316)).

Needles are not bent after use but put in a puncture-resistant sharps containers used solely for their disposal. These designated containers are purpose-made, often plastic, plastic-lined cardboard, or fiberboard-sided, metal-ended cans, and clearly labeled as "Medical Danger," "Hazardous," "Contaminated Sharps," "Safe Bin," "To Be Incinerated" and the like.

Blood testing conducted in the Chiawelo Perinatal Clinic's testing centers is part of an existing system for processing tests and wastes. Likewise, vaccinations and immunizations appeared to follow the highest standards. The MOH follows WHO guidelines (developed with the CDC in Atlanta) for disposing of blood and other medical waste products.

Conclusions. The process in place in an apex institution in South Africa to deal with the biological risks associated with HIV/AIDS-tainted blood is exemplary, including institution of a sharps management system. However, the situation in other smaller hospitals and health posts and small clinics around the country is less clear. Nor have all the potential risks associated with the new testing kits been sorted out. Ultimately they are responsible for a considerably reduced volume of blood being moved to testing centers, reducing the potential for harm to the environment and human health.

Finally, there are risks associated with incineration, as described above. In the case of the Central Laboratory for the Perinatal Unit, incineration is the main method for managing bio-hazardous waste.

4.0 RECOMMENDED MITIGATION ACTIONS (INCLUDING MONITORING AND EVALUATION)

4.1 Recommended Threshold Determinations

SO 8’s IEE threshold determinations are tabulated below in Table 2 with 22 CFR 216 citations, and a summary of key impact issues and conditions. Conditions relate to mitigation of potential impacts or represent proactive opportunities for transmitting positive messages about avoiding unintended and unanticipated risks to the biophysical environment or human health.

Table 2: Summary of Recommended Threshold Determinations for USAID/SA SO 8: Increased Use of HIV/AIDS and other PHC Services.

Code: CE = Categorical Exclusion; ND = Negative Determination, no Conditions; ND/C = Negative Determination with Conditions.

Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
IR 8.1: HIV/AIDS Prevention Measures Strengthened		
<p>IR 8.1.1. Increased Availability of Condoms, and VCT and PMTCT Services</p> <ul style="list-style-type: none"> • Technical assistance to NDOH to sustain national condom distribution success. • Assist local health districts and municipalities to develop their own local health district and municipality based VCT plans and access funding from the NDOH for VCT services. • Support PMTCT communications programs and a PMTCT/Nevirapine registry to track side effects of Nevirapine. • Incorporate youth-focused HIV/AIDS activities into school curriculum. 	<p>CE 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers.</p>	<p>CE applies except to the extent that activities might directly affect the environment (such as construction of facilities, water supply systems, waste water treatment extent designed to include activities, etc.),</p>

D.3 South Africa PHCs

Figures 2-4. Blood handling procedures in South Africa. Photos taken at the Baragwanath Hospital, an apex health care institution in Soweto, South Africa. Figures 1 & 2 are from the Central Laboratory for the Perinatal Unit. (Photos by W.I. Knausenberger, USAID/REDSO, March 2002).

Figure.2. Rapid Testing Kits for HIV/AIDS infected blood, oral fluid.



2.a. Determine® in-vitro diagnostic test kits for HIV/AIDS 1 & 2. Manufacturer: Abbott Labs



2.b. OraQuick® Rapid HIV 1 & 2 Antibody Test package. Manufacturer: OraSure Technologies, USA

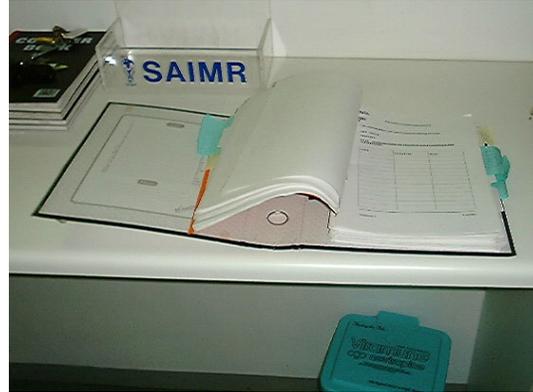


Figure 4. Voluntary Counselling and Testing (VCT) Center at Chiawelo Perinatal Clinic, Baragwanath Hospital, Soweto. Note well-marked and -used bio-hazardous collection vessels at right on floor near sink.



Figure 3. Central Laboratory Standard Operating Procedures Manual for Blood Handling. Bio-hazardous waste container at bottom.

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Table 2 cont'd.

Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
<p>IR 8.1.1</p> <ul style="list-style-type: none"> • Increase VCT services for Antenatal Clinic (ANC) clients. • Strengthen public-private partnerships at the community level to increase the availability (and demand for) VCT and PMTCT services. 	<p>Negative Determination with Conditions , per 22 CFR 216.3(a)(2)(iii)</p>	<p>-Activities may involve testing and therefore contaminated blood handling, used syringes, sharps, etc</p> <p>Conditions: SO and extended team to ensure proper disposal of medical waste</p> <ul style="list-style-type: none"> - A medical waste management program must be developed and implemented by the implementing organizations. - Promote taking precautions for prevention of transmission of HIV, hepatitis B virus, and other blood-borne pathogens in health-care settings <p>-Provide training and TA in the management of health care wastes appropriate to the South African environment, to come up with disposal mechanisms that are cost effective and safe. Refer to the Africa Bureau’s <i>Environmental Guidelines for Small Scale Activities in Africa</i>, Pt. UU, Ch. 9 titled, ‘Healthcare Waste: Generation, Handling, Treatment and Disposal’. The URL to consult is: http://www.encapafrika.org/SmallScaleGuidelines.htm</p> <p>See Section 4.2</p>
<p>IR 8.1.2. Improved Quality of Condoms, and VCT and PMTCT Services</p> <ul style="list-style-type: none"> • Assist DOH in updating the National Condom Policy Guidelines. • Training for healthcare clinic staff on VCT and PMTCT services. • Assist DOH to develop and implement guidelines for quality measures and proper maintenance of client confidentiality with respect to VCT and PMTCT. • Provide support for expanding the PMTCT continuum of care model and quality assurance measures in other provinces. 	<p>CE</p> <p>22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers.</p>	<p>These activities present an opportunity to deliver positive messages about personal and household hygiene, sanitation, and proper disposal of condoms and other potentially harmful materials:</p> <ul style="list-style-type: none"> - Training for healthcare clinic staff on VCT and PMTCT services. - Assistance to DOH to develop and implement guidelines for quality measures
<p>IR 8.1.3 Increased Demand for Condoms, and VCT and PMTCT Services</p> <ul style="list-style-type: none"> • Foster partnerships with the private sector to provide VCT services to industry. 	<p>Negative Determination with Conditions , per 22 CFR 216.3(a)(2)(iii)</p>	<p>Activities will increase testing and therefore contaminated blood handling, used syringes, sharps, testing, kits, etc</p>

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Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
		- Condition: SO and extended team to ensure proper disposal of medical waste
<p>IR 8.1.3</p> <ul style="list-style-type: none"> • Assist the DOH in launching its branded condom. • Increase community level behavior change strategies with a focus on youth. • Provide limited assistance in strengthening national and provincial communication strategies (e.g., National helpline, TV drama series aimed at youth) that complement the activities of other organizations. • Integrate PMTCT and VCT communication messages with other health messages (ANC, IMCI, TB). • Train and mobilize youth peer educators and youth clubs in partnership with the DOH and local NGOs. 	<p>CE: 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers; and, 216.2 (c)(2)(viii) for programs involving nutrition, health care or population and family planning services.</p>	<p>CE applies except to the extent that activities might directly affect the environment (such as construction of facilities, water supply systems, waste water treatment, etc.).</p>
IR 8.2: Management of STIs Improved		
<p>IR 8.2.1. Increased Availability of Quality STI Services</p> <ul style="list-style-type: none"> • Assist DOH in the development, monitoring, evaluation and expansion of the STI program, including the placement of STI coordinators at the Provincial level (if requested). • Expand networks for prevention and treatment of STIs, especially among high-risk populations. 	<p>CE 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings.</p>	<p>CE applies except to the extent that activities might directly affect the environment (such as construction of facilities, water supply systems, waste water treatment, etc.).</p>
<p>IR 8.2.1</p> <ul style="list-style-type: none"> • Increase public-private partnerships in order to expand STI prevention and treatment services (e.g., mining companies) • Assist in fully integrating STI services into PHC facilities at the local health district and municipality level. 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.</p>
<p>IR 8.2.2 Improved Quality of STI Management</p> <ul style="list-style-type: none"> • 8.2.2 Conduct clinical and operational research (e.g., USAID/SA is initiating a collaboration with WHO, CDC and National Health Laboratory Service to explore the impact of herpes on HIV; USAID, DOH and FHI are completing a feasibility study on provision of STI treatment kits in public sector facilities in South Africa). 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Follow pertinent RSA laws and regulations. Also, recommend following U.S. National Institutes for Health (NIH) guidelines for research involving human subjects. See 45 CFR Part 45. Protection of Human Subjects http://ohrp.osophs.dhhs.gov/humansubjects/guidance/45cfr46.htm</p>
<p>IR 8.2.2 Improved Quality of STI Management</p>	<p>CE</p>	

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Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
<ul style="list-style-type: none"> • Expand training in PPT to adult high-risk groups (e.g., mining community). • Adapt STI comprehensive guidelines and in-depth checklists and scale-up its use across South Africa. • Assist DOH to monitor facility compliance with standard guidelines for syndromic management of STIs. 	<p>22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers; and, 216.2 (c)(2)(viii) for programs involving nutrition, health care or population and family planning services.</p>	<p>CE applies except to the extent that activities might directly affect the environment (such as construction of facilities, water supply systems, waste water treatment, etc.).</p> <p>Adapt STI comprehensive guidelines and in-depth checklists and scale-up its use across South Africa.</p>
<p>IR 8.2.3 Increased Demand for STI Services</p> <ul style="list-style-type: none"> • Increase peer education activities on STI treatment in the mining industry (with more male involvement). • IEC communication strategies on recognition and treatment of STIs. • Increase the number of truck stop clinics that provide STI services 	<p>CE -- 22 CFR 216.2 (c)(2)(i): education, technical assistance or training; 216.2 (c)(2)(v): document and information transfers.</p>	
IR 8.3: Treatment for TB and AIDS Improved		
<p>IR 8.3.1. Increased Availability of TB and AIDS Treatment</p> <ul style="list-style-type: none"> • Integrate and expand TB screening and treatment into the PHC setting and the community (DOTS strategy). • Operations research to test models to improve TB case detection and/or treatment compliance. • Small grants to community NGOs to improve and expand DOTS programs in rural, urban and peri-urban areas. 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.</p>
<p>IR 8.3.1. Increased Availability of TB and AIDS Treatment</p> <ul style="list-style-type: none"> • Provide technical assistance to the South Africa’s Nat’l TB Control Program. • Provide assistance in improving the capacity of public health facilities to treat opportunistic infections associated with HIV/AIDS. 	<p>CE 22 CFR 216.2 (c)(2)(i), education, technical assistance or training.</p>	<p>CE applies except to the extent that activities might directly affect the environment (such as construction of facilities, water supply systems, waste water treatment, etc.),</p>
<p>IR 8.3.2. Improved Quality of TB and AIDS Services</p> <ul style="list-style-type: none"> • Expand TB programs using community-based DOTS guidelines among target provinces 8.3.2. • Improve the quality of TB laboratory and 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.</p>

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Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
<p>diagnostic systems (training, compliance testing) 8.3.2.</p> <ul style="list-style-type: none"> • Ensure sputum transfer is expedited in order to facilitate an accurate TB diagnostic process 8.3.2. • Assist the DOH's plan to establish Regional Training Centers for training health care professionals in AIDS services. • Increase private sector partnerships for ARVs 		<p>USAID supported activities should make provision for the incorporation of standard practices and protocols for the safe handling and disposal of bio-hazardous materials, in consultation and coordination with MOH and other partners.</p>
<p>IR 8.3.2</p> <ul style="list-style-type: none"> • Expand HIV/AIDS clinical training to General Practitioners and senior level nurses to treat AIDS-related illnesses. • Assist the DOH's plan to establish Regional Training Centers for training health care professionals in AIDS services.. • Increase private sector partnerships for ARVs. 	<p>CE – 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii).</p>	
<p>IR 8.3.3. Increased Demand for TB and AIDS Treatment</p> <ul style="list-style-type: none"> • Incorporate TB screening into existing services (V PMTCT, ANC, etc.) 8.3.3. 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.</p>
<p>IR 8.3.3. Increased Demand for TB and AIDS Treatment</p> <ul style="list-style-type: none"> • Increase TB education, promotion of World TB Day and support other DOH awareness-raising activities. • Develop combined and separate TB and HIV/AIDS IEC campaigns, including targeted messages. • Assist the private sector with insurance schemes to increase coverage for ARVs and adopt models of HIV/AIDS treatment. 	<p>CE -- 22 CFR 216.2 (c)(2)(i), education, technical assistance or training.</p>	<p>Clinical guidelines used by providers should include specific measures to deal with bio-hazardous waste. Inspect randomly selected health facilities.</p>
<p>IR 8.3.4 Improved Management of TB and AIDS Support Systems</p> <ul style="list-style-type: none"> • Strengthen and institutionalize the DHIS information system across all provinces. • Strengthen local health district and municipality level budgeting and financing schemes. • Strengthen distribution systems (especially for high-priority drugs) and management and supervision systems. 	<p>CE -- 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(v): document and information transfers;</p>	<p>USAID supported activities should make provision for the incorporation of standard practices and protocols for the safe handling and disposal of medical waste materials, in consultation and coordination with MOH and other partners.</p>
<p>IR 8.4: HIV/AIDS Care and Support Expanded</p>		
<p>IR 8.4.1 Increased Availability of Quality Home-Based Care (HBC) Services</p> <ul style="list-style-type: none"> • Expand community-based home visiting and 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum,</p>

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Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
<p>home-based care, including palliative care, through NGOs and FBOs with a mix of direct provision and grants to multiple community based organizations 8.4.1.</p>	<p>Deferral, per 216.3(1)(iii)</p>	<p>as part of the quality assurance and infection prevention approaches.</p> <p>For any potential grants involving income generation</p>
<p>IR 8.4.1 cont'd.</p> <ul style="list-style-type: none"> • Provide technical assistance to the DOH to implement national policies, guidelines and strategies for care and support, resulting in improved HIV/AIDS clinical, palliative, home-based and community-based services and treatments. • Provide and expand community-based care initiatives such as bereavement counseling and training. • Replicate hospice services in other regions and train other service providers on the Soweto Hospice program for end-of-life care for indigent patients linked to other partners who provide HBC and other community services. 	<p>CE -- 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers; and, 216.2 (c)(2)(viii) for programs involving nutrition, health care or population and family planning services.</p>	<p>To the extent that this work involves administration of HIV testing, or provision of medical supplies and equipment, infection prevention and waste disposal messages should be imparted.</p>
<p>IR 8.4.2. Increased Availability of Psychosocial Support Initiatives</p> <ul style="list-style-type: none"> • Assess mental health and supportive services available at both the governmental and non-governmental level that could be strengthened or replicated in target regions. Assess what additional services are needed. • Develop and strengthen a comprehensive support system linking and coordinating existing psychosocial services with each other and to health services. • Build community capacities to provide counseling and support. • Support psychosocial strategies that involve activities such as art therapy for children, memory books and boxes. 	<p>CE -- 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers; and, 216.2 (c)(2)(viii) for programs involving nutrition, health care or population and family planning services.</p>	
<p>IR 8.4.3. Increased Access to Community Services for OVC</p> <ul style="list-style-type: none"> • Expand community-based OVC projects by the Nelson Mandela Children’s Fund and Home WorldWide South Africa into target provinces of South Africa 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.</p>
<p>IR 8.4.3 cont'd.</p> <ul style="list-style-type: none"> • Provide technical expertise on USAID’s success to DOH in scaling up community-based OVC 	<p>CE -- 22 CFR 216.2 (c)(2)(i), education, technical assistance or</p>	<p>Exclusion applies to the extent that activities do <i>not</i> directly affect the environment (such as construction of</p>

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Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
<p>programs.</p> <ul style="list-style-type: none"> Improve and expand community training programs to increase capacity of communities to manage OVC programs. 	<p>training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; and, 216.2 (c)(2)(viii) for programs involving nutrition, health care or population and family planning services.</p>	<p>facilities, water supply systems, waste water treatment, etc.).</p>
IR 8.5. Other PHC Systems and Services Improved		
<p>IR 8.5.1. Increased Availability of FP, VCT, ANC, STI, PMTCT, and Counseling</p> <ul style="list-style-type: none"> Placement and expansion of VCT and PMTCT services in the PHC setting. 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.</p> <p>Clinical guidelines used by providers should include specific measures to deal with bio-hazardous waste. Inspect randomly selected health facilities.</p>
<p>IR 8.5.1 cont'd.</p> <ul style="list-style-type: none"> Train health providers to streamline care to ensure a comprehensive, simplified package of care (versus vertical programming). Strengthen youth reproductive service programs. Promote interventions that address issues of STIs and dual protection for adolescents. Strengthen community, private sector, NGO and CBO links to the health facilities. 	<p>CE -- 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers; and, 216.2 (c)(2)(viii) for programs involving nutrition, health care or population and family planning services.</p>	<p>Exclusion applies to the extent that activities do <i>not</i> directly affect the environment (such as construction of facilities, water supply systems, waste water treatment, etc.).</p>
<p>IR 8.5.2. Improved Quality MCH/FP Services at the Local Level</p> <ul style="list-style-type: none"> Strengthen EPI and IMCI interventions. 8.5.2 Improve the quality of vaccination services and immunization coverage. 	<p>Negative Determination with Conditions, per 22 CFR 216.3(a)(2)(iii)</p>	<p>Incorporate environmental health and quality considerations into all relevant steps along the health care continuum, as part of the quality assurance and infection prevention approaches.</p>
<p>IR 8.5.2 cont'd.</p> <ul style="list-style-type: none"> Adapt and expand quality assurance models to target areas including the Eastern Cape, KwaZulu-Natal, Mpumalanga, Gauteng and NorthWest. 	<p>CE 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses,</p>	<p>Seize opportunities to link quality assurance system to addressing bio-hazardous waste management at the small-facility level</p>

Activities Listed by IR & Sub-IR	Recommended Threshold Determination & Reg. 216 citation	Impact Issues & mitigation or proactive interventions
<ul style="list-style-type: none"> Disseminate completed quality assessment tools for IMCI, STI and HIV/AIDS service and management. Strengthen nutrition interventions (including Vitamin A) in the PHC system. 	studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers; and, 216.2 (c)(2)(viii) for programs involving nutrition, health care or population and family planning services.	
<p>I IR 8.5.3. Strengthened Support Systems (Management and Supervision)</p> <ul style="list-style-type: none"> Expand training with hospital boards and hospital committees in target provinces. Support local health district and municipality based supervision systems. Support local health district and municipality health management teams. Strengthen management skills at the local health district and municipality level. Improve and strengthen the roll out of the national DHIS system. Improve drug supply and logistics management systems. 	CE -- 22 CFR 216.2 (c)(2)(i), education, technical assistance or training; 216.2 (c)(2)(iii): analyses, studies, academic or research workshops and meetings; 216.2 (c)(2)(v): document and information transfers.	Seize opportunities to link quality assurance system, training and guidelines to addressing bio-hazardous waste management issues, esp. at the small-facility level

4.2 Overview of Mitigation Measures by Impact Issue

4.2.1 Bio-hazardous HCW: the primary environmental and health issue.

For all USAID-supported activities entailing service delivery, including blood testing and laboratory support, SO 8 shall work with its implementing partners to assure, to the extent possible, that the medical facilities and operations involved have adequate procedures and capacities in place to properly handle, label, treat, store, transport and properly dispose of blood, sharps and other medical waste. Appropriate guidance is articulated in Part II, Chapter 9 of the USAID Bureau for Africa’s *Environmental Guidelines for Small Scale Activities in Africa*, titled, ‘Healthcare Waste: Generation, Handling, Treatment and Disposal.’ It contains guidance which should inform the SO Team’s activities to promote proper handling and disposal of medical waste, particularly for small facilities. See the section titled, “Minimum elements of a complete waste management program.” The URL to consult is:

<http://www.encapafira.org/SmallScaleGuidelines.htm>. Other important references to consult in establishing a waste management program are “WHO’s Safe Management of Wastes from Healthcare Activities” http://www.who.int/water_sanitation_health/medicalwaste/wastemanag/en/.

The ability of the Team to assure such procedures and capacity is understood to be limited by its level of control over the management of the facilities and operations that USAID/SA is supporting, as well as available funding.

4.2.2 Blood safety

SO 8 should ensure provisions are made for the incorporation of standard practices and protocols for safe handling and disposal of these materials, in consultation and coordination with MOH and other partners.

4.2.3 Voluntary Counseling and Testing (IR 8.1, etc.).

The testing component of the VCT program may result in environmental impacts, largely related to the collection, handling, and disposal of blood products. SO 8 should ensure provisions are made for the incorporation of standard practices and protocols for the safe handling and disposal of these materials, in consultation and coordination with MOH and other partners.

The risk of nosocomial⁴ transmission of HIV, HBV, and other bloodborne pathogens can be minimized if health-care workers follow established guidelines, such as those in WHO/UNAIDS 2001, incl. disposal.

4.2.4 Prevention of Mother-to-Child Transmission

Most PMTCT activities entail counseling, referral services, and care for family members, which will not result in environmental impacts. Blood testing and ARV therapy (Nevirapine) for HIV+ pregnant women will also occur, which will require SO 8 to ensure its partners comply with procedures and protocols for the safe handling and disposal of medical and bio-hazardous materials, such as blood and other body fluids.

4.2.5 Safe medical injections: immunizations and vaccinations (IR 8.5).

To the extent that USAID support involves safe injections activities (e.g., in collaboration with the CDC), SO 8 should ensure provisions are made for the incorporation of standard practices and protocols for safe handling and disposal of these materials, in consultation and coordination with the MOH and other partners.

4.2.6 Rapid Testing Kits

Apart from operational issues with proper use of RTKs, environmental impacts could result from disposal of these kits since they contain plastics, metal foils, glass capillary tubes, reagents, filter strips, etc. SO 8 should ensure that its partners promote appropriate disposal procedures.

4.2.7 Bio-Hazardous Waste Disposal

This IEE raises disposal of contraceptives and their packaging as a minor concern in connection with the expanded community-based distribution of contraceptives. To date, potential issues associated with the disposal of RTKs with their diverse sets of materials have not been adequately assessed in South Africa. Management, treatment and disposal of special HCW needs to be conducted in conjunction with an overall waste management program for each locality. SO 8's support for expanding community-based distribution of contraceptives could indirectly harm the environment if materials are not disposed of properly. SO 8 should ensure provisions are made for disposal of the materials.

4.2.8 Incineration.

Often incineration is the best disposal practice for only a small fraction of the entire waste stream. Proper management of HCW can minimize the risks both within and outside healthcare facilities. The first priority is to segregate wastes, preferably at the point of generation, into reusable and non-reusable, hazardous and non-hazardous components. Other important steps are institution of a sharps management system, waste reduction, avoidance of hazardous substances whenever possible (e.g. polyvinylchloride-containing products, mercury thermometers), ensuring worker safety, providing secure methods of waste collection and transportation, and installing safe treatment and disposal mechanisms.

Ultimate elimination of incineration is promoted by organizations such Health Care Without Harm a campaign for environmentally responsible health care made up of more than 250 organizations (www.noharm.org). The best approach to the disposal dilemma is to better manage the waste stream to reduce the amounts being incinerated.

⁴ Hospital-acquired infection

Ultimately, incineration should be used, under tight controls, to treat only a very small fraction of the waste stream.

SO 8 should ensure, as practicable, that facilities receiving USAID support use best practices, including waste minimization, for disposing of HCW, as described above; and that incineration is used only where no other measure is available or safe.

4.2.9 Operational Research (IR 8.2.2).

To the extent that USAID provides technical assistance for protocols, sampling, ethical guidelines and development of a plan to test vaccines, So 8 shall take all cautions in order to ensure that professionally recognized guidelines and procedures are adhered to.

4.2.10 Clinical care (non-ARV) and trials

As with VCT and PMTCT above, the most significant environmental issue related to clinical care is the generation of medical and bio-hazardous wastes. SO 8 should make provisions for the incorporation of standard practices and protocols for the safe handling and disposal of these materials, in consultation and coordination with MOH and other partners.

4.2.11 ARV Therapy (IR 8.3)

SO 8 should make provisions for the incorporation of standard practices and protocols for the safe handling and disposal of these materials, in consultation and coordination with MOH and other partners.

4.2.12 Protecting Human Research Subjects

A crucial part of research into new treatment therapies involves the voluntary participation of human subjects in clinical trials. U.S. Federal policy has sought to preserve the benefits of this research, while at the same time protecting against possible abuse or harm to research subjects. In particular, a regulation implemented by 17 U.S. federal agencies, known as the Common Rule, seeks to guarantee review of research for projects and assure willing consent, including a proper understanding of risks involved, for those participating in clinical trials.

The U.S. Department of Health and Human Services, Office of Human Research Protections (OHRP), seeks to ensure the safety and welfare of people who participate in clinical research. The Food and Drug Administration (FDA) must approve all clinical trials aimed at testing a new drug, biological product or medical device, and the NIH also has important patient safety guidelines that must be followed in any research the agency funds. NIH also has a special panel, the Recombinant DNA Advisory Committee (RAC), which provides oversight and public discussion of gene transfer clinical research. (www.hhs.gov/)

SO 8, already working closely with CDC and NIH programs in South Africa, is well-positioned to promote similar safeguards in South African clinical trials, especially those funded by USAID.

4.2.13 Palliative care, home-based and community-based services and treatments (IR 8.4)

To the extent that it involves administration of HIV testing, or provision of medical supplies and equipment, SO 8 should ensure that infection prevention and waste disposal messages are widely disseminated.

4.2.14 Orphans and OVC care and support (IR 8.4)

Any issues in this area would relate to the same bio-hazardous waste management and infection-prevention measures as care giving. Another area to be aware of is if any small grants provided deal with livelihoods activities or income generation. If SO 8 intends to develop a small grants program where funded projects may have the potential for environmental harm, SO 8 shall submit an amended IEE (to resolve the deferral recommended herein), and should

consider using the USAID/AFR Environmental Review and Report in the proposal evaluation process. (www.encapafrika.org/SmallScaleGuidelines.htm/).

4.2.15 Small Grants Programs (IR 8.3, IR 8.4)

Vulnerable households and children will have access to social grants and support services (e.g., foster care grants, child support grants, disability grants, etc.). Small grants in this context are not used for local governance initiatives which involve infrastructure improvements. In the event that such activities might be contemplated at some point, then an environmental screening process would need to be introduced. . If SO 8 intends to develop a small grants program where funded projects may have the potential for environmental harm, SO 8 shall submit an amended IEE (to resolve the deferral recommended herein), and should consider using the USAID/AFR Environmental Review and Report in the proposal evaluation process. (www.encapafrika.org/SmallScaleGuidelines.htm/).

4.2.16 Health Facilities’ Rehabilitation or Construction

If water supply, sanitation, small-scale construction or rehabilitation activities are contemplated, the SO 8 Team will need to ensure compliance with “good engineering and best practice” conditions and guidelines. These guidelines and practices should be promulgated among implementation partners. The threshold for environmental review action on construction is if the “foot print” of the structure exceeds 1,000 sq. m. In this case, an amended IEE must be prepared and approved before construction is undertaken. Even if the work is expected to be minor, adverse environmental effects can occur. *Support for any such activities would require amendment of this IEE.*

4.3 Quality Assurance: Situation Assessment and Field Monitoring to Representative Health Care Facilities, Laboratories and VCT clinics, etc.

The handling of bio-hazardous materials in one apex institution in South Africa visited is exemplary (see Sect. 3.3). However, the situation in other smaller hospitals and health posts and small clinics around the country is less clear. Nor have all the potential risks associated with the new testing kits been sorted out. Ultimately, though, they are responsible for a considerably reduced volume of blood being handled.

As a condition of this IEE, SO 8 shall conduct an assessment of the current state of affairs with regard to the quality assurance system, with special attention to HCW management practices, in South Africa. This is particularly relevant in an era of scaling up where USAID is assisting the major expansion of the HIV/AIDS and STI prevention and treatment capacity in South Africa. Particular attention should be paid to the Universal Precautions for Prevention of Transmission of HIV, Hepatitis B Virus, and Other Blood-borne Pathogens in Health-Care Settings (WHO/UNAIDS 2001). The assessment should include targeted recommendations for quality assurance in waste management. With implementation of this condition and adoption of the recommendations from the assessment, cumulative impacts related to scaling up SO 8’s interventions, will not be significant.

Many aspects of the program lend themselves well to incorporating HCW management improvements, including the provision of appropriate guidance:

- Strengthening key elements of the PHC system (e.g., drug logistics, quality of care, supervision, information systems, monitoring and evaluation, etc.) at the local health district and municipality level;
- Building effective health management systems at the local health district and municipality levels; and ??

There are also opportunities for improvement management systems which take into account healthcare waste considerations as part of the quality of care and infection prevention capacity building, e.g.:

- Strengthen community support systems for pregnant women, their partners and children;
- Strengthen community support systems for orphans and vulnerable children; and
- Work with NGOs and developing opportunities to strengthen their response to managing the HIV/AIDS pandemic.

4.4 Capitalizing Upon the Integration of Access, Demand and Quality, and Management

A widely accepted practice in the health sector is the integration of a three pronged approach, focusing simultaneously on increasing the *availability* of services, improving the *quality* of services offered and ensuring sufficient *demand* for those services. The net result of such efforts should be an increase in use of health services and ultimately an improved health status for all South Africans. For example, by increasing the availability of DOTS services, the quality of TB diagnosis, counseling and treatment, and the knowledge of TB symptoms, we should expect to see an increase in TB cases being diagnosed and successfully treated.

Table 3 below provides a representation of the causal relationships in the SO 8 results framework. The column to the left in the matrix identifies the grouping of the lower level results of each IR by causal link. The experience of USAID projects such as the QAP worldwide has clearly demonstrated a synergistic relationship between quality of services, supply of services (availability and access) and demand as well as a direct relationship between quality of care and client utilization and satisfaction. Improvements in care can be enhanced through ensuring compliance with evidence-based norms and standards, including diagnosis, treatment, and follow-up along the continuum of care.

This logic can be capitalized upon to incorporate environmental health and quality considerations into all relevant steps along the health care continuum (see IR 8.4 above) as part of the quality assurance and infection prevention approaches.

Table 3. USAID/SA Health Framework Matrix, factored according to access, demand, quality.

The grey-highlighted IR and sub-IRs represent those areas where unintended environmental or human health impacts may occur, or where opportunities for constructive engagement, arise, e.g., in the improvement of HCW management. (Adapted from: USAID South Africa Mission Strategy on Health and HIV/AIDS, May 2003)

Causal Relationship/Link	IR 1 HIV/AIDS Prevention Measures Strengthened	IR 2 Management of STIs Improved	IR 3 Treatment for TB and AIDS improved	IR 4 HIV/AIDS Care and Support Expanded	IR 5 Other Primary Health Care (PHC) Systems and Services Improved
Access/ Availability	Increased availability of condoms, VCT and PMTCT services	Increased availability of quality STI services	Increased availability of TB and AIDS treatment	-Incr. availability of quality HBC services -Increased availability of psychosocial support -Increased access to community services for OVH	Increased availability of youth friendly services, FP, VCT, ANC, and PMTCT, and counseling
Demand	Increased demand for condoms, VCT and PMTCT services	Increased demand for STI services	Increased demand for TB and AIDS treatment		
Quality	Improved quality of condoms, VCT and PMTCT services	Improved quality STI services and quality STI management	Improved quality of TB and AIDS services	Improved quality of HBC services	Improved quality MCH/FP services at the local level

4.5 Monitoring and evaluation

The SO 8 team will comply with 22 CFR 216 requirements for each activity it undertakes, working in collaboration with the REO and MEO to monitor ongoing activities for compliance with approved IEE recommendations and

mitigation measures, and modify or end activities that are not in compliance. Further the team will routinely monitor and evaluate whether the environmental features designed for the activity resulting from the 22 CFR 216 process are being implemented effectively and whether there are new or unforeseen environmental consequences arising during implementation that were not identified and reviewed in accordance with 22 CFR 216.

Further, in order to ensure compliance with 22 CFR 216 and ADS 204, the SO8 team will ensure that all contracts, cooperative agreements, grants and subgrants incorporate the mitigation measures described above as well as appropriate monitoring to ensure that implementers adhere to the requirements of this IEE.

ANNEX 1. Health Care Acronyms, with Emphasis on HIV/AIDS

ABC	Abstinence, Be Faithful, Use a Condom
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ARV, ART	Anti-retroviral (therapy, treatment)
CBO	Community Based Organization
CDC	Centers for Disease Control
CS/MH	Child Survival/Maternal Health
CSP	Country Strategic Plan
DOTS	Directly Observed Therapy, Short Course (strategy for therapy of TB)
EPI	Expanded Program on Immunization
FBO	Faith Based Organization
FHI	Family Health International
FP	Family Planning
FP/RH	Family Planning/Reproductive Health
HBC	Home-Based Care
HCW	Healthcare Waste
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
HIV/AIDS/STD	HIV/AIDS/Sexually Transmitted Disease
HSRC	Human Sciences Research Council
HST	Health Systems Trust
IASP	Inter-Agency International Affairs Strategic Plan
IEC	Information, Education and Communications
IMCI	Integrated Management of Childhood Illness
MCH/FP	Maternal and Child Health/Family Planning
MECs	Members of Provincial Executive Councils
MRC	Medical Research Council
NAPWA	National Association of People Living with AIDS
NDOH	National Department of Health
NHLS	National Health Laboratory Services
NIH	National Institutes of Health (U.S.)
NVP	Nevirapine
OI	
OVC	Orphans and Vulnerable Children
OVH	Orphans and Vulnerable Households
PACT	PACT is a development NGO. This is the organization's name, not an acronym.
PHC	Primary Health Care
PLWA	People Living with AIDS
PLWH	People Living with HIV
PLWHA	People Living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
QA	Quality Assurance
QAP	Quality Assurance Project
RHAP	Regional HIV/AIDS Program
STI	Sexually Transmitted Infection

⁵ The ability of the Team to assure such procedures and capacity is understood to be limited by its level of control over the management of the facilities and operations that USAID/South Africa is supporting, as well as available funding.

TB/OI
UNAIDS
VCT

Tuberculosis/Opportunistic Infection
United Nations AIDS Program
Voluntary HIV Counseling and Testing



ANNEX 2.

HEALTHCARE WASTE MANAGEMENT FOR SMALL SCALE FACILITIES: MINIMAL PROGRAM CHECKLIST 6 AND ACTION PLAN

Small-scale facilities require a sound healthcare waste management system to minimize adverse health and environmental impacts caused by their wastes. The following elements of a complete minimal healthcare waste management program should be in place in all facilities:

Elements/Actions	In Place?	To be Done		Outcome Expected
		By Whom	By When	
Written plans and procedures				
1. A written waste management plan Describing all the practices for handling, storing, treating, and disposing of hazardous and non-hazardous waste, as well as types of worker training required.				
2. Internal rules for generation, handling, storage, treatment, and disposal of healthcare waste.				
3. Clearly assigned staff responsibilities that cover all steps in the waste management process.				
4. Staff waste handling training curricula or a list of topics covered.				
5. Waste minimization, reuse, and recycling procedures.				
Staff Training, Practices, and Protection				

⁶ Adapted from "Healthcare waste: Generation, handling, treatment and disposal," in *Environmental Guidelines for Small Scale Activities in Africa, 2nd Edition (Working Draft)*. Washington, D.C., USAID AFR/SD. 2002. <http://www.eacpafrika.org/EGSSAAsectionsfrom18Jun01.draft/EGSSAA3-13medwastedraft.pdf>

<p>6. <i>Staff trained in safe handling, storage, treatment, and disposal.</i> Do staff exhibit good hygiene, safe sharps handling, proper use of protective clothing, proper packaging and labeling of waste, and safe storage of waste? Do staff know the correct responses for spills, injury, and exposure?</p> <p>7. <i>Protective clothing available for workers who move and treat collected infections waste such as surgical masks and gloves, aprons, and boots.</i></p>			
Staff Training, Practices, and Protection cont'd.			
<p>8. <i>Good hygiene practices.</i> Are soap and, ideally, warm water readily available workers to use and can workers be observed regularly washing.</p>			
<p>9. <i>Workers vaccinated for against viral hepatitis B, tetanus infections, and other endemic infections for which vaccines are available.</i></p>			
Handling and Storage Practices			
<p>10. <i>Temporary storage containers and designated storage locations.</i></p> <p>11. <i>Are there labeled, covered, leak-proof, puncture-resistant temporary storage containers for hazardous healthcare wastes?</i></p>			
<p>12. <i>Minimization, reuse, and recycling procedures.</i></p> <ul style="list-style-type: none"> • Does the facility have good inventory practices for chemicals and pharmaceuticals, i.e.: <ul style="list-style-type: none"> ○ use the oldest batch first; ○ open new containers only after the last one is empty; <p>procedures to prevent products from being thrown out during routine cleaning; and</p>			
<p>13. <i>A waste segregation system.</i></p> <ul style="list-style-type: none"> • <u>Is general waste separated from infectious/hazardous waste?</u> 			

<ul style="list-style-type: none"> • Is sharp waste (needles, broken glass, etc.) collected in separate puncture-proof containers? • Are other levels of segregation being applied e.g. hazardous liquids, chemicals and pharmaceuticals, PVC plastic, and materials containing heavy metals ((these are valuable, but less essential))? 		
<p>14. <i>Temporary storage containers and designated storage locations.</i></p> <ul style="list-style-type: none"> • Are there labeled, covered, leak-proof, puncture-resistant temporary storage containers for hazardous healthcare wastes? • Is the location distant from patients or food? 		

<p>Treatment Practices</p>		
<p>1. <i>Frequent removal and treatment of waste</i></p> <ul style="list-style-type: none"> • Are wastes collected daily? • Are wastes treated with a frequency appropriate to the climate and season? <ul style="list-style-type: none"> ○ Warm season in warm climates within 24 hrs ○ In the cool season in warm climates within 48 hrs ○ In the warm season in temperate climates within 48 hrs ○ In the cool season in temperate climates within 72 hrs 		
<p>15. <i>Treatment mechanisms for hazardous and highly hazardous waste. (The most important function of treatment is disinfection).</i></p> <ul style="list-style-type: none"> • Are wastes being burned in the open air, in a drum or brick incinerator, or a single-chamber incinerator? • If not are they being buried safely (in a pit with an impermeable plastic or clay lining)? • Is the final disposal site (usually a pit) surrounded by fencing or other materials and in view of the facility to prevent accidental injury or scavenging of syringes and other medical supplies? 		

- If the waste is transported off-site, are precautions taken to ensure that it is transported and disposed of safely?

For more detailed checklists and guidance consult: *Safe management of wastes from health-care activities*, edited by A. Prüss, E. Girault and P. Rushbrook. Geneva, WHO, 1999, 228 pages. Available at: http://www.who.int/water_sanitation_health/Environmental_sanit/MHCWHanbook.htm. English (French and Spanish in preparation).

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INITIAL ENVIRONMENTAL EXAMINATION OR CATEGORICAL EXCLUSION

PROGRAM/ACTIVITY PROPOSAL:

Program Number: 663-07
Activity Number: n/a
Country/region: Ethiopia/Amhara National Regional State (ANRS)
Program/activity Title: Relief to Development (R2D)
Funding Begin: FY 03 **Funding End:** FY 05 **LOP Amount:** \$ 1,125,760
Commodity: 57,720MT (Equiv. \$18,823,300)
LOP DA Amount and Commodity equiv.: \$ 19,949,480
IEE Prepared By: Bekele Haile, Save the Children/United Kingdom (SC/UK), and
Yesuf Abdella, Natural Resource Management Activity Manager, USAID/Ethiopia
Current Date: October 25, 2002
IEE Amendment (Y/N): N If "yes", Number & date of original IEE:
Additional references: 29ethop1.iee of 6/18/99 (VOCA Ag Coop. Eth), 26eth4.iee of 9/24/96 (VOCA Ethiopian Chamber of Commerce), and 27ethop1.iee of 5/21/97 (Winrock EMPOWER); 29ethiop2-iee (SO 1 RHPP Cat Ex), ESHE IEE, MED SO IEE

ENVIRONMENTAL ACTION RECOMMENDED: (Place x where applicable)

Categorical Exclusion: X Negative Determination: X
Positive Determination: _____ Deferral of Action: X

ADDITIONAL ELEMENTS: (Place x where applicable)

EMEMP: _____ CONDITIONS: X PVO/NGO: X

SUMMARY OF FINDINGS:

This IEE provides threshold decisions for activities that are part of the Relief to Development (R2D) program under the two closely linked USAID/Ethiopia Strategic Objectives (SOs), SO 7 (Rural Household Production and Productivity Increased (RHPP SO) and SO 11 Mitigate the Effects of Disaster (MED SO). The Agriculture and Natural Resources (ANR) Office of the Mission will manage the program.

Based on the use of a proactive approach, incorporation of appropriate mitigation measures and the monitoring plan specified in this IEE, to which the implementing partner SC/UK commits itself, the following environmental determinations are recommended:

Categorical Exclusions are recommended for technical assistance, training, study, surveys, capacity building, data collection and analysis, document and information transfer; and pre-feasibility level studies for the eventual development of integrated watershed and rural infrastructure (potable water supplies, small-scale irrigation and farm to market road rehabilitation) activities pursuant to 22 CFR 216.2(c)(1)(i) actions having no significant effect on the environment and 216.2(c)(2)(i) education and training, (iii) workshops and meetings and (v) document and information transfers, since such activities have no or limited scope of physical interventions and no direct effects on the environment. This also applies for controlled experimentation per 22 CFR 216.2 (c) (2) (ii), for support to intermediate credit institutions per 22 CFR 216.2 (c) (2) (x); nutrition, health, small-scale construction/rehabilitation of facilities or structures with a floor area not exceeding 1,000 square meter; and family planning activities per 22 CFR 216.2 (c) (2) (viii); iron supplementation, provision of iodized salt/micro-nutrients, and maternal or child feeding program 22 CFR 216.2 (c) (2)(xi), and commodity import program per 22 CFR 216.2 (c) (2) (ix).

A **Negative Determination with Conditions** is recommended for training on the handling, management and marketing of modern inputs pursuant to 22 CFR 216.3 (a)(2)(iii), particularly but not limited to pesticides, having significant risks to human health and agricultural and environmental sustainability if used inappropriately. The **conditions** are as follows:

- emphasis will be placed within the training (be certified by the Ministry of Agriculture (MoA)) modules on issues of
- pesticide safe handling, packaging, labeling, and application;
- training will be provided in integrated pest management (IPM) strategies and technologies;
- only products registered by the US Environmental Protection Agency (USEPA) will be discussed in the training;

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- training on the mitigation of potential inappropriate uses of fertilizer, and seed germplasm, and others to be specified in the Pesticides Evaluation Report and Safer Use Action Plan (PERSUAP) to be developed soon. Categorical Exclusions are not applicable to assistance involving the procurement or use of pesticides for any purpose pursuant to 22 CFR 216.2 (e).

A **Negative Determination with Conditions** is recommended for biological and physical soil and water conservation measures per 22 CFR 216.3 (a) (2) (iii). The **conditions** are that the activities are appropriately monitored to avoid/minimize unintended negative environmental impacts.

A **Negative Determination with Conditions** is recommended for the introduction and provision of improved seeds, vegetables and fruit production seed multiplication, forage development, bee-keeping and poultry production, livestock and small ruminant health and production, water supply development for domestic and livestock [construction of springs, hand dug wells, ponds (under 10,000 cu.m., with dams less than 2 m high and 30 m long) and rainwater harvest systems], introduction of appropriate technologies (such as improved farm implements e.g. sub cultivator, post harvest and food technologies, fuel saving stoves, bio-gas, etc.), provision of food for development, support to community-based grain and seed banks, support to intermediate credit institute pursuant to 22 CFR 216.3 (a) (2) (iii), commodity procurement and building of small facilities exceeding 1,000 square meters in area. SC/UK will insure that an examination of the site(s) is conducted using checklist 2 Building Construction from the “Handbook on Environmental Assessment of NGO Programs and Projects” to identify and mitigate potential impacts. See www.encapafrika.org. The **conditions** are that planned mitigation measures are being instituted and monitored to minimize potential negative environmental impacts. SC/UK will provide adequate training to its staff, partners, Community-Based Organizations (CBOs) involved in program implementation on the USAID Environmental Procedures to ensure that mitigation measures are in place. The project staff of SC/UK will undertake the regular monitoring, while the MEO and the REO will undertake occasional monitoring to the extent possible. Water Supply and Sanitation (WATSAN) activities will be implemented and monitored in accordance to and to meet the recommendations of the USAID/Ethiopia WATSAN Study of Dennis Warner et al, March 2000.

A **Deferral** is recommended for procurement and use of pesticides for the production and storage of crops, and livestock ecto-parasites control, pursuant to 22 CFR 216.3(a)(7)(ii), pending submission and approval of an amended IEE following completion of the PERSUAP. SC/UK declares that implementation of any one of these activities will not take place using USAID resources until the deferral is lifted.

A **Deferral** is recommended for the construction of small-scale irrigation (SSI) schemes above 50 ha in size. SC/UK will prepare and submit to USAID/E an amended IEE on an annual bases using the Environmental Screening Form (ESF) recommended by Thomas Catterson et al., 1999, PEA for Small-scale Irrigation in Ethiopia, as part of its annual Environmental Status Report (ESR).

A **Deferral** is recommended for any pond, micro-dam or catchment construction where the volume of water to be impounded would exceed 10,000 cu m, and the dam for which exceeds 2 m in height and/or 30 m in length. These review requirements would be addressed under the amended IEE to be submitted and approved by USAID/E each year.

A **Deferral** is recommended for the construction of rural roads. Each segment of road will be analyzed in reference to the Low-Volume Roads Engineering Best Management Practices Field Guide, Gordon Keller et al, June 2001 to meet the review requirement under an umbrella process in an amended IEE to be submitted and approved by USAID/E each year.

A sub-grants system of screening individual activities will be in place for the construction of SSI, roads and micro-dam. Activities are subject to a subsequent iterative screening and reporting (ESR/ Environmental Status Report ESF process) under the umbrella of this IEE. Amendment of all deferred activities should be done so as to capture all such activities at the same time by requiring an ESR, which is the amended IEE, every year. As long as all actions are covered together in these annually amended IEEs, SC/UK determines that a separate ESF/ ESR process may not be called for each individual activity.

APPROVAL OF ENVIRONMENTAL ACTION RECOMMENDED: *(Type Name Under Signature Line)*

CLEARANCE:

Acting Mission Director: _____ /s/ _____ Date: 11 December 2002
Karen Freeman

Project Development Officer: _____ /s/ _____ Date: 11 December 2002
Kenneth Duckworth

CONCURRENCE:

Africa Bureau Environmental Officer: _____ Date: 1/09/2003.

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Carl M. Gallegos

Approved: X
Disapproved:

File No: 33 Ethiopia R2D (AID/W)

DCHA Bureau Environmental Officer: _____
J. Paul des Rosiers

Date: _____

CLEARANCE:

Regional Legal Advisor: /cleared by e-mail/
Teresa McGhie

Date: 10 December 2002

General Counsel (Africa Bureau): _____
Mary Alice Kleinjan

Date: _____

ADDITIONAL CLEARANCES:

Mission Environmental Officer: /s/
John McMahon

Date: 13 November 2002

Activity Manager: /s/
Belay Demessie

Date: 13 November 2002

Regional Environmental Officer: /cleared by e-mail/
Walter Knausenberger

Date: 13 November 2002

D.4 Ethiopia R2D

INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM/ACTIVITY DATA:

Program Number: 663-007
Activity Number: N/A
Country/Region: Ethiopia/Amhara National Regional State (ANRS)
Program/activity Title: Relief to Development Continuum (R2D)

1.0 BACKGROUND AND ACTIVITY DESCRIPTION

1.1 Purpose and Scope of IEE

This IEE provides threshold decisions for the USAID cash and food resources supported program of the pilot Relief to Development Continuum (R2D) designed under the Rural Household Production and Productivity Increased Strategic Objective (RHPP SO).

In order to link relief resources within the framework of a development program comprehensively, in addition to the development resources (to be channelled through the Title II Programs and partners), this pilot project is designed to distribute food through channels other than the traditional relief mechanism to prevent further destitution. In the event of drought, however, FFW may become available to all household types to prevent asset depletion. Food aid will be integrated to guarantee risks associated with the introduction of new technologies by early adopters, and helps especially vulnerable households (e.g. female headed) to diversify their productive base. As the nature of the activities under the program are predominantly related to the RHPP SO, while making use of both DA and Title II resources, it is proposed to use DA type IEE format without neglecting IEE requirements set for Title II programs.

Activities covered in this IEE involve funding technical assistance, training, capacity building, studies, surveys, data collection and analysis, document and information transfer, pilot land registration/titling exercise, biological and physical soil and water conservation including plantation of multi purpose trees, small-scale water supply systems (such as hand dug and shallow wells, ponds, rainwater harvesting), development of small-scale irrigation (river/stream diversion/treadle pumps), small access roads and building construction, food commodity distribution, forage development, poultry and bee-keeping, small ruminant and livestock health and production; fruit and vegetable production, seed multiplication, support to community-based grain and seed bank, micro-credit and saving, variety testing & adaptation/demonstrations trials, introduction and provision of improved and new crop varieties (such as Triticale), small-scale Farmers Participatory Research (FPR), introduction of appropriate technologies (such as improved farm implements e.g. sub cultivator, post harvest and food technologies, fuel saving stoves, bio-gas, etc.), iron supplementation, provision of iodized salt/micro-nutrients, school feeding, family planning and provision of Information Education and Communication (IEC) material on the causes and prevention of HIV/AIDS.

1.2. Background

Ethiopia is a country that has been severely affected by chronic food insecurity in many areas. Although once food self-sufficient, the country has not been able to meet its own food needs since the severe drought of 1984. Nationwide, a high percentage (40%) of rural households find it difficult each year to produce enough food or income to meet their basic nutritional requirements. Rural household production and productivity face a variety of constraints, including: inefficient agricultural practices, declining soil fertility, recurrent drought and erratic rainfall, poor water conservation practices on steep lands, small size farm plots, land tenure uncertainty, underdeveloped agricultural input, output and credit markets and limited off-farm income earning opportunities. These conditions become even more difficult in the arid and semi-arid regions of the country, particularly in the Tigray and Amhara Regions.

USAID/Ethiopia is committed to a long-term goal of contributing to national efforts to reduce chronic food insecurity levels through support for the 1996 National Food Security Strategy of the Government of the Federal Democratic Republic of Ethiopia (GFDRE). The Mission's Strategic Objective 7 (SO 7) "Rural Household Production and Productivity Increased" is one part of USAID's support for this national strategy as well as regional components of it, in particular in the Amhara National Regional State (ANRS). The Results Framework for this SO seeks to improve household income opportunities through the promotion of more appropriate agricultural and NRM technologies, improved access to market information, financial services and alternative income generating activities. Significant

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attention will be given to research, extension and capacity building to ensure success. Emphasis will be placed on achieving results in the 47 chronically food insecure *districts* (districts) of the Amhara National Regional State (ANRS) among which the two R2D pilot districts are typical once.

Integrated Watershed Management is a prominent feature R2D. This activity was planned in response to a specific request for assistance from the ANRS Government. It will pull all activities from the five SO IRs of the RHPP SO together into established “learning laboratories” for testing and demonstrating optimal and sustainable use of natural resources and thereby maximizing household income, and hopefully, minimizing yearly extremes in these pilot districts. Detail design of the activity will be finalised by the ANRS Food Security Program implementation support Institutional Contractor, from the Virginia Tech.

A pilot integrated watershed (micro-catchment) management activity will be established " learning laboratory" in two Peasant Associations (PAs) in the program area through the technical support of Virginia Polytechnic Institute and State University to test participatory approaches to integrated community watershed management. SC/UK will provide assistance where and when required and will link with lessons learned so that they can be incorporated into the wider program area.

An important aspect of the program is the building of the ever-eroding productive asset of households in the two drought prone and hence chronically food insecure districts. In order to link relief resources within the framework of a development program comprehensively, in addition to the development resources (to be channelled through the Title II Programs and partners), this pilot project is designed to distribute food through channels other than the traditional relief mechanism. In doing so the pilot districts will not feature in the annual appeals for the 3 years of the pilot period.

Whilst strengthening the institutional capacity of community and Local Government distribution of food aid will take place against well-planned Food For Work and Employment Generation Scheme (FFW/EGS) activities to prevent further destitution in these areas. In the event of drought, however, FFW may become available to all household types to prevent asset depletion. Food aid will also be used to guarantee early adopters of new technologies from risk, and helps especially vulnerable households (e.g. female headed) to diversify their productive base.

1.3 Description of Activities

Consultation with community members and local Government actors has taken place by SC/UK at the initial stages of program design. It is to be confessed, however that, in order to avoid raising expectations, the community was not involved in an intensive way in prioritizing activities or developing detailed plans. This process will begin in the first four months of the program. Therefore, the activities in this document are suggested interventions based on: an analysis of USAID’s Strategic Objectives as outlined in the strategic intervention framework; an analysis of Government policies; an assessment of stakeholders’ capacity; and the problem analysis conducted by SC/UK. Previous project and country experience and the capabilities and mandates of other agencies were also captured when preparing this group of activities. By injecting relief resources into the target communities in an innovative fashion, assets will be protected and rehabilitated at the community and household level.

The project will have six major focus areas, which in practice are intertwined. These are described below.

- I.** Government and Community Capacity Building
- II.** Agriculture and Livestock
- III.** Environmental Protection and Rehabilitation
- IV.** Nutrition, health and HIV/AIDS
- V.** Community Micro-Enterprise Development
- VI.** ANRS Community Watershed Management Scheme

Multi-sectoral joint planning will ensure that PAs are targeted in a way that combined interventions can be planned in selected PAs to test opportunities for increased impact at household and community level. In targeting of beneficiaries in the different components, due consideration will be given to gender imbalances. Activities such as animal revolving funds and skills training activities will be used to diversify women's source of income and thus improve household food security. However, in all activities care will be taken to avoid contributing to overload for women, avoid conflict over resources, and without overstressing beyond sustainable bearing capacity of the limited and already fragile natural resource base. Therefore, SC/UK will take an at most care in the design, implementation and monitoring of the

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proposed activities to minimize the unintended potential negative environmental impacts arising due the introduced activities

1.3.1. GOVERNMENT AND COMMUNITY CAPACITY BUILDING COMPONENT

This component primarily aims to provide skills for disaster mitigation at District, PA and community level to improve the ability of the most vulnerable to move towards development.

Local Government Capacity Building

The recent decentralization process in Ethiopia, which seeks to decentralize resources and responsibility to the District and community, provides an enabling policy environment to operationalize the innovative approaches within the program. SC/UK will provide support to build institutional capacity of the newly established entities; as detailed under each of the sectoral components. Support from SC/UK will include technical, material, training, mentoring and implementation support. The main areas of activity are as follows:

Local Government Training and Mentoring

- Provision of training in technical skills¹ and the LLPPA methodology (integrating gender and HIV/AIDS awareness training). Much training will take place ‘on-the-job’ (particularly with Development Agents (DAs)) working with communities on program activities and follow-up and management of activities.
- Ensuring a sense of ownership of the program through on-going consultation, joint planning, and involvement in decision making.
- Partnership will be sought with the newly established HIV/AIDS desk and the Women Affairs desk to build their capacity in mainstreaming these issues across other department.
- Capacity building to plan off-shelf activities for EGS using the LLPPA methodology at the community, PA and District level. This builds on SC/UK’s experience in the piloting of EGS projects.
- Working with the District Administration Office and facilitating (through training and mentoring) democratic decision making processes.

Material support for District

Inadequate transport makes it difficult for the District line departments to fulfil their responsibilities in the coverage, support and monitoring of food security initiatives. Therefore, SC/UK will facilitate the Districts by making a program vehicle available (from the pool of five) in each of the Districts for planned activities. Provision will be made for the purchase of two off-road motorcycles with spare parts for each District.

Community Capacity Building

SC/UK will engage the community at all levels and at all times of the program cycle, from problem identification and analysis to planning, implementation, monitoring and evaluation. This will enable communities to conduct their own social inquiry and analysis using the Local Level Participatory Planning Approach (LLPPA) participatory methodology and that this capability can be enhanced by practice. This in turn releases and promotes people's creativity for imaginative solutions to marginalisation.² In addition to community training described in each sector, community members will also receive training in the LLPPA, including gender training, so as to improve understanding of community development issues, and increase confidence in the initiation of community level initiatives. The DAs receiving training as trainers of this methodology will be responsible for undertaking training at the community level. In this program SC/UK will work with Farmer Field Schools (FFS), Water User Committees, Q’ires, burial societies, and also explores possibilities for supporting other types of community organizations in the program area (e.g. co-operatives).

¹ Technical trainings may include : agricultural techniques, irrigation skills, health and nutrition and management systems, research techniques – (they are detailed under appropriate activities).

² For example, SC/UK has positive experience of using the FFS approach, which aims to engage farmers in initiating the research process. By being involved in all stages they contribute to the correct diagnosis and prioritization of agricultural production constraints and to the rapid adoption of the technologies that result from such collaborative efforts. Their sustained involvement in the research process also has the added advantage that researchers and extension staff learn and gain from the Indigenous Technical Knowledge (ITK) of farmers.

1.3.2 AGRICULTURE AND LIVESTOCK

The activities in this sector will provide risk guarantee to enable households' experiment with new practices and technologies preventing asset depletion and contribute to income diversification in the long term. Mixed agriculture, involving crop and livestock production, is the main livelihood strategy practiced by almost all farmers in the target areas. The target group of this component will be the poorest wealth ranking groups, aiming to protect as well as recover assets.

1.3.2.1 Participatory Agriculture and Extension Research

The agricultural development interventions aim to improve food related agricultural practices that contribute to more sustainable livelihoods for food insecure households. This is achieved through the creation of access to improved inputs (e.g. improved seeds, triticale), creation of access to extension services (through demonstration of improved farming techniques), addressing production constraints (integrated crop management, integrated pest management) and introduction of diverse crop production systems such as pulses, fruits, and vegetables. The approach taken for the majority of activities in this sector is the FFS, which promotes the participation of farmers and rural communities in identifying problems and demonstrating and evaluating both indigenous and research recommended technologies using Farmer Participatory Research (FPR). SC/UK will undertake these activities in partnership with the district Bureau of Agriculture (BoA), and Srinka Agricultural Research Station. Early adopters will receive grain for risk taking. In the agriculture sector a number of areas for development will be considered:

Integrated Crop Management

Indigenous and adaptive integrated crop management methods will be explored related to crop diversification, soil fertility, and moisture conservation.³ The project will access other suitable varieties by linking with research centers in and out of the region.

SC/UK has a small stock of *Triticale* (*Triticale witmack*) seed, a drought tolerant crossbreed between wheat and rye and approved by the government. It is reported that the yield potential is 8-9 MT per hectare with fertilizer and 3-4 MT without input. This compares favorably to 1-2 MT for local wheat grown without inputs. Another advantage is that it is not a hybrid and hence is self-pollinating and can repeatedly be used as seed stock without a reduction in output. The program will experiment with selected farmers within the FFS.

Modifying crop culture practice is a viable option in decreasing dependency on oxen power, which up to 40% of households are lacking. Therefore, the project proposes to test alternative cropping practices such as minimal tillage, row cropping, inter-cropping, etc.

The research and trials will test possible solutions to production constraints through the establishment of 36 FFS, 18 in each District (9 in year 1 and 9 in year 2). Each FFS will have 24 members and each member will be provided with risk guarantee and inputs to establish their trials. The selection of beneficiaries will be gender sensitive in keeping with the strategies of the program. Each member will be expected to train 10 other farmers (early adopters) who will also be supported by the program with risk guarantee and inputs. Thus, there will be a total of 9,504 direct beneficiary households of this intervention. It is also expected that early adopters will disseminate technologies and practice to others.

Integrated pest management (IPM)

The project proposes working with community members to identify major pest problems and improve understanding of pest life cycles. SC/UK will integrate its past experience in similar area of implementing an integrated pest management using botanical and biological control mechanisms (as opposed to chemical, which is expensive and difficult to access) within the proposed program.

Land preparation and environmental protection for Vulnerable Households

Under this sector SC/UK intends to pay particular attention to enhancing the food security of labor poor households (particularly poor households headed by women) through the provision of cultivation support. The labor costs will be paid for through EGS. In the first year this approach will be piloted in two PAs in each District benefiting 50 households in each PA.

³ The program will learn from the soon to be released World Bank study on Water Harvesting.

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Promotion of Kitchen Gardens

The introduction of diverse crop production systems such as pulses, fruits, and vegetables is valuable for income diversification as well improving households access to complementary foods for health and nutrition. Targeted beneficiaries will be provided with seeds to initiate this activity. This activity is closely linked to the nutrition, health and HIV/AIDS component.

Grain Banks and Seed Banks

This activity aims to establish community level seed and grain banks to diversify the asset base and strengthen livelihood security. The activity proposes to use community-based organizations (CBOs)⁴ as an entry point (building on SoS Sahel's experience in Meketi). The activity will be testing the feasibility of a new approach in which the key project input, food, is provided as a means to provide employment for the construction of community identified assets – labor intensive projects such as road, water harvesting, soil and water conservation (SWC), etc. This food provided should enable poor households release cash assets to purchase locally appropriate seeds, which is then contributed to a group seed bank over and above the household's requirement. Capacity building and training will be the core inputs for seed and grain bank establishment. This activity will be implemented in partnership with the District BoA, the Cooperative Promotion Bureau and Q'ires.

- For piloting purposes, 275 target poor households from three belg dependent PAs of Gubalafto District will be selected to form 3 seed banks.
- 312 target poor households from three meher dependent PAs of Sekota District will form 3 grain banks.
- Training to establish the group and 'fund' and materials for construction, which are not available locally will be provided.
- Beneficiaries will contribute local materials and labor for the construction of the seed bank. Each household will contribute 50 kgs to the establishment of the bank and a committee, governed by by-laws will manage the bank.
- This activity will be scaled up in year 2 and 3 following a participatory evaluation of lessons learned.

1.3.2.2 Animal health and Husbandry

The main livestock in the area are oxen, cows, sheep, goats, poultry, horses and donkeys. These animals are bred for a variety of reasons including meat, milk, butter, transport, ploughing and for sale. Goats, sheep and poultry all play an essential role in providing a buffer in times of particular hardship as they are usually the first items to be sold off. In this way livestock serve as both assets and as products in themselves and are used for both functions. This activity aims to protect these precious household assets and prevent households moving down the wealth groups.

The spread of animal disease associated with weak animal health services is identified to be a serious problem. Community Animal health Workers training, forage development and ethnovet technology development interventions will be introduced to address this problem.

Community Animal Health Workers (CAHW)

In order to ensure that basic animal health services are available within the community, SC/UK proposes to build on positive experience in establishing and supporting community assistance health workers (CAHWs) within the District extension program. Where appropriate, the program will support the agricultural development office in conducting refresher courses for already trained CAHWs and new training for others.⁵ Critical elements of this activity are community selection and responsibility for the CAHWs, practical training related to the needs of the local farmers, follow-up by the trainers. Remote PAs who do not have a veterinary clinic and are currently without CAHWs will be targeted for this activity.

Trained CAHWs should be able to perform the following activities: dehorning, spraying service for external parasites, castration, simple wound dressing, reporting of disease outbreaks to respective veterinary clinics, mobilizing the community in conjunction with their respective veterinary clinics, mobilizing the community in conjunction with

⁴ For example, Q'ires, burial societies, Senbetie (groups forming for celebrating Saints Days), etc.

⁵ SC/UK has a lot of experience in this activity in the program area. CAHWs will be selected based on the following agreed criteria: good knowledge of animal husbandry and health, ability to read and write, ability and interest to mobilize farmers and provide veterinary services and preferably a livestock owner.

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their respective veterinary clinic for mass vaccination campaigns. Their activities and performance will be monitored by agriculture development office.

At the end of the training the farmer CAHWs will be provided with basic tools and a supply of basic drugs. CAHWs will charge a fee that is about 1.5 times the cost of the drugs. Links will be made to the BoA Veterinary Department or to commercial suppliers to replenish the drug supply at cost price. CAHWs will be allowed to retain a percentage of the profit (to be decided by a committee) as an incentive for their work. Any revenues collected by the District veterinary clinics shall be deposited into a CAHW revolving fund account for future use.

Ethnovet

The purpose of this component is to conduct research on local curative measures for various animal diseases using indigenous plants (herbals) and integrate their use into the extension system. During the SC/UK commissioned study in North Wollo and Wag Himera elderly people reported that the program area was endowed with a range of alternative/indigenous medicinal plants/herbs to treat animals. The study identified 60 species. However, knowledge of their use is declining and due to a lack of conservation measures, these plant species are endangered. This program will support the laboratory testing and certification of 5 important species by the Government veterinary center. Once approved they can be raised locally and their value promoted by Government extension workers and the CAHWs.

Restocking

In an effort to diversify income, increase household assets and provide security in times of stress, sheep, and goat re-stocking will be implemented through provision of revolving funds, particularly to women headed households. The program will investigate the possibility of working through Q'ires and cooperatives as an entry point for organizing the revolving fund groups. The program will target 36 PAs over the three years, 18 PAs in each District with 50 first level beneficiaries in each PA.⁶ Each targeted household will be provided with 3 shoats each and relevant training. After one year each household should give back 3 shoats to the fund and then the second level beneficiaries will receive this support. This activity will be closely linked to the small-scale forage development activity (see below) as well as the health and nutrition component of the program.

Forage Development

The program proposes to identify, introduce and encourage growth of fodder species around farms and in house yards as linked to the small animal restocking activity described above and the conservation work of the project to increase the supply of "cut and carry" grass for livestock. SC/UK will experiment this activity in 5 pilot PAs in the first year, and will focus on more widespread forage development using EGS labor. Beneficiaries will be supported with tools, seeds and training (training on animal nutrition, improved forage seed, mixed and improved strategies for community grazing lands, raising forage seedlings in existing nurseries).

Poultry Production and Bee-keeping (and Candle making)

The program will work with MoA, Q'ires and cooperatives in 5 PAs in Gubalafto (625 beneficiaries will be targeted for poultry and 625 for bee keeping) and 6 PAs in Sekota (750 beneficiaries will be targeted for poultry and 750 for bee keeping) for managing the revolving fund.

For the development of backyard poultry production a group of 50 beneficiaries will be formed to construct the poultry houses.⁷ Labor will be paid through EGS food. On completion of the poultry houses, each beneficiary household will receive approximately 4 birds each (actual number will depend on household feed availability). Repayments to the revolving fund will be in kind to support other beneficiaries.

Each beneficiary will be provided with 3 bee colonies and necessary equipment for processing honey. Training will be provided with support from EGS food. The micro-enterprise component (section below) will explore possibilities for candle production and marketing.

⁶ Each PA has roughly 1,300 households of which on average 200 are asset poor. 25% of the asset poor will be targeted as first level direct beneficiaries.

⁷ In the past, a major obstacle to developing this activity is the labor required to construct the poultry house.

1.3.3 ENVIRONMENTAL PROTECTION AND REHABILITATION

The basic natural resource systems in the program area, on which development and human survival depend are, water, land and ecology. Scarce seasonal water supplies are a dominant annual production constraint. Apart from minimizing their impact, there is no development approach to remove the occurrence of drought. The activities under the sector are: area enclosure with enrichment planting, establish/run nurseries, vegetative gully control; road construction; water/spring development.

The principles of integrated watershed and LLPPA will be adhered. While farmers will take the lead in planning their knowledge will be supplemented with technical advice from the program.

1.3.3.1 Seedling Production and Plantation (Reforestation)

Area enclosure with enrichment planting

Community groups and/or individuals will be encouraged to establish enclosures for planting of fruit and wood trees around households or on degraded lands and gully/hillside. Areas will be protected from grazing and while encouraging 'cut and carry' system. Land Certification by the districts will assure the community's user right from the protected areas. The labor required will be paid by EGS food.

Establishment and running of family and community nurseries

The project will provide support to six MoA model nurseries during the project period. These nurseries will demonstrate improved nursery management practices and introduce new and multi-purpose tree species, and fruit tree seedling. Practical training will be provided on the production of seedlings.

Individuals will be provided with the necessary technical and material to establish and run their own nurseries. They will either plant seedlings raised on their nurseries as an integral part of agro-forestry and conservation activity or sell to other members of the community. Family nurseries will produce fruit, coffee and forage seedlings, which will contribute to household income, family diet, increase animal productivity, and while ensuring transfer of seedling raising technology.

1.3.3.2 Soil and Water Conservation (SWC)

Steep slopes, densely populated livestock and severe erosion problems characterize a major part of the project area. Most cropping land is protected by field bunds, although some of these have failed and gullies have resulted. River bank and gully erosion has also resulted in the loss of good farmland.

The SWC activities are intended to improve land productivity by promoting intensive land use and management. These activities will focus on the construction of bunds (soil and stone bunds, vetiver grass⁸) and terraces (bench and hillside terraces); construction of check dams, cut-off drains, and waterways. Agronomic practices and biological measures (like planting on bunds) are also integral parts of SWC.

1.3.3.3 Small-scale and Traditional Irrigation

In many locations there is the potential to develop small-scale irrigation activities, which can be used to produce vegetables, fruit, and fodder for livestock. This could be achieved by diverting rivers, developing springs, micro dams and ponds. Systems that do not need mechanical equipment are favored. Activities to be implemented in conjunction with BoA, SAERAR⁹ are feasibility studies, detailed design, construction and establishment of operation and

⁸ "Vetiver grass is a drought resistant plant that is able to tap water and nutrients up to six meters deep in the ground, is the natural answer to the rat infestation of thousands of kilometers of stone bunds. Vetiver is extremely hardy and a proven biological rat deterrent. ... Vetiver can be used as fodder, for thatching roofs and for tea ceremonies" (UN-EUE, Food Aid is not Development, Assessment Mission 24 May –7 June 2002). However, due to heavy run-off, vetiver cannot be used on steep slopes in the early stages of protection.

⁹ Sustainable Agriculture and Environmental Rehabilitation for Amhara Region (SAERAR) is the commission responsible for planning and implementation SSI activities.

maintenance systems. SC/UK and BoA will provide fruit and fodder production training and support on the agronomic and marketing aspects of vegetable. Hand tools, vegetable and fruit seeds will also be provided to the beneficiaries.

1.3.3.4 Community Spring Development

Improving access to clean water in the District would help to reduce the incidence of infections and contribute to reducing malnutrition.¹⁰ Therefore, objective of the water supply is to provide access to clean drinking water. Community Water Users Committees composed of a reasonable representation of women will manage developed water points. The Committee will be trained in the roles and responsibilities of the water committee, the technical aspects of repair and maintenance, and health and sanitation. There is a possibility of linking the activity with livestock, clothes washing facilities, small-scale irrigation from the run off water and the development of community showers. Field assessments and feasibility studies will be required. The Rural Water Supply Desk under the Rural Development Bureau will be the key partner. Roof water harvesting at schools and clinics will be introduced to show the communities with possibilities for improving household water supplies.

1.3.3.5 Rural Infrastructure Development

In order to saving time and improving access to services (e.g. vaccination campaigns), supply relief and agricultural inputs, increase access to markets and between PAs the importance of roads was highlighted by the community and various line ministries at the District level. Thus, following community consultation, identification and planning, feeder roads will be constructed/maintained¹¹.

The community has also identified the need for rehabilitation of schools and clinics. They will be considered when planning activities with the community.

1.3.4 NUTRITION, HEALTH AND HIV/AIDS

1.3.4.1 Improving Caring Practices

The activities seek to improve caring practices for mothers and young children by addressing, in an affordable and culturally appropriate way, the underlying problems of poverty, health and knowledge.¹² The principles behind this approach are developmental – empowering communities to address underlying chronic nutrition problems in a defined target area.¹³ SC/UK will work in conjunction with the Bureau of Health (BoH) in each District. The activities are closely linked with other components to maximize impact, without increasing women's workloads (e.g. income diversification, micro-enterprise development, food distribution, and water provision).

- This component will be piloted in 5 PAs in each District in the first year and scaled up in year 2 and 3 to other PAs based on lessons learned.
- A baseline Knowledge, Attitude and Practice survey will be conducted in the selected PAs.
- One supervisor and 10 community promoters, themselves mothers, selected on their ability to raise well-nourished children, will be chosen in each PA as peer educators. The promoters, will need a basic level of education and more likely will come from the mid wealth groups. The promoters, together with health center staff will receive initial training on appropriate messages over a 10 day period (see provisional training syllabus in Annex 8 of the project proposal)¹⁴ and will receive FFW for attending the training schedule.
- IEC materials for nutrition and health will be available in Amharic from the World Bank before the end of 2003 and will include visual aids, focus group discussion (FGD) and demonstration. IEC for HIV/AIDS is available in Amharic from within SC/UK.

¹⁰ The well documented cycle of malnutrition and infection results in the presence of one increasing significantly the appearance of the other.

¹¹ Recommendations made by Mekuria, T., *EGS Technical Evaluation Report*, ISP, SC Canada & UK, will be considered in the planning of this activity.

¹² As identified in the SC/UK research *Wealth, health and Knowledge: Determinants of malnutrition in North Wollo, Ethiopia*, 2002 – see earlier discussion in section XX.

¹³ This will incorporate HIV/AIDS IEC as HIV/AIDS is directly related to health and nutrition. Assess to IEC by mothers means access by the whole family and community.

¹⁴ The training schedule includes a range of topics such as breast feeding, weaning, balanced diet, hygiene, harmful traditional practices, transmission of HIV/AIDS and its prevention, treatment of diarrhea, immunization, child spacing/family planning)

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- Beneficiaries of the education program will be pregnant and lactating mothers with children up to 2 years of age. They will normally be EGS or general relief beneficiaries and will attend the care education training for 5 days per month in place of other EGS works.
- From SC/UK disaggregated research data, it is estimated that there would be up to 200 beneficiaries per PA, each promoter working with approximately with a group of approximately 20.
- Each community promoter will initiate a care education program in their community for selected beneficiaries. The education will take place over 5 days of each month for the period of EGS distribution. In addition, the community promoter will conduct home visits to monitor and follow-up on care practices. The promoters will receive FFW payments for conducting training and home visits. They will be expected to work for a total of 10 days per month.
- As an additional incentive, SC/UK will assist promoters to establish kitchen gardens for growing vegetable and fruit.
- A follow-up Knowledge, Attitude and Practice will be conducted at the end of the first year to assess impact and suggest changes to program implementation.
- Successful parts of the program component will be repeated in other PAs in year 2 and year 3.

1.3.4.2 Nutritional Support Activities

In times of severe food crisis, targeted supplementary food distributions will be implemented to reduce the prevalence of acute and severe malnutrition and reduce excess mortality. The program will target under 5 children, and clinically malnourished pregnant and lactating women selected based on internationally recognized entry and exit criteria. Child weighing less than 80% of the median weight for their height will be admitted. Women are admitted based on a middle upper arm measurement of less than 23 cm. Essential medicines for recovery (mebendazole, vitamin A and folic acid) will be distributed, and their recovery closely monitored. EGS grain should be provided to these vulnerable households on an adequate and regular basis. On going education for beneficiaries on the purpose and use of supplementary food is provided to ensure appropriate utilization. The supplementary distribution sites also provide an opportunity for health education and HIV/AIDS awareness raising. In conjunction with BoH, this activity will improve District level capacity for targeted, timely and appropriate disaster response.

1.3.4.3 HIV/AIDS Activities

HIV/AIDS will be a core part of all thinking, planning and implementation of all activities and not just an ‘add on’ activity. In addition to conducting IEC workshops, the social and economic factors that influences its spread will be addressed. The following direct activities will be undertaken:

- The familiarization workshops for the NPDPM will be used to distribute HIV/AIDS IEC materials and conduct IEC sessions at the District level and its use evaluated in the workshop evaluation.
- SC/UK will work through FFS, Water Committees, Q’ires, and cooperatives, to do HIV/AIDS IEC.
- SC/UK will partner with the District BoH and the HIV/AIDS desk to increase their capacity through training or networking.
- SC/UK will liaise with DKT to make links to the program beneficiaries and distribute of condoms.

1.3.5 COMMUNITY MICRO-ENTERPRISE DEVELOPMENT (AND MARKETS)

This component will pay special attention to land-less households, youth and women. Potential partners include: the newly created Regional Micro and Small Enterprise Development Agency (REMSEDA), Skills training centers, the Amhara Credit and Saving Institute (ACSI) and district cooperatives desks.

Linkages between food production and possibilities for processing will be emphasized in order to add value to the largely agricultural based activities of the program. It is envisaged that following the preliminary phase of research, community groups will establish community level micro-enterprises. Therefore, a micro-fund budget will be established. The district co-operative office will advise on how best to establish and manage such a fund. This component is important for developing longer-term strategies for income diversification and building household and community assets (human and social).

1.3.6 ANRS COMMUNITY WATERSHED MANAGEMENT SCHEME

Following an assessment commissioned by USAID a pilot integrated watershed (micro-catchment) management activity has been designed. This will establish a learning laboratory to test participatory approaches to integrated

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community watershed management in Lenchedima in Gubalefto District and Yeku in Sekota District. Virginia Polytechnic Institute and State University will provide technical support. SC/UK will support the community design and implementation of priority activities and incorporate any proven techniques into its activity design. The necessary food resources for the realization of this sub-component will be allocated from the SC/UK through the annual appeal system. Apart from focusing into specific watersheds the activities under this component are similar to that of the once under the Environmental Protection and Rehabilitation Component of this proposal.

2.0 COUNTRY AND ENVIRONMENTAL INFORMATION (BASELINE INFORMATION)

2.1 The Situation in the ANRS Region

The Amhara National Regional State (ANRS) is located in the northwestern part of Ethiopia, bordered by the Afar on the east, Benishangul on the west, Oromia on the south and Tigray region on the north and by Sudan on the west. The estimated total area of the ANRS is 170,152 square kilometers, or roughly one-sixth of the Ethiopian territory. The ANRS is divided into 12 Administrative Zones (including the Bahir Dar special zone) and 110 *Districts*.

Total population of the Region is presently estimated at approximately 14.4 million people, about 90 percent of whom are engaged in agriculture and live in rural areas. On the basis of these figures, average population density would be about 86 people to the square kilometer. The population growth rate is estimated by the Bureau of Planning and Economic Development at about 2.9 percent per annum. Average land holdings per family range from a high of 2.6 hectares in West Gojjam to 0.7 hectares in North and South Wollo; the average over the Region is estimated at 1.7 hectares. In the target food insecure areas where USAID will primarily focus its activities, family holdings from 0.2 to 0.5 hectares is not uncommon.

The altitude of the Region ranges from the about 600 masl in the western lowlands along the border with the Sudan to 4520 masl at Ras Dashen (the highest point in the country) in the Simien Mountains of North Gondar. Altitude is an extremely important determinant of average temperature, and along with rainfall, can be very influential in determining the length of the growing season and the relative agricultural production potentials. The Region includes three of the traditionally recognized agro-climatic zones: Kolla (500 to 1,500 masl) estimated at 31 percent of the total area, Weyna-Dega (1,500 to 2,300 masl) estimated at 44 percent of the area and Dega (2,300 to 3,200 masl) estimated at 25 percent of the land. Because much of the Region's agricultural activity is rainfed, the pattern, amount and length of the rainy season is another important determinant of agricultural productivity. Mean annual rainfall ranges from 300 mm. in the far east (North Wollo Zone) to over 2000 mm. in the Awi Zone. In the food insecure and drought prone *districts* of the ANRS, the length of the growing season is shorter and often affected by unreliable rainfall patterns that can decimate the planted crops.

The agriculture is predominantly mixed. Overgrazing is one of the principal causes of land degradation leading to soil erosion-- the most significant natural resources issue in the Region. Traditional agriculture is also causing massive soil erosion and soil fertility depletion throughout the ANRS. Estimates of average erosion rates range from 20 to 100 tons/hectare/year.

2.2 The situation specific to the project areas

Gubalefto and Sekota districts are located in North Wollo and Wag Hemra zones of ANRS respectively. See attached map of the project area. Due to extremely degraded resource base, households in the project districts are rarely able to meet their household nutritional requirements, even in years of "normal" rainfall. The districts are densely populated and having an estimated per capita food consumption of less the 1.9 kilocalories per day.

As degradation increases and spreads, the off-site consequences, both direct and indirect, begin to become more acute and affect the development options and potential over a wider area and for a larger segment of society. Watershed degradation begins to affect the hydrological cycle, bringing greater flooding during the rainy season and lower lean flows during the dry season. This in most cases forecloses the options for irrigation potential dependent on lean season flows. Flooding damages roads and rural infrastructure. Disintegrating community structure and social welfare needs add relief burdens absorbing larger amounts of the districts budget that might otherwise be used for development activities. Given the unique combination of bio-physical attributes and socio-economic conditions in the districts, the impacts of watershed degradation can have as an profound effect on food security and development potential as found

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anywhere else in the world. The seriousness of the situation should not be under-estimated. Those most severely affected by this degradation are clearly the farm families inhabiting the area.

Sekota and Gubalafto are a microcosm of the national situation, where access to resources and services is limited. This has a negative impact on overall food security and limits potentials for improving livelihood strategies. Poor health and sanitation facilities undermine the health of the population and their ability to be productive. The most commonly used water sources are springs, boreholes, rivers and lakes, all of which are unprotected, and again are shared by animals and humans. The use of unclean water for washing and drinking has been highlighted as one of the leading causes of diarrhea and intestinal infections.¹⁵ Lack of access to education opportunities, especially for girls, limits possibilities for livelihood diversification. An inadequate road system (particularly in Sekota) reduces possibilities for opening up markets and access to services.

The undeniably fragile nature of agriculture has led many people in the program area to seek other earnings in cash or kind. Cutting and selling wood and laboring which have economic importance for food insecure households. Despite the sometimes-crucial economic importance of activities such as cotton-spinning and weaving SC/UK's experience has found that people viewed these activities as a temporary supplement to farming. Not only does farm work garner greater respect, but some of the other activities are engaged in with reluctance, if at all, for cultural reasons. However, whilst agricultural activities are the traditionally and culturally preferred means of supporting the household, off-farming livelihood strategies (which would include processing of farm produce to produce goods such as butter, skins, candles, etc), offer one of the greatest potential for development. The cultural significance of land may be the most important barrier to diversification of livelihood strategies.

2.3 Environmental Policies and Procedures

Ethiopia has a National Conservation Strategy, which has formed the basis for its National Environmental Action Plan, as well as a Forestry Action Program. A comprehensive statement of environmental policy was approved in April 1997, based on the policy and findings of the Volume II of the Conservation Strategy. The Environmental Protection Authority (EPA) has published Environmental Impact Assessment Guidelines as well as guidelines devoted to agricultural sector development projects. Regional level devolution of authority for certain types of projects is anticipated.

Regional Commissions for Sustainable Agriculture and Environmental Rehabilitation (CO-SAERs) are being promoted under the new federal structure of government in several regions and play an important role in the development of agricultural interventions.

The ANRS has passed two significant Proclamations dealing with the environment and land use. Proclamation 46/2000 was issued to "Determine The Administration and Use of The Rural Land in The Amhara National Region". The document assures land use rights and responsibilities for individual and common ownership, as well as Government responsibilities for monitoring and action.

Proclamation 47/2000 was issued for creating the office of "Environmental Protection, Land Administration and Use Authority", which has already been established in 2001. The framework Environmental Protection Act is thorough, and provides environmental standards, not yet guidelines for subsequent legislation and/or regulations. Subject for the review and approval by the regional council, the Authority is currently working to develop an Act for the management of public lands and further refinements in ensuring user rights.

3.0 EVALUATION OF ISSUES WITH RESPECT TO ENVIRONMENTAL IMPACT POTENTIAL

3.1 GOVERNMENT AND COMMUNITY CAPACITY BUILDING COMPONENT

¹⁵ The well documented cycle of malnutrition and infection results in the presence of one increasing significantly the appearance of the other.

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No direct or indirect environmental impacts are envisioned from activities involving crop and livestock production and natural resources management practices planned under the capacity building component, which include technical assistance, provision of material (such as vehicle and motorbikes), training, and mentoring of programs aimed at supporting the planning and implementation of community-based food security initiatives.

3.2 AGRICULTURE AND LIVESTOCK

Mixed agriculture, involving crop and livestock production, is the main livelihood strategy practiced by almost all farmers in the target areas.

The activities will provide risk guarantee to enable households' experiment with improved crop and livestock practices and technologies preventing asset depletion and contribute to income diversification in the long term.

3.2.1 Participatory Agriculture and Extension Research

With the exception of the IPM related activities, which is small and conducted under controlled environment, the technologies and varieties to be tested, demonstrated and evaluated are the once certified by the national approval committee and negative environmental impacts are not likely to arise. The same holds true for researches related to crop diversification, soil fertility, moisture conservation, and alternate cropping practice (such as minimal tillage, row cropping, inter-cropping). Introducing varieties such as *Triticale*, has the advantage that it is not a hybrid and hence is self-pollinating and can repeatedly be used as seed stock without a reduction in output. Provision of cultivation support to labor poor households, promotion of kitchen gardens closely linked to the nutrition, health and HIV/AIDS component, and establishing community grain bank will not have negative environmental impacts.

3.2.2 Animal health and Husbandry

The potential negative impacts of dairy development are land degradation due to over grazing (over stocking) and unsafe handling and disposal of veterinary health wastes, promotion of the use of indigenous medicinal plant to cure animal diseases may endanger the bio diversity, and introduction of new pests and weeds with the newly introduced legume and grass forage species. The environmental risk associated with the provision of small ruminants is outbreak of new diseases. SC/UK will not introduce exotic species. Hence, no adverse environmental impact is expected from the small ruminant production.

Unless controlled using appropriate technology, improper disposal and accumulation of wastes (feces and urine) of livestock might have health hazard. Moreover, unless controlled, the increase in the livestock population over and above the bearing capacity of the resource will have a dramatic negative impact of furthering the degradation process.

The contribution to the pollination of field crops and trees is an added positive value of the bee keeping activity. Apart from acquainting farmers with appropriate, adequate and productive bee keeping technologies, there is no intention of introducing new bee species, hence, no adverse environmental impact are expected from this activity. The making of candle out of wax will serve as alternative energy resource and hence has a positive environmental impact.

Introduction of exotic poultry breeds may bring some diseases and adaptability problems to the local area. The types of exotic breeds are checked for their adaptability to the locality prior to their introduction. Hence no potential negative environmental impact will arise.

3.3. ENVIRONMENTAL PROTECTION AND REHABILITATION

3.3.1 Seedling Production and Plantation (Reforestation)

Potential negative environmental impacts of reforestation and area enclosure activities are:

- ◆ Introduction of new plant species may lead to less farming of the local plant species, particularly if the new species has outstanding features preferred by the community over the local species (e.g. Eucalyptus in many parts of Ethiopia), resulting in loss of bio-diversity. New species may induce outbreaks of pest and become susceptible to drought or other local weather calamities.
- ◆ Excavation of soil and formation of borrow pits that may form stagnating water harbouring water born diseases.
- ◆ Some grasses and vegetative barriers could spread dramatically and invade adjacent croplands, though it is less likely for the latter. This could result in a serious weed problem and decrease in yield.
- ◆ Closure of grazing areas and fuel wood collecting areas may induce (increase) pressure for serious degradation in the remaining unclosed areas.

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- ◆ Potential conflict over resource on grazing and closed communal areas.
- ◆ Planting of tree species such as Melia Azadarch or Neem may affect apiculture expansion,
- ◆ Planting tree species such as Eucalyptus close to water sources will deplete and lower the level of ground water table.
- ◆ Inappropriate use of chemical/unregistered banned pesticides in nurseries and out planting fields will have negative impact.
- ◆ Improper handling and disposal of polyethylene tubes could disturb the environment.

3.3.2 Soil and Water Conservation (SWC)

Although these activities are implemented for the purpose of soil and water conservation and environmental protection, there are instances where improperly planned and designed constructions could have a detrimental effect on the environment. Below is an analysis of the potential adverse environmental effects that physical conservation measures could have if not properly implemented:

- ◆ Inappropriate layout and construction of structures could result in erosion,
- ◆ Inappropriate SWC techniques can take more land thereby reducing cultivable land size,
- ◆ Structures such as stone bunds may harbour rodents, which will cause damage to crops,
- ◆ Soil disturbance during construction could lead in poor growth of vegetation,
- ◆ The structure and vegetation covers might hinder livestock movement,
- ◆ Construction of level structures on slopes where less previous soils underlay more permeable shallow soils may induce water logging and/or aggressive landslide, and
- ◆ Very serious damage can be created where graded waterways and terraces conveying excess run-off, are constructed to discharge into unstabilized outlets/waterways/erosion prone areas.

It is believed that, if all tree plantation and SWC activities are properly planned and implemented in tandem with the activities ensuring communities user rights through such pilot land registration/titling exercises planned under the program, significant positive environmental impacts could be achieved.

3.3.3 Small-scale and Traditional Irrigation

The possible negative environmental impacts associated with the development of small-scale irrigation (SSI) are:

- ◆ Seepage into groundwater due to inefficient conveyance and on farm distribution system,
- ◆ As the source of the water and the soil type is not expected to be salty and water is a very scarce in the area, which calls for prudent use of water, salinity due sources problem, and/or groundwater level build up is not expected arise. Instead the likely negative impact wilting of crops due to water stress in extreme years.
- ◆ Soil fertility and quality degradation under intensified cropping systems,
- ◆ Soil erosion due to surface run-off,
- ◆ Conflict with downstream water users, and
- ◆ Health related disease hazards arising from stagnating water over canals and irrigation field.

There is no wetland and forested lands in the areas.

3.3.4 Community Spring Development

Possible adverse environmental effects associated with water supply development are:

- ◆ Conflict over water resource,
- ◆ Source of water could be polluted due to contaminated water entering close to the spring.
- ◆ Spilled water could stagnate and become a habitat for breeding of waterborne diseases.
- ◆ Over grazing around water points due to excess livestock.
- ◆ Poor management of water points and poor environmental hygiene and sanitation practices.
- ◆ Potential water quality problem may arise due to dust practices and birds sheltering on the roof may contaminate cisterns.

3.3.5 Rural Infrastructure Development

In order to save time and improve access to services construction and maintenance of feeder roads and rehabilitation of schools and clinics will be implemented as part of the community support activity.

Road construction has a direct environmental impact on the actual site and the immediate environs. There is also the potential for an indirect impact on adjoining areas. The total area affected by rural roads may experience

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economic, social or environmental effects, whether planned or unintended, due to increased access and lower transportation costs.

Air, water, dust and noise pollution, generally associated with big roads or highways, are not major problems of these rural access roads, because the access roads are very small and are meant to be used by vehicles from either SC/UK or other partners.

The other potential adverse environmental impacts include: loss of vegetation, concentration of roadside flows resulting into soil erosion and gully formation. In addition to damaging the land and vegetation, erosion also causes serious sedimentation and silt up of farmlands and surface waters.

As the types of schools and clinics to be constructed/rehabilitated are very small in size (less than 10,000 sq. ft) no major activity of earth movement (that trigger negative impacts over the environment) will take place.

3.4 NUTRITION, HEALTH AND HIV/AIDS

The activities include baseline survey, training, workshops, meetings, transfer of documents, education, initiating nutrition promotion activities, access to MCH services, promotion of environmental and personal hygiene, infection prevention and control, provision of IEC materials, and distribution of condoms. Neither physical construction works nor activities resulting into disposal of health wastes triggering negative environmental impact are linked to this component. None of these activities have negative environmental impact.

3.5 COMMUNITY MICRO-ENTERPRISE DEVELOPMENT (AND MARKETS)

The types of enterprises to be promoted are not going to heavily depend on the already fragile natural resource base.

Potential environmental & health concerns arising as a result of implementing credit, enterprise support and technician assistance activities in relation to such income generating activities are livestock management, pottery, and food preparation. Increase in the livestock population may result into further degradation the grazing areas (see section on animal health and husbandry). Excessive excavation of quarry sites to get raw materials for pottery activity may result into formation of borrow pits serving as a place for stagnant water and hence a breeding place for water-borne diseases. Unless conservation measures are in place, it may also result into reduction of farmlands. Improper disposal of degradable byproducts of the food preparation activity may lead into increased reproduction and outbreak of disease organisms.

3.6 ANRS COMMUNITY WATERSHED MANAGEMENT SCHEME

Apart from focusing into specific watersheds, the activities under this component are similar to the once under the Environmental Protection and Rehabilitation Component of this proposal. Hence their evaluation is covered under the same component.

4.0 RECOMMENDED MITIGATION ACTIONS (including monitoring and evaluation)

4.1 Recommended Determinations

Categorical Exclusions are recommended for technical assistance, training, study, surveys, capacity building, data collection and analysis, document and information transfer; and pre-feasibility level studies for the eventual development of integrated watershed and rural infrastructure (potable water supplies, small-scale irrigation and farm to market road rehabilitation) activities pursuant to 22 CFR 216.2(c)(1)(i) and 216.2(c)(2)(i), (iii) and (v), since such activities have no or limited scope of physical interventions and no direct effects on the environment. This also applies for controlled experimentation per 22 CFR 216.2 (c) (2) (ii), for support to intermediate credit institutions per 22 CFR 216.2 (c) (2) (x); nutrition, health, small-scale construction/rehabilitation of facilities or structures with a floor area not exceeding 10,000 square feet; and family planning activities per 22 CFR 216.2 (c) (2) (viii); iron supplementation, provision of iodized salt/micro-nutrients, and maternal or child feeding program 22 CFR 216.2 (c) (2)(xi), and commodity import program per 22 CFR 216.2 (c) (2) (ix).

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This Categorical Exclusion does not apply if activities directly affect 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).

A **Negative Determination with Conditions** is recommended for training on the handling, management and marketing of modern inputs pursuant to 22 CFR 216.3 (a)(2)(iii), particularly but not limited to pesticides, having significant risks to human health and agricultural and environmental sustainability if used inappropriately. The **conditions** are as follows:

- ◆ when appropriate, emphasis will be placed within the training modules on issues of pesticide safe handling, packaging, labeling, and application. The training must itself be certified by the Ministry of Agriculture (MoA) as meeting or exceeding the MOA's standards for training for certification of retailers to secure licenses to sell pesticides;
- ◆ objective and experienced presenters will provide training in integrated pest management (IPM) strategies and technologies to augment the safe pesticide use training messages;
- ◆ only products registered by the US Environmental Protection Agency (USEPA) for the uses recommended in the training will be discussed;
- ◆ principles of agricultural sustainability will be included in all the training modules, pointing to the potential inappropriate uses of fertilizer, seed germplasm and other technologies; and others to be specified in the USAID/E supported Pesticides Evaluation Report and Safer Use Action Plan (PERSUAP) to be developed soon.

Categorical Exclusions are not applicable to assistance involving the procurement or use of pesticides pursuant to 22 CFR 216.2 (e).

A **Negative Determination with Conditions** is recommended for reforestation (biological) and physical soil and water conservation measures per 22 CFR 216.3 (a) (2) (iii). The **conditions** relate to the assurance that the activities, which are explicitly designed to address the environmental degradation issues, are appropriately monitored to avoid/minimize unintended negative environmental impacts.

A **Negative Determination with Conditions** is recommended for:

- the introduction and provision of improved seeds, vegetables and fruit production; seed multiplication;
- forage development; bee-keeping and poultry production; livestock and small ruminant health and production;
- water supply development for domestic and livestock (construction of springs, hand dug wells, ponds (under 10,000 cu.m., with dams less than 2 m high and 30 m long) and roof water harvest systems);
- introduction of appropriate technologies (such as improved farm implements e.g. sub cultivator, post harvest and food technologies, fuel saving stoves, bio-gas, etc.),
- provision of food for development, support to community-based grain and seed banks, support to intermediate credit institute pursuant to 22 CFR 216.3 (a) (2) (iii).
- commodity procurement and building of small facilities less than 1,000 square meters in area. Should construction of facilities over 1,000 square meters in area become necessary, SC/UK will insure that an examination of the site(s) is conducted using checklist 2 Building Construction from the "Handbook on Environmental Assessment of NGO Programs and Projects" to identify and mitigate potential impacts.

The **conditions** are that these activities will be implemented while making sure that reasonable recommendations for planned mitigation measures are being instituted and monitored to minimize potential negative environmental impacts. The project staff of SC/UK, as well as the USAID/Ethiopia Mission Environmental Office (MEO) and the USAID Regional Environmental Officer (REO) will undertake monitoring to the extent possible. See www.encapafrika.org. All Water Supply and Sanitation (WATSAN) activities will be implemented and monitored in accordance to and to meet the recommendations of the USAID/Ethiopia Potable Water and Environmental Sustainability Study of Dennis Warner et al, March 2000.

A **Deferral** is recommended for activities related to procurement and use of pesticides for the production and storage of crops, and livestock ecto-parasites control, pursuant to 22 CFR 216.3(a)(7)(ii),

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pending submission and approval of an amended IEE following completion of the USAID/Ethiopia initiated Pesticide Evaluation Report and Safe User Action Plan (PERSUAP), which takes the place of a **Programmatic Environmental Assessment** (PEA) of the control options.

SC/UK declares that implementation of any one of these activities will not take place using USAID resources until the deferral is lifted through the subsequent submission and approval of an amended IEE as per the recommendations of the PEA.

A Deferral is recommended for activities related to the construction of small-scale irrigation (SSI) schemes to be identified above 50 ha in size. SC/UK prepare an Amended IEE on an annual bases using the Environmental Screening Form (ESF) recommended by Thomas Catterson et al., 1999, PEA for Small-scale Irrigation in Ethiopia, sponsored by CRS/USAID for those schemes to be identified, studied and designed for ultimate submission to USAID/Ethiopia as part of its annual Environmental Status Report (ESR) submission.

A Deferral is recommended for any pond, micro-dam or catchment construction where the volume of water to be impounded would exceed 10,000 cu m, and the dam for which exceeds 2 m in height and/or 30 m in length. These review requirements would be addressed under the Amended IEE to be submitted and approved by USAID/E each year.

A Deferral is also recommended for the construction of small rural roads. Each segment of road will be analyzed using a Roads ESF and in reference to the Low-Volume Roads Engineering Best Management Practices Field Guide, Gordon Keller et al, June 2001 to meet the review requirement under an umbrella process in an Amended IEE to be submitted and approved by USAID/E each year.

A sub-grants system is going to be in place, where screening of individual activities of SSI, roads and micro-dam will take place throughout the life of the R2D. Thus an ESF/ESR approach in which the proposed activities are individually subject to a subsequent iterative screening and reporting process under the umbrella of this IEE is considered. Amendment of all deferred activities should be done so as to capture all such activities at the same time by requiring an Environmental Status Report (ESR), which is the amended IEE, every year. As long as all actions are covered together in these annually amended IEEs, SC/UK determines that a separate ESF/ESR process may not be called for each individual activity.

4.2 Mitigation and Monitoring

This section presents mitigation measures and recommendations for activities for which threshold decision of negative determination with conditions is recommended. The recommended specific mitigation and monitoring measures for each activity with negative determination with conditions are described as follows:-

4.2.1 Government and Community Capacity Building component

No direct or indirect environmental impacts are envisioned from activities involving crop and livestock production and natural resources management practices implemented under the capacity building component and hence no specific mitigation measure is recommended.

4.2.2 AGRICULTURE AND LIVESTOCK

4.2.2.1 Participatory Agriculture and Extension Research

- ◆ The technologies to be introduced such as soil fertility management, moisture conservation, and alternate cropping practice (such as minimal tillage, row cropping, inter-cropping) and varieties to be introduced to the communities are the once certified by the national approval committee. SC/UK will as much as possible promote crop, vegetable and fruit varieties that are native and commonly grown to have a locally proven adaptability; and will not introduce exotic species.
- ◆ IPM training will include sessions on proper use of pesticides in conformity with the USAID/Ethiopia PERSUAP.

4.2.2.2 Animal Health and Husbandry

- ◆ SC/UK will promote cut-and-carry system to feed livestock and small ruminants to avoid the risk of over grazing of closed and adjacent unclosed areas, and at backyards,
- ◆ Promote the propagation of local grasses and legume seeds to minimize the risk over domination by exotic seeds, and introduction of new pests and weeds. To meet the increasing demand for feed, SC/UK will introduce new forage and other seeds only after strict quarantine examination is undertaken and the MoA certifies its subsequent release.
- ◆ Ensure that veterinary health wastes are disposed as per the MoA standard,
- ◆ Promote appropriate organic manure disposal techniques so that health hazard from accumulated wastes (feces and urine) is avoided.
- ◆ After conducting an inventory of endangered medicinal plant species, SC/UK will promote conservation practices of protecting the endangered from extinction in collaboration with the BoA. SC/UK will train farmers and BoA staff regarding conservation of these indigenous medicinal plants to be used for curing animal diseases.
- ◆ SC/UK does not intend to introduce exotic shoat species. Hence, no adverse environmental impact is expected from the small ruminant production in this connection.
- ◆ SC/UK will check the types of exotic poultry breeds to be introduced together with the staff of BoA for their adaptability, under farmers' management, to the locality prior to their introduction.

4.2.3 Environmental Protection and Rehabilitation

4.2.3.1 Seedling Production and Plantation (Reforestation)

Establishment of tree nurseries, seedling production, seed collection, sowing grass seeds, planting vegetative materials and area closures will be undertaken according to the technical norms of the BoA and as per the Land Administration Guideline of ANRS. If these technical norms are closely adhered SC/UK believes that the activities will not have a significant adverse impact on the environment. Some of the mitigation measures are:

- ◆ The species selected are environmentally compatible with the ecology of the area and economically useful. SC/UK will only introduced species that have been approved by BoA.
- ◆ Use mixed planting of exotic and indigenous species wherever planting of recognized exotic species is found viable to the intended purpose. Promote tree and grass species that are compatible with crop production system, having economic benefit and without endangering the environment,
- ◆ Restrict planting of water depleting types of tree species,
- ◆ Undertake biological and physical soil and water conservation measures in areas where soil is excavated to supply nurseries,
- ◆ Polythene tubes will be disposed using appropriate methods of disposal in collaboration with BoA,
- ◆ Encourage and expand enclosure areas to maintain the bio-diversity of tree, shrub, herb and grass species, while keeping communities advised and plan for introducing a cut-and-carry system to protect adjacent areas not closed by the project from further degradation.
- ◆ Select and grow those species attracting bees in areas where there is apiculture production. Planting of tree species such as Melia Azadarch or Neem may affect apiculture and their expansion will be minimized until the negative impacts, if any, are further researched.
- ◆ Encourage formation of a community-based management system and a bye-law ensuring equitable use of communally owned forest/tree and grazing area,
- ◆ Training will be provided to the beneficiaries on conservation of dry season feeding through cut and carry system from closure areas and beyond.

In the event that the level of pest infestation in nurseries and plantation areas justify introduction of IPM practices and the use of chemicals SC/UK will submit an amended IEE for USAID/E approval according to the PERSUP to be developed by USAID/Ethiopia.

4.2.3.2 Soil and Water Conservation (SWC)

Hillside terraces, stone and soil bunds, check dams, micro basins, trench and cutoff drain and artificial waterway will be constructed according to the technical norms of "Guidelines for Soil Conservation in Ethiopia". If these technical norms are closely adhered the activity will not have significant negative impact on the environment. Some of the mitigation measures are:

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- ◆ SC/UK will assign an experienced SWC technician who is cognizant of the potential negative impacts of the activity and familiar with the appropriate mitigation measures,
- ◆ Enable community members to plan, design, implement (maintain) and monitor physical SWC activities through demonstration of best practices and continuous training,
- ◆ Involve farmers in the decision making process at all stages of the project cycle, among others, to avoid the introduction of unacceptable technologies, even though demonstrated,
- ◆ Conduct frequent site monitoring and evaluation by the BoA and SC/UK extension agents/technicians during the construction and subsequent operation,
- ◆ Integrate biological conservation measures, to ensure stabilization of structures while benefiting the farmers, and
- ◆ Protect conserved areas from interference of livestock thereby convincing communities and providing alternate footpaths and cattle tracks that will not disturb constructed structures.

It is believed that, if all tree plantation and SWC activities are properly planned and implemented in tandem with the activities ensuring communities user rights through such pilot land registration/titling exercises planned under the program, significant positive environmental impacts could be achieved.

4.2.3.3 Small-scale and Traditional Irrigation

Proposed mitigation measures to avoid negative environmental impacts associated with the development of small-scale irrigation (SSI) are:

- ◆ Consider existing and potential downstream and upstream users during planning and design to avoid conflict. Involve all affected in the decision making process,
- ◆ Undertake on farm SWC measures where the irrigation land is steep, to increase water use efficiency in good years and to meet moisture deficits in extreme years,
- ◆ Introduce early maturing and drought resistant varieties to meet moisture deficits in extreme years and to increase water use efficiency in good years.
- ◆ Introduce appropriate on farm water application system and use lined canals to reduce losses,
- ◆ Design the canal system to minimize erosion risk and avoid stagnant water in canals,
- ◆ Introduce improved agricultural practices of managing soil fertility and quality degradation under intensified cropping systems, control of inputs, etc,
- ◆ To be on the safer side, SC/UK will monitor soil salinity periodically with the appropriate government authorities; and will undertake leaching of salts by flushing soils in the event that problem of salinity is observed.

Prior to the implementation of the SSI activities SC/UK will undertake rigorous study and design of proposed schemes inline with the USAID/Ethiopia PEA for SSI (Catterson et al., CRS/USAID 1999).

4.2.3.4 Community Spring Development

Proposed mitigation measures to avoid negative environmental impacts associated with water supply development are:

- ◆ All affected communities will participate during decision making,
- ◆ Divert contaminated sources of water that could pollute springs from entering close to the spring.
- ◆ Provide proper drainage systems.
- ◆ Place cattle troughs far away from water points and fence the source area and supply point,
- ◆ Training of communities on the management and operation, environmental hygiene and sanitation practices, and
- ◆ Carry out water quality tests for the level of total colliform, Nitrate, arsenic, fluoride etc. upon completion of constructed/rehabilitated of all the schemes and regularly during the operation.

SC/UK is committed to ensure that all WATSAN activities will be implemented and monitored in accordance to and to meet the recommendations of the USAID/Ethiopia Potable Water and Environmental Sustainability Study of Dennis Warner et al, March 2000.

4.2.3.5 Rural Infrastructure Development

With regards to Rural Access Road Construction and Maintenance the following Mitigation measures are includes:

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- ◆ A professional engineer with experience in road construction and environmental mitigation measures will design and supervise the construction of all the road.
- ◆ Technical staff responsible for road design and construction activities will be trained in environmental monitoring and mitigation measures prior to construction.
- ◆ Both biological and physical soil conservation measures should be applied to minimize erosion.
- ◆ All burrow pits and quarry sites must be properly drained or back filled.

Prior to the implementation, each segments of roads will be analyzed using Environmental Screening Form (ESF) and in reference to the Low-Volume Roads Engineering Best Management Practices Field Guide, Gordon Keller et al, June 2001 to meet the review requirement under an umbrella process in an Amended IEE to be submitted and approved by USAID/E each year.

Moreover, SC/UK will insure that an examination of the site(s) is conducted using checklist 2 Building Construction from the “Handbook on Environmental Assessment of NGO Programs and Projects” to identify and mitigate potential impacts.

4.2.4 NUTRITION, HEALTH AND HIV/AIDS

In spite of the fact that neither physical construction works nor activities resulting into disposal of health wastes triggering negative environmental impact are linked to this component no mitigation measure is required. Nevertheless, SC/UK will include environmental considerations and promotion of available best practices as an integral part of the training undertaken under this component.

4.2.5 COMMUNITY MICRO-ENTERPRISE DEVELOPMENT (AND MARKETS)

Though SC/UK is not going to promote micro-enterprise activities that are going to heavily depend on the natural resource base, it will undertake a proactive mitigation measures of addressing potential environmental & health concerns that may arise. In this regard the USAID Africa Bureau’s *Environmental Guidelines for Small-scale Activities in Africa*, 2nd Edition, which comprises a new section on Activities with Micro- and Small Enterprises (MSEs) will be deployed. See www.encapafrika.org. Mitigation measures resulting from the livestock raising types of income generating activities is already treated under Animal Health and Husbandry section of this IEE.

4.2.6 ANRS Community Watershed Management Scheme

Apart from focusing into specific watersheds, the activities under this component are similar to the ones under the Environmental Protection and Rehabilitation Component of this proposal. Hence the appropriate mitigation measures are already covered under the same component.

In general SC/UK will include environmental considerations and promotion of available best practices as an integral part of all the training undertaken in the program.

4.3 Monitoring and Evaluation

To ensure compliance with the mitigation measures monitoring and evaluation will be carried out regularly. Monitoring and Evaluation will take place as described in the Mitigation and Monitoring Table I below.

5.0 SUMMARY OF FINDINGS

This IEE provides threshold decisions for activities that are part of the Relief to Development (R2D) program under the two closely linked USAID/Ethiopia Strategic Objectives (SOs), SO 7 (Rural Household Production and Productivity Increased (RHPP SO) and SO 11 Mitigate the Effects of Disaster (MED SO). The Agriculture and Natural Resources (ANR) Office of the Mission will manage the program.

Based on the use of a proactive approach, incorporation of appropriate mitigation measures and the monitoring plan specified in this IEE, to which the implementing partner SC/UK commits itself, the following environmental determinations are recommended:

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Categorical Exclusions are recommended for technical assistance, training, study, surveys, capacity building, data collection and analysis, document and information transfer; and pre-feasibility level studies for the eventual development of integrated watershed and rural infrastructure (potable water supplies, small-scale irrigation and farm to market road rehabilitation) activities pursuant to 22 CFR 216.2(c)(1)(i) actions having no significant effect on the environment and 216.2(c)(2)(i) education and training, (iii) workshops and meetings and (v) document and information transfers, since such activities have no or limited scope of physical interventions and no direct effects on the environment. This also applies for controlled experimentation per 22 CFR 216.2 (c) (2) (ii), for support to intermediate credit institutions per 22 CFR 216.2 (c) (2) (x); nutrition, health, small-scale construction/rehabilitation of facilities or structures with a floor area not exceeding 1,000 square meter; and family planning activities per 22 CFR 216.2 (c) (2) (viii); iron supplementation, provision of iodized salt/micro-nutrients, and maternal or child feeding program 22 CFR 216.2 (c) (2)(xi), and commodity import program per 22 CFR 216.2 (c) (2) (ix).

A **Negative Determination with Conditions** is recommended for training on the handling, management and marketing of modern inputs pursuant to 22 CFR 216.3 (a)(2)(iii), particularly but not limited to pesticides, having significant risks to human health and agricultural and environmental sustainability if used inappropriately. The **conditions** are as follows:

- emphasis will be placed within the training (be certified by the Ministry of Agriculture (MoA)) modules on issues of pesticide safe handling, packaging, labeling, and application;
- training will be provided in integrated pest management (IPM) strategies and technologies;
- only products registered by the US Environmental Protection Agency (USEPA) will be discussed in the training;
- training on the mitigation of potential inappropriate uses of fertilizer, and seed germplasm, and others to be specified in the Pesticides Evaluation Report and Safer Use Action Plan (PERSUAP) to be developed soon.

Categorical Exclusions are not applicable to assistance involving the procurement or use of pesticides for any purpose pursuant to 22 CFR 216.2 (e).

A **Negative Determination with Conditions** is recommended for biological and physical soil and water conservation measures per 22 CFR 216.3 (a) (2) (iii). The **conditions** are that the activities are appropriately monitored to avoid/minimize unintended negative environmental impacts.

A **Negative Determination with Conditions** is recommended for the introduction and provision of improved seeds, vegetables and fruit production seed multiplication, forage development, bee-keeping and poultry production, livestock and small ruminant health and production, water supply development for domestic and livestock [construction of springs, hand dug wells, ponds (under 10,000 cu.m., with dams less than 2 m high and 30 m long) and rainwater harvest systems], introduction of appropriate technologies (such as improved farm implements e.g. sub cultivator, post harvest and food technologies, fuel saving stoves, bio-gas, etc.), provision of food for development, support to community-based grain and seed banks, support to intermediate credit institute pursuant to 22 CFR 216.3 (a) (2) (iii), commodity procurement and building of small facilities exceeding 1,000 square meters in area. SC/UK will insure that an examination of the site(s) is conducted using checklist 2 Building Construction from the “Handbook on Environmental Assessment of NGO Programs and Projects” to identify and mitigate potential impacts. See www.encapafrika.org.

The **conditions** are that planned mitigation measures are being instituted and monitored to minimize potential negative environmental impacts. SC/UK will provide adequate training to its staff, its partners, Community-Based Organizations (CBOs) involved in program implementation on the USAID Environmental Procedures to ensure that mitigation measures are in place. The project staff of SC/UK, the MEO and the REO will undertake monitoring to the extent possible. Water Supply and Sanitation (WATSAN) activities will be implemented and monitored in accordance to and to meet the recommendations of the USAID/Ethiopia WATSAN Study of Dennis Warner et al, March 2000.

A **Deferral** is recommended for procurement and use of pesticides for the production and storage of crops, and livestock ecto-parasites control, pursuant to 22 CFR 216.3(a)(7)(ii), pending submission and approval of an amended IEE following completion of the PERSUAP. SC/UK declares that implementation of any one of these activities will not take place using USAID resources until the deferral is lifted.

A **Deferral** is recommended for the construction of small-scale irrigation (SSI) schemes above 50 ha in size. SC/UK will prepare and submit to USAID/E an amended IEE on an annual bases using the Environmental Screening Form (ESF) recommended by Thomas Catterson et al., 1999, PEA for Small-scale Irrigation in Ethiopia, as part of its annual Environmental Status Report (ESR).

A **Deferral** is recommended for any pond, micro-dam or catchment construction where the volume of water to be impounded would exceed 10,000 cu m, and the dam for which exceeds 2 m in height and/or 30 m in length. These review requirements would be addressed under the amended IEE to be submitted and approved by USAID/E each year.

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A **Deferral** is recommended for the construction of rural roads. Each segment of road will be analyzed in reference to the Low-Volume Roads Engineering Best Management Practices Field Guide, Gordon Keller et al, June 2001 to meet the review requirement under an umbrella process in an amended IEE to be submitted and approved by USAID/E each year.

A sub-grants system of screening individual activities of SSI, roads and micro-dam will take place. Activities are subject to a subsequent iterative screening and reporting (ESR/ESF process) under the umbrella of this IEE. Amendment of all deferred activities should be done so as to capture all such activities at the same time by requiring an ESR, which is the amended IEE, every year. As long as all actions are covered together in these annually amended IEEs, SC/UK determines that a separate ESF/ESR process may not be called for each individual activity

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TABEL I – Monitoring and Mitigation Measures to Address Conditions for Recommended Negative Determinations of SC/UK R2D Project

Objective/Purpose Potential Input	Potential Significant Environmental Impacts	Mitigation for Impact	Monitoring of Mitigation	Recommended Threshold Determination
<p>Agriculture And Livestock</p> <p>Participatory Agriculture and Extension Research</p>	<ul style="list-style-type: none"> - Infestation of pest due to introduction of exotic seeds, - Endangering endogenous species land degradation due to increase in livestock population resulting over grazing, 	<ul style="list-style-type: none"> - Varieties to be introduced are the ones certified by the national approval committee and have a locally proven adaptability - Conduct IPM training in conformity with the USAID/Ethiopia PERSUAP 	<ul style="list-style-type: none"> - ensure that introduced technologies are approved by GOE and are promoted by the MOA. - Make sure that IPM training is conducted 	<p>Negative w/ conditions</p>
<p>Animal Health and Husbandry</p>	<ul style="list-style-type: none"> - Unsafe handling and disposal of veterinary wastes, - Endangering indigenous medicinal plant used to cure animal diseases, - Introduction of new pests/diseases and weeds with the new legume and grass forage species; and provision of small ruminants - Improper disposal and accumulation of wastes (faces and urine) of livestock leading to health Hazard. 	<ul style="list-style-type: none"> - Introduction of cut-and-carry system and fodder plantation, SC/UK will not introduce uncertified exotic species of fodder and shoats. - Veterinary wastes will be Handled as per the MoA standard. - Promote appropriate organic manure disposal techniques. - Use medicinal plant species for curing animal diseases, with due attention of protecting them from extinction. 	<ul style="list-style-type: none"> - Field visits (all visits will be pre, during and post implementation) by extension staff and SC/UK technician and training - Ensure that farmers and BoA staff are trained regarding conservation of these indigenous medicinal plants, and undertake inventory and check changes, - Ensure that veterinary wastes are handled per the MoA standard 	<p>Negative w/ conditions</p>
<p>Environmental Protection and Rehabilitation</p> <p>Seedling Production and Plantation</p>	<ul style="list-style-type: none"> - New plant species may lead to less farming of the local species, resulting in loss of bio-diversity. - New species may induce outbreaks of 	<ul style="list-style-type: none"> - Nurseries and area closures will be managed according to the technical norms of the BoA and as per the Land Administration 	<ul style="list-style-type: none"> - Ensure that MoA standards and ANRS Guidelines are adhered, - Field supervision of tree species composition (natural and 	<p>Negative w/ conditions</p>

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Objective/Purpose Potential Input	Potential Significant Environmental Impacts	Mitigation for Impact	Monitoring of Mitigation	Recommended Threshold Determination
(Reforestation)	<p>pest and become susceptible to drought or other local weather calamities.</p> <ul style="list-style-type: none"> - Excavation of soil for nurseries may form stagnating water harbouring water born diseases. - Gasses/vegetative barriers could invade adjacent croplands resulting serious decrease in yield. - Closing an areas may induce pressure in the unclosed areas. - Conflict over resource on grazing and closed communal areas. - Melia Azadarch or Neem may affect apiculture expansion, - Planting Eucalyptus close to water sources may lower ground water table. - Use of unregistered banned Pesticides in nurseries and out planting fields, - Improper handling and disposal of polyethylene tubes. 	<p>Guideline of ANRS</p> <ul style="list-style-type: none"> - Restrict planting of water depleting types of tree species, - Undertake conservation measures in areas where soil is excavated to supply nurseries, - Polythene tubes will be disposed appropriately, - Ensure that enclosure areas maintain the Bio-diversity. - Select species attracting bees in areas where there is apiculture production. Limit planting of Melia Azadarch or Neem until the negative impacts, if any, are further researched. - Encourage a management system and a bye-law ensuring equitable use of communally owned forest/tree and grazing area, - Training on conservation of dry season feeding through cut and carry system in closed areas and beyond. - Introduction of IPM practices and in accordance to USAID/E PERSUP. 	<ul style="list-style-type: none"> - (plantation) , borrow pits, polythene tube disposal, and cut-and carry system, - Ensure bye laws are in place, 	
Soil and Water Conservation (SWC)	<ul style="list-style-type: none"> - Aggravated soil erosion due to Improper design/construction, - Reduction in farm size due to inappropriate technology, - SWC structure harbour rodents damaging 	<ul style="list-style-type: none"> - SWC measures implemented according to the technical norms of "Guidelines for SWC in Ethiopia". - Train community members 	<ul style="list-style-type: none"> - Ensure that IPM activities are implemented per an amended prepared in accordance to USAID/E PERSUP and when approved. - Ensure that MoA "Guidelines for SWC is adhered, - Ensure that experienced SWC technicians are assigned, - Field visit by the BoA DAs 	<p style="text-align: center;">Deferral</p> <p style="text-align: center;">Negative w/ conditions</p>

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Objective/Purpose Potential Input	Potential Significant Environmental Impacts	Mitigation for Impact	Monitoring of Mitigation	Recommended Threshold Determination
<p>Small-scale and Traditional Irrigation</p>	<ul style="list-style-type: none"> - crops, - Top soil removal for construction leading to poor vegetative growth, - Hindrance to cattle movement, - Induce water logging and landslide, - Seepage into groundwater, - Wilting of crops due to water stress in extreme years, - Soil fertility degradation under intensified cropping systems, - Soil erosion due to surface run-off, - Conflict with downstream water users, and - Health related disease hazards arising from stagnating water over canals and irrigation field. - Conflict among water users, 	<p>on planning/implementing and monitoring SWC activities, and demonstrate best practices,</p> <ul style="list-style-type: none"> - Involve farmers in the decision making process to avoid the introduction of unacceptable technologies, - Integrate biological Conservation measures, and - provide alternate footpaths & cattle tracks that will not disturb constructed structures. - Involve all affected in the decision making process, - Undertake SWC measures on steep areas, - Introduce approved early maturing and drought resistant varieties, - Introduce appropriate water application system and use lined canals to reduce losses, - Design the canal system to minimize erosion and avoid stagnant water, - Introduce improved management of soil fertility and quality degradation, - Leach of salts by flushing soils in the event that problem of salinity is observed, 	<p>& SC/UK technicians during the construction and subsequent operation,</p> <ul style="list-style-type: none"> - Ensure training is conducted and participator process is in place, - Ensure that proposed schemes are implemented as per the USAID/Ethiopia PEA for SSI (Catterson et al., CRS/USAID 1999), - Ensure the participation of affected communities during decision making, - Monitor soil salinity/ground water level, crop mix and productivity, incidence of malaria periodically with the concerned. - Ensure that training of Improved water management and Cultural practices is provided. - Ensure that all WATSAN 	<p>Deferral</p> <p>Negative w/ conditions</p>

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Objective/Purpose Potential Input	Potential Significant Environmental Impacts	Mitigation for Impact	Monitoring of Mitigation	Recommended Threshold Determination
<p>Community Spring Development</p>	<ul style="list-style-type: none"> - Pollution of source due to contaminants entering to the spring, - Stagnation of spilled water becoming habitat for breeding of waterborne diseases, - Over grazing around water points due to excess livestock, - Poor management of water points and poor environmental hygiene and sanitation practices, and - Dust practices and birds sheltering on the roof may contaminate cisterns. 	<ul style="list-style-type: none"> - Involve all affected in the decision making process, - Divert contaminants from entering to springs, - Provide proper drainage, - Place cattle troughs far away from water points and fence the source area and supply point, - Train communities on the management and operation, environmental hygiene and sanitation practices, and - Carry out water quality tests upon completion of construction/rehabilitation of all the schemes and regularly during the operation. 	<p>activities are implemented and in accordance to and to meet the recommendations of the USAID/E Potable Water and Environmental Sustainability Study of Dennis Warner et al, March 2000.</p> <ul style="list-style-type: none"> - Ensure the participation of all affected communities during decision making, - Ensure training of communities, - Ensure that water quality tests took place for total coliform, nitrate, arsenic, fluoride etc upon completion and regularly during operation. 	
<p>Rural Infrastructure Development</p>	<ul style="list-style-type: none"> - Loss of vegetation, runoff concentration along roadside resulting into soil erosion causing farmland degradation, sedimentation and silt up of surface waters. 	<ul style="list-style-type: none"> - Technical staffs will be trained in environmental management prior to construction. - SWC measures will be applied to minimize erosion. - Burrow pits and quarry sites will be properly drained or back filled. 	<ul style="list-style-type: none"> - Ensure that professional engineer with experience in road construction and trained in environmental mitigation measures will design and supervise the construction of all the road. - Ensure that each segment of road is analyzed using ESF and in reference to the Low-Volume Roads Engineering Best Management Practices Field Guide, Gordon Keller et al, June 2001 in an Amended IEE to be submitted and approved by USAID/E each year. 	<p style="text-align: center;">Deferral</p>

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Objective/Purpose Potential Input	Potential Significant Environmental Impacts	Mitigation for Impact	Monitoring of Mitigation	Recommended Threshold Determination
<p>Community Micro-Enterprise Development (and Market)</p>	<p>- Though the types of schools and clinics are very small in size (less than 10,000 sq. ft) minor earth movement will take place.</p> <p>Increase in the livestock population resulting into further degradation of the grazing areas (see Section on animal health & husbandry). Pottery may result into formation of borrow pits serving as a place for stagnant water and hence a breeding place for water born diseases. Food preparation may also lead into increased reproduction and outbreak of disease organisms due to improper disposal of degradable byproducts.</p>	<ul style="list-style-type: none"> - Implementation of all infrastructure development activities will take place in compliance with the pertinent environmental review requirements. - USAID Africa Bureau's <i>Environmental Guidelines for Small-scale Activities in Africa</i>, 2nd Edition, which comprises a new section on Activities with Micro- and Small Enterprises (MSEs) will be deployed. - The livestock aspect of income generating activities is already treated under the Animal Health & Husbandry section of the IEE. 	<ul style="list-style-type: none"> - Ensure that an examination of Building site(s) with more than 10,000 sq. ft area is conducted using Checklist 2 Building Construction from the "Handbook on Environmental Assessment of NGO Programs and Projects" to identify and mitigate potential impacts. - Ensure that USAID Africa Bureau's <i>Environmental Guidelines for Small-scale Activities in Africa</i>, 2nd Edition, is deployed. See www.encapafrika.org. - The livestock aspect of Income generating activities is Already treated under the Animal Health & Husbandry section of The IEE. 	<p>Negative w/ conditions</p> <p>Negative w/ conditions</p>
<p>ANRS Community Watershed Management Scheme</p>	<p>The activities under this component are similar to the ones under the Environmental Protection and Rehabilitation Component of the IEE. Hence their evaluation is covered Under the same component.</p>	<p>The activities under this component are similar to the ones under the Environmental Protection and Rehabilitation Component of the IEE. Hence the mitigation measures are covered under the same component.</p>	<p>The activities under this Component are similar to the ones under the Environmental Protection and Rehabilitation Component of the IEE. Hence the monitoring of mitigation measures are also covered under the same component</p>	<p>Negative w/ conditions</p>

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Objective/Purpose Potential Input	Potential Significant Environmental Impacts	Mitigation for Impact	Monitoring of Mitigation	Recommended Threshold Determination

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;

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- IX. technical assistance; and
- X. small enterprise promotion by providing credit to the poor

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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

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 as effective sealing of the top of wells, disposal of wastewater, disposal 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.

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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;

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- 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.

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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)(vii)
Counseling and home visits	A	A				CE 216.2(c)(2)(i) and 216.2(c)(2)(vii)
Provision and distribution of de-worming medicine, iron, folic acid & vitamin supplements	A	A				CE 216.2(c)(2)(vii)
Complementary activities	A	A				216.3(a) (2) (iii) Environmental Guidelines for Small-Scale Activities in Africa.

D.5 Kenya DAP

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ENVIRONMENTAL SCREENING/REPORT FORM FOR NGO/PVO ACTIVITIES & GRANT PROPOSALS

[See EDM Annex F]

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.

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.

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Example Summary Table: Synopsis of Environmental Decisions for DAPI/PAA Activities by [PVO]: FY 1998

Note 1: This is an example only. Information entered is preliminary and illustrative, based on Title II PVO= 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 provisionCited 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	Geographic Distribution, Location [this	Sites/Projects (number, other) [at	Scale & Quantity [give as much detail as practical]	Unit [more than one	% of T II	Expected Determinations [preliminary only]

<i>more detail rather than less]</i>	<i>may be adequately addressed at top left]</i>	<i>lowest practical level]</i>		<i>is poss.]</i>		
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, Oromia Adama, 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: <i>[develop under sub-headings of major activities, with more detail rather than less]</i>	Geographic Distribution, Location <i>[this may be adequately addressed at top left]</i>	Sites/Projects (number, other) <i>[at lowest practical level]</i>	Scale & Quantity <i>[give as much detail as practical]</i>	Unit <i>[more than one is poss.]</i>	% of T II	Expected Determination <i>[preliminary only]</i>
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

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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: <i>[develop under sub-headings of major activities, with more detail rather than less]</i>	Geographic Distribution, Location <i>[this may be adequately addressed at top left]</i>	Sites/Projects (number, other) <i>[at lowest practical level]</i>	Scale & Quantity <i>[give as much detail as practical]</i>	Unit <i>[more than one is poss.]</i>	% of T II	Expected Determinations <i>[preliminary only]</i>	
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	

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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.

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**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 Followup	c. Followup Dates	d. Unit(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))
				Unit	Indiv		
1.1	Planning and Design						
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 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 murrum 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	

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No.	a. Description of Mitigation/Enhancement Measure	b. Description of 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 murrum 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 murrum 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 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:** _____

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**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):
	erosion protection			inspection	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 murrum 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		

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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 murrum 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 murrum prior to dry	Works	Moisture	Inspect	Midway through dry season	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; store to keep damp		evident		through dry 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:** _____

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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)
				Unit	Indiv		
	Design						
	Construction						

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:** _____

ENVIRONMENTAL PROCEDURES TRAINING MANUAL (AFR)

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)/ individual(s) Responsible (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)/individual(s) Responsible (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

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 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 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.

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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, alternative 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 alternative programs is recommended, applying indicators of environmental and social impacts and methods to evaluate and compare the indicators and, ultimately, the alternative 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

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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 ACTIVITIES¹⁷**

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¹⁷ Source: Bingham, C., E. Loken, M. Enders, S. Gupta, R. Hanchett and T. Herlehey. 1995. USAID.

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Annex G: Umbrella IEEs for “Umbrella” Projects

G.1 Umbrella projects and USAID’s Environmental Procedures

The basic procedures described in Chapters 1–4 of this manual assume that proposed activities are sufficiently well-defined that the screening process can be undertaken and, if necessary, an IEE can be prepared.

However, proposals often include activities that are *not* fully defined at the time the proposal is submitted. “Umbrella projects” are a common example of this situation. In an umbrella project, a number of small-scale activities are funded through subgrants under a larger project.

Umbrella projects are commonly used to implement community-driven development schemes. They provide a mechanism to fund community proposals for small-scale activities. They may also be used to fund micro and small enterprise subprojects.

Typically, a USAID partner organization receives overall funding for the umbrella project. The partner then functions as a subsidiary grantmaker, using a portion of the overall funding to award small-scale grants.

Under certain circumstances, however, USAID itself assumes the role of managing the subproject proposal and grant-making process.

In either case, the basic situation is the same: the project includes a large number of activities that are not well-defined at the time of the initial design and proposal. Under USAID’s Environmental Procedures as described in Chapters 1–4, all such “yet to be defined” activities must be deferred because insufficient information is available to write the IEE. And under a deferral, funds cannot be committed or expended.

Attempting to implement an umbrella projects using IEE deferrals would be difficult. Under a deferral, the IEE would need to be amended and re-approved as each sub-activity was developed. Each amendment would require approval by the USAID Bureau Environmental Officer in Washington. This would time-consuming, make the IEE so long as to unmanageable, and impose an impossible workload on USAID’s Washington Bureaus.

An Umbrella IEE is only appropriate if:

- *the proposal consists of multiple activities;*
 - *most of the activities are small-scale but not yet fully designed; and*
 - *an environmental review process can be designed that will review activities as they are designed, and substantially satisfy the requirements of Reg. 216.*
-

G.2 The “Umbrella IEE” for umbrella projects

The “Umbrella IEE” offers an alternative to the deferral. It permits projects with (1) a large number of activities that are (2) not-well-defined at the time of the proposal to be implemented in an expeditious manner while maintaining compliance with Reg. 216.

The umbrella IEE process functions as follows:

- A *negative determination with conditions* is requested for the small-scale, yet-to-be-determined subgrant activities contained in the project proposal.¹⁸
- The key condition is that a streamlined or simplified environmental review process is created for and applied to the proposed small-scale sub-activities.

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).

Although simplified, this process must substantially satisfy the requirements of Reg. 216. However, most environmental review documentation is approved by the partner or the mission, not at the BEO level. BEO approval is only required when the subproject environmental review identifies activities high-risk activities or activities with significant potential for adverse impacts.

As with the Reg. 216 process, an activity cannot be implemented until the subsidiary screening and review process is complete, and the documentation has been approved.

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 as required or requested.

Umbrella IEE and rural roads activities

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.

It requires that Partners, local partners, and on-site road engineer(s) be trained to use the criteria to conduct Environmental Reviews (ER).

Annex D contains an example of an umbrella IEE applied to roads activities.

¹⁸ An IEE can contain both umbrella and non-umbrella elements. See box.

G.3 How is the subsidiary environmental review process established?

The subsidiary environmental review (ER) process established by an umbrella IEE is set out in an *Environmental Review Form (ERF)* and *accompanying instructions for its completion*.

The ERF instructions guide users through the subsidiary screening, review and mitigation process for each set of activities as they are designed. The ERF and the ERF instructions are normally an integral attachment to the approved IEE.

There is no single model of an ERF. The examples presented in the attachments to this annex are meant to be specifically tailored for the requirements of a particular set of activities and a particular national or regional context.

G.4 Who has the power to approve environmental documentation of sub-activities?

Umbrella IEEs are most frequently used when a partner organization receives overall funding for an “umbrella project” that includes a sub-granting process. The Partner organization then functions as a grantmaker, reviewing proposals submitted by communities, local government or other PVOs/NGOs.

Under 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 for the governing IEE.) 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 of activities) is by the Partner or Mission. USAID/Washington concurrence is typically NOT required. The exception is if a proposed activity is high risk or appears likely to result in significant adverse impacts and the need for an Environmental Assessment.

G.5 Attachments

This Annex contains the following attachments

- Attachment 1: Template and Guidance for Writing an Umbrella IEE
- Attachment 2a: Explanation of the Sample Environmental Review Form (ERF) and ERF Instructions

Attachment 2b: Sample Environmental Review Form (ERF) and ERF
Instructions AND

Sample Supplemental Screening Questions for Natural
Resource Management Activities

Attachment 1 to Annex G: Template and Guidance for Writing an Umbrella IEE

Because an umbrella IEE or IEE component addresses activities for which specific information is not available, standardized umbrella IEE language can often be used.

This section provides general guidance and suggested language for an umbrella IEE. It assumes that the project involves subgrants by the lead partner (the proposing organization) 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.” Note also that a sample umbrella IEE is provided in Annex D.

If you are using the subgrant review process as one component within a larger IEE, the template below will require appropriate modification.

IEE Section 1: Background and Project Description

General guidance	Model language
<p>1.1 Background</p> <p>State the reasons why proposed activities are not well-defined.</p> <p>(For example, because activities will be in response to participant generated needs and proposals.)</p>	
<p>1.2 Description of Activities</p> <p>Indicate the types of activities that are likely.</p> <p>Describe the planned funding levels of the activities.</p> <p>Describe disbursement and implementation arrangements, including whether the activities are food for work, monetization or entail grants to communities or groups.</p> <p>Identify organizations involved in the activities and their roles.]</p>	
<p>1.3 Purpose and scope of IEE</p> <p><no special guidance></p>	

IEE Section 2: Country and Environmental Information

General guidance	Model language
<p>2.1 Locations affected</p>	

Briefly describe the environment of the location(s) in which the undefined activities will take place.

Depending on the nature of the proposal, the locations could include an entire country, several regions, scattered locations, or a specific region.

The environment includes physical, biological, health, socio-economic, and cultural aspects. Indicate general environmental issues and trends.

However, 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

2.2 National Environmental Policies and Procedures

<no special guidance>

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

General guidance	Model language
<p>To the extent that you have information, describe the generic kinds of environmental impacts associated with each activity or type of activity.</p> <p>Note whether there are features of the general environment that make it more likely (or less likely) that such impacts are significant.</p> <p>Take care to assess potential cumulative impacts where a number of activities are to be carried out in close proximity to each other or will add to the impacts of other public or private sector activities.</p>	<p>If your knowledge of potential environmental impacts is limited, insert the following or similar wording:</p> <p><i>The physical and topographic conditions, climate, soils, and ecosystems as well as social and economic characteristics that could be encountered are quite variable.</i></p> <p><i>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.</i></p> <p><i>Therefore, each proposed activity will require environmental review as it is defined. This review will determine the specific nature and magnitude of potential impacts. The activities to be proposed share the common characteristic of being small in scale.</i></p>

IEE Section 4: Recommended Determinations and Mitigation Actions (Including Monitoring and Evaluation)

In comparing the internal organization of an “umbrella IEE” with that of a “classic” IEE, it is Section 4 which differs most strongly. Under Section 4 of an umbrella IEE, the proposing organization and USAID commit to following specific procedures for screening, post-IEE environmental reviews, mitigation, and monitoring (see

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Figure G.1). The proposing organization and USAID also commit to promoting environmental assessment capacity building for their staff and partners.¹⁹:

General guidance	Model language
<p>4.1 Mitigation actions and conditions</p>	<p>The intent of the mitigation actions and conditions detailed in this section is to assure that no subgrant activities with significant, adverse environmental impacts are implemented under this project:</p>
<p>4.1a Environmental Screening and Review Procedures</p> <p>This section describes the subgrant environmental review procedures that will be used by the project.</p> <p>Note: The model language provided assumes that the ENVIRONMENTAL REVIEW FORM provided in this Annex is used.</p>	<p>Environmental screening and review procedures will be adopted for all subgrant activities not defined at the time of the proposal.</p> <p>These procedures are set out in the attached draft Environmental Review Form and accompanying Environmental Review Form instructions. [PROPOSING ORGANIZATION] will prepare or cause to be prepared the appropriate documentation for each activity.</p> <p>Under these procedures, each activity in a subgrant will result in one of three screening results:</p> <ul style="list-style-type: none"> ▪ Very low risk ▪ Moderate or unknown risk ▪ High-risk <p>Activities found to be (1) high risk or (2) moderate/unknown risk will require completion of an environmental review. For each activity, the environmental review will result in one of three possible recommended determinations:</p> <ul style="list-style-type: none"> ▪ No significant adverse impacts ▪ No significant adverse impacts given specified mitigation and monitoring ▪ Significant adverse impacts <p>Final review and clearance authority for the environmental documentation form will lie with the Mission Environmental Officer (MEO), with two exceptions:</p> <ul style="list-style-type: none"> ▪ The environmental reviews and recommended determinations for any “high risk” activities will require clearance by the [Regional Environmental Officer (REO) (if one exists)] and the Bureau Environmental Officer (BEO). ▪ Recommended determinations indicating “significant adverse impacts” will incur Regulation 216 (22 CFR 216) requirements for the conduct of an Environmental Assessment. <p>No subgrant funds will be awarded until environmental</p>

¹⁹ 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.**

General guidance	Model language
	<p>documentation for the subgrant activity has undergone final review and clearance.</p> <p>This clearance is granted on the condition that all mitigation and monitoring measures specified in the environmental review are binding requirements.</p> <p>The attached Environmental Review form is a draft. USAID/[COUNTRY] will facilitate the refinement of this form with [PROPOSING ORGANIZATION] [, the REO, if one exists] and the BEO to meet project needs.</p>
<p>4.1b Capacity-building for Environmental Review</p> <p>The proposing organization should provide evidence that it has, or will acquire, sufficient capacity to complete the environmental screening and review process, and to implement mitigation and monitoring measures.</p> <p>Capacity can be developed through a training program, such as USAID’s ENCAP Environmental Assessment and Environmentally Sound Design Course (www.encapafrika.org).</p> <p>If partner organizations will be proposing and implementing subgrant activities, they too, must have sufficient capacity to fulfill the environmental screening and review requirements.</p>	
<p>4.1c Adherence to environmentally sound design principles</p> <p>The proposing organization must certify that it and its partners will follow environmentally sound design best practice in designing and implementing their activities, and in designing mitigation and monitoring measures.</p> <p>Refer to the sources of guidance or expertise that will be used, including USAID’s <i>Environmental Guidelines for Small-Scale Activities in Africa</i>.</p>	<p>Proposing organizations and their partners will certify they are following environmentally sound design principles and best management practice in designing their activities. Guidance consulted shall include:</p> <ul style="list-style-type: none"> • USAID’s <i>Environmental Guidelines for Small-Scale Activities in Africa (2003)</i> (See www.encapafrika.org) • <u>[Other appropriate project or sector-specific design or BMP resource guides]</u>
<p>4.1d Environmental Monitoring & Evaluation</p>	

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General guidance	Model language
<p>The IEE should specifically acknowledge that the environmental screening and review procedures described in 4.1a do not substitute for the environmental laws and policies of the host country.</p> <p>If national laws and policies may impose environmental review requirements on likely subgrant projects, these requirements should be noted, and the proposing organization should provide assurance that these national requirements will be followed.</p>	<p>Mitigation and monitoring measures specified in the environmental reviews submitted under procedures described in 4.1a are binding requirements. [PROPOSING ORGANIZATION] shall assure that these measures are implemented.</p> <p>All periodic reports of the implementing partner to [USAID Country Mission] shall contain an environmental section. This section shall summarize:</p> <ul style="list-style-type: none"> ▪ The state of implementation of environmental mitigation and monitoring measures ▪ Results of environmental monitoring and any unexpected impacts, ▪ The success or failure of mitigation measures being implemented, ▪ Any major modifications/revisions to the project, mitigative measures or monitoring procedures. <p>[USAID Country Mission]'s MEO and the Project Manager will be ultimately responsible for monitoring environmental impacts of all project-financed activities. This may include:</p> <ul style="list-style-type: none"> ▪ monitoring and evaluation of activities after implementation for unforeseen environmental impacts that may need to be mitigated. This process should be integrated into Mission field visits and consultations with [proposing organization] ▪ review of the implementing partner's reports with respect to results of environmental mitigation and monitoring procedures; ▪ 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; and ▪ recommended adjustments to subproject budgets to address additional mitigation or monitoring needs incorporated in subproject workplans <p>Periodic visits of the [REO: if one exists] or BEO may also be requested for advice, refresher training, and confirmation that environmental processes are in place.</p>
<p>4.1e Adherence to national environmental laws and regulations</p>	

General guidance	Model language
<p>Towards this end, review and revision of the Environmental Review Form should include elements that will allow the proposing organization to determine whether national environmental review requirements will apply.</p>	
<p>4.1f Adherence to USAID pesticide procedures</p> <p>The environmental screening and review procedures summarized in section 4.1a do not apply to pesticide procurement, use, transport, storage or disposal.</p> <p>The proposing organization should specifically certify:</p> <ul style="list-style-type: none"> ▪ that none of the funded subgrant activities will involve pesticides, OR ▪ that a separate Pesticide Evaluation Report and Safe-Use Action Plan (PERSUAP) has been prepared and approved pursuant to USAID Regulation 22 CFR 216.3 (b) (1) (i) (a-l). <p>See PERSUAP examples at www.encapafrica.org and www.foodaidmanagement.org</p>	<p>This IEE does not cover pesticides or other activities involving procurement, use, transport, storage or disposal of toxic materials.</p> <p>Except as noted in the attached “Environmental Review Form,” any pesticide activities will require an amended IEE.</p>
<p>4.2 Recommended Determinations</p> <p>This section asserts that subgrant activities not yet defined merit a “NEGATIVE DETERMINATION WITH CONDITIONS.”</p> <p>These conditions are all the measures detailed in section 4.1</p>	<p>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).</p> <p>The following determinations are recommended:</p> <p>1. A Categorical Exclusion is recommended for project-financed technical assistance, training and education, institutional strengthening, and information exchange activities that include no physical interventions and no direct effects on the environment.</p> <p>This determination is recommended pursuant to 22 CFR 216.2(c)(1)(i) and 216.2(c)(2)(i), (iii) and (v) <u>[Insert other citations if applicable]</u>. The Environmental Review Instructions and Form will be used to confirm this determination for each activity.</p> <p>Exceptions:</p> <ul style="list-style-type: none"> ▪ 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), ▪ This categorical exclusion likewise does not apply 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). <p>2. A Negative Determination with Conditions is recommended for all other subgrant activities not yet</p>

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General guidance	Model language
	<p>defined in detail.</p> <p>This IEE specifies a set of measures (section 4.1 above) to ensure adequate environmental review of USAID-supported activities, and to assure that no subgrant activity with significant adverse environmental impacts will be implemented under this IEE.</p> <p>This determination is recommended with the explicit commitment and understanding that ALL measures set out in 4.1 constitute binding requirements and will be implemented in full.</p>
<p>5.0 Summary of findings</p> <p>This section should contain a <i>summary table</i> listing each activity against its recommended determination.</p> <p>Within the summary table or below it, the CONDITIONS on which the negative determination for subgrant activities depends should be listed.</p> <p>These conditions are:</p> <ul style="list-style-type: none"> ▪ Implementation of environmental screening and review procedures for subgrants, as set out in 4.1a and the attached Environmental Review Form and Instructions ▪ Capacity-building for environmental review (4.1b) ▪ Adherence to environmentally sound design principles in subgrant projects (4.1c) ▪ Appropriate environmental mitigation and monitoring for subgrant projects (4.1d) ▪ Adherence to host country environmental laws and policies (4.1e) ▪ Adherence to USAID pesticide procedures (4.1f) 	

Attachment 2a to Annex G

Explanation of the Sample Environmental Review Form (ERF) and ERF Instructions

The Environmental Review Form (ERF) and the ERF Instructions guide applicants through a simplified EIA process compatible with Regulation 216.

The ERF and the ERF Instructions immediately follow this explanatory text.

This documentation describes the logic behind the form and the environmental screening and review process it creates for activities carried out under umbrella projects. This information is summarized in figure G.1.

NOTE: As stated in the box on the first page of the ERF Instructions, both ERF and the ERF Instructions should be *modified* for the requirements of particular projects and regions.

Screening: the first step

Under this ERF, applicants first SCREEN the proposed activities against a listing of designated “low risk” and “high risk” activities. Each proposed activity is then assigned to one of three categories, as described in the table below:

Screening result	Basis
Very low risk of significant adverse environmental impacts	Screening criteria are derived from Regulation 216 categorical exclusions. A complete list of such activities is provided in the ERF Instructions.
High risk	Screening criteria are derived from activities typically requiring an environmental assessment under Regulation 216, and from other statutes and directives. A complete list of such activities is provided in the ERF Instructions.
Moderate or unknown risk	Activities that are neither high-risk nor very low risk are designated “moderate or unknown risk.” Examples of such projects are provided in the form, but these examples are not exhaustive.

NOTICE:

THIS ERF AND ITS DOCUMENTATION ARE A DISCUSSION DRAFT.

THEY HAVE BEEN PREPARED FOR THE JOHANNESBURG MEO WORKSHOP IN FEBRUARY 2003 AND WILL BE REVISED BASED ON FEEDBACK FROM THIS EVENT.

The sample Environmental Review Form:

- *guides applicants through a simplified EIA process.*
 - *This process is compatible with Regulation 216.*
-

Use of supplemental screening forms

Supplemental screening questions may be developed for the needs of particular types of activities. These screening forms are used to more specifically identify very low-risk or very high-risk activities.

A sample supplemental screening form for *Natural Resource Management* (NRM) activities is provided here. A “NO” answer to ALL questions on this form indicates that a small-scale NRM activity can be considered “very low risk.” This supplemental form is referenced in the list of “very low risk” activities provided in the ERF Instructions.

Screening outcomes determine the need for further review

For very low risk activities, no further environmental review is needed.

High Risk or moderate/unknown risk activities require completion of an *Environmental Review Report*. This is a typically short (2–3 page) document that resembles a simplified IEE.

Based on the *Environmental Review Report*, applicants provide one of three *Recommended Determinations*, detailed in the table below:

Recommended determination	Meaning
No significant adverse impacts	The activity in question will not result in significant, adverse environmental impacts. Special mitigation or monitoring is not required. Typically does not apply to high-risk activities.
No significant adverse impacts given specified mitigation and monitoring	With the mitigation and monitoring specified in the Environmental Review Report, none of the subgrant activities will result in significant, adverse environmental impacts.
Significant adverse impacts	One or more of the subgrant activities is likely to cause significant adverse environmental impacts and cannot be mitigated with best practices or other measures. A full environmental assessment will be required.

Certifications

The applicant must certify that:

- Those responsible for implementing this activity have received training in environmental review AND training and/or documentation describing essential design elements and best practices for activities of this nature.
- These design elements and best practices will be followed in implementing this activity.
- Any specific mitigation or monitoring measures described in the environmental review will be implemented in their entirety.
- Compliance with these conditions will be regularly confirmed and documented by on-site inspections during the activity and at its completion.

Certification

Regardless of screening outcomes or recommended determinations, applicants must sign a certification section.

The certification commits the applicant to the mitigation and monitoring measures specified in the environmental review, and to assuring that its staff and partners have the capacity to implement environmentally sound best practices. (See box on this page.)

ENVIRONMENTAL PROCEDURES TRAINING MANUAL (AFR)

Approval

The USAID Mission is always the first reviewer of the ERF.

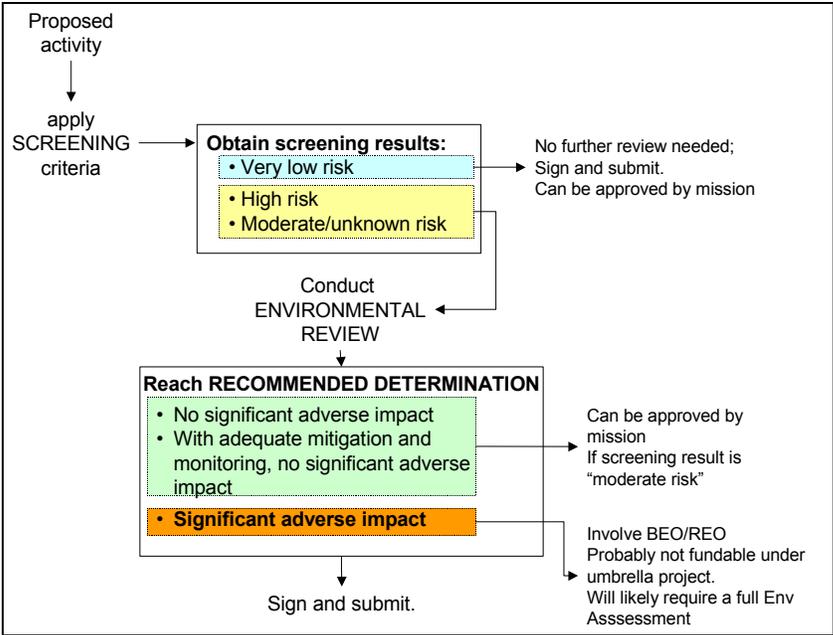
- When screening determines that ALL proposed activities are “Very Low Risk,” the Mission can approve the ERF without higher level approvals.
- In all other cases, approval authority depends on the combination of screening results and the recommended determination. See table below:

Table G.1: Approval authority for the ERF

Screening outcome ↓	Recommended Determination		
	No significant adverse impacts	No significant adverse impacts given specified mitigation and monitoring	Significant adverse impacts
Moderate or unknown risk*	MISSION*	MISSION*	REQUIRES EA. MISSION MUST INVOLVE REO/BEO
High Risk	Unlikely to be a proper determination MISSION + REO/BEO	MISSION + REO/BEO	REQUIRES EA. MISSION MUST INVOLVE REO/BEO

*however, if the activity is of a new type, the mission should involve the BEO/REO.

Figure G.1: Environmental Screening and Review Process created by the Environmental Review Form.



Attachment 2b to Annex G

***Sample Environmental Review Form (ERF) and
ERF Instructions***

***Sample Supplemental Screening Questions for
Natural Resource Management Activities***

Note to individuals adapting the:

- * Africa Bureau Environmental Review FORM &**
- * Environmental Review Form INSTRUCTIONS**

for use on a particular program/activity:

- The Environmental Review Form and its instructions are for use in the review and approval of subproject proposals that are (1) carried out under an “umbrella” project AND (2) defined and reviewed *after* approval of the overall or “umbrella project.” Typical subprojects include microfinance activities or subgrants for small-scale development.
- For primarily NRM-oriented programs, consider and use the Supplemental Environmental Review Form for NRM sector activities, especially those considering NRM-based enterprises, CBNRM, ecotourism, etc..
- Text in **UNDERLINE & BLUE HIGHLIGHT** MUST be modified to reflect project and mission name.
- **Yellow** highlighted text is only put emphasis on the points highlighted, and can also be dropped
- Both the form AND instructions should be reviewed and modified in general to reflect the needs of the specific umbrella project.
- Both form and instructions must be appended to the Initial Environmental Examination for the overall project.

Revision history:

Last revised April 13, 2004, to include biosafety considerations and better reflect the Supplemental Environmental Review Form for NRM sector activities. Formatting and presentation revised 17 Jan 2005.

DELETE THIS PAGE BEFORE MODIFYING/DISTRIBUTING THIS FORM

Program logo
here, if
desired

PROGRAM/PROJECT NAME

USAID/Mission or Bureau Name



Instructions for environmental review of XXX Program/Project activities

Note:

These instructions accompany the “Environmental Review Form for Program/Project Activities.”
Follow, but DO NOT SUBMIT, these instructions.

Who must submit the Environmental Review Form?

ALL implementing Partners applying to implement activities under the XXX Project must complete the “Environmental Review Form” form UNLESS the project or activity is carried out to address an emergency (e.g., international disaster assistance). *Emergencies are determined by the US Ambassador or USAID, not by the applicant.*¹

Importance

The proposed activity cannot be approved and no “irreversible commitment of resources” can be made until the environmental documentation, including any mitigation measures, is approved by the Mission Environmental Officer (MEO). Approval by other authorities in USAID may also be required.

NOTE: USAID may request modifications, or reject the documentation.

If the activities are found to have significant adverse impacts, a full Environmental Assessment must be conducted. RAMP, USAID, and the applicant will confer in any such case to determine next steps.

Step 1. Provide requested “Applicant information” (Section A of the form)

Step 2. List all proposed activities

In Section B of the form, list all proposed activities. Include all phases: *planning, design, construction, operation & maintenance*. Include ancillary activities. (These are activities that are required to build or operate the primary activity. Examples include building or improving a road so that heavy vehicles can reach the project site, excavation of fill material or gravel for construction, provision of electricity, water, or sewage facilities, disposal of solid waste, etc.)

Step 3a. Screening: Identify low-risk and high-risk activities

For *each* activity you have listed in Section B of the form, refer to the list below to determine whether it is a listed low-risk or high-risk activity.

¹ See 22 CFR §216.2(b)(1). Most activities carried out under emergency circumstances are considered EXEMPT from USAID environmental procedures, except for the procurement or use of pesticides

If an activity is specifically identified as “very low risk” or “high risk” in the list below, indicate this in the “screening result” column in Section B of the form.

<p style="text-align: center;">Very low-risk activities</p> <p>(Activities with low potential for adverse biophysical or health impacts; including §216.2(c)(2))</p>	<p style="text-align: center;">High-risk activities</p> <p>(Activities with high potential for adverse biophysical or health impacts; including §216.2(d)(1))</p>
<p>Provision of education, technical assistance, or training. (Note that activities directly affecting the environment do not qualify.)</p> <p>Community awareness initiatives.</p> <p>Controlled agricultural experimentation exclusively for the purpose of research and field evaluation confined to small areas (normally under 4 ha./10 acres). This must be carefully monitored and no protected or other sensitive environmental areas may be affected).</p> <p>Technical studies and analyses and other information generation activities not involving intrusive sampling of endangered species or critical habitats.</p> <p>Document or information transfers.</p> <p>Nutrition, health care or family planning, EXCEPT when (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.</p> <p>Rehabilitation of water points for domestic household use, shallow, hand-dug wells or small water storage devices. Water points must be located where no protected or other sensitive environmental areas could be affected.</p> <p>NOTE: USAID guidance on potable water requires water quality testing for arsenic, coliform, nitrates and nitrites.</p> <p>Small-scale construction. 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).</p> <p>Intermediate credit. Support for intermediate credit arrangements (when no significant biophysical environmental impact can reasonably be expected).</p> <p>Maternal and child feeding conducted under Title II of Public Law 480.</p> <p>Title II Activities. Food for development programs under Title III of P.L. 480, when no on-the-ground biophysical interventions are likely.</p> <p>Capacity for development. Studies or programs intended to develop the capability of recipients to engage in development planning. (Does NOT include activities directly affecting the environment)</p> <p>Small-scale Natural Resource Management activities for which the answer to ALL SUPPLEMENTAL SCREENING QUESTIONS (see <i>Natural Resources supplement</i>) is “NO.”</p>	<p>River basin development</p> <p>New lands development</p> <p>Planned resettlement of human populations</p> <p>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</p> <p>Substantial piped water supply and sewerage construction</p> <p>Major bore hole or water point construction</p> <p>Large-scale irrigation</p> <p>Water management structures such as dams and impoundments</p> <p>Drainage of wetlands or other permanently flooded areas</p> <p>Large-scale agricultural mechanization</p> <p>Agricultural land leveling</p> <p>Procurement or use of <u>restricted use</u> pesticides, or wide-area application in non-emergency conditions under non-supervised conditions. (Consult MEO.)</p> <p>Light industrial plant production or processing (e.g., sawmill operation, agro-industrial processing of forestry products, tanneries, cloth-dyeing operations).</p> <hr/> <p><u>High-risk and typically not funded by USAID:</u></p> <p>Actions affecting protected areas and species. Actions determined likely to significantly degrade protected areas, such as introduction of exotic plants or animals</p> <p>Actions determined likely to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests)</p> <p>Activities in forests, including:</p> <ul style="list-style-type: none"> ▪ Conversion of forest lands to rearing of livestock ▪ Planned colonization of forest lands ▪ Procurement or use of timber harvesting equipment ▪ Commercial extractin of tiber ▪ Construction of dams or other water control structures that flood relatively undegraded forest lands ▪ Construction, upgrading or maintenance of roads that pass through relatively non-degraded forest lands. (Includes temporary haul roads for logging or other extractive industries)

(This list of activities is taken from the text of 22 CFR 216 and other applicable laws, regulations and directives)

Step 3b: Identifying activities of unknown or moderate risk.

All activities NOT identified as “very low risk” or “very high risk” are considered to be of “unknown or moderate risk.” Common examples of moderate-risk activities are given in the table below.

Check “moderate or unknown risk” under screening results in Section B of the form for ALL such activities.

Common examples of moderate-risk activities	
<p>CAUTION: If ANY of the activities listed in this table may adversely impact (1) protected areas, (2) other sensitive environmental areas, or (3) threatened and endangered species and their habitat, THEY ARE NOT MODERATE RISK. All such activities are HIGH RISK ACTIVITIES.</p>	
<p>Small-scale agriculture, NRM, sanitation, etc. (You may wish to define what “small scale” means for each activity)</p> <p>Agricultural experimentation. Controlled and carefully monitored agricultural experimentation exclusively for the purpose of research and field evaluation of MORE than 4 ha.</p> <p>NOTE Biotechnology/GMOs: No <i>biotechnology testing or release</i> of any kind are to take place within an assisted country until the host countries involved have drafted and <i>approved</i> a regulatory framework governing biotechnology and biosafety.</p> <p>All USAID-funded interventions which involve biotechnologies are to be informed by the ADS 211 series governing “Biosafety Procedures for Genetic Engineering Research”. In particular this guidance details the required written approval procedures needed before transferring or releasing GE products to the field.</p> <p>Medium-scale construction. Construction or rehabilitation of facilities or structures in which the surface area to be disturbed exceeds 10,000 sq. ft (1000 sq meters) but funding level is \$200,000 or less. (E.g. small warehouses, farm packing sheds, agricultural trading posts, produce market centers, and community training centers.)</p> <p>Rural roads. Construction or rehabilitation of rural roads meeting the following criteria:</p> <ul style="list-style-type: none"> ▪ Length of road work is less than ~10 km ▪ No change in alignment or right of way ▪ Ecologically sensitive areas are at least 100 m away from the road and not affected by construction or changes in drainage. ▪ No protected areas or relatively undegraded forest are within 5 km of the road. <p>Title II & III Small-Scale Infrastructure. Food for Development programs under Title II or III, involving small-scale infrastructure with the known potential to cause environmental harm (e.g., roads, bore holes). Quantity imports of commodities such as fertilizers</p>	<p>Sampling. Technical studies and analyses or similar activities that could involve intrusive sampling, of endangered species or critical habitats. (Includes aerial sampling.)</p> <p>Water provision/storage. Construction or rehabilitation of small-scale water points or water storage devices for domestic or non-domestic use. (Covers activities NOT included under “Very low risk activities” above.)</p> <p>NOTE: USAID guidance on water quality requires testing for arsenic, nitrates, nitrites and coliform bacteria.</p> <p>Support for intermediate credit institutions when indirect environmental harm conceivably could result.</p> <p>Institutional support grants to NGOs/PVOs when the activities of the organizations are known and may reasonably have adverse environmental impact.</p> <p>Pesticides. .Small-scale use of USEPA-registered, least-toxic general-use pesticides. Use must be limited to NGO-supervised use by farmers, demonstration, training and education, or emergency assistance.</p> <p>NOTE: Environmental review (see step 5) must be carried out consistent with USAID Pesticide Procedures as required in Reg. 16 [22 CFR 216.3(b)(1)].</p> <p>Nutrition, health care or family planning, if (a) some included activities could directly affect the environment (e.g., construction, supply systems, etc.) or (b) biohazardous healthcare waste (esp. HIV/AIDS) is produced, syringes are used, or blood is tested.</p>

Step 4. Determine if you must write an Environmental Review Report

Examine the “screening results” as they are entered in Table 1 of the form.

- If ALL the activities are “very low risk,” then no further review is necessary. In Section C of the form, check the box labeled “very low risk activities.” Skip to Step 8 of these instructions.

- If ANY activities are “unknown or moderate risk,” you MUST complete an ENVIRONMENTAL REVIEW REPORT addressing these activities. Proceed to Step 5.
- If ANY activities are “high risk,” note that USAID’s regulations usually require a full environmental assessment study (EA). Because these activities are assumed to have a high probability of causing significant, adverse environmental impacts, they are closely scrutinized. *Any* proposed high-risk activity should be discussed in advance with USAID.

In some cases, it is possible that effective mitigation and monitoring can reduce or eliminate likely impacts so that a full EA will not be required. If the applicant believes this to be the case, the Environmental Review Report must argue this case clearly and thoroughly. Proceed to Step 5.

Step 5. Write the Environmental Review Report, if required

The Environmental Review Report presents the environmental issues associated with the proposed activities. It also documents mitigation and monitoring commitments. Its purpose is to allow the applicant and USAID to evaluate the likely environmental impacts of the project.

For moderate risk activities, the Environmental Review Report is typically a SHORT 2–3 page document. The Report will typically be longer when (1) activities are of higher or unknown risk, and (2) when a number of impacts and mitigation measures are being identified and discussed.

The Environmental Review Report follows the outline below:

- A. **Summary of Proposal.** Summarize background, rationale and outputs/results expected. (Reference to proposal, if appropriate).
- B. **Description of activities.** For all moderate and high-risk activities listed in Table 1 of the form, succinctly describe location, siting, surroundings (include a map, even a sketch map). Provide both quantitative and qualitative information about actions needed during all project phases and who will undertake them. (All of this information can be provided in a table). If various alternatives have been considered and rejected because the proposed activity is considered more environmentally sound, explain these.
- C. **Environmental Situation & Host Country environmental requirements.** Describe the environmental characteristics of the site(s) where the proposed activities will take place. Focus on site characteristics of concern—e.g., water supplies, animal habitat, steep slopes, etc. With regard to these critical characteristics, is the environmental situation at the site degrading, improving, or stable? In this section, also describe applicable host country environmental regulations, policies and practices.
- D. **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 abandoning, restoring or reusing the site at the end of the anticipated life of the facility or activity.

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.)

- E. **Environmental Mitigation Actions (including monitoring).** Provide a workplan and schedule identifying the following:

Mitigation measures. Identify the means taken to avoid, reduce or compensate for impacts. (For example, restoration of borrow or quarry areas, replanting of vegetation, compensation for any relocation of homes and residents.) If standard mitigation or best practice guidance exists and is being followed, cite this guidance.

Monitoring Indicate how mitigation measures will be monitored to ensure that they accomplish their intended result. If some impacts are uncertain, describe the monitoring which will be conducted to identify and respond to these potential impacts.

Responsible parties. Identify *who* will undertake mitigation and who will conduct the monitoring, and at what frequency.

- F. **Other Information.** Where possible and as appropriate, include photos of the site and surroundings; maps; and list the names of any reference materials or individuals consulted.

(Pictures and maps of the site can substantially reduce the written description required in parts B & C)

Step 6. Based on the environmental review, reach a recommended determination for each high-risk or unknown/moderate-risk activity

For each high-risk or unknown/moderate-risk activity, the environmental review will help you decide between one of three recommended determinations:

- **no significant adverse impacts.** The activity in question will not result in significant, adverse environmental impacts. Special mitigation or monitoring is not required. Typically, this conclusion is not appropriate for high-risk activities.
- **no significant adverse impacts given specified mitigation and monitoring** With mitigation and monitoring as specified in the Environmental Review Report, the activities in question will not result in significant adverse environmental impacts.
- **significant adverse impacts.** The activities in question is likely to cause significant adverse environmental impacts and cannot be mitigated with best practices or other measures. A full environmental assessment will be required.

For each high-risk or unknown/moderate-risk activity, indicate your “recommended determination” in Section B of the form.)

Step 7: Summarize recommended determinations

In section C of the form, summarize your recommended determinations by checking ALL categories indicated in Table 1.

Step 8. Sign certifications (Section D of form)

Step 9. Submit form to USAID project officer. Attach Environmental Review Report, if any.

Program logo here, if desired

PROGRAM/PROJECT NAME

USAID/Mission or Bureau Name



Environmental Review Form for **XXX Program** Activities

Note: Follow, but do not submit, the attached instructions.

A. Applicant information

Organization	Parent grant or project
Individual contact and title	Address, phone & email (if available)
Proposed activity (brief description)	Amount of funding requested
Location of proposed activity	Start and end date of proposed activity

B. Activities, screening results, and recommended determination

Proposed activities (continue on additional page if necessary)	Screening result (Step 3 of instructions)			Recommended Determinations (Step 6 of instructions. Complete for all moderate/unknown and high-risk activities)		
	Very Low Risk	High-Risk*	Moderate or unknown risk*	No significant adverse impact	With specified mitigation, no significant adverse impact.	Significant Adverse impact
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

*These screening results require completion of an Environmental Review Report

C. Summary of recommended determinations (check ALL that apply)

The proposal contains. . .	(equivalent Regulation 216 terminology)
<input type="checkbox"/> Very low risk activities	<i>categorical exclusion(s)</i>
<input type="checkbox"/> After environmental review, activities determined to have no significant adverse impacts*	<i>negative determination(s)*</i>
<input type="checkbox"/> After environmental review, activities determined to have no significant adverse impacts, given specified mitigation and monitoring*	<i>negative determination(s) with conditions*</i>
<input type="checkbox"/> After environmental review, activities determined to have significant adverse impacts*	<i>positive determination(s)*</i>

*for these determinations, the form is not complete unless accompanied by Environmental Review Report

D. Certification:

I, the undersigned, certify that:

1. the information on this form is correct and complete
2. the following actions have been and will be taken to assure that the activity complies with environmental requirements established for this Project:
 - Those responsible for implementing this activity have received training in environmental review AND training and/or documentation describing essential design elements and best practices for activities of this nature.
 - These design elements and best practices will be followed in implementing this activity.
 - Any specific mitigation or monitoring measures described in the Environmental Review Report will be implemented in their entirety.
 - Compliance with these conditions will be regularly confirmed and documented by on-site inspections during the activity and at its completion.

(Signature) _____ (Date) _____

(Print name) _____

Note: if screening results for *any activity* are “high risk” or “moderate or unknown risk,” this form is not complete unless accompanied by an environmental review report.

BELOW THIS LINE FOR USAID USE ONLY**Clearance record**

USAID Project Officer <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
USAID MEO <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
USAID REO* <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
USAID BEO* <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)

*REO & BEO approval required for all “high risk” screening results and for determinations of “significant adverse impacts”

**Note: if clearance is denied, comments must be provided to applicant
(use space below & attach sheets if necessary)**

Note to individuals adapting the:

*** Supplemental Environmental Review Form for NRM Activities
for use on a particular program/activity:**

- This supplement is oriented around major resource/issue clusters and asks “leading questions” about the actual potential for unintended harmful impacts, especially of CBNRM/ ecotourism activities.
- **Underlined & blue** highlighted text **MUST** be modified to reflect project and mission name
- Questions should be modified to respond to the needs of individual projects. This is intended to be a “living” document subject to adaptation.

DELETE THIS PAGE BEFORE MODIFYING/DISTRIBUTING THIS FORM



Supplement to the Environmental Review Form for Natural Resources Activities

Additional Screening Criteria for Natural Resource Activities under **XXX Program**

Purpose

This is a supplement to the “Instructions for environmental review of **XXX Program/Project** activities.” It is to be used for natural *resources-based activities*, including:

- Community-Based Natural Resource Management (CBNRM)
- Ecotourism
- Natural resources-based enterprise development with micro- and small enterprises

This supplement provides additional questions to ascertain whether these proposed activities should be categorized as “very low risk:”

- If the answers to ALL the questions that follow are “NO,” then the proposed natural resource-based activity is considered “very low risk.”
- If the answer to ANY question is “YES,” the activity CANNOT be considered “very low risk.”

Screening criteria

Will the activities...	YES	NO
Natural Resources		
Accelerate erosion by water or wind?		
Reduce soil fertility and/or permeability?		
Alter existing stream flow, reduce seasonal availability of water resources?		
Potentially contaminate surface water and groundwater supplies?		
Involve the extraction of renewable natural resources?		
Lead to unsustainable use of renewable natural resources such as forest products?		
Involve the extraction of non-renewable natural resources?		
Restrict customary access to natural resources?		
Reduce local air quality through generating dust, burning of wastes or using fossil fuels and other materials in improperly ventilated areas?		
Affect dry-season grazing areas and/or lead to restricted access to a common resource?		
Lead to unsustainable or unnecessarily high water extraction and/or wasteful use?		
Ecosystems and Biodiversity		
Drain wetlands, or be sited on floodplains?		
Harvest wetland plant materials or utilize sediments of bodies of water?		
Lead to the clearing of forestlands for agriculture, the over-harvesting of valuable forest species?		
Promote in-forest bee keeping?		
Lead to increased hunting, or the collection of animals or plant materials?		
Increase the risks to endangered or threatened species?		
Introduce new exotic species of plants or animals to the area?		
Lead to road construction or rehabilitation, or otherwise facilitate access to fragile areas (natural woodlands, wetlands, erosion-prone areas)?		

Will the activities...	YES	NO
Cause disruption of wildlife migratory routes?		
Agricultural and Forestry Production		
Have an impact on existing or traditional agricultural production systems by reducing seed availability or reallocating land for other purposes?		
Lead to forest plantation harvesting without replanting, the burning of pastureland, or a reduction in fallow periods?		
Affect existing food storage capacities by reducing food inventories or encouraging the incidence of pests?		
Affect domestic livestock by reducing grazing areas, or creating conditions where livestock disease problems could be exacerbated?		
Involve the use of insecticides, herbicides and/or other pesticides?		
Community and Social Issues		
Have a negative impact on potable water supplies?		
Encourage domestic animal migration through natural areas?		
Change the existing land tenure system?		
Have a negative impact on culturally important sites in the community?		
Increase in-migration to the area?		
Create conditions that lead to a reduction in community health standards?		
Lead to the generation of non-biodegradable waste?		
Involve the relocation of the local community?		
Potentially cause or aggravate land-use conflicts?		