Participants' Sourcebook:

Life-of-Project Environmental Compliance and Environmentally Sound Design and Management

An Africa Regional Training Workshop for USAID Staff

Mangochi, Malawi
13–17 May 2013

Host
USAID/Malawi

Co-Sponsor
USAID/AFR/SD

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Life-of-Project Environmental Compliance and Environmentally Sound Design and Management

An Africa Regional Training Workshop for USAID Staff

Sunbird Nkopola Lodge ▪ Mangochi, Malawi ▪ 13-17 May 2013 ***Version 12 April 2013***

Day/Time	Session	Objectives/Content Summary	Presenter/Facilitator
Sun 12 May	**ARRIVAL**		
6:00 -	**Welcome Reception/Dinner**		
Mon 13 May	**MOTIVATION, CORE SKILLS, OVERVIEW OF USAID ENVIRONMENTAL COMPLIANCE PROCEDURES OVER LIFE-OF-PROJECT.**		
8:00-8:15	Sign-in		
8:15-8:25	Welcome and Opening Statements		
8:25-9:00	**Session 1:** Workshop Objectives, Logistics and Participant Introductions	Articulate workshop plans, objectives, goals, and participants' introductions and expectations. Review the agenda and logistics.	
9:00-9:55	**Session 2:** Environmental Compliance for Environmentally Sound Design and Management (ESDM). *Part A: Presentation + participant examples*	Achieve a common understanding of "environment." Introduce USAID Environmental Procedures and summarize the legal basis of the procedures and the life-of-project requirements they establish. With illustrations by example, understand the need to systematically address environmental considerations in design and implementation of development activities – even in activities not primarily focused on intrastructure.	
9:55-10:15	*Part B: "The Story of Zaragosa:"* *(Video (15min) and brief discussion)*		
10:15-10:30	Break		
10:30-11:15	**Session 3:** Introduction to Environmental Impact Assessment (EIA)	USAID's Environmental Procedures are as specific implementation of the general EIA process. Understanding USAID's procedures requires understanding the general EIA process. Thus, in this session we achieve a common, basic understanding of	

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		the EIA process and key EIA concepts such as *baseline*, *impact* and *activity*. We also establish how the EIA process is a framework for achieving ESDM.	
11:15-12:00	**Session 4**: Core EIA Skills 1 *Presentation; focus on learning-by-example*	Learn essential classroom theory for baseline characterization, impact identification & mitigation design. Establish that because effective mitigation design must be highly responsive to site conditions, effective mitigation design requires baseline characterization and issues identification skills.	
12:00-12:30	**Session 5:** Field Visit #1: Practicing Core EIA Skills *Part A: Briefing*	Practice observation skills needed to characterize the baseline situation and identify impacts/issues of concern	
12:30-13:30	Lunch – Field Visit Groups requested to sit together & orient themselves to the exercise.		
13:30-17:00	**Session 5, cont'd** *Part B: Field Visits*	Synthesize field observations and prioritize impacts/issues of concern; discuss possible approaches for limiting adverse effects on the environment.	
Tues 14 May	**ENVIRONMENTAL COMPLIANCE DURING PROJECT IMPLEMENTATION**		
8:15-8:25	Day 1 review & Day 2 prospectus		
8:25-9:45	**Session 5, cont'd** *Part C: Group Work & Plenary Synthesis*	Synthesize field observations and prioritize impacts/issues of concern; discuss possible approaches for limiting adverse effects on the environment.	
9:45-10:30	**Session 6:** Reg. 216: USAID's Pre-Implementation EIA Process *Presentation*	Understand Reg. 216 as USAID's mandatory pre-obligation EIA process, and further understand that environmental mitigation and monitoring conditions established by this process become required elements of activity design and implementation. Become familiar with the entire Reg. 216 process.	
10:30-10:45	**Break**		
10:45-12:15	**Session 7:** Effective IEEs *Exercise orientation, group work & plenary synthesis*	Initial Environmental Examinations (IEEs) are USAID's version of the *preliminary assessment* and the most common type of Reg. 216 documentation. We learn the characteristics of effective IEEs by critiquing draft IEEs based on our field visits.	

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12:15-13:15	**Lunch**		
13:15-14:00	**Session 8:** Core EIA Skills 2: Environmental Monitoring & Environmental Mitigation and Monitoring Plans (EMMPs)	Monitoring is the essential complement to mitigation: its objective is to determine clearly and cost-effectively if mitigation is sufficient and effective. We will understand this objective, brief the two types of environmental monitoring indicators & achieve a common understanding of the principles of environmental monitoring design. EMMPs set out the mitigation and monitoring measures by which a project will respond and comply with IEE or EA conditions. We will understand the basic EMMP concept and formats.	
14:00-14:20	**Session 8**: cont'd *"Conditions to Actions" discussion/exercise*	Practice a key EMMP skill: Translating IEE conditions to specific mitigation actions	
14:20-15:15	**Session 9:** Indicators exercise *Small group exercise*	Build and apply indicator selection skills (a key constituent skill for EMMP development) in a scenario-based small-group exercise centered on the Visual Field Guides.	
15:15-15:30	**Break**		
15:30-16:00	**Session 10**: Field-based EMMP Development Exercise: *Part A: Site & Exercise Briefing*	Over this extended session, we will work in small groups to develop EMMPs for project scenarios based on the field visits we will undertake at the beginning of Day 3.	
16:00-17:00	**Session 10, cont'd** *Part B: Group Preparation*	*Groups view briefing materials and initiate EMMP*	

Wed 15 May	**FIELD VISITS AND EMMP DEVELOPMENT**		
8:30-13:00	**Session 10, cont'd** *Part C: Field Visits*		
13:00-14:00	Lunch & Freshen up		

Day/Time	Session	Objectives/Content Summary	Presenter/Facilitator
14:00-16:30	**Session 10, cont'd** ***Part D:*** *EMMP & presentation development (Group work; groups take tea break at their leisure)*	*Groups work to complete their EMMPs & the presentations they will make at the beginning of Day 4*	

Thurs 16 May	**WRAPPING UP CORE ENVIRONMENTAL COMPLIANCE; SPECIAL TOPICS**		
8:15-8:25	Day 3 review & Day 4 prospectus	.	
8:25-9:30	**Session 10, cont'd** *Part E: EMMP Presentations*	Working groups present their EMMPs in approx. 15-minute presentations with feedback from facilitators	
9:30-9:50	**Session 11:** IP Environmental Compliance Reporting *Presentation & Q&A*	For A/CORs to fulfill their responsibilities, IPs must report on environmental compliance. Understand the basic necessary content of this reporting.	
9:50-10:30	**Session 12:** Roles, Responsibilities & Resources	Review Environmental Compliance roles and responsibilities, with reference to ADS requirements. Introduce the key resources available to support environmental compliance and ESDM.	
10:30-10:45	Break		
10:45-12:00	**Session 13:** Environmental Compliance/ESDM Knowledge Game	Reinforce key "core session" content in a small-group competition	
12:00-12:30	**Session 14**: "Parking lot" session	Address unresolved questions with reference to the issues and questions "parking lot" created over the course of the workshop.	
12:30-13:30	Lunch		
13:30-17:00	**Special Topic Bloc** **Session bloc to be programmed in response to participant input during the workshop.** *Emphasis will be on small, seminar-type sessions. Some Sessions will be scheduled concurrently.*	Focused "special topic" sessions address the environmental compliance and management aspects of selected current, complex and emerging issues in the USAID portfolio and operating environment**.** **Topics will be chosen and sessions organized in response to participant input.** May include Pesticides, Subproject Review, Health Care Waste, Environmental Compliance & G2G Assistance; Water; Social Impacts; among others	

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Fri 17 May	**BRINGING TRAINING TO REALITY**		
ATTN: PLEASE show up at opening session ready for departure			
8:30-8:40	Day 4 review & Day 5 prospectus	.	
8:40-9:15	**Session 15:** Bringing Training to Reality *Part A: State of Environmental Compliance in USAID Mission & Projects: Results of Environmental Procedures Best Practices Reviews (BPRs)*	The workshop has addressed how environmental compliance as it *should* be. We know that in missions and projects, there are gaps and shortcomings. This session first takes stock of where we are *(Part A)*, and identifies measures that we can take individually, and which missions and projects can take to better comply, and better attain ESDM.	
9:15-10:15	**Session 15, cont'd** *Part B:* *Focus sessions*	Informed by the preceding session, Identify key messages to communicate to mission management/sector team leaders and to project COPs to prioritize and strengthen LOP environmental compliance.	
10:15-10:30	Break		
10:30-11:30	**Session 15, cont'd** *Part C: "Way Forward" plenary discussion & individual action plans*	Brief report-outs from the 2 focus sessions; develop an individual action plan for workshop follow-up to strengthen LOP environmental compliance in your team, or mission/operating unit. Volunteers share highlights of their individual action plan.	
11:30-11:45	**Session 15, cont'd** *Part D: BEO/REA Reflections/Responses*		
11:45-12:00	**Session 16:** Evaluations		
12:00-12:30	**Certificates and Closing**		
12:30-13:30	Lunch		
13:30	**Departure (Buses to Lilongwe)**		

Acronyms

ADS	(USAID) Automated Directives System
AFR	USAID Bureau for Africa
AFR/SD	USAID Bureau for Africa, Office of Sustainable Development
AOR	Agreement Officer's Representative
AOTR	Agreement Officer's Technical Representative (now superseded by AOR)
Asia/ME	USAID Bureaus for Asia and the Middle East
BEO	Bureau Environmental Officer
BFS	USAID Bureau for Food Security
BPR	Environmental Procedures Best Practices Review
CFR	Code of (US) Federal Regulations
COP	Chief-of-Party
COR	Contracting Officer's Representative
COTR	Contracting Officer's Technical Representative (now superseded by COR)
DCHA	USAID Bureau for Democracy, Conflict and Humanitarian Assistance
EA	Environmental Assessment; Eastern Africa
ECL	Environmental Compliance: Language for Solicitation and Awards (ADS 204 Help Document)
ECSR	Environmental Compliance Status Report
EGSSAA	(USAID/AFR's) *Environmental Guidelines for Small-Scale Activities in Africa*
EIA	Environmental Impact Assessment
EMMP	Environmental Mitigation & Monitoring Plan
EMPR	Environmental Management Plan & Report
ENCAP	Environmentally Sound Design and Management Capacity-Building Support for Africa (GEMS predecessor program supporting Africa Region under the EPIQ II IQC.)
ERF	Environmental Review Form
ERR	Environmental Review Report
ESDM	Environmentally Sound Design & Management
FAA	(US) Foreign Assistance Act
FO	Functional Objective (under the Foreign Assistance Programming Framework)
FTF	Feed the Future (President's Feed the Future Global Health and Food Security Initiative)
GCC	Global Climate Change
GHG	Greenhouse gas
IEE	Initial Environmental Examination
IQC	Indefinite Quantity Contract
IRS	(Anti-malarial) Indoor Residual Spraying
ITN	Insecticide-Treated (bed) Net
IP	USAID Implementing Partner
LOE	Level of Effort
LOP	Life-of-Project
M&E	Monitoring & Evaluation
M&M	(Environmental) Mitigation and Monitoring
MCC	Millennium Challenge Corporation
ME	USAID Bureau for the Middle East
MEO	Mission Environmental Officer
NGO	Non-Governmental Organization (see also PVO)
NRM	Natural Resources Management-
OIG	Office of the (USAID) Inspector General
OMEP	USAID Office of Middle East Programs
PEA	Programmatic Environmental Assessment
PEPFAR	President's Emergency Plan for AIDS Relief
PERSUAP	Pesticide Evaluation Report and Safer Use Action Plan
PMP	Performance Monitoring Plan
PMI	Presidential Malaria Initiative
POC	Point of Contact
ppb	parts per billion
PVO	Private Voluntary Organization
RCE	Request for Categorical Exclusion
REA	Regional Environmental Advisor
RUP	Restricted Use Pesticide
Reg. 216	22 CFR 216
SO	Strategic Objective
Title II	Title II of US Public Law 480 (Agricultural Trade Development and Assistance Act of 1954); "Food for Peace" program.
USAID	United States Agency for International Development
USG	United States Government

Session 1. Workshop Objectives, Participant Introductions & Expectations

(0:35)

Session Summary & Objectives

This session briefs the workshop and its agenda, introduces us to each other, and establishes expectations. Specific elements of the session are:

- Overview of Course Objectives, Approach, Agenda and Materials (Facilitators).
- Participant & Facilitator Introductions: Please be prepared to introduce yourself briefly in 30 seconds, noting professional background, institutional affiliation, and current responsibilities (All).
- Soliciting expectations and establishing a "learning agreement."
- Logistical details (Course Organizers).
- Creating a "Parking Lot."

Workshop Objectives, Structure, and Approach to Learning

This workshop will provide intensive training for USAID Staff in: (1) compliance with USAID's environmental procedures over life-of-project, and (2) in the objectives of these procedures: environmentally sound design and management (ESDM) of USAID-funded activities.

Overall Goal. The overall goal of the workshop is to strengthen environmentally sound design and management of USAID-funded activities by assuring that participants have the *motivation, knowledge and skills necessary to* (1) achieve environmental compliance over life-of-project, and (2) otherwise integrate environmental considerations in activity design and management to improve overall project acceptance and sustainability.

Structure & Objectives. Towards this goal, the agenda has five main components, each corresponding to key workshop objectives.

Agenda component	**Corresponding objectives:** By the end of the workshop, we will be able to:
1. **Motivating LOP environmental compliance.** USAID's mandatory environmental procedures exist to assure environmentally sound design and management (ESDM) of development activities. The workshop begins by defining ESDM and establishing why ESDM must be a necessary and explicit objective for successful development.	• Articulate the ESDM concept and common causes of failure to achieve ESDM. • Explain why ESDM must be a necessary and explicit objective for successful development. • Articulate key action principles for achieving ESDM
2. **Building Core EIA Concepts & Skills.** USAID's environmental procedures are a specific implementation of the general environmental impact assessment (EIA) process. An understanding of the basic EIA process greatly facilitates understanding USAID's procedures, and basic proficiency in a set of core EIA skills is required for effective compliance over life-of-project.	• Explain the relationship between ESDM and the EIA process. • Describe the key elements of the EIA process. • Demonstrate basic proficiency in the core EIA skills of identifying significant impacts/issue of concern and design of mitigation and monitoring.

3.	**Mastering LOP Compliance Requirements**. The workshop first surveys LOP environmental compliance requirements. These requirements—and the compliance process—can be divided into "upstream" and "downstream" elements. ***Upstream* compliance** consists primarily of the pre-implementation environmental review process defined by 22 CFR 216 (Reg. 216), which culminates in approved Reg. 216 documentation (RCEs, IEEs and EAs). ***Downstream* compliance** consists primarily of *implementing* the environmental management conditions specified in approved 22 CFR 216 documentation, and *reporting* on this implementation. The *environmental mitigation and monitoring plan (EMMP)* is the key instrument for systematic implementation of these conditions—and thus for achieving ESDM. The workshop covers both upstream and downstream compliance, but the weight of the practical exercises are on downstream compliance (EMMP development), as this is where the greatest gaps are in practice.	• Describe the basic elements of LOP compliance, and attendant roles and responsibilities. • Demonstrate basic familiarity with the pre-implementation environmental review process established by Reg. 216, • Understand the characteristics of effective initial environmental examinations (IEES) and be able to assess the quality of IEEs. • Demonstrate basic proficiency in developing environmental mitigation and monitoring plans (EMMPs). • Articulate the environmental compliance reporting requirements attendant to EMMP implementation.
4.	**Understanding Key "Special Topics" in Compliance.** Focused "special topic" sessions address the environmental compliance and management aspects of selected current, complex and emerging issues in the USAID portfolio and operating environment**.**	• Explain the key compliance issues involved in each special topic, and articulate recommended best practice.
5.	**Improving Compliance Processes.** Achieving LOP compliance and ESDM requires both that individual USAID staff & IPs understand their roles and responsibilities and master key skills *and* that internal mission and project processes support and "mainstream" environmental compliance.	• Evaluate strengths and weaknesses of environmental compliance processes in our team/mission against those in the region as a whole. • Undertake or propose improvements to these processes following the workshop.

The workshop leads off with motivation (Component 1) and a brief survey of LOP compliance requirements (Component 3). Components 2 and 3 then alternate over days 1 & 2, with EIA skills introduced followed by the compliance processes they support. Day 3 is devoted in the entirety to downstream compliance (objective 3). Special topics are the focus of the 2nd half of Day 4 after "core material" is complete. Day 5 is focused on improving compliance processes (component 5).

Approach to Learning. The workshop is intended to be highly participatory and field-based:

- Skills and processes briefed in the presentations will be built and practiced in hands-on exercises conducted in small working groups.
- The key, integrative exercises in Core EIA skills and LOP compliance are built around virtual and actual field visits.
- *Even presentation-centered sessions are intended to be interactive*. Please ask questions and, as importantly, share and discuss your own experiences and perspectives relevant to the topic at hand.

Everyone's active participation is encouraged and needed to make this workshop a success!

Learning Agreement

As part of this session, we will collectively review the following principles and add or modify them as necessary to establish a "learning agreement"—an agreement about how we will work and learn together.

General Principles to consider are that each of us should:[1]

1. Participate actively.
2. Ask questions.
3. Respect different points of view.
4. Share many thoughts & ideas.
5. Build upon the ideas presented by others.
6. Join in problem-solving.
7. Make "I" statements.
8. Respect the time—everyone shows up on time, and facilitators commit to end the sessions as scheduled.
9. Silence our cell phones and blackberries.
10. Have fun!

Teamwork Principles. Working groups are where we will practice and apply the key skills and ideas of the workshop. Working groups provide the opportunity for detailed discussions, and for learning from experiences and views of fellow development professionals. Working groups are also emphasized because environmental compliance and environmentally sound design and management are intrinsically team efforts.

Successful working groups require effective teamwork. Here are teamwork principles to consider:

Twelve Essentials of Teamwork

VALUING DIVERSITY	COMFORTABLE ATMOSPHERE	ACTIVE PARTICIPATION OF ALL MEMBERS	SHARED GOALS AND OBJECTIVES
BALANCED APPROACH TO PROCESS AND CONTENT	**WHAT EFFECTIVE TEAMS NEED**		EFFECTIVE COMMUNICATION
SHARED LEADERSHIP			CONSTRUCTIVE CONFLICT MANAGEMENT
ACTION ACCOUNTABILITY RESPONSIBILITY	MUTUAL TRUST	CRITICAL ANALYSIS AND PROBLEM-SOLVING	A PREFERENCE FOR CONSENSUS

(Adapted from Rees, "How to lead work teams in facilitation skills")

[1] adapted from Jawara Lumumba and John Petit, REDSO/WCA, 1995

Notes for Working Group Chairs

The chair can be a workshop trainer or participant.

The chair is neutral: she or he should not judge the ideas or contributions of others, but try to focus the group's energy on the common task.

The chair should encourage participation by all working group members, but prevent any one member from dominating. The chair should assist the group to function creatively, energetically, democratically and productively.

The chair must ensure that the group's tasks are accomplished in the time allotted.

When appropriate, the chair should try to achieve agreement or consensus on the task at hand. However, consensus is not required and if the group is unable to reach consensus, areas of agreement and disagreement may be reported.

Notes for Rapporteurs

The rapporteur is responsible for accurately and succinctly recording and reporting the results of group discussions.

Specific responsibilities include:

- **On a flip chart or laptop**, capturing all key points related to the specific theme, and noting comments on cross-cutting themes, as appropriate.
- Make sure that notes and charts are legible, understandable, and after reporting out, turned in to a facilitator.

Session 2. (1:15)
Environmental Compliance for Environmentally Sound Design and Management (ESDM).

Objectives

- Achieve a common understanding of "environment."
- Understand the basic compliance requirements established by USAID's environmental procedures over life of project, and the legal origin of these procedures.
- Understand by example the need for a formal, systematic pre-implementation environmental review process to prevent "environmental failures" in development activities – even in activities NOT formally focused on infrastructure.
- Understand Environmentally Sound Design & Management as a necessary and explicit objective for effective development.

Format

Presentation, solicitation of participant experiences, and short video.

Important note

Note that in this workshop, the term "USAID Environmental Procedures" does not refer only to 22 CFR 216 (Reg. 216), but collectively to Reg. 216, relevant Foreign Assistance Act (FAA) requirements, and to the mandatory environmental compliance procedures and directives contained in the USAID's Automated Directive System (ADS), which establishes mandatory USAID operating procedures..

Summary

This session will:

- Understand that "environment" includes biophysical, human health, and social dimensions.
- Highlight some of the "big picture" environmental trends affecting human health and livelihoods in the Sub-saharan Africa, including Global Climate Change; and show that much of USAID's portfolio in the region is a direct response to—or directly affected by—these trends. In this sense, we all work in "environment and development."
- Note that there is another dimension to the "environment and development" issue that is the primary concern of this workshop: the potential adverse effects of development activities *on the* biophysical environment, and on human health and welfare.
- Establish that USAID has a formal, mandatory set of environmental procedures whose purpose is to identify potential adverse effects in advance of implementation, and mitigate them during design and implementation.
- Summarize these procedures, noting:

- USAID is *required by both court settlement and US law* to utilize an EIA-based process to "fully take into account" environmental sustainability in designing and carrying out its development programs:
- The procedures specify an Environmental Impact Assessment process that must be applied to all activities **before** implementation.
- This process is defined by 22 CFR 216 (Reg. 216). Its output is approved Reg. 216 documentation (Requests for Categorical Exclusion, Initial Environmental Examinations (IEEs), and Environmental Assessments (EAs)).
- Most IEEs and all EAs specify environmental management conditions (mitigation measures).
- These measures ("IEE/EA conditions") must be implemented and monitored over the life of the activity (or life of project, LOP). Such implementation is the responsibility of the IP.
- C/AORs have are required to actively manage and monitor compliance with IEE/EA conditions. This requires that IPs *report* on their implementation of these conditions.

- By example, demonstrate that these formal, systematic procedures are needed because otherwise "environmental failures" in development activities are easy and too common.
- Establish that as development professional we must be AWARE of the potential adverse impacts of development activities on ecosystems, environmental resources and environmental quality; and the need to PROACTIVELY seek to limit these adverse impacts, particularly where they affect health and livelihoods—in short that environmentally sound design and management (ESDM) is a necessary and explicit objective for effective development, and that ESDM requires systematic and explicit attention over life-of-project.

USAID FROM THE AMERICAN PEOPLE

GLOBAL ENVIRONMENTAL MANAGEMENT SUPPORT

Life-of-Project Environmental Compliance for Environmentally Sound Design and Management

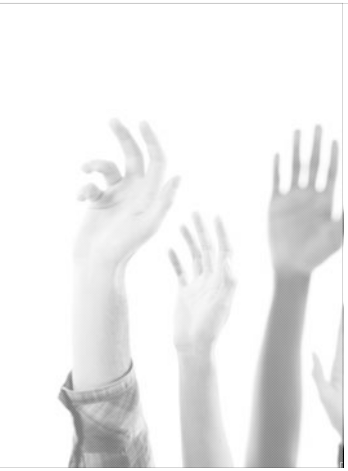
Environment – the Big Picture

What is Environment?

Webster's defines it as "The ***totality of circumstances*** *surrounding an organism or group of organisms, especially:*

- The complex of **physical, chemical, and biotic factors** (e.g. climate, soil, and living things) that affect and influence the growth, development, and survival of an organism or an ecological community
- The complex of **social and cultural conditions** affecting the nature of an individual or community.

Question:



What are some "big-picture" environmental trends affecting human health and livelihoods in Sub-Saharan Africa?

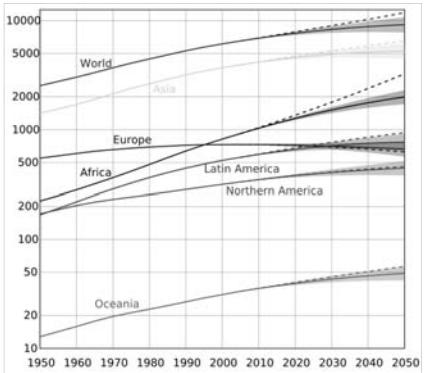
Population growth

UN Population estimates:*

	Today	2050	% change
World	6.9bn	9.15bn	+32%
Africa	1.02 bn	2.19 bn	+114.7%
Asia	4.16bn	5.14bn	+23.6%
M. East	200 mn	372.9 mn	+86.3%
LAC**	590 mn	751 mn	+27.3%
Less-Developed Regions	5.7bn	7.9bn	+40%
LDCs	863mn	1.74bn	+102%

* All data: "medium variant" projection.
UN Population Division http://esa.un.org/unpp

**LAC: Latin America and the Caribbean



Increasing Population in developing areas → **LEADS TO** → **Increased demands for water, land, fish & timber, energy, infrastructure & social services. Increased waste production.**

Urbanization

UN Population estimates:*

	Urban pop as % of total		% change in total urban population
	Today	2050	
World	48.6%	69.6%	+89%
Africa	40.5%	56%	+198%
Asia	42.3 %	66.1%	+93%
M. East	79%	84%	+97.4%
LAC**	79.5%	86.3%	+38.2%
Less-Developed Regions	45.3%	67%	+107%
LDCs	29.4%	55.5%	+280%

* UN Population Division
http://esa.un.org/unup/index.asp

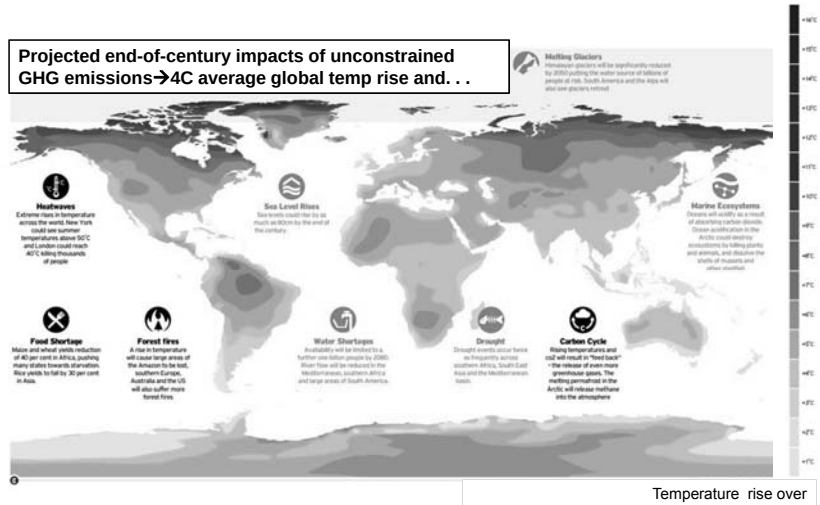
**LAC: Latin America and the Caribbean

Urban population will grow more than 2X as fast as rural population for the foreseeable future

Most urban growth in the next 25 years in developing countries → **LEADS TO** → **Increased urban environmental health hazards (given poor municipal sanitation, waste management capacity).**

Global climate change

Projected end-of-century impacts of unconstrained GHG emissions→4C average global temp rise and. . .



Temperature rise over pre-industrial climate baseline

Global change: Africa

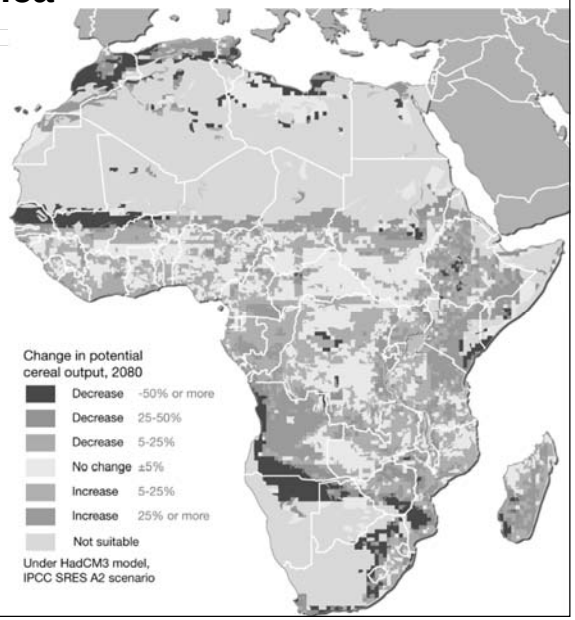
High dependence on rain-fed agriculture

+ Poverty

+ Dependence on already-marginal lands

+ strong shifts in precipitation volumes & timing

Make Africa the most vulnerable continent to global climate change.

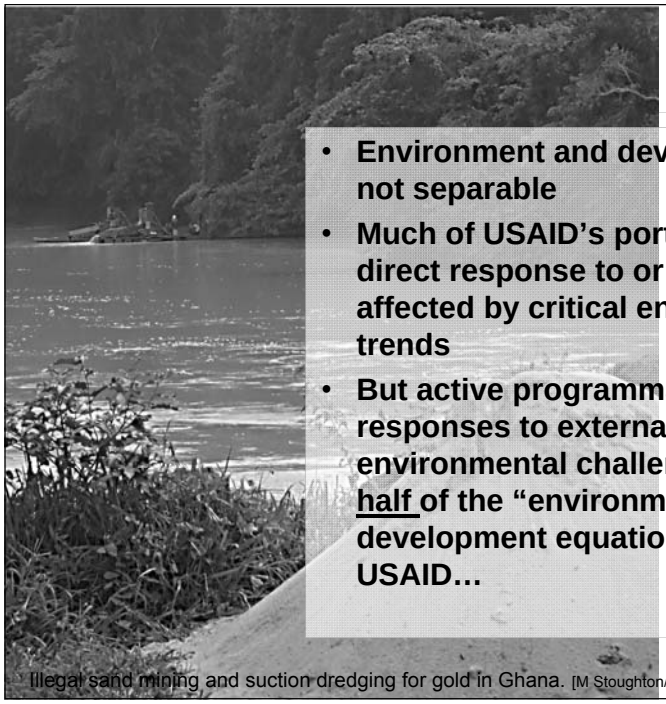


Question:

Relationship between Environment and Development

What examples can you give of development programs or projects that have been affected by the environment?

What examples can you give of where the environment has been affected by development programming?



- **Environment and development are not separable**
- **Much of USAID's portfolio is a direct response to or directly affected by critical environmental trends**
- **But active programmatic responses to external environmental challenges are <u>only half</u> of the "environment and development equation" for USAID…**

Illegal sand mining and suction dredging for gold in Ghana. [M Stoughton/2012}

The other half of the "environment and development equation" for USAID…and our focus.

USAID has mandatory life-of-project environmental procedures to limit adverse impacts of USAID development activities <u>on</u> ecosystems, environmental resources and environmental quality—particularly as they affect human health and livelihoods.

Fires to prepare land for planting in Southern Africa create a regional smoke plumes. Image: NASA

Origin & mandate of USAID's environmental procedures

1974

An "environmental failure"

*In 1974, **<u>USAID provided highly concentrated Malathion to poorly trained field workers</u>** on an agricultural project in Pakistan*

Working without protective equipment in the heat, the workers sprayed each other.

5 died.

1975

Sued by US NGOs for non-compliance with NEPA, **<u>USAID settled out of court, agreeing to develop environmental safeguard procedures</u>**.

1 **First a court mandate**

Then a mandate in law:

2

§117 of the FAA requires that USAID:

utilize an Environmental Impact Assessment (EIA) process to:

"fully take into account the impacts of [its] programs and projects upon the environment and natural resources"

of host countries prior to implementation.

Where are the procedures found?

USAID's Environmental Procedures are the response to these mandates. They consist of:

- **Federal regulations:** 22 CFR 216 ("**Reg. 216**") and
- **Mandatory Agency Policies** as set out in USAID's Automated Directives System (ADS), (especially--but not only--201.3.11, 202.3.6, 204 & 303)

Compliance with the procedures is mandatory. With limited exceptions for disaster assistance, they apply to every program, project, activity, and amendment supported with USAID funds.

What do the procedures require? (the big picture)

1. The procedures specify an **Environmental Impact Assessment** process that must be applied to all activities **before** implementation
2. This process frequently results in environmental management conditions (mitigative & monitoring measures).
3. These measures must be implemented and monitored over the life of the activity/project (LOP).

Objective: Assure Environmentally Sound Design and Management of USAID-funded/USAID-managed activities.

What do the procedures require? (a little more detail)

1. Environmental considerations must be taken into account in activity planning.
2. No activities implemented without **approved Reg. 216 environmental documentation**.
3. Any resulting environmental mitigation and monitoring conditions are:
   1. Written into award instruments.
   2. Carried out by the implementing partner, and this implementation is monitored

The output of the EIA process specified by 22 CFR 216*

USAID monitors via field inspections and review of routine project reports submitted by IPs. To make this possible, project reporting by IPs must provide an auditable record of environmental compliance.

What do the procedures require? (cont'd)

4. Environmental compliance is assessed annually as part of formal Mission (operating unit) reporting.
5. Environmental compliance documentation is maintained by the Mission & each sector team

As part of the program or activity record and used to manage program implementation

In contrast to gender and general sustainability assessment, pre-implementation environmental review is required by law and regulation, not just Agency policy.

Overview: Roles & Responsibilities

USAID	Implementing Partners
Assures Reg. 216 documentation in place. **Establishes/approves** environmental mitigation & monitoring conditions. **Oversees** compliance with these conditions, a core part of AOR/COR responsibilities.	**Implement** environmental management conditions established in Reg. 216 documentation. **Report** on implementation to USAID.

Why be so formal?

Don't we know enough about development that we will "get things right" without a formal environmental review/compliance process?

And why worry in the case of smaller-scale activities anyway?

Getting things right is even harder when cause and effect are complicated

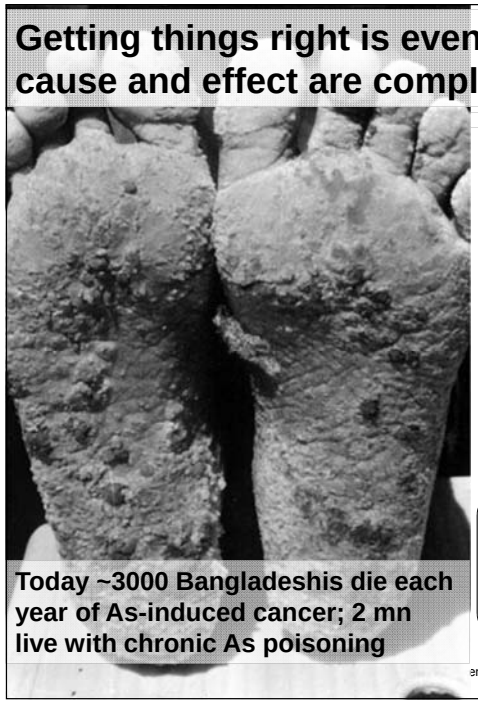


Photo: UNESCO-IHE

Ponds excavated for fill to build-up ground level in villages for flood protection

Ponds provided a source of organic carbon which settles to bottom of pond, seeps underground and is metabolized by microbes

creates chemical conditions that cause naturally occurring arsenic to dissolve out of the sediments and soils and move into groundwater

Created conditions for mass arsenic poisoning when villages switched from surface water to "cleaner" tube wells.

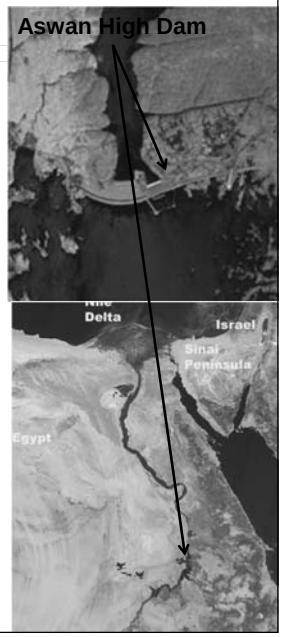
And in environment and development, things are <u>often</u> complicated . . .

1960 – 1970: Aswan High Dam is built for year-round irrigation; annual Nile floods stop. Salt is no longer washed from soils

Farmers apply more water to crops, causing the water table to rise

Waterlogging and salination have adverse affects on agriculture and monuments

Significant damage to two industries essential to the Egyptian economy



Bottom line: in development, there are numerous pathways for environmental failure

!

Failure to implement the most basic good housekeeping practices (first examples)

Failure to understand system complexity (as we just saw)

And many others, e.g.:

- **Designing for average conditions, not expected variability**
- **Failure to plan for the effects of increased scale**

Designing for average conditions, not expected variability

Global change will affect both average conditions & expected variability

This schoolhouse is being **rebuilt** in makeshift fashion with plank walls & split-bamboo roof.

Why? Strong winds ripped the aluminum sheet roofing off the donor-funded "permanent" structure and toppled the landcrete walls.

In this area, one or two storms every 5 years typically have winds of this strength.

Other "average conditions" to be careful of: Rainfall, tides, water tables. . **What else?**

Failure to plan for the effects of increased scale

(Or, failure to plan for success!)

The environmental effects of a small-scale animal husbandry project may be minor

BUT if the project is successful, and many more individuals begin to hold larger numbers of animals, serious problems may arise. . .

Health hazards from animal waste. . .

Fodder shortages (may lead to overgrazing and erosion and/or land conflicts)

Finally, small-scale is not small impact!

- Myth:
  "Environmental impacts of small-scale activities are negligible"
- Reality:
  Impacts of a single poorly designed/implemented small-scale activity may be small in absolute terms
  - But local impacts to people and communities can be very significant
  - If small-scale activities are numerous, together they can have significant <u>cumulative impacts.</u>

Potable water supply near hospital morgue

Total failure of latrines to contain pathogens

The bottom line: yes, we do need a formal, systematic environmental compliance process!

USAID's environmental procedures are a <u>life-of-project</u> process for

- Avoiding environmental failures
- Maximizing environmental benefits

In short, for achieving **environmentally sound design & management** (ESDM)

Environmental Compliance Process Overview

Env considerations integrated in early project design

Pre-implementation EIA process (22 CFR 216)

Results in Reg 216 documentation

Request for Categorical Exclusion, Initial Environmental Examination (IEE), Environmental Assessment (EA)

must be approved by Mission Director, Bureau Env. Officer

IP Compliance with IEE/EA conditions required by contracts, agreements

IP implements these conditions & remains within the scope of approved Reg 216 documentation

AOR/COR monitors compliance & modifies or ends activities NOT in compliance

Session 3. Introduction to Environmental Impact Assessment (EIA)

(0:45)

Objectives

- Establish that familiarity with the EIA process and concepts is important because USAID's environmental procedures are a specific implementation of the general EIA process,
- Achieve a common, basic understanding of the EIA process and key EIA concepts.
- Understand how the EIA process achieves Environmentally Sound Design and Management.

Format

Presentation.

Summary

This session will:

- Define Environmental Impact Assessment (EIA) as a formal process for identifying the:

  likely effects of activities/projects on the environment, and on human health and welfare; and

  means and measures to monitor & mitigate these impacts.
- Establish that EIA-based environmental "safeguard" processes are now standard requirements of nearly all donors and governments, including the US Government/USAID.
- Define key EIA terms and concepts such as *baseline* and *impact*, and summarize the basic elements of the EIA process.
- Show that the EIA process provides a systematic framework to achieve ESDM. More specifically, it operationalizes the following principles for achieving ESDM:
  - Be prevention-oriented
  - Apply general development best practices to *environmental* aspects of the activity, including:
    - Technical soundness with respect to local environmental conditions
    - Design for the social and policy context
    - Build stakeholder commitment and capacity
    - Practice Adaptive Management
    - Design for Climate Change
  - Be systematic

Key resource

"IV.1: Topic Briefing—Introduction to EIA" in *Environmental Guidelines for Small Scale Activities.* (USAID/AFR/SDavailable at www.encapafrica.org/egssaa.htm).

USAID
FROM THE AMERICAN PEOPLE

Session 3:
Environmental Impact Assessment: A Framework for Environmentally Sound Design and Management

Why this session?

Isn't this workshop about USAID's Environmental Procedures, not EIA?

- USAID's environmental procedures are a specific implementation of the general Environmental Impact Assessment process
- Understanding this process makes USAID's procedures much easier to understand.
- Core EIA skills are required for effective compliance during USAID project design and implementation.

Environmental Impact Assessment

Environmental Impact Assessment is

✓ A formal process for identifying:

- likely effects of activities or projects on the environment, and on human health and welfare.
- means and measures to mitigate & monitor these impacts

Environmental Impact Assessment: a universal requirement

- From its beginnings in the 1970 US National Environmental Policy Act. . .
- Most countries & almost all donors **(<u>including USAID</u>)** now have EIA requirements
- EIA now extends beyond government works to
  - *Infrastructure and economic development projects funded by the private sector & donors*
  - *Analysis of policies, not just projects*
- In many developing countries, EIA is the core of national environmental regulation

Key EIA concepts

- Defining “impact”
- Characterizing baseline conditions
- Defining “activity”

Key EIA concept: What is an impact?

The impact of an activity is the change from the **baseline situation** caused by the activity.

! To measure an impact, you must know what the baseline situation is.

The **baseline situation** is the existing environmental situation or condition in the absence of the activity.

The baseline situation is a key concept in EIA.

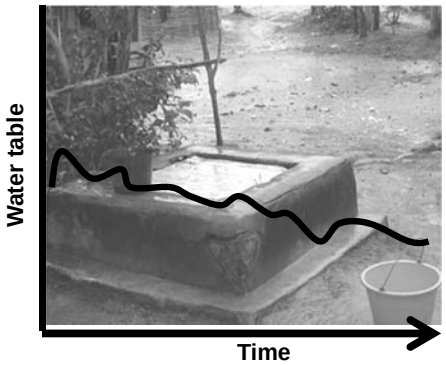
Characterizing the baseline situation. . .

The **environmental components** of interest are those:

- likely to be affected by your activity
- upon which your activity depends for its success

Water?	*Quantity, quality, reliability, accessibility*
Soils?	*Erosion, crop productivity, fallow periods, salinity, nutrient concentrations*
Fauna?	*Populations, habitat*
Env Health?	*Disease vectors, pathogens*
Flora?	*Composition and density of natural vegetation, productivity, key species*
Special ecosystems?	*Key species*

Baseline situation: not just a “snapshot in time”



This chart of groundwater levels shows both **variability** and **a trend over time**.

BOTH are part of the groundwater baseline situation.

Types of impacts & their attributes

The EIA process is concerned with **all types of impacts** and may describe them in a number of ways

- Direct & indirect impacts
- Short-term & long-term impacts
- Adverse & beneficial impacts
- Cumulative impacts

- Intensity
- Direction
- Spatial extent
- Duration
- Frequency
- Reversibility
- Probability

But all impacts are NOT treated equally.

Focus!

! ESSENTIAL to focus on the most significant impacts

You definitely do not have time and resources to analyze and discuss in detail less important ones.

What is an activity?

The EIA process examines the impacts of **activities.**

✓ An activity is:

A desired accomplishment or output

E.g.: a road, seedling production, or river diversion to irrigate land

A project or program may consist of many activities

Accomplishing an activity requires a set of **actions**

ACTIVITY:	ACTIONS:
market access road rehabilitation	**Survey, grading, culvert construction, compaction, etc. . .**

The EIA process

Phase I: Initial inquiries

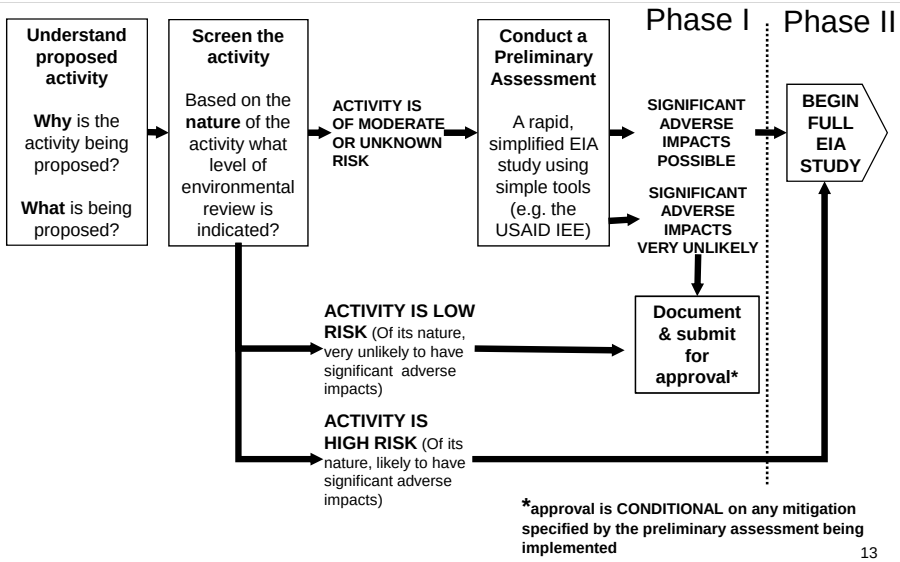
- Understand proposed activities
- Screen
- Conduct preliminary assessment (if needed)

Phase II: Full EIA study (if needed)

- Scope
- Evaluate baseline situation
- Identify & choose alternatives
- Identify and characterize potential impacts of proposed activity and each alternative
- Develop mitigation and monitoring
- Communicate and document throughout

Most USAID activities do NOT proceed to a full EIA study

Phase I of the EIA process



Screen the activity

Screen each activity

Based on the **nature** of the activity, what level of environmental analysis is indicated?

SCREENING asks a very basic set of questions about the activity.

Example screening questions:

Does the activity involve:

- **Penetration road building?**
- **Large-scale irrigation?**
- **Introduction of non-native crop or agroforestry species?**

These questions do **NOT**:

- require analysis
- require **detailed** knowledge of the proposed sites, techniques or methods

The Preliminary Assessment (USAID's Initial Environmental Examination)

Conduct a Preliminary Assessment

A rapid, simplified EIA study using simple tools (USAID Initial Environmental Examination (IEE)

Purpose is to provide documentation and analysis that:

- **Allow the preparer to determine whether or not significant adverse impacts are likely**
- **Allows the reviewer to agree or disagree these determinations**
- **Sets out mitigation and monitoring for adverse impacts**

! **Screening determines whether the preliminary assessment is necessary**

The Preliminary Assessment (IEE)

Typical Preliminary Assessment outline

1. Background (Development objective, list of activities)
2. Description of the baseline situation
3. Evaluation of potential environmental impacts
4. **Mitigation & monitoring**
5. **Recommended Findings**

For each activity it covers, a preliminary assessment has 3 possible findings:

The activity is. . .

- **very unlikely to have significant adverse impacts.**
- **unlikely to have significant adverse impacts with specified mitigation and monitoring,**
- **likely to have significant adverse impacts (full EIA study is required)**

When to Proceed

!

We only proceed to Phase II of the EIA process

IF

Phase I indicates that a FULL EIA STUDY is required

Full EIA study (USAID's Environmental Assessment)

The full EIA study has very similar objectives and structure to a preliminary assessment.

However, the full EIA study differs in important ways:

!

A formal **scoping process** precedes the study to **identify issues to be addressed**

Analysis of environmental impacts is much **more detailed**

Alternatives* must be formally defined. The **impacts of each alternative must be identified & evaluated, and the results compared**

Public participation is required

A **professional EIA team** is usually required

**includes the project as proposed, the no-action alternative, and at least one other real alternative*

3 rules for Environmentally Sound Design & Management (ESDM)

1. **Be prevention-oriented**
2. **Apply best development practices to <u>environmental aspects</u> of the activity**
3. **Be systematic**

Properly done, the EIA process makes them a reality.

1 Be prevention-oriented

- Prevention occurs across the project lifecycle. . .
  . . but starts with DESIGN
- DESIGN starts with the **choice of <u>method</u>**
- **Environmental impacts are 1 factor considered**

Project objective:

Improve agricultural productivity

How do we choose?

Possible *methods*

EIA assures a "prevention orientation"

1

Be prevention-oriented

- Prevention begins with choice of **method.**

  "Consider alternatives" is a key principle of EIA.

- EIA forces formal consideration of environmental issues during project design.

  Early consideration is key to prevention—because that is when design changes can be made

2 Apply general best development practices. .

Using a technically sound design…

That is suited for the local social & policy context

Building beneficiary capacity & stakeholder commitment

Adjusting what we do as results come in

. . .to <u>environmental</u> aspects of the activity

AND <u>design for climate change</u>

Best Practice #1: Technically sound design

The design must be appropriate for local environmental conditions ….

… Rainfall, temperature, soils, flood, drought and earthquake potential. . .

For example. . .

? **Appropriate choice of crops or trees?**

? **Appropriate choices of construction materials and methods?**

Best Practice #2: Design for the policy & social context

Environmental applications:

Compliance

with national and local environmental laws and policies

Language, literacy

Environmental management measures must be matched to capabilities

Natural resource manngagment and land tenure

Activities utilizing land and other natural resources must be compatible with local NRM and land tenure

land and resource rights are often gender-specific

Best Practice #3:
Build commitment & capacity. . .

! **Environmental application:**

Proper maintenance and operation are critical to controlling environmental impacts.

Local beneficiaries need to be trained and committed to:

- environmentally sound operation.
- maintaining the equipment/ structure

Who will maintain it?
Who will operate it?

. . . and involve the local community

Ethics require it
(environmental justice)

Local residents must live with the environmental impacts of activities!

LOCAL KNOWLEDGE is critical

- **How often does the river flood?**
- **How often are crops rotated?**
- **Is there a land tenure problem?**
- **What do people value and need?**

LISTEN to the community

TALK to both men and women

Best Practice #4:
Practice Adaptive Management

"Adjust what we do as results come in"

Environmental dimension: If our activity has unintended adverse environmental consequences, **we need to DO SOMETHING ABOUT IT!**

Requires:

- **Funding for environmental monitoring in project budget**
- **flexibility to adapt the project in response to unanticipated adverse impacts**
- **Adjusting implementation based on the experiences of others**

Communities are often essential to monitoring results from the field

Best Practice #5:
Design for Climate Change

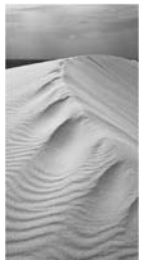
Already mentioned: future baseline conditions will change—design projects to be ROBUST to meet these changes

But in addition

While individual projects are rarely significant contributors to gobal climate change. . .

. . .climate change is driven by the sum of many small actions.

So even small-scale projects should seek to reduce greenhouse gas emissions/ increase sequestration/ reduce climate vulnerability in the local area in a manner consistent with their development objectives.



Best Practice #5: Design for Climate Change

Example actions in small-scale projects:

Reduce greenhouse gas emissions	**Use alternative energy (PV, windmill water pumping, etc)**
	Improve thermal performance in building design
Reduce climate vulnerability in the local area	**Prioritize water efficiency to reduce a project's contribution to the area's future water stress**
Increase sequestration	**Tree-planting**
	Land management sustainable grazing, cropping

Soil carbon measurement by hand in Senegal

How does EIA make "Rule 2" a reality?

2

Apply best development practices to <u>environmental</u> aspects of the activity

Technical soundness	**EIA requires characterizing environmental conditions**
Stakeholder commitment	**Stakeholder consultation is central to EIA**
Adaptive management	**EIA requires a systematic approach to field monitoring**

Rule 3 for achieving ESDM. . .

3

Be systematic

Take a **systematic look at:**

- **the possible adverse environmental impacts of an activity**
- **ways to reduce these impacts**.

The best way to be systematic: **Environmental Impact Assessment (EIA)!**

EIA: Best practice – and the law!

EIA: the internationally accepted process to achieve Environmentally Sound Design & Management

- ***<u>Systematic process</u>*** *to be* ***<u>prevention oriented</u>*** *& assure that* ***<u>environmental aspects of development best practices are applied</u>***

AND

EIA is:

- **REQUIRED BY LAW in most countries.**
- **REQUIRED by almost all donors.**

Session 4.
Core EIA Skills I:
Baseline Characterization,
Identifying Issues of Concern & Mitigation

(0:45)

Objectives

Become familiar with the principles and processes that constitute the core EIA skills of baseline characterization, identifying issues and impacts of concern, and mitigation design.

Establish that because effective mitigation design must be highly responsive to site conditions, effective mitigation design requires baseline characterization and issues identification skills.

Format

Presentation and worked examples.

Summary

The EIA process requires the following core skills:

1. characterizing the **baseline situation**;
2. identifying (and evaluating) the potential adverse **impacts** of planned development activities (issues of concern); and
3. developing mitigation and (4) monitoring measures to address these impacts.

("Baseline situation," "impacts" and "mitigation and monitoring" were defined in Session 3.)

This session addresses core skills 1-3; the fourth (monitoring) is addressed in a subsequent session.

At first thought, characterizing the baseline situation and identifying issues of concern might seem relevant only to the pre-implementation EIA process—not to implementing the conditions that result from that review.

However, conditions specified in USAID IEEs and EAs are often very general. They require IPs to identify issues of concern particular to a site & respond with appropriate, specific mitigation measures. Thus effective mitigation requires a familiarity with all core EIA skills.

Part 1: Baseline Characterization & Determining Impacts of Concern

The first part of this session explains the basic, logical process behind baseline characterization and identifying issues of concern. We will illustrate the process with a worked example.

An example from a real and typical small-scale construction project will illustrate why the core EIA skills of baseline characterization and identifying issues of concern are directly relevant to effective mitigation.

Depending on the size, complexity and context of the activity, sophisticated environmental models and other tools *can* be required to evaluate impacts in the context of a full EIA study. But for most small-scale activities and preliminary assessments (IEEs), the simple, logical process described here, supported by good judgment and the information contained in the *Sector Environmental Guidelines* (or similar resources), is sufficient.

Part 2: Mitigation.

The purpose of the EIA process is not simply to assess potential environmental impacts, but to change project design and implementation so that these impacts are *mitigated*—that is, avoided, reduced or offset.

As such, mitigation is a critical part of ESDM and the EIA process. Monitoring (addressed in a subsequent session) is its essential complement, required to verify whether the mitigation measures are sufficient, effective—and actually implemented.

The second part of this session:

- Defines mitigation.
- Provides examples of basic mitigation approaches.
- Explains the principles behind good mitigation design and practice.

Key resources

The sector chapters of USAID's *Sector Environmental Guidelines* are a key resource for (1) identification of potential adverse environmental impacts and (2) design of mitigation and monitoring measures. http://www.usaidgems.org/sectorGuidelines.htm

"IV.1: Topic Briefing—Introduction to EIA" in the *Environmental Guidelines for Small Scale Activities.* (USAID/AFR/SD; available at www.encapafrica.org/egssaa.htm) is a general resource for core EIA skills.

Session 4:
Core Environmental Impact Assessment Skills

Part I:
Characterizing the baseline situation
Identifying environmental impacts
Principles of environmental mitigation

Core EIA Skills for Environmental Compliance

Baseline Characterization

Identifying Impacts of Concern

Mitigation & Monitoring Design

Employed in developing the IEE--- but also critical to making mitigation responsive to local environmental conditions

Key skills for implementing IEE conditions

Impact evaluation process: THEORY

1. **Understand** the activities being proposed
2. **Research** the potential adverse impacts typical of these activities & know **how** they arise
3. Based on the potential impacts, **identify** which elements of the baseline situation are important
4. **Characterize** these elements of the baseline
5. **Given:**
   1. **the baseline conditions,**
   2. **the project concept/design, and**
   3. **How the adverse impacts arise,**

   decide which impacts are of concern

Impact evaluation process: EXAMPLE

1. **Proposed intervention: irrigation scheme**
   (wing dam diversion type ▪ water-intensive crops ▪ high fertilizer use, unlined canals & open-channel irrigation)
2. **Key potential impacts:**
   - Excessive diversion of water
   - Salinization of soils
   - Contamination of groundwater & downstream surface water
3. **Key elements of baseline:**
   - River flow volume, variability
   - Soil & water characteristics & groundwater depth
   - Downstream uses

Assessing impact: EXAMPLE

4

Baseline characterization

- *River flow volume, variability*
  - Will divert 3% of normal flow
  - low-year flows are 50% of normal
  - Downstream abstraction is <10% of total flow volume.
- *Soil characteristics & groundwater depth*
  - Soils are well-drained but relatively high in salts; groundwater 2m depth
- *Downstream uses*
  - Key water source for community domestic use & livestock, immediately downstream.

5

Therefore:

Impacts of Concern: Salinization Downstream contamination

Little Concern: Excess Diversion

Why these conclusions?

Question:

Why are these concepts relevant to me? I'm not developing Initial Environmental Examinations.

- IEE conditions often require Implementing Partners to identify issues of concern particular to a site & respond with appropriate, specific mitigation measures.
- C/AORs & M&E specialists must be able to evaluate if IP actions are appropriate

For example. . .

Medium scale construction. . .

ACTIVITY:
Development of institutional compound/ training facility
(perimeter wall, offices & classrooms, canteen, genset & fuel storage, latrine block, etc.)

IEE Conditions:

1. No construction permitted in protected areas or relatively undisturbed ecosystem areas.
2. Construction & facilities operation may not (a) result in significant adverse impacts on ecosystem services or (b) adversely affect the quality of surface or groundwater tapped for domestic use.

The baseline situation determines the relevance of these conditions & specific issues of concern mitigation must address

Inspection of baseline conditions at the site identifies issues of concern for mitigation. . .

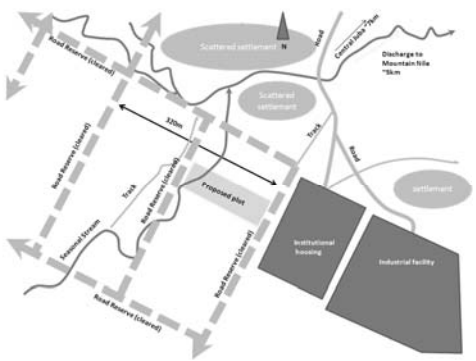
1: Site is in area already allocated for development---ecosystem integrity already disrupted.

2a: Key ecosystem service provided by the land is area drainage

Implication: design must assure no reduction in stream capacity & no alteration to local drainage patterns.

2b. likely domestic use of surface water just downstream of the facility; potentially shallow groundwater also.

Implication: must prevent additional siltation of stream, gray and brown water discharge, fuel leaks.



Where do I obtain information about the the baseline situation?

1. **YOUR ORGANIZATION**
   TALK to staff who know the project, and know the sites.

   OBTAIN project documents and information

2. **DIRECT OBSERVATION**
   Go to the site(s)! Look up publicly available satellite imagery before you go.

3. **UTILIZE OTHER LOCAL TALENT & KNOWLEDGE**
   communities, government, counterparts

? Aren't we forgetting something?

What about reports by donor organizations and international agencies? What about government statistics? GIS databases?

All these sources can be useful (and sometimes necessary)

But good local information is the most important input

Why direct observation?

We need to **SEE**

- **Are latrines close to water supplies?**
- **Is there a drainage problem?**

Visual inspection is the quickest and best way to check issues of location, scale and proximity that determine many impacts.

We need to **LISTEN**

- **Is there a land tenure problem?**
- **How often does the river flood?**

Stakeholders and local communities have *local knowledge that you need.*

And, impacts depend on what those affected value and need!

! Talk to men AND **women.** Women's perceptions on environmental matters are critical and distinct.

What if I can't travel to the sites?

! If at all possible, DON'T make the site characterization a desk exercise.

But if you can't visit the sites/area, you need:

- **MAPS** and **PHOTOS** to help you visualize the environment.
- to **TALK** to people who have been there

Mitigation and Monitoring

A critical part of the EIA process—and of environmentally sound design and management

Mitigation is. . .

The implementation of measures designed to eliminate, reduce or offset the undesirable effects of a proposed action on the environment.

Monitoring . . .

Environmental and activities measurements to tell you if your mitigation measures are:

1.Being implemented
2. Sufficient and effective

How does mitigation reduce adverse impacts?

Type of mitig measure	How it works	Examples
Prevention and control measures	Fully or partially prevent an impact/reduce a risk by: ▪ ***Changing means or technique*** ▪ ***Changing or adding design elements*** ▪ ***Changing the site*** ▪ ***Specifying operating practices***	PREVENT contamination of wells, by SITING wells a safe distance from pollution sources Add wastewater treatment system to the DESIGN of a coffee-washing station and train in proper OPERATIONS
Compensatory measures	Offset adverse impacts impacts in one area with improvements elsewhere	Plant trees in a new location to COMPENSATE for clearing a construction site
Remediation measures	Repair or restore the environment after damage is done	Re-grade and replant a borrow pit after construction is finished

… and sometimes you may need to redesign the project to modify or eliminate problem components

Siting & design features to PREVENT impacts

Water Supply (Well provision)

- **Potential impacts:** Contamination of water supplies; spread of disease
- **Mitigations needed:** Fence to keep out livestock

  Site away from contamination sources

  Provide separate water point for livestock

What is wrong with this intervention?

Proper treatment system OPERATIONS

Agricultural Processing
(Coffee Washing)

- **Potential impacts:** Contamination of water supplies; excessive water draw
- **Mitigations:**

  Wash water recycling

  Basic wastewater treatment (pictured)

! **Proper treatment system *operation* is essential**

Stream (community water supply)

Must EVERY impact be mitigated?

Mitigation specified by the IEE/EA must be implemented

Often IEE conditions require judgment in designing specific mitigations. In this case, apply the following principle:

Prioritize!

Potentially serious impacts/issues	Easily mitigated impacts
These must **ALWAYS** be mitigated to the point that the impact is non-significant	Then, there may be other impacts for which mitigation is easy and low-cost

Effective mitigation usually requires a MIX of mitigation techniques

Example: ROAD REHABILITATION

Some typical adverse impacts:

- Alteration of natural watershed drainage
- Erosion of road surface materials into habitats, productive agricultural land
- Roadside gully formation→ damage to adjoining land
- Dust→ respiratory problems, crop damage
- Inappropriate extraction of materials for road surfacing
- Increase in disease transmission (HIV)
- Increased non-sustainable logging, charcoal extraction

Combining mitigation techniques: Road rehabilitation

Some typical good-practice mitigations

Avoid steep grades, Follow contours	**Siting**
Culverts or Rolling dips for water drainage and diversion **Side drainage to prevent flooding washout** **Slope stabilization via plantings, grading/terracing & riprap** **Dust reduction barriers** **Paving of vulnerable stretches**	**Design elements**
Community Maintenance	**Operating Practice**
Grading/planting/draining borrow pits	**Remediation**

Gullying can be serious!

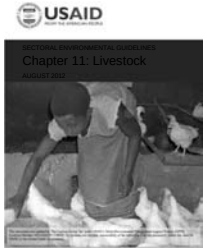
Prevention is best

! **Where possible, PREVENT impacts by changes to site or technique.**

CONTROL of impacts with Operation & Maintenance (O&M) practices is more difficult to monitor, sustain.

How do I learn about potential impacts and mitigation measures?

KEY RESOURCE: **USAID's Sectoral Environmental Guidelines**



- Covers more than **20 typical development sectors**
- Each sectoral write-up identifies **potential impacts & discusses how they arise.**
- Impacts are matched **to mitigation actions**.
- The **annotated bibliographies** provide URL links to **additional key resources**
- Over 2012-13, AFR, LAC, Asia Guidelines being consolidated into a "global version."
- See www.usaidgems.org.

Summary

- **Environmental compliance (and achieving ESDM) requires “core EIA skills”**
  - Baseline characterization
  - Identifying impacts of concern
  - Mitigation design
  - Monitoring (coming up)
- **Effective mitigation design is site-specific. It requires a knowledge of the baseline situation.**
- **Mitigate by prevention where you can.**

Session 5.
Field Visit #1: Practicing Core EIA Skills

(5:20)

Objectives

Undertake a field visit exercise to build and apply the core EIA skills briefed in Session 4.

Format:

0:30 classroom preparation/briefing
3:30 field visits (including transit)
1:20 working groups & brief report-out/plenary synthesis

Summary

The previous session presented the basic theory of baseline characterization, impact evaluation, mitigation, and monitoring. This part of the session practices these skills in a field visit & follow-on group work. By using sector guidance from the *Sector Environmental Guidelines* as a key resource, the session also builds familiarity with the *Guidelines.*

Summary/Instructions

The previous session presented the basic theory of baseline characterization, impact evaluation, and mitigation. This session, which involves a field visit and classroom follow-up, practices these skills. We will:

1. Identify key elements of the baseline situation at the visited sites.
2. Identify and evaluate potential impacts/issues of concern of the ongoing activities at these sites.
3. Identify mitigation measures that have been put in place and their adequacy.
4. Identify mitigation measures that can improve the overall design/implementation of the activity and thus help reduce or alleviate potential adverse impacts.

By using sector guidance from the *Small-Scale Guidelines* as a key resource, the session also builds familiarity with the *Guidelines.*

Team Assembly and Site(s)

The training team will brief the site visit and divide us into working teams. The site(s) to be visited are briefed on the following pages.

1. Classroom Preparation (0:30)

As a team review the briefing for your site (following pages).

Identify the most critical <u>potential</u> environmental impacts of the activity(ies) you will encounter at your site, and other ways in which design and management of such activities can be environmentally UNsound.

(Key reference: relevant chapter of the EGSSAA).

Based on this discussion, **identify** together the most relevant elements of the baseline situation to observe and assess on our field visits.

(That is, what information does the team need to decide whether a *potential* impact or ESDM "deficit" is real and significant for the facility/site in question?)

For any sites that are already in operation or advanced construction, note that the baseline situation includes both the environment around the facility *and* the facility itself.

2. Field visit (3:00, including travel time)

Each team will visit their assigned site where they will receive a guided tour, have the opportunity for independent observation, and have a question and answer session with their host.

During the site visit:

1. **Observe**: (1) What exists and what is happening at the site (the baseline situation); (2) How has the activity at the site affected the environment? Do the issues appear serious? (3) Are there any mitigation measure in place to mitigate adverse impacts and how adequate are they?

   (If relevant, also be on the lookout for hygiene or occupational safety and health issues that may not, strictly speaking, be environmental issues but may affect staff or community health and safety.)

2. **Talk with & Listen to people at/around the site**. This will be accomplished through informal interviews with those you find around the site. Those to be consulted will include: the local community, government officers, some of your colleagues who may have had experiences with that project or similar ones). Remember to talk to both men and women and any disadvantaged groups.

We may observe ESDM deficits at each site. But please remember that we visit as observers and invited guests, not auditors or inspectors. We should observe, listen, and by all means ask questions— but not offer criticism to our hosts.

Also, we must not give the impression that additional assistance will follow from our visit!

3. Classroom follow-up (1:05)

Each team will re-convene in the classroom at the beginning of Day 2. Using the information from the site visit, each team will:

- Organize and analyze the information/ data collected from the field to summarize (1) the most relevant elements of the baseline situation and and (2) ongoing environmental management efforts and measures (if any).
- On this basis, decide which of the potential adverse impacts and other potential "ESDM failures" are real and present serious concerns.
- Of these, which are not being addressed with mitigation/environmental management measures? (Or are being inadequately addressed?)
- Suggest corrective measures (mitigation) to address these issues.

Teams should record their findings in bullet form. The relevant chapter of the *Small-Scale Guidelines* will be the key reference for potential impacts and mitigation measures. Facilitators will serve as resources throughout the process.

Note that this session is intended to practice basic observation, impact identification and mitigation design skills—not to practice development of Reg. 216 environmental documentation. Thus (for those who already know these terms), working group outputs are **not** *expected to be in the form of an IEE outline or phrased in terms of "recommended determinations."*

4. Synthesis (0:15)

Teams will not present their findings, but the facilitator will lead a brief synthesis session, soliciting a sample of individual and group comments and observations.

Session 6. (0:45)
Reg. 216: USAID's Pre-Implementation EIA Process

Objectives

Understand Reg. 216 as USAID's mandatory pre-obligation EIA process, and further understand that environmental mitigation and monitoring conditions established by this process become required elements of activity design and implementation. Become familiar with the entire Reg. 216 process..

Format:

Presentation, Q&A and informal Quiz

Summary

Reg. 216 (22 CFR 216) is a US federal regulation that sets out USAID's mandatory pre-obligation/ pre-implementation EIA process. The Regulation applies to all USAID programs or activities, including non-project assistance *and* substantive amendments or extensions to ongoing activities.

The Reg. 216 process results in *Reg. 216 documentation* (a Request for Categorical Exclusion (RCE), an Initial Environmental Examination (IEE), an Environmental Assessment (EA)), that must be approved by the Mission Director and by the BEO. The IEE is USAID's version of a preliminary assessment. The EA is a full EIA study.

No "irreversible commitment of resources" can occur to implement an activity unless the activity is covered by appropriate, approved Reg. 216 documentation.

When IEEs are approved with mitigation and monitoring conditions attached to one or more activities, those conditions become a required part of project design/implementation. (EAs always have such conditions.) . Note that unless IEE and EA conditions are implemented, (1) the activity is out of compliance; (2) the Reg. 216 process is largely meaningless; and (3) the objective of the environmental procedures (ESDM) is not achieved.

For this reason, the ADS requires C/AORs to REMEDY or HALT activities where IEE/EA conditions are not being implemented, or which are otherwise out of compliance.

This session briefs Reg. 216 as a specific implementation of the EIA process, with particular attention to (1) the *screening process and criteria* established by the Regulation, and (2) the nature of the environmental documentation determined by this screening process.

Reg. 216 documentation is developed by Mission staff, IPs, or 3rd-party contractors, depending on the situation. Most IEEs that cover a sector portfolio in a mission (SO- or FO-level IEEs) are developed by Mission staff or 3rd-party contractors. .

Partners are often asked to develop Reg. 216 documentation for new project components. 3rd-party contractors are almost always engaged to undertake EAs.

USAID
FROM THE AMERICAN PEOPLE

Session 6:
22 CFR 216 (Reg. 216): USAID's Pre-implementation Environmental Impact Assessment Process

Session Objectives:

- Identify the pre-implementation environmental review process defined by 22 CFR 216;
- Identify this process as a specific implementation of the general Environmental Impact Assessment process;
- Practice deciding determinations for given USAID-funded activities.

What is 22 CFR 216 (Reg. 216)?

- **Sets out USAID's pre-implementation EIA process**
- **Applies to:**
  - ***All*** *USAID programs or activities, (including non-project assistance.)*
  - *New activities*
  - *Substantive amendments or extensions to ongoing activities*

!

Reg. 216 (22 CFR 216) is a US FEDERAL REGULATION. Compliance is mandatory.

Documentation & Approval

IMPORTANCE:
No activities may be implemented without APPROVED Reg. 216 environmental documentation in hand.

APPROVED =
Mission Director
(or Washington equivalent) &
Bureau Environmental Officer (BEO) signatures

BEO concurrence *not* automatic or guaranteed

Dialogue is sometimes required

Who signs?

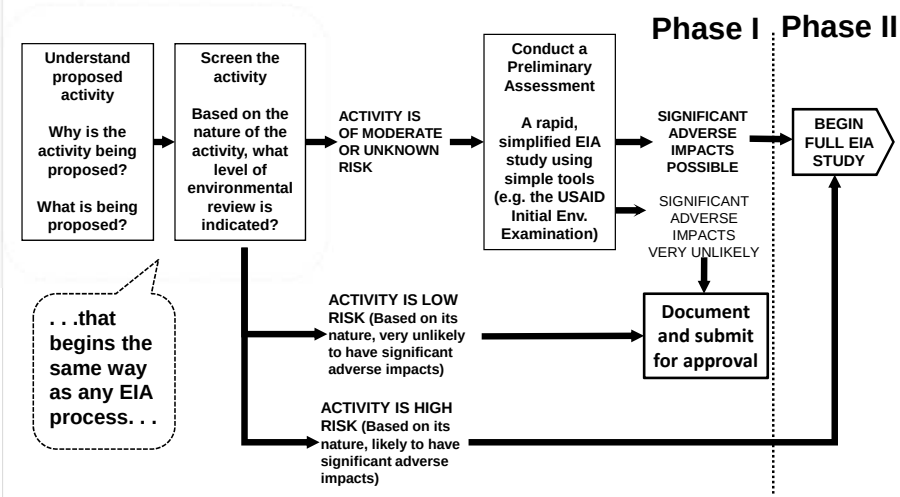
Clearances:
- COR/AOR or Team leader
- Mission Environmental Officer (for Missions)
- Regional Environmental Advisor (depending on mission)
- Mission Director or Washington equivalent*

Concurrence
- Bureau Environmental Officer*

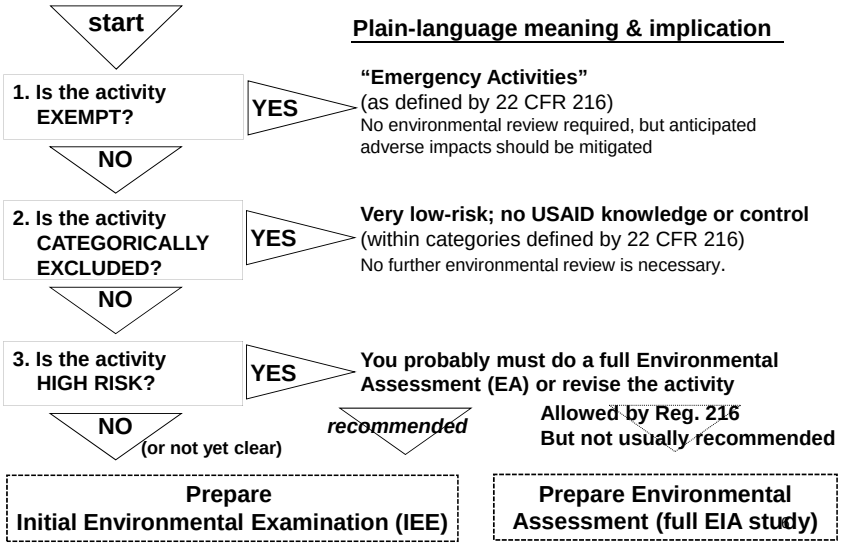
Approval
- General Counsel (rarely)

*required by Reg 216

Reg. 216: specific USAID implementation of general EIA process. . .

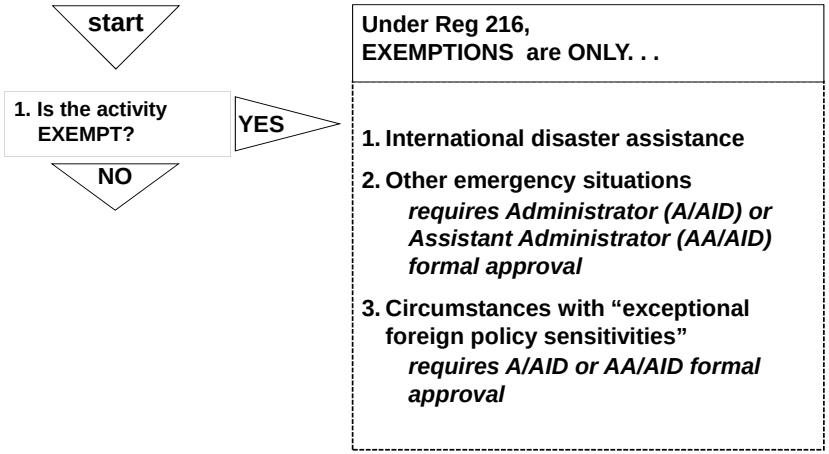


Screening under Reg. 216

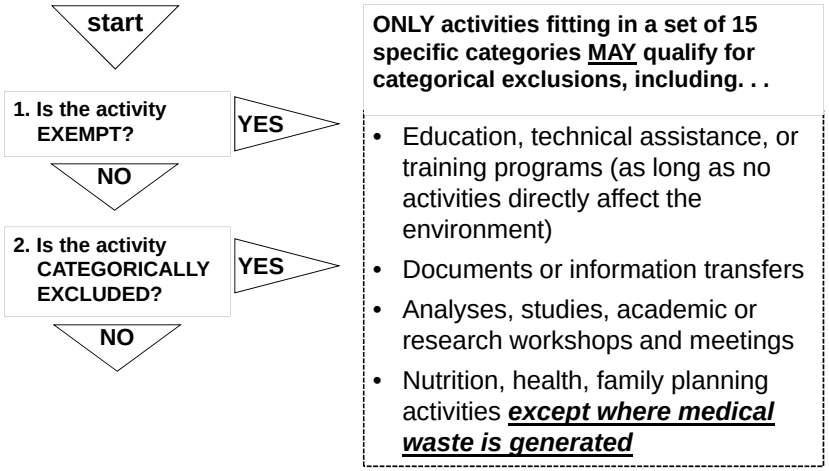


Screening under 22 CFR 216:
Exemptions

! "Exempt" activities often have significant adverse impacts.
Mitigate these impacts where possible.



Screening under 22 CFR 216:
Categorical Exclusions



Categorical Exclusions: LIMITATIONS

start

1. Is the activity EXEMPT? — YES

NO

2. Is the activity CATEGORICALLY EXCLUDED? — YES

NO

! No categorical exclusions are possible when an activity involves pesticides. (22 CFR 216.2(e))

An activity may "fit" into a categorically excluded class. . .

. . . but if adverse impacts are reasonably foreseeable, the activity will NOT receive a categorical exclusion.

Why would categorical exclusions NOT apply if USAID funds. . .

- A technical advisor to the ministry of environment & energy with co-signature authority over mining concession awards?
- Midwife training in management of 3rd-stage labor?
- Credit support to large-scale agro-processing?

Screening under 22CFR216

"High Risk" (EA Likely Required)

start

1. Is the activity EXEMPT? — YES

NO

2. Is the activity CATEGORICALLY EXCLUDED? — YES

NO

3. Is the activity HIGH RISK? — YES

NO

"HIGH RISK" = activities "for which an EA is normally required" per 22 CFR 216

<u>OR</u> other activities which clearly present high environmental risks

- Penetration road building or improvement
- Irrigation, water management, or drainage projects
- Agricultural land leveling
- New land development; programs of river basin development
- Large scale agricultural mechanization
- Resettlement
- Powerplants & industrial plants
- Potable water & sewage, "except small-scale"

What if my activity is "high risk"?

3. Is the activity HIGH RISK? — YES → You probably must do a full Environmental Assessment (EA) or revise the activity

NO (or not yet clear) → Prepare Initial Environmental Examination (IEE)

recommended → Prepare Environmental Assessment (full EIA study)

Allowed by Reg. 216
But not usually recommended

Can proceed directly to an EA (USAID's full EIA study)

But unless the activity is VERY clearly "high risk", do an IEE (USAID's preliminary assessment) instead

WHY a preliminary assessment?

An IEE will:

- Allow you to determine if impacts can be easily controlled below a significant level—if so, an EA is not necessary
- Gather information needed to jump-start the EA process

What is clearly "high risk"?

EA DEFINITELY REQUIRED	NOT CLEAR—proceed to IEE
New 500Ha irrigation scheme	Rehabilitation of 50Ha irrigation scheme
Major expansion of a 100MW thermal power plant & construction of new transmission lines	Mini-hydro installations of 500 kw total
Widening 30km of a 2-lane road to 6-lane tollway thru an urban area	Rehabilitation of multiple short segments of rural feeder road
Sections 118 & 119 of the Foreign Assistance Act REQUIRE an EA for. .	
Activities involving procurement or use of logging equipment	
Activities with the potential to significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas	

Once each activity has been screened…

Activity*	Exempt	CatEx	IEE Req'd	EA Req'd
1. Small clinic rehabilitation			X	
2. Borehole Installations			X	
3. Training in patient record-keeping		X		
4. Construct provincial medical waste disposal facility				X

*Use a table like this. It helps.

Develop your 22 CFR 216 documentation. . .

. . .as determined by the outcome of your screening process

Overall screening results	**22 CFR 216 documentation required**
All activities are exempt	Statement of Justification
All activities categorically excluded	**Categorical Exclusion Request** + FACESHEET
All activities require an IEE	**IEE** covering all activities + FACESHEET
Some activities are categorically excluded, some require an IEE	An **IEE** that: ▪ Covers activities for which an IEE is required AND ▪ Justifies the categorical exclusions + FACESHEET
High-risk activities	▪ Initiate scoping and preparation of an EA

CATEGORICAL EXCLUSION REQUEST

Very simple; 1-2 pages. Describes the activities. Cites 22 CFR 216 to justify the catex.

Initial Environmental Examination (USAID's preliminary assessment)

Timing of 22 CFR 216 documentation. . .

USAID's project design process requires approved Reg. 216 documentation as annex to the Project Appraisal Document

Program Cycle

CDCS

Environmental Planning, FAA 117, 118, 119

Project Design Process

Stage 1:Concept Paper

- Steps 1-10
- Review
- Approve/Disapprove
- if yes then Stage 2

Stage 2: Analytical (PAD)

Gender/ Env/Sust Analysis
7. Anal. & Sust. Considerations
Annex b. Log Frame
Annex k. Env Thresh. Decision
Annex m. Waivers (AUPCS)

Threshold Decision

Stage 3: Project Authorization

AUPCS
mitigating measures in the PAD

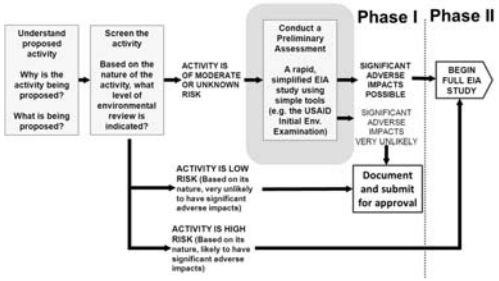
Initial Environmental Examination: What it looks like

Basic IEE outline

1. **Background & Activity Description**
   - Purpose & Scope of IEE
   - Background
   - Description of activities
2. **Country & Environmental information**
   - Locations affected
   - National environmental policies and procedures
3. **Evaluation of potential environmental impacts**
4. **Recommended threshold decisions and mitigation actions**
   - Recommended threshold decisions and conditions
   - Mitigation, monitoring & evaluation

! The IEE is very similar to preliminary assessments required by other donors and governments.

Purpose of Initial Environmental Examination



Provides documentation and analysis that:

- Allows the **preparer** to determine <u>whether or not significant adverse impacts are likely</u>
- Allows the **<u>reviewer</u>** to agree or disagree with the preparer's **determinations**
- Sets out mitigation and monitoring for adverse impacts

What determinations result from an IEE?

For **each** activity addressed, the IEE makes one of 4 recommendations regarding its possible impacts:

If the IEE analysis finds. . .	**The IEE recommends a. . .**	**Implications (if IEE is approved)**
No significant adverse environmental impacts	**NEGATIVE DETERMINATION**	No conditions. Go ahead.
With specified mitigation and monitoring, no significant environmental impacts	**NEGATIVE DETERMINATION WITH CONDITIONS**	Specified mitigation and monitoring must be implemented
Significant adverse environmental impacts are possible	**POSITIVE DETERMINATION**	Do full EA or redesign activity. Conditions imposed by the EA must be implemented.
Not enough information to evaluate impacts	**DEFERRAL**	You cannot implement the activity until the IEE is amended
PLUS, the IEE will address any CATEGORICAL EXCLUSIONS carried over from the screening process.		

When the IEE is duly approved. . .

<u>Recommended</u> determinations & categorical exclusions become THRESHOLD <u>DECISIONS</u>

Conditions become REQUIRED elements of project implementation & monitoring (ADS 204.3.4(b))

The IEE is posted to USAID's environmental compliance database*

Conditions are written into or referenced in solicitation & award documents (ADS 204.3.4(a)(6))

AORs/CORs oversee implementation (ADS 204.3.4(b))

*www.usaid.gov/our_work/environment/compliance/database.html

What if I need to do an Environmental Assessment*?

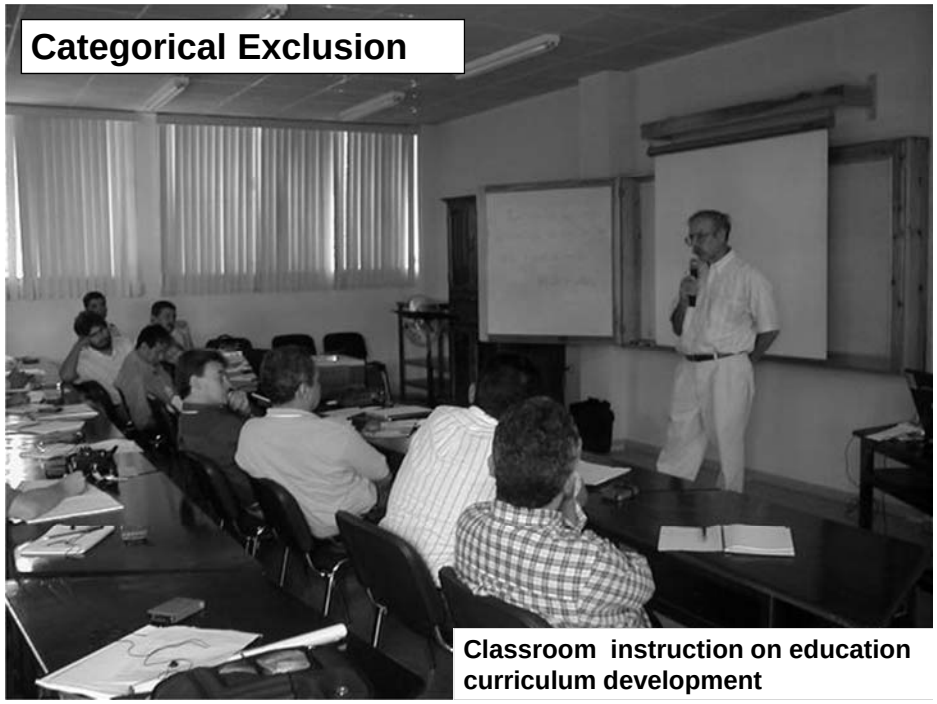
- First step: a formal scoping process (22 CFR 216.3(a)(4))
- Scoping statement must be approved by Mission Director, Bureau Environmental Officer.
- Informs the SOW for the Environmental Assessment itself.
- EAs are far more detailed than IEEs. They must address alternatives to the proposed activities. Public consultations are required.

**If a proposed action may affect the <u>US environment</u> or the <u>global commons</u>, an EIS is required, not an EA. (EIS = <u>Environmental Impact Statement</u>, per the US National Environmental Policy Act (NEPA)). This is RARE. (22 CFR 216.7.)*

And now: A QUIZ!!

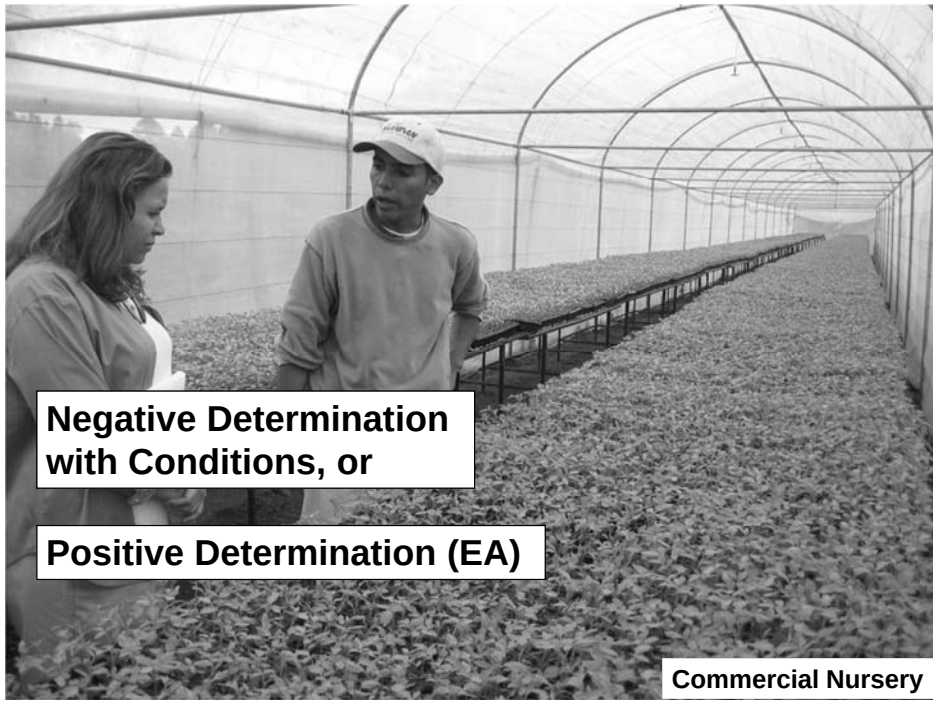
What will the 22 CFR 216 threshold decision likely be?

- **Categorical Exclusion?**
- **Negative Determination?**
- **Negative Determination w/ Conditions?**
- **Positive Determination?**
- **Exemption?**



Classroom instruction on education curriculum development

Market feeder road rehabilitation on Liberia



Commercial Nursery

Negative Determination with Conditions

Promoting Cacao cultivation

Positive Determination (EA)

Forestry activity

Initial – Exemption

Long term – Positive Determination or Negative Determination with Conditions

Hurricane disaster response:
- Initial?
- Long term reconstruction?

27

Positive Determination or

Negative Determination with Conditions

Pesticide Procedures

Pesticide use,

Central America

Reg. 216 at the sector/Project Appraisal Document level

Reg. 216 written for the **project/activity level**

But many RCEs/IEEs written at the **Sector Portfolio** level

- To better consider environment in program design
- To satisfy the need for pre-obligation threshold decision
- AND NOW, program design guidance requires Reg. 216 documentation to be in place for the Project Appraisal Document (PAD). Each PAD covers multiple procurement actions.

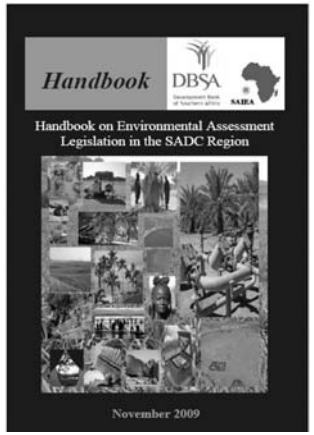
RISKS:

- failure to apply IEE at project level;
- project-level activities outside the scope of the IEE

Operating Units must have a system in place to assure conditions from high-level IEEs are applied at the project level.

What about host-country EIA procedures?

- Most host countries have domestic EIA requirements;
- USAID projects must also comply with these requirements;
- So, during screening, also screen against host country categories.
- If a host-country preliminary assessment or full EIA is required, the objective is to create **one document that satisfies both systems.**



Summary

- 22 CFR 216 defines USAID's pre-implementation environmental review process;
- It is a specific implementation of the general EIA process;
- It begins with a systematic screening and decision-making process that leads to more detailed review, if necessary;
- Documentation and approval processes are clear and mandatory.

Session 7.
Effective IEEs.

(1:35)

Objective

Initial Environmental Examinations (IEEs) are USAID's version of the preliminary assessment and the most common type of Reg. 216 documentation.

Understand the basic structure of an IEE and the characteristics of well-written, well-considered IEEs by critiquing draft IEEs based on the field visits.

Format

Group Exercise

Background/Review

A well-considered, well-written IEE is the basis of good mitigation and monitoring and the foundation of the LOP compliance process.

The responsibility for assuring that good-quality environmental documentation is developed lies with team leaders, A/CORs, and activity managers—this is true even when a 3rd-party contractor or the implementing partner develops the IEE.

Again, **Reg. 216 documentation is developed by Mission staff, Partners or contractors,** depending on the situation:

- Most IEEs that cover a Mission's sector portfolio (sector- or DO-level IEEs) are developed by Mission staff or 3rd-party contractors.
- Partners are often asked to develop Reg. 216 documentation for new project components.
- 3rd-party contractors are almost always engaged to undertake EAs.

But when the IEE is approved, USAID takes ownership for the content---no matter who wrote it.

In the Mission, the MEO should serve key roles as (1) a resource for Reg. 216 documentation development; (2) reviewer/gatekeeper for this documentation.

Summary

In this session, we build and practice skills to evaluate IEE quality, including whether recommended determinations and conditions are appropriate.

To do this, we return to the sites we visited. We play the role of mission sector teams in the process of undertaking activities at these sites or similar sites. A consultant has now delivered a draft IEE covering the activity. (The original IEE covering the sector portfolio did not include this component.) . Informed by your field visit, you must evaluate the draft IEE.

Effective IEEs are well-considered and well-written. Such IEEs:

1. Address the full scope of proposed activities
2. Characterize the aspects of the baseline situation critical to evaluating the significance of impacts

3. Identify and adequately evaluate key potential impacts.
4. Set out mitigation measures that are (1) adequate and (2) *within the scope of USAID's reasonable authority.* (For example, we cannot impose conditions on actors over whom USAID has no control.)
5. Make recommended determinations that are reasonable, defensible and in accordance with Reg. 216.
6. Use clear, uncluttered language and parallel organization in the presentation of activities, analysis of impacts, and recommended determinations.

Instructions.

Individually, read the project briefing & the relevant draft IEE (in simplified bullet-point form) on the following pages.

As a group, and <u>based on your knowledge from our virtual field visits</u>, critique the IEE against the six criteria for effective IEEs set out above. Refer to the project briefing in session 5.

Unfortunately, your hard-working consultant did <u>not</u> present a quality product. The draft IEE has some clear deficiencies and some deficiencies that are more subtle or debatable.

We will briefly report-out on these critiques in plenary. Final (revised) IEE conditions will be presented for discussion.

Session 8.
Core EIA Skills II:
Environmental Monitoring & Environmental Mitigation and Monitoring Plans

(1:05)

Objectives

Establish the objective of environmental monitoring (determining clearly and cost-effectively if mitigation is sufficient and effective); brief the two types of environmental monitoring indicators; and achieve a common understanding of the principles of environmental monitoring design.

Brief the EMMP concept; establish that EMMPs are critical to effective and systematic implementation of IEE/EA conditions; explain the mechanisms by which USAID is requiring IPs to develop and implement EMMPs.

Practice translating general IEE conditions into specific mitigation actions.

Format

Presentation (0:45); short group discussion/exercise (0:20)

Summary

This session continues our acquisition of core EIA skills critical to life-of-project compliance. It has 3 major parts: (1) Principles of Environmental Monitoring, (2) Environmental Mitigation and Monitoring Plans, and (3) Translating general IEE or EA conditions to mitigation actions.

1. Environmental Monitoring

Definition. Environmental monitoring is both:

A. Systematic verification of the implementation of mitigation measures.

B. Systematic observation of key environmental conditions.

Environmental monitoring is a necessary complement to mitigation. Its purpose is to tell us clearly and cost-effectively if mitigation is sufficient and effective.

Throughout this session, we will see that environmental monitoring must be highly targeted.

A. Verifying Implementation of Mitigation Measures. We can verify (and quantify!) implementation of mitigation measures in two ways: via paper reports and via field inspection. In each case, we use **mitigation implementation indicators**. For example, monitoring of medical waste management in a clinics activity could ask the beneficiary clinics to attach their waste management plan. A field inspection would spot check that key elements of the plan were being implemented.

Good environmental monitoring is targeted and takes the simplest effective approach. It usually requires a combination of environmental conditions indicators and mitigation implementation indicators.

B. Observing environmental conditions. The environmental conditions observed are those:

- That correspond to impacts and mitigation measures. For example, a key potential impact of an irrigation project is groundwater contamination. Therefore, **ground-water quality** is monitored.
- Upon which the project depends for its success. For example, a water supply project depends on clean source water. Therefore, **source water quality** is monitored.

We observe and measure environmental conditions by using **environmental indicators,** which are signals of or proxies for the stock and quality of key environmental resources, or of environmental health and ecosystem function.

Indicators can require complex equipment to measure (e.g. testing water for pesticide residues), but they can also be very simple—and often for small-scale activities simple indicators are best. (For example, groundwater levels can be measured in a shallow well using a rope and bucket.)

A key principle of monitoring is choosing the simplest indicator that meets your needs.

NOTE: environmental indicators are NOT "F" indicators or core program performance indicators.

To distinguish the impacts of your activity from other factors, thought needs to go into the times and places that indicators are measured.

For example, consider an agricultural processing facility that draws water from a stream. The facility has potential to adversely impact surface water quality. A good monitoring approach would:

- Take water samples from the stream at the intake point and downstream from the seepage pits.
- Take samples from these different locations at the same time.
- Take samples during both high and low flow periods during the processing season.

What is the relationship of monitoring to environmental compliance? Initial Environmental Examination and Environmental Assessment conditions are mitigation requirements. IEEs (and EAs) are useless unless the conditions they establish are implemented! USAID's environmental procedures therefore require implementation of IEE/EA conditions (mitigation) and monitoring this implementation.

2. Environmental Mitigation and Monitoring Plans (EMMPs)

The need. Across USAID, implementation of IEE and EA conditions is the weakest element of life-of-project environmental compliance.

A key lesson learned from 40 years of EIA experience world-wide is that it is almost impossible to systematically carry out the mitigation measures that result from the EIA process unless an EMMP exists, and is incorporated into a project's workplan and budget.

The concept. Environmental Mitigation and Monitoring Plans (EMMPs) are a framework for specifying and organizing mitigation and monitoring, and assuring that it responds systematically to IEE/EA conditions.

In their most basic form, EMMPs are a simple table that sets out:

- ALL the mitigation measures being implemented in response to IEE/EA conditions
- The monitoring that will determine whether the mitigation is sufficient and effective.
- Who is responsible for both mitigation & monitoring..

EMMPs may also include **budgeting** information for mitigation and monitoring and a **monitoring log section where** monitoring results can be recorded. We illustrate the EMMP concept at the end of the *session with an extended example.*

(Note that EMMPs are also known as EMPs (Environmental Management Plans), EMPRs (Environmental Mitigation Plan and Report), and similar acronyms. EMMP is the most widely used term. EMMP formats likewise vary. IEEs or awards sometimes specify an EMMP format, but more often the IP has flexibility in designing/adopting/adapting a format that meets the needs of the particular project. The formats used in this workshop are the most common and are acceptable in most contexts.)

AFR IEEs requiring EMMPs. USAID's environmental procedures require that environmental mitigation required by IEEs and EAs is implemented and monitored, but do not require EMMPs *per se*. However, almost all new AFR IEEs (and those in other regions as well) require that EMMPs be developed and implemented.

This requirement can be operationalized either as technical direction from the C/AOR or as a provision of new contracts and agreements.

(Title II Cooperating Sponsors are required to develop EMMPs by the Agency's DFAP guidance.)

EMMP submission and approval. EMMPs should be approved by the C/AOR; sometimes there is additional review by the MEO or REA. C/AORs should require that they are submitted together with the project's workplan or PMP.

3. Translating IEE Conditions to Mitigation Actions

IEE conditions are often written very generally. For example, an IEE might specify that "wells shall be sited to minimize the possibility of contamination." (Or even more generally: wells shall be sited and constructed consistent with good practices.")

Implementing this IEE condition (which begins with developing an EMMP) requires that it be translated into specific mitigation actions.

In this case, the project would need to develop or adopt a set of specifications for well location that can then be referenced in the EMMP.

For example, the project might adopt the following, based on the *Sector Environmental Guidelines:*

The following MINIMUM distances from potential sources of contamination will be observed for well siting:

- 150 ft (45.7 m) from a preparation area or storage area of spray materials, commercial fertilizers, or chemicals that may cause contamination of the soil or groundwater.
- 100 ft. (30.5 m) from a below-grade manure storage area.
- 75 ft (22.9 m) from cesspools, leaching pits, and dry wells.
- 50 ft (15.2 m) from a buried sewer, septic tank, subsurface disposal field, grave animal or poultry yard or building, privy, or other contaminants that may drain into the soil.
- The distance between a septic tank leach field and a down-gradient well should be greater than 100 ft (30.5 m) if the soil is coarser than fine sand and the groundwater flow rate is greater than 0.03 ft/day (0.01 m/day).[2]

The EMMP could then list the concrete mitigation action as "compliance with project well siting criteria," and attach those criteria as an Annex.

In this session, we will work in groups through a set of actual examples of "general IEE conditions" and discuss how to translate them into specific mitigation actions.

[2] Source: Driscoll, Groundwater and Wells, Second Edition, as cited in the *Small Scale Guidelines.*

Key resource

The *Sector Environmental Guidelines* are a key resource for design of mitigation and monitoring measures.

The *EMMP Factsheet* is included as an annex to this sourcebook. It includes formats and how-to guidance.

Session 8: Environmental Impact Assessment Skills, Part II:

Environmental Monitoring & Environmental Mitigation and Monitoring Plans

Definition of environmental monitoring

Environmental monitoring is always BOTH…

1. **Determining whether mitigation is being implemented as required**
2. **Determining whether mitigation is working**

! Environmental monitoring should be a normal part of project monitoring and evaluation

Monitoring: Part 1

1. **Determining whether mitigation is being implemented as required**

This includes quantifying mitigation:

- How many staff trained?
- How many trees planted?

There are two basic ways to get the information required: **paper reports** & **field inspection**

For example…

Verify that mitigation is implemented

Mitigation measure is:
"Clinic staff shall be trained to and shall at all times segregate and properly incinerate infectious waste."

Desk assessment:
Clinics are asked to report:

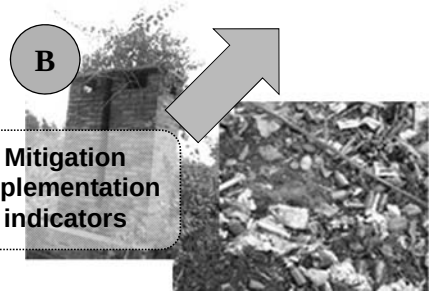
Percentage of staff trained

Spot inspections of waste disposal locations carried out?
The result of these inspections?

Mitigation implementation indicators

Field inspection

shows waste is segregated at point A, but not incinerated at point B.



Monitoring: Part 2

2. Determining whether mitigation is <u>working</u>

= Systematic observation of key environmental conditions. . .

(1) that correspond to impacts & mitigation measures and/or

(2) upon which the project depends for its success

Example: a road project may lead to stream sedimentation. **Stream turbidity** is monitored.

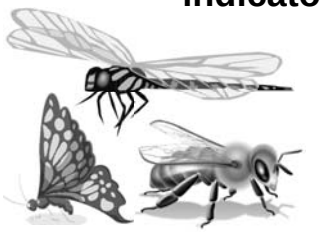
Example: A water supply project depends on clean source water. **Source water quality** is monitored.

Monitoring environmental conditions

<u>Systematic observation</u> of key environmental conditions

= systematically choosing and assessing <u>environmental indicators</u>

environmental indicators are



Signals of/proxies for

- **Environmental health**
- **Ecosystem function**
- **Community well-being**

They are NOT "F" indicators or core program performance indicators

For example…

Environmental indicators: sometimes complicated, often simple

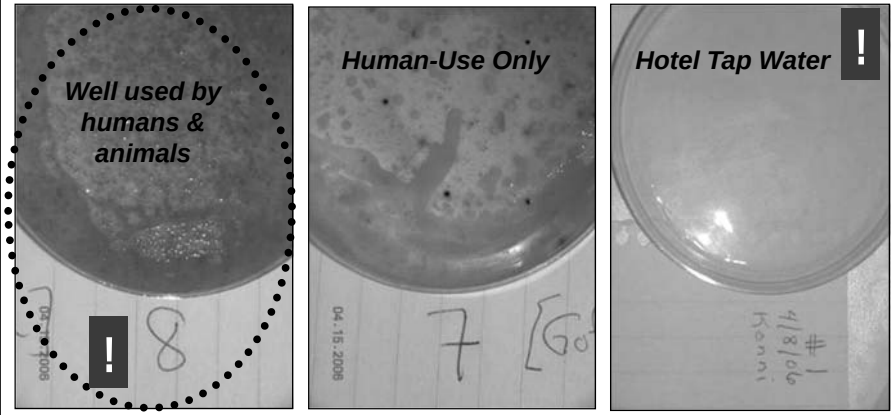
- **Environmental Indicators <u>may</u> require laboratory analysis or specialized equipment & techniques**
  - Testing water for pesticide residues
  - Automatic cameras on game paths for wildlife census
  - Etc.
- **But <u>indicators are often VERY SIMPLE</u>, especially for small-scale activities**

! Simple indicators can be more useful and appropriate than more complicated ones!

For example. . .

Example Indicator: coliform contamination

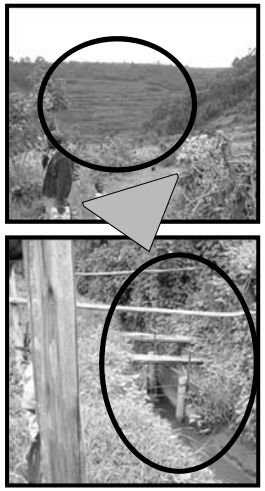
Water quality tests with simple, inexpensive test kit . . .



Purple Color = Fecal Coliforms | Pink Color = Other Coliforms

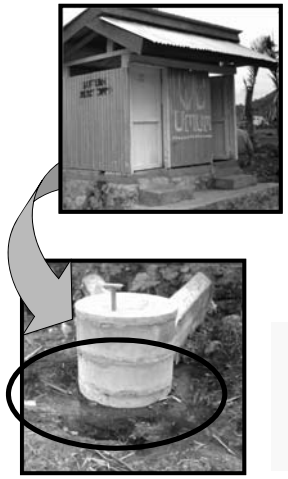
Examples of simple environmental indicators

Measuring erosion



Topsoil loss from slopes upstream in the watershed **(top)** is assessed with a visual turbidity monitor **(bottom).**

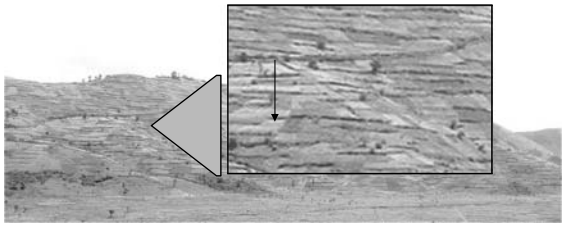
Surface contamination by sewage



Visual inspection behind the latrine **(top)** reveals a leaking septic tank **(bottom).**

What are the limitations of this indicator?

Examples of simple environmental indicators



Soil depletion.
Visual inspections show fertility gradients within terraces.

(Dark green cover indicates healthy soil; yellow cover indicates depletion)

Groundwater levels
Are measured at shallow wells with a rope and bucket.

! Choose the simplest indicator that meets your needs!

Systematically assessing environmental indicators

Monitoring often requires SYSTEMATIC measurement of indicators to <u>distinguish the impacts of the activity from other factors</u>

This requires decisions about:

1. **Location of measurement**
2. **Timing & frequency of measurement**

and often. . .

3. **Other factors**

For example…

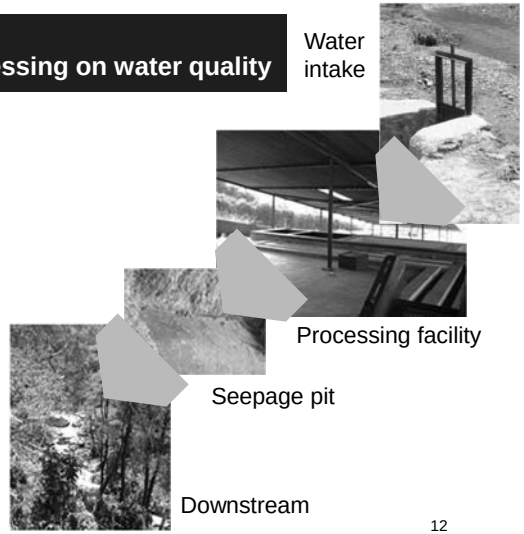
Systematically assessing environmental indicators

Example:
Impact of agricultural processing on water quality

1. **Location**
Water samples should be taken at the intake, and downstream of seepage pits.

2. **Timing & frequency**
Samples at different locations should be taken at the same time. Samples should be taken at **high & low flow** during the processing season

3. **What else?**



Being systematic

Sometimes monitoring can be more complicated.

Some common monitoring strategies:

Monitor the actual project, plus a similar non-project area (a "control")

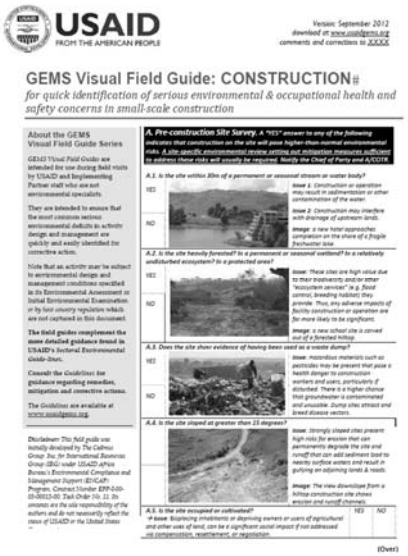
Monitor at multiple stations/ sampling locations

Do research to obtain good baseline data

All are intended to help distinguish impacts from NORMAL VARIABILITY and other factors

Good environmental monitoring. . .

- Tells you clearly and cost-effectively if **mitigation is sufficient and effective.**
- Usually requires a **combination** of:
  - Environmental indicators
  - Mitigation implementation indicators
- Do no more than needed: Prioritize the most serious impacts & issues.


USAID
FROM THE AMERICAN PEOPLE

Version: September 2012
download at www.usaidgems.org
comments and corrections to XXXX

GEMS Visual Field Guide: CONSTRUCTION#
for quick identification of serious environmental & occupational health and safety concerns in small-scale construction

About the GEMS Visual Field Guide Series

GEMS Visual Field Guide are intended for use during field visits by USAID and Implementing Partner staff who are not environmental specialists.

They are intended to ensure that the most common serious environmental deficits in activity design and management are quickly and easily identified for corrective action.

Note that an activity may be subject to environmental design and management conditions specified in its Environmental Assessment or Initial Environmental Examination or by host country regulation which are not captured in this document.

The field guides complement the more detailed guidance found in USAID's Sectoral Environmental Guidelines.

Consult the Guidelines for guidance regarding remedies, mitigation and corrective actions.

The Guidelines are available at www.usaidgems.org

Disclaimer: This field guide was initially developed by The Cadmus Group Inc. for International Resources Group (IRG) under USAID Africa Bureau's Environmental Compliance and Management Support (ECAP) Program, Contract Number EPP-I-00-03-00032-00, Task Order No. 21. Its contents are the sole responsibility of the authors and do not necessarily reflect the views of USAID or the United States.

A. Pre-construction Site Survey. A "YES" answer to any of the following indicates that construction on the site will pose higher than normal environmental risks. A site-specific environmental review setting out mitigation measures sufficient to address these risks will usually be required. Notify the Chief of Party and A/COTR.

A.1. Is the site within 30m of a permanent or seasonal stream or water body? YES / NO

Issue 1: Construction or operation may result in sedimentation or other contamination of the water.

Issue 2: Construction may interfere with drainage of upstream lands.

Image: a new hotel approaches completion on the shore of a fragile freshwater lake.

A.2. Is the site heavily forested? Is a permanent or seasonal wetland? Is a relatively undisturbed ecosystem? In a protected area? YES / NO

Issue: These sites are high value due to their biodiversity and/or other "ecosystem services" (e.g. flood control, breeding habitat) they provide. Thus, any adverse impacts of facility construction or operation are far more likely to be significant.

Image: a new school site is carved out of a forested hilltop.

A.3. Does the site show evidence of having been used as a waste dump? YES / NO

Issue: Hazardous materials such as pesticides may be present that pose a health danger to construction workers and users, particularly if disturbed. There is a higher chance that groundwater is contaminated and unusable. Dump sites attract and breed disease vectors.

A.4. Is the site sloped at greater than 15 degrees? YES / NO

Issue: Strongly sloped sites present high risks for erosion that can permanently degrade the site and runoff that can add sediment load to nearby surface waters and result in gullying on adjoining lands & roads.

Image: The view downslope from a hilltop construction site shows erosion and runoff channels.

A.5. Is the site occupied or cultivated? YES / NO

** Issue:* Displacing inhabitants or depriving owners or users of agricultural and other uses of land, can be a significant social impact if not addressed via compensation, resettlement, or negotiation.

(Over)

GEMS visual field guides
(www.usaidgems.org)

Applying monitoring & mitigation to environmental compliance

- Initial Environmental Examination and Environmental Assessment conditions are mitigation requirements
- IEEs (and EAs) are useless unless the conditions they establish are implemented!
- **USAID's environmental procedures require implementation of IEE/EA conditions (mitigation) and monitoring this implementation**

Practically, implementation of IEE/EA conditions requires that. . .

1. USAID communicates applicable IEE/EA conditions to the Implementing Partner
2. A complete **Environmental Mitigation and Monitoring Plan** (**EMMP**) exists
3. Workplans and budgets integrate the **EMMP**
4. Reporting on **EMMP** implementation is part of project performance reporting

40+ yrs of EIA experience worldwide tells us: NO EMMP = No implementation

EMMPs are critical. What are they?

Environmental Monitoring & Mitigation Plans: simple in concept

An EMMP:

- **(If needed) TRANSLATES IEE conditions into specific mitigation measures to implement IEE/EA conditions**
- **SETS OUT indicators/criteria for monitoring implementation & effectiveness of mitigation**
- **ESTABLISHES Timing & responsible parties**
- **Usually in table form. Formats are usually flexible.**

See a basic EMMP template in your manual.

What does "translate IEE conditions into specific mitigation measures" mean?

Often, implementing IEE conditions requires first translating them into specific mitigation actions

How to do this?

For example:

"Wells shall be sited to minimize the possibility of contamination."

Or even more generally:

"Wells shall be sited consistent with good practices."

Let's practice!

In small groups, take 15 minutes to begin to "translate" these IEE conditions into specific, implementable, monitorable mitigation actions. Bullet out results. Make any assumptions needed regarding the project context.

Health Services Capacity & Policy

"Capacity-building and policy development support to public health delivery & management systems must involve all practicable efforts to assure that these systems address and support proper waste management (including handling, labeling, treatment, storage, transport and disposal of medical waste).

Direct Financial or Technical Assistance to Agroprocessing Enterprises

"Existing enterprises/facilities receiving direct USAID support will be reviewed to identify any significant environmental management deficiencies and these deficiencies promptly corrected."

Question:

How are EMMPs required & approved?

EMMPs are not required by 22 CFR 216, but they are required by most newer IEEs across most Bureaus.

Requirement implemented by any of three mechanisms:

1. Technical direction from C/AOR
2. Required by contract/agreement

Generally approved by: COR/AOR

Effective mitigation and monitoring must be…

Realistic Achievable within time, resources and capabilities
Well-targeted Mitigation measures and indicators must respond to IEE conditions (and thus correspond to impacts.)
Considered early **Preventive mitigation** is usually cheapest and most effective. Prevention must be built in at the design stage. If mitigation and monitoring budgets are not programmed at the design stage, they are almost always inadequate.
Funded Funding must be adequate over the life of the activity

Session 9.
Small Group Indicators Exercise

(0:55)

Objective

Build and apply indicator selection skills (a key constituent skill for EMMP development) in a scenario-based small group exercise centered on the ENCAP Visual Field Guides.

Format

0:10 Briefing
0:40 Small Group Exercise
0:05 De-brief

Instructions

In this exercise, we work in small teams to build and practice indicator selection skills. Each team will:

1. **Be given a brief project scenario & the IEE conditions that apply (below).**
   - There are three project scenarios: **water supply**, **sanitation** & **small clinics**.
   - In each scenario, the team is a prime contractor supervising a number of local contractors.
   - In each scenario, the prime must put in place environmental monitoring to assure that the mitigation being carried out fulfills the IEE conditions, and is generally sufficient and effective.
2. **Review their project scenario and then the relevant Visual Field Guide**.
   - The **ENCAP Visual Field Guides** provide a mix of simple environmental conditions indicators and mitigation implementation indicators that can be "measured" (in a yes/no response) during a quick field inspection.
3. **Identify an appropriate set of indicators for their project** by (1) adding, (2) removing, and/or (3) changing the indicators provided in the Visual Field Guides.
   - Note that the guides provide indicators for quick field inspections only. Is there desk monitoring you would add? More detailed environmental conditions monitoring?
   - You may wish to consult the relevant chapter of USAID's *Environmental Guidelines for Small-Scale Activities,* which provide more detailed information on impacts, issues and good practice for these sectors.

Facilitators will serve as a resource for and provide feedback within each team. At the end of the exercise, we will not have a formal report-out, but the lead facilitator will ask for quick reactions from teams/individual participants.

Team 1 Scenario:
Small-Scale Wat/San Activity—Sanitation Component

You are implementing a small-scale water and sanitation project. Among other components, the project is:

- Building and rehabilitating latrines in rural communities, as well as in schools and clinics serving these communities.
- Working with community associations, school authorities, and clinic management to put in place effective, latrine management systems. The project hands over the latrines after a period of mentored local management.

You supervise a number of local contractors who are carrying out the actual construction and local capacity-building work, and must put in place environmental monitoring to assure that the mitigation being carried fulfills the IEE conditions, and is generally sufficient and effective.

During the period of project direct control, the IEE imposes the following conditions.

4. Insects and other disease vectors shall not have "in and out" access to latrine pits.
5. Latrines shall not contaminate surface soil, surface waters or any groundwater tapped for domestic use. This shall include assuring at least 30m separation between latrines and any shallow well or surface water tapped for domestic use.
6. Latrines shall be maintained in clean condition, and any latrine wastes (such as toilet papers/leaves) disposed of by burial at least 30m from any shallow well or surface water tapped for domestic use)
7. Latrines shall include hand-washing stations, and all reasonable efforts made to encourage their use.
8. Latrines shall be sited, designed and maintained to minimize risk factors for poor use, including inadequate provision for gender privacy and inadequate provision for children,
9. Latrine management systems developed with community associations, schools, and clinics shall specifically address the foregoing conditions.

Team 2 Scenario:
Small-Scale Wat/San Activity—Water Supply Component

You are implementing a small-scale water and sanitation project. Among other components, the project is:

- Building and rehabilitating water points (shallow wells and boreholes) in rural communities, as well as in schools and clinics serving these communities.
- Working with community associations, school authorities, clinic management to put in place effective water supply management systems. The project hands over the water points after a period of mentored local management.

You supervise a number of local contractors who are carrying out the actual construction and local capacity-building work, and must put in place environmental monitoring to assure that the mitigation being carried fulfills the IEE conditions, and is generally sufficient and effective.

During the period of project direct control, the IEE imposes the following conditions.

1. Before water is provided for human consumption, it shall be tested for both arsenic & fecal coliform. Testing will continue quarterly for 4 quarters. Arsenic testing must use the Hach Arsenic test kit (www.hach.com).

   If arsenic is over 10ppb, the project will not supply borehole water to the public

   If fecal coliform is detectable in any 100ml sample, it must be filtered or treated until non-detectable in a 100ml sample before being provided for public use

2. All tanks shall be covered; all wells shall either have a raised cover or be capped with a pump.
3. Water points shall feature concrete aprons and drainage. Water points shall neither cause soil erosion nor result in standing water.
4. Shallow wells shall be sited at least 30m from pit latrines, waste dumps, and/or contaminated surface waters.
5. Livestock shall be excluded from all supply points intended for human use.
6. Water supply management systems developed with community associations, schools, and clinics shall specifically address the foregoing conditions.

Team 3 Scenario: Small Clinics

You are implementing a rural health sector project that includes:

- Construction and rehabilitation of small clinics.
- Operation of these small health facilities during a capacity-building period, after which the clinics are turned over to the local authority.

You supervise a number of local contractors who are carrying out the actual construction and local capacity-building work, and must put in place environmental monitoring to assure that the mitigation being carried out fulfills the IEE conditions, and is generally sufficient and effective.

During the period of project direct control, the IEE imposes the following conditions with respect to handling of healthcare waste.

1. Infectious waste (including sharps, bloody bandages and pathological wastes) shall be segregated from general waste at the point of generation. Sharps shall be collected in separate containers in each treatment area.
2. Waste storage shall be in secure, tightly closed containers at least 20m from treatment areas, wards, kitchens and canteens. No more than 7 days accumulation of waste shall be maintained on-site
3. Infectious waste shall be incinerated if possible or at minimum burnt, and the ash/residue then buried in a fenced burial pit. The pit must not contaminate surface waters or any groundwater tapped for domestic use. This shall include assuring at least 30m separation between the pit and any shallow well or surface water tapped for domestic use.
4. Open disposal of general waste is not permitted on-site. Burning of general waste containing > 10% plastics by volume is not permitted.
5. Individuals handling infectious waste shall be trained in and follow safe handling practices, including wearing appropriate personal protective equipment when handling this waste.
6. Clinic management systems developed during the period of direct operation shall specifically address the foregoing conditions.

Key resources:

Visual Field Guides (hardcopy provided; http://www.usaidgems.org/fieldGuides.htm)

Relevant sector chapters of USAID's *Sectoral Environmental Guidelines.* *(http://www.usaidgems.org/sectorGuidelines.htm)*

Session 10. (8:45)
Field-Based EMMP Development Exercise
(includes Field Visit #2)

Objectives
Integrate, build and apply all skills required for EMMP development using mentored field observations as the basis for a practical EMMP design exercise.

Format
0:30 11a. Exercise & site briefing (day 2)
1:00 11b. Group preparation (end of day 2)
4:30 11c. Field visit (day 3)
2:30 11d. EMMP Development group work (day 3)
1:05 11e. Team presentations of EMMPs (time limit per team provided by facilitators) & wrap-up discussions

Summary
From session 8, we understand the EMMP concept and its critical function as an organizing framework for systematic implementation of IEE and EA conditions. In earlier sessions, we also developed the core EIA skills required for development of an EMMP.

In this session, we will integrate and strengthen these skills by developing an EMMP in a scenario-based, small-team exercise. The session includes a field visit, which provides the observations that inform EMMP development.

Teams and Sites. The training team will brief the site visit and divide us into working teams. The site(s) to be visited are briefed on the following pages.

Exercise/Scenario. Each team plays the role of a prime contractor (IP) that has just been awarded a project and is now in the workplan /PMP development stage. The project is subject to IEE conditions that the IP must implement. Per USAID/XXX policy, the IP must submit an EMMP with the PMP, and the workplan and budget must provide for EMMP implementation.

After initiating EMMP development "at the office", the team has the opportunity to visit either the site for this hypothetical project or a *similar project already in implementation.* (Visiting a similar project helps to understand the likely impacts of your hypothetical project, the typical environmental management practices involved, and the environmental management challenges posed by this type of activity.)

Informed by its field observations, each team will return to the "office" and develop an EMMP responsive to IEE conditions. Each team will then present this EMMP in plenary.

Instructions
A. Exercise & Site Briefing (0:30)

The training team will brief the overall EMMP development exercise, the project scenario(s), and the field visit(s).

B. Group Preparation (1:00)

Teams will initiate development of their EMMP, using the *Sector Environmental Guidelines* as a reference. **Teams will work on laptops, using the EMMP template provided.**

Before the end of the session, teams should discuss and agree on their strategy for the site visit, including:

- Identification of key baseline conditions to observe at the site. (I.e. the conditions that will affect the design and implementation of mitigation measures.)
- Assignment of roles and responsibilities.

Please Note:

1. The IEE conditions are quite general. Therefore, as part of EMMP development, the team must translate them into more specific mitigation measures that are responsive to field conditions.

2. Because time will not be sufficient to develop a full EMMP, teams will need to focus on carrying at least a few IEE conditions thru to completion. That is, translating the measure into specific mitigation conditions, identifying appropriate monitoring, and estimating budget and resource requirements both for mitigation and monitoring.

Homework

Before the start of Day 3, all participants and facilitators should review these instructions, the site visit briefing material (following pages), and read through the relevant chapter excerpt from the *Sector Environmental Guidelines*.

C. Field Visit (4:30)

The field visit is intended to provide a "reality check" on initial EMMP development, thus making sure that the final EMMP is well-grounded in field reality.

Towards this end, in the field each team should:

- Observe baseline conditions at the site, particularly those that could affect the significance of impacts and the design of mitigation (for example, are people living in close proximity to the site? Is there domestic use of groundwater or discharge? Etc.)
- Understand the different sub-activities that happen at the site, and who is responsible for them— with particular emphasis on the sub-activities most responsible for adverse environmental impacts.
- Understand the environmental management procedures currently in place, and look for evidence that they are effective (or not).

It is possible that we will observe certain ESDM deficits at the site. But please remember that we visit as observers and invited guests, not auditors or inspectors. We should observe, listen, and by all means ask questions—but not offer criticism to our hosts.

D. Group Work: EMMP Development, continued (2:00)

Back in the classroom, each team will continue their work to develop an EMMP responsive to (1) the provided IEE conditions, and (2) the realities observed in the field.

Teams should use the last portion of this session to finalize their presentation

E. EMMP Presentations & Wrap-up discussion (1:15)

Each group will present its EMMP in plenary. Participants in the "upstream compliance" bloc will attend these presentations, practicing their USAID staff role as receivers and reviewers of EMMPs.

Facilitators will provide the time limit for the presentations.

Session 11. (0:20)
IP Reporting on Environmental Compliance

Objectives

Achieve a common understanding of the two basic elements of IP environmental compliance reporting: (1) providing USAID with an auditable record of IP environmental compliance; and (2) "mainstreaming" critical elements of environmental soundness/compliance into one or more core program performance indicators.

Format

Presentation.

Summary

ADS 204 requires that C/AORs monitor and evaluate on an ongoing basis whether the environmental mitigation required by the governing IEE(s)/EA is being implemented and is effective. (In other words, C/AOR oversight responsibilities extend to environmental compliance, just as they do to other elements of project implementation.)

Practically, this requires that IPs not only systematically comply with IEE/EA conditions by developing and implementing EMMPs, but that they *report* to USAID on this implementation.

IP environmental compliance reporting consists of two elements—one required and one recommended:

1. **Project reporting must provide an auditable record of environmental compliance.**

   Generally, IPs' quarterly or semiannual reports should contain a separate environmental compliance section. The section must provide sufficient information on the status of EMMP implementation for USAID to effectively fulfill its oversight and performance monitoring role.

   If the EMMP contains a "monitoring log" section, then the EMMP itself, updated with current monitoring results, can simply be appended to the report.

   For large projects with complicated EMMPs, a text summary/short analysis of EMMP implementation is needed. This should highlight key mitigation activities underway in the reporting period, any significant issues encountered, and corrective actions/adjustments made.

   Any specific reporting requirements imposed by the IEE or EA must also be satisfied.

2. **Strongly recommended: One or more key project performance indicator(s) (project results framework) reflect overall environmental soundness/ environmental compliance.**

   In other words, the most critical elements of environmental soundness/ compliance should be "mainstreamed" into the project results framework. For example:

   In a water point provision project, the IP might use the indicator "number of protected water points established with zero fecal coliform after 6 months" rather than "number of water points established."

   In a road rehabilitation project, the IP might use the indicator "km or road rehabilitated under environmentally sound practices" rather than "km of road rehabilitated."

In both cases, the “environmentalized indicator” demonstrates the core project activities are being executed with attention to environmental soundness/compliance. It is NOT expected or appropriate to “environmentalize” every key indicator, or to capture every mitigation measure.

(This best practice applies to new awards. Where EMMPs are developed after the PMP is established, it may not be possible to change key performance indicators.)

Missions should not rely on IP progress reports alone to track environmental compliance. Field visits at minimum should include a quick check for significant environmental design/management problems (for small-scale wat/san, health care, construction, or rural roads activities, use the *Visual Field Guides*). For environmentally complex activities, specific field visits should be made to verify EMMP implementation.

Reporting on Environmental Compliance

GEMS Environmental Compliance-ESDM Training Series
Africa-Asia-Latin America-Middle East 2012-2013

So an IP has a high-quality EMMP AND is implementing it rigorously. . .

USAID needs to know.*

1. *Project reporting must provide an auditable record of environmental compliance*
2. *One or more key project performance indicator(s) (project results framework) should reflect overall environmental soundness/ env compliance.*

*** ADS requires C/AOTR to actively manage and monitor compliance with any IEE/EA conditions.**

Let's look at #1 first:

"Project reporting must provide an auditable record of environmental compliance"

Quarterly or semiannual reports should contain a separate environmental compliance section.

The section must provide sufficient information on the status of EMMP implementation for USAID to effectively fulfill its oversight and performance monitoring role

(In addition, IEEs may contain specific reporting requirements that must be addressed.)

Note: Title II CSs must submit an Annual Environmental Compliance Status Report.

If the EMMP contains a "monitoring record" section:

The EMMP itself, updated with current monitoring results, can simply be appended to the report.

Design requirement	Incorporated in final technical specifications		Built-as specified? (confirmed by field inspec.)			Notes (Issues & resolution)
	Date Confirmed	Initials	Y/N	Date of inspection	Initials	
GRADING, SEPTIC & DRAINAGE. If construction results in substantially increased slope of any land within 10m of the stream, that slope must be protected with berms, plantings, etc.)						
Site grading and drainage shall be designed and constructed to prevent accumulation of standing water						
Aprons must be installed and drainage provided at water supply point(s)—no standing water allowed.						
No direct gray or brown-water discharge to stream is allowed. All drainage with the exception of storm runoff and water point drainage must be channeled to the septic system.						
If septic tank design is a pump-out tank without leach field, assure impermeable tank construction or min 30m separation between tank and stream and nearest shallow well.						

Excerpt of EMMP with monitoring record for medium-scale construction project.

If the EMMP contains a "monitoring record" section:

The EMMP itself, updated with current monitoring results, can simply be appended to the report.

Mitigation Measure	Responsible Party	Monitoring Scheme			Est. Cost	Monitoring Log		
		Indicators	Data source/ Method	How Often		Date	Result	Follow-up
3. Install & properly operate canal-level flow regulation structures	Project agricultural technician	• # of doors and other flow-control structures installed •% of Ha. under flow control •% of secondary & tertiary canals showing significant erosion damage after each growing season	Reports Field visit	Quarterly				
4. Protect upper slope with fruit (mangoes, citrus, avocado) and forest trees	Project agricultural technician	# of trees planted and survived • % of at-risk upper slope land protected • total m3 of sediment removed from canals over each rainy season.	Reports Field visit Comparison with baseline information	Quarterly /Annual				

An irrigation rehabilitation EMMP

- **For large projects with complicated EMMPs, a text summary/short analysis of EMMP implementation is needed.**
  - *Highlight key mitigation activities underway in the period, any significant issues encountered, and corrective actions/adjustments made.*

Now on to requirement #2:

"Mainstreaming" environmental issues into the project results framework

"One or more key project performance indicator(s) (project results framework) should reflect overall environmental soundness & compliance."

This does NOT mean that:

- **Every mitigation measure must be captured in core indicators**
- **Every core program indicator must be "environmentalized"**

This IS to say that *overall*, project success must be partly measured on the most critical elements of environmental soundness/ compliance

This applies to new awards.

Where EMMPs are developed after the PMP is established, it may not be possible to change key program indicators.

"Mainstreaming" environmental issues into the project results framework

EXAMPLE:
Water Point Provision

Key Program Indicators:

- **Protected* water points established**
- **# beneficiaries receiving water from protected water points**
- **% of water points with no fecal coliforms per 100 ml**
- **% of water points established that are clean after 6 months**

*** Protected = fenced against livestock, drained**

Again, this intervention will NOT show good performance. . .

"Mainstreaming" environmental issues into the project results framework

EXAMPLE:
Food for Peace

How much firewood does a typical Food for Peace (FFP) program use?

~1 kg firewood/person/day x 70,000 beneficiaries x 365 d

~30,000 MT of firewood /yr

Mitigation:
Improved cookstoves and cooking practices

Added to key program indicators :

- **Amount of fuel saved by improved practices**
- **Amount of time saved by improved practices**

NOT just number of stoves distributed

"Mainstreaming" environmental issues into the project results framework

EXAMPLE:
Road rehabilitation

Typical Indicator:

- **Km of road rehabilitated**

Strengthened, "Environmentalized" indicator:

- **Km of road rehabilitated under environmentally sound practices.***

***provide definition of environmentally sound practices from EMMP**

Who reviews EMMPs & environmental compliance reporting inside USAID?

Will environmental compliance checks be part of Mission M&E?

As with all other aspects of the project, the A/COTR is the primary reviewer. But the MEO and M&E function may also be involved.

Environmental Compliance Verification/Oversight by USAID

1. Prior Review/Approval of partner-developed → **EMMP→** **ensure responsive to IEE/EA conditions** → **Budgets and workplans→** **ensure EMMP implementation planned & funded** → **Project Reporting Framework→** **ensure environmental compliance reporting requirements are met**	**Primary responsibility for ensuring compliance lies with C/AOTR.** MEO will also review/clear where activities are env. Sensitive &/or IEE/EA conditions are complex.
2. Ongoing review of partner progress reports to monitor EMMP implementation	MEO on distribution list for IP's quarterly/semi-annual project reports.
3. Field visits: → **at a minimum, all visits integrate a quick check for significant env. design/management problems** → **For environmentally sensitive activities, specific visit(s) to audit against EMMP.**	Most field visits are by C/AOTR or M&E Officer MEO should visit the most environmentally sensitive activities (REA may assist)

Session 12. (0:40)
Roles, Responsibilities and Resources

Objective
Understand environmental compliance roles and responsibilities of USAID staff and IPs. Be familiar with the tools and resources available to support environmental compliance.

Format
Presentation

Summary
This session brings together information that has been introduced throughout the workshop, in addition to addressing some new topics. *All concern the processes, roles and responsibilities for environmental compliance in missions and operating units.*

Key topics are:

- How environmental compliance is mainstreamed (integrated throughout) agency operations by the Automated Directives System (ADS).
- The roles and responsibilities of USAID staff and IPs in respect to environmental compliance on USAID projects.
- The importance of incorporating best-practice Environmental Compliance Language (ECL) in solicitations and awards and the benefits of using the ECL tool for this purpose.
- Resources available to support environmental compliance and environmentally sound design and management.

IP and USAID environmental compliance roles and responsibilities <u>post-award</u> are as follows:

Project stage	Implementing Partner	USAID
Workplan & PMP Development	Develops EMMP Integrates EMMP into budget & workplan. Determine environmental compliance reporting	Review and approval of: 1. the EMMP (for responsiveness to IEE/EA conditions & sufficiency of monitoring); 2. The budget/workplan (to verify that EMMP implementation is planned and funded); and 3. The reporting framework to assure that environmental reporting requirements are met.
Implementation	Implementation of EMMP. Reporting on EMMP implementation	Ongoing review of partner progress reports to monitor EMMP implementation Field visits—at a minimum, all visits should integrate a quick check for significant environmental design/management problems. For environmentally sensitive activities, specific visits should be made to verify EMMP implementation.

USAID
FROM THE AMERICAN PEOPLE

Session 12:
Environmental Compliance:
Roles, Responsibilities, Reporting & Resources

Environmental Compliance & the Automated Directives System (ADS)

- **USAID's Automated Directives System (ADS) sets out mandatory procedures, roles & responsibilities for:**
  - "Upstream compliance:" Design & 22 CFR 216 process
  - "Downstream compliance:" implementing IEE & EA conditions

Environmental Compliance & the ADS

ADS 204 ("Environmental Procedures") is the core ADS reference. But environmental compliance is <u>mainstreamed</u> throughout the ADS.

Overarching requirement: Operating units must have systems in place for environmental compliance over life of project & must make sufficient resources available for this purpose

(202.3.6; 204.3.4)

Compliance Requirement	Responsible Parties	ADS Reference
Environmental considerations in activity planning	Team Leaders, Activity Managers	201.3.8.1 204.3.3
No activity implemented without approved Reg. 216 environmental documentation	COR/AOR/ Activity Manager	201.3.9.3 201.3.11 204.3.1 204.3.3.b 303.3.2.e
IEE & EA conditions incorporated into procurement instruments	COR/AOR/ Activity Manager; Agreement Officer	204.3.4.a.6 303.3.6.3e 303.3.13
IEE & EA conditions are implemented, and implementation is monitored & adjusted as necessary	COR/AOR	202.3.6; 204.3.4 303.2.f
Environmental compliance documentation is maintained	PO, COR/AOR, Team Leader, MEO	202.3.4.6

A Note About Record Keeping

- **Approved 22 CFR 216 documents are kept in 2 places**
  - in official project files maintained by **C/AOR**
  - in official BEO files
- **22 CFR 216.10 makes all of these available to the public**
  - **Agency-wide searchable database** of all Reg 216 docs approved since 2000: <u>http://gemini.info.usaid.gov/egat/envcomp/</u>
- **Annual reporting is required**

Mission Environmental Officer

- At each Mission;
- Quality Assurance/Quality Control reviewer for Reg. 216 docs;
- Clears Reg. 216 docs before they go to Mission Director;
- Mission compliance advisor and coordinator; assists in compliance monitoring;
- Mission point of contact to Regional Environmental Advisor and Bureau Environmental Officer.

Regional Environmental Advisor

- Based in regional Missions;
- Environmental compliance technical assistance to Missions;
- Provides quality assurance and quality control of Reg. 216 documentation before it goes to the Bureau Environmental Officer.

Bureau Environmental Officers

- Based in Washington DC;
- Oversee environmental compliance in their Bureau;
- Primary decision makers on 22 CFR 216 threshold decisions for activities under the purview of their Bureau.

Sector Teams & Mission Management

CORs/AORs & Activity Managers.

Assure Reg. 216 documentation in place. Assure IEE/EA conditions & compliance requirements incorporated into procurement instruments. Monitor compliance with IEE/EA conditions & modify or end activities not in compliance.

Primary Responsibility for Environmental Compliance

Team Leaders

Oversee CORs/AORs. Assure that their teams have environmental compliance system in place.

Mission Director

Ultimately responsible for environmental compliance. Mandatory clearance on all Reg. 216 environmental documentation.

!

The MEO is a member of every sector team (ADS 204.3.5)

Agency Environmental Coordinator, Office of the General Counsel

Agency Environmental Coordinator (AEC)

Oversees 22 CFR 216 implementation & interprets Reg 216 in new situations.

Concurs in AA's appointments of BEOs.

Decides appeals to BEO decisions (rare). Presents appeals of AEC decisions to CEQ (rare) Coordinates EIS process for USAID (rare)

Regional Legal Advisors (RLAs)

provide legal advice on environmental compliance to field staff. Some regions require RLA clearance on Reg 216 documents.

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Assistant General Counsels (AGCs)

provide legal advice to BEOs & RLAs on environmental compliance in their regions.

! BEOs and AEC take legal advice into account but are responsible for decision-making in interpreting 22 CFR 216

Reg 216 docs: Who writes? Who clears?

- **Who writes?**
  - AOR/COR responsible for assuring Reg. 216 documentation in place.*
  - Can engage a consultant/contractor to develop—Environmental Assessments almost always developed by 3rd party consultants.
  - USAID is responsible for contents/determinations **NO MATTER WHO DEVELOPS IT!**
- **Who clears?**
  - COR/AOR, Activity Manager or Team Leader
  - MEO (for Mission)
  - REA (depending on Mission/regional policy)
  - **Mission Director** or **Washington equivalent** clears
  - **Bureau Environmental Officer** concurs. Responsibility/authority cannot be delegated.

Go to the field before you write

Required by Reg. 216

Who is responsible?

USAID

Assures Reg. 216 documentation in place. Establishes/approves environ-mitigation & monitoring conditions. Verifies compliance.

In the Mission

Fundamental responsibility & accountability:

- Sector Team Leader
- Activity Managers & COTR/AOTRs
- ultimately with the Mission Director

MEO: quality and completeness reviewer for Reg. 216 documentation; compliance advisor and coordinator; assists in compliance monitoring.

Implementing Partners

ALWAYS: Implement mitigation and monitoring conditions that apply to their project activities & report to USAID.

ALWAYS responsible for design of detailed environmental mitigation and monitoring plan (EMMP) in response to mitigation and monitoring conditions established by the Reg. 216 documentation.

SOMETIMES develop Reg. 216 documentation (IEEs, EAs)* for new project components; develop subproject env. review reports (for subgrants/subprojects).

*Title II CSs develop IEEs as part of their MYAPs.

Environmental Compliance Verification/Oversight by USAID

1. Prior Review/Approval of partner-developed → **EMMP→** **ensure responsive to IEE/EA conditions** → **Budgets and workplans→** **ensure EMMP implementation planned & funded** → **Project Reporting Framework→** **ensure environmental compliance reporting requirements are met**	**Primary responsibility for ensuring compliance lies with C/AOTR.** MEO will also review/clear where activities are env. Sensitive &/or IEE/EA conditions are complex.
2. Ongoing review of partner progress reports to monitor EMMP implementation	MEO on distribution list for IP's quarterly/semi-annual project reports.
3. Field visits: → **at a minimum, all visits integrate a quick check for significant env. design/management problems** → **For environmentally sensitive activities, specific visit(s) to audit against EMMP.**	Most field visits are by C/AOTR or M&E Officer MEO should visit the most environmentally sensitive activities (REA may assist)

Environmental Compliance & Procurement Instruments

ADS Requires. . .

"Incorporating environmental factors and mitigative measures identified in IEEs, EAs, and EISs, as appropriate, in the design and the implementation instruments for programs, projects, activities or amendments."

(204.3.4(a)(6)

- **Critical to IP compliance with IEE/EA conditions**
- **BUT: historically, problems in implementation:**
  - Many USAID procurement instruments have NOT adequately addressed environmental compliance
  - Lack of guidance required A/CORs, COs to repeatedly "reinvent the wheel"
  - Partners/contractors fail to budget for environmental requirements

The solution. . .

Environmental Compliance: Language for Use in Solicitations and Awards (ECL)

Step-by-step guidance and boilerplate language

- **For RFAs/ RFPs/ agreements/ grants/ contracts**
- **Optional, not required**
- **ADS Help Document**
- **Approved by General Counsel**

Available from www.usaid.gov/policy/ads/200/204sac.pdf

The Environmental Compliance Language document generates. . .

Best practice solicitation language

Requiring that:

Proposals address **qualifications and proposed approaches to compliance/ ESDM** for environmentally complex activities.

Best practice award language

Requiring that:

IP verifies current & planned activities annually against the scope of the RCE/IEE/EA.

The **necessary mechanisms and budget** for IP implementation of IEE/EA conditions are in place.

To assure that projects do not "creep" out of compliance as activities are modified and added over their life.

Specifically:

1. Complete **EMMP** exists or is developed.
2. Workplans & budgets integrate the EMMP
3. Project reporting tracks EMMP implementation

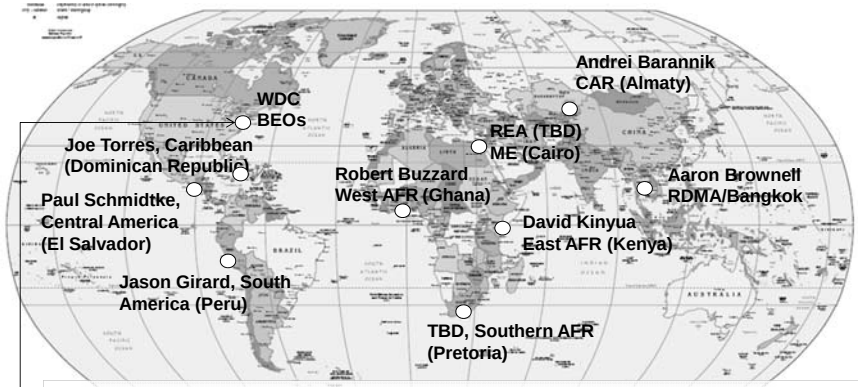
The ECL strengthens Environmentally Sound Design & Management, and. . .

<u>Provides cost & efficiency benefits</u> to both Mission Staff & Implementing Partners

USAID Staff	Implementing Partners
Avoids the effort, costs and loss of good will that come from imposing "corrective compliance" measures on IPs after implementation has started. Reduces USAID cost and effort of env compliance verification/oversight by assuring that IPs integrate <u>environmental</u> compliance reporting into routine project performance reporting.	Provides clarity regarding environmental compliance responsibilities Prevents "unfunded mandates"– USAID requirements to implement M&M after implementation has started & without additional budget.

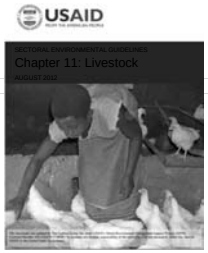
Who can help?

MEOs in every bilateral Mission AND the BEOs and REAs:



AFR: Brian Hirsch, Asia & ME: Robert MacLeod, BFS: Walter Knausenberger (acting); DCHA: Erika Clesceri E&E: Will Gibson (acting), E3: Teresa Bernhard, GH: Teresa Bernhard (acting), LAC: Victor Bullen, M/ODP: Dennis Durbin, OAPA: Gordon Weynand

References & Useful Information



- USAID Environmental Compliance & Related Links
  www.usaid.gov/our_work/environment/compliance/index.html
- 22 CFR 216
  www.usaid.gov/our_work/environment/compliance/reg216.pdf
- ADS Series 200 (with link to Chapter 204 & ECL)
  www.usaid.gov/policy/ads/200/
- IEE Assistant (help in preparing Reg. 216 documentation)
- Sectoral Environmental Guidelines
  + many other resources
  www.usaidgems.org

GEMS Services

- **GEMS . . .**
  - *provides tools, resources, technical assistance and capacity building* ***to strengthen environmental management and environmental compliance***
  - *serves USAID Missions and partners globally*
- **GEMS services are available. . .**
  - *On a subsidized basis (access via request to REA), or*
  - *Via buy-in to GEMS*

For more info consult the GEMS Factsheet (next pages)

Session 13: Environmental Compliance/ESDM Knowledge Game

(1:15)

Objective

Review key workshop content and concepts via a small-team competition.

Format:

Briefing and team assembly	0:10
Team competition	0:50
Debrief	0:15

Summary

We have now completed agenda components 1-4:

1. Motivating LOP Environmental Compliance
2. Building Core EIA Concepts and Skills
3. Mastering LOP Compliance Requirements
4. Understanding Key "Special Topics" in compliance.

These components constitute the portion of the workshop dealing with core technical skills and knowledge. Before we turn to the fifth and final agenda component ("Strengthening environmental compliance processes in Missions and teams"), we will review this core technical content in two sessions:

- In this session. we will play an environmental compliance/ESDM knowledge game to review key concepts contained in components 1-3. The game will take the form of a competition among small teams.
- In the following session, we will take time to resolve any outstanding technical issues in our "parking lot."

Game Briefing

Teams.
4-5 teams (6-8 persons/team), each with one non-participant recorder.

"Performance Assessment aligns with Programming Framework":
The game consists of 3 rounds of 5 multiple-choice/fill-in-the-blank questions each. Each round corresponds to one of the 3 core agenda components and assesses the objectives of that component.

Democracy and Governance
Teams must operate by consensus, reaching unanimous agreement on each answer.

Monitoring and Evaluation
Recorders will verify consensus by show of hands for each answer and record the answer.

Recorders will verify that no books, notes, laptops or other electronic devices are employed to assist in answering questions.

Scores will be tabulated by an independent party (MC) in each around.

"Results Framework"

- First team to complete all questions in a round: 8 point bonus. Each subsequent team: 2 points less; last team receives no bonus. Any team working when time is called receives no bonus.
- Each correct answer: 5 pts
  [NOTE: some questions have more than 1 element/choice. EACH correct element/response is worth 5 points.]
- Each incorrect answer: 3 pt DEBIT
  [NOTE: multiple wrong answers on a question result in multiple debits.]
- No answer: 0 pts
- All answers in a round correct 10 pt bonus.
- 12 minute limit on each round.
- Team scores will be posted to the front and updated after each round.

Implementation Procedures

1. MC briefs the game (contents of this sheet). Time pressure is part of the exercise!
2. MC's assistant assigns teams and recorders. Members of each team cluster together.
3. Swear in recorders.
4. Teams have 7 minutes to discuss strategy and elect captains.
5. MC asks recorders to confirm that all training materials and electronic aids are closed/off.
6. Distribute round 1 questions to team recorders.
7. MC starts the 1st round. Recorders open the envelopes and distribute questions. Teams begin.
8. Recorders blow their whistle/noisemaker when their team finishes.
9. MC's assistant records order in which teams finish.
10. End of the round occurs after 12 minutes or when all teams are finished, whichever is first.
11. MC's assistant tabulates scores; they are posted at the front.
12. Repeat steps 6-11 for the subsequent 2 rounds.
13. After 3 rounds, grand winner is declared and prizes are awarded.

In the event of a tie, a "sudden death" round of "special topic" questions will follow.

Session 14. Resolving the "Parking Lot": Final Technical Q&A

(0:30)

Objective

Conclude the "core technical skills and knowledge" portion of the workshop by resolving parking lot issues.

Format:

Facilitated discussion

Summary

Over the course of 3.5 days, we have identified a number of "parking lot" items—questions and issues that could not easily be addressed at the time they arose, but which are important to answer and resolve before the end of the workshop. Additional issues may have been raised by the environmental compliance/ESDM knowledge game.

We will conclude the "core technical skills and knowledge" portion of the workshop by discussing—and hopefully resolving—these parking lot issues in a facilitated discussion that draws on assembled expertise of the BEOs, REAs, the consultant trainers, and participants.

Note that parking lot issues concerning mission and team compliance processes will be reserved for Day 5, which focuses on process issues.

Key Resource

"Parking lot" issues list compiled during the workshop

Session 15.
Bringing Training to Reality

(2:00)

Objective

Survey the Mission and Project compliance processes and capacities required for compliance. Review typical gaps and shortfalls and examples of mission good practices identified by Mission Environmental Procedures Best Practices Reviews (BPRs) and OIG audits.

Identify key messages to communicate to mission management/sector team leaders (USAID staff) and COPs (IP staff) to prioritize and strengthen LOP environmental compliance.

Develop an individual plan for workshop follow-up to strengthen LOP environmental compliance in your project, team, or mission/operating unit.

Format

0:35 Briefing/discussion: Taking Stock: State of Environmental Compliance in USAID Mission & Projects

1:00 Separate focus sessions: (1) MEOs; (2) other staff

0:30 "Way Forward" Plenary discussion & Individual Action Plans

Summary

Taking Stock: the State of Environmental Compliance in USAID Mission & Projects

This workshop has set out LOP environmental compliance requirements, and how the responsibilities for fulfilling these requirements are allocated among IPs, C/AORs and MEOs.

In practice, significant compliance gaps and shortfalls exist. Many of these gaps and shortfalls are rooted in inadequate compliance *systems and processes*:

That is, for compliance to be achieved in practice, it is not enough that individual USAID and IP staff understand their roles and responsibilities and master key skills; internal mission/team and project processes must be in place that support (and require) the exercise of these responsibilities.

This is well-illustrated by the results of almost 20 Environmental Procedures Best Practices Reviews (BPRs) conducted in Africa missions over the past several years.[3] The BPR is a voluntary audit that examines both environmental compliance status AND the policies, procedures, and capacities that support LOP compliance. Specifically, the BPR assesses the mission and its portfolio against the Africa Bureau *Environmental Compliance Best Practice Standard* (included in this section). BPRs include IP interviews and site visits.

These BPRs offer the most broadly based and comprehensive view of environmental compliance and capacity in USAID AFR missions. (No comparable environmental compliance baseline exists for other regions, but

[3] In addition, USAID's Office of the Inspector General (OIG) conducted formal Environmental Compliance audits of the Kosovo, Egypt, Kenya and DRC missions as part of a global effort. The OIG synthesis report is available at: www.usaid.gov/oig/public/fy11rpts/9-000-11-002-p.pdf

discussions with BEOs, REAs and consultants providing environmental compliance support to USAID strongly indicate that the results of BPR exercises in other regions would be very similar.)

In this first part of the session, we will:

- Examine the *AFR Best Practice Standard* to better understand the mission processes and capacities required for LOP environmental compliance. (While developed by Africa Bureau, there is nothing about these standards that are region-specific.)
- Review the results of BPRs to date and take a straw poll to compare these findings to participant's views of their own missions.; and
- Highlight mission good practices.

Focus Groups & Individual Action Plans.

Having taken stock of where we are, we are ready to begin to discuss ways forward: how can we and our mission and projects strengthen mission and team compliance processes and capacities to improve LOP environmental compliance and better achieve ESDM.

We will divide into two focus groups: (1) Mission Staff and (2) A/CORs and other functions. *(Note: depending on the balance of participant numbers in these 2 groups, a different grouping may be decided.)* Each group will engage in a facilitated discussion

Focus Group Questions:

- What elements of LOP compliance are well-implemented in your mission/team? Why?
- Have you/your team/the mission/your projects implemented compliance strengthening measures you would like to share? Are they working well?
- Key LOP environmental compliance gaps within your team/Mission/project? What are the causes of these gaps?
- Do you see feasible remedies? What are they?
- What do the USAID sector teams (and A/CORs specifically) need to do differently? Do they or the projects need additional resources, support or training to implement these changes?

Plenary "Way Forward" Discussion and Individual Action Plans.

Following the focus groups, we will reconvene in plenary:

- We will begin the plenary session with a short report-out from each group.
- Then, we will have a facilitated discussion to try to reach agreement, as a group, on the following questions:

  Assuming that each of us have the opportunity to deliver post-workshop briefings to Mission Management /Sector Team leaders, what are the key points to convey to prioritize and strengthen LOP environmental compliance? Key recommendations to make?

  (Not all points will be applicable to all everyone, but we want to agree on a set of core messages.)
- The last 20 minutes will be reserved for development of <u>individual workshop follow-up plans</u>, using the template on the following page. We will for volunteers to share some of their follow-up items.

AFR Environmental Compliance Best Practice Standard

A) Environmental documents are in place, including:	
1) Environmental Compliance Mission Order	
2) MEO Appointment Memo	
3) Up-to-date ETOA or FAA 118/119, prepared with MEO involvement or review	
4) IEEs at SO level, updated as necessary	
5) IEEs at activity level, updated as necessary (if not included in SO-level IEE)	
B) Staff and implementing partners have capacity to ensure environmental compliance:	
1) Staff and implementing partners have been trained in Regulation 216/environmental compliance	
2) MEO has knowledge of country level environmental assessment legislation and country environmental issues	
3) MEO has skills and expertise to identify potential environmental components for Mission SOs and activities;	
4) A "Deputy" or "Alternate" MEO has been appointed to assist when the MEO is unavailable	
5) Opportunities for ongoing training in environmental compliance are provided to staff and implementing partners	
C) Processes are in place to ensure environmental compliance:	
1) MEO reports directly to Mission Director or senior management on matters pertaining to compliance with USAID Environmental Procedures	
2) MEO has mission-wide tracking process for IEE status, which is readily available to all mission staff. (BEO request: use Environmental Compliance Status Report format, an example of which is being sent as an attachment.)	
3) MEO and CTOs/Activity Managers have process for collaborating on activities with potential environmental impacts (from design to closure)	
4) Process exists to identify activities that need amended IEEs (not already covered by the SO level IEE)	
5) Process exists for ensuring IEE conditions are incorporated into Request for Proposals/Request for Applications (RFP/RFA), or process exists for ensuring activity-level IEE will be undertaken by the contractor (and included as a task in the RFA/RFP)	
6) Process exists for incorporating IEE conditions into contracts; and including mitigation and monitoring costs into project budgets	
7) Process exists for ensuring mission or implementing partner develops and implements an Environmental Management Plan/Mitigation and Monitoring Plan (EMP/MMP)	
8) Process exists for reporting to USAID on implementation of mitigation measures and continued assessment of potential environmental impacts (in project semi-annual or quarterly reports);	
9) Financial resources available to support mission environmental compliance processes, including training, analytical support, MEO travel to assist CTOs with field monitoring, etc. When the MEO reports to a sectoral team (Economic Growth, etc.), these resources would ideally be provided by the Program Office, since the MEO duties support the mission as a whole.	
D) The following mission contracting, project, and review/status documents include environmental compliance language:	
1) Strategic Objective Agreement (SOAg) approvals	3) Modified Acquisition and Assistance Request Documents (MAARDs)
2) Activity Approval Documents (AAD)	4) RFPs/RFAs
5) Contracts and cooperative agreements with budget that reflects mitigation and monitoring costs;	
6) Quarterly or semi-annual reports, submitted by project staff to the CTO	
7) Most recent Annual Report submitted by Mission to USAID/W	
8) Portfolio reviews, conducted semi-annually	
9) Closure report, where lessons learned regarding ESDM and Reg. 216 should be documented; and	

Synthesis of BPR Findings (all BPRs thru end 2012)

(note: findings characterize Mission compliance status at the time of the BPR; they do NOT reflect changes resulting from the BPR.)

1. "**upstream" compliance** (i.e. Reg. 216 documentation coverage for the Mission Portfolio) is generally reasonable, but not perfect:
    - Approval delays, especially for PERSUAPs, are a problem
    - Some but not all missions verify IEE coverage for new activities
2. However, **poor IEE Quality & Lack of Specificity** adversely affect the ability of IEEs to serve as a clear basis for project mitigation actions and project compliance.
    - In part, the problem is intrinsic to sector program level IEEs (SO-level IEEs), particularly those put in place when the sector program is in the early design stage.
    - Problem is not that there are a few notably bad IEEs, but that the current standard of IEE practice in AFR is not adequate.
3. In almost every mission, **a few project examples of good "downstream" compliance** exist.
   (that is, IEE/EA conditions are being implemented and reported on.)
    - But these examples of strong compliance are person-driven (a proactive C/AOR, a diligent partner), not systems-driven.
    - Compliance seems to be better for Title II CSs (who write their own, project-level IEEs)
4. Generally though, **IP reporting on environmental compliance is very, very limited**. That is, there is no auditable, verifiable record of IEE implementation (or lack thereof)
5. This makes determining the extent of IEE conditions implementation difficult. Different BPRs have had differing levels of success in truly verifying the extent of IEE conditions implementation on a project-by-project basis—depends on level of team cooperation, partner availability.
6. However, in the large majority of cases where we have successfully "drilled down" to the project level, **implementation of IEE/EA conditions is POOR**:
    - Partners and C/AOTRs unaware of conditions
    - Contractual requirements for conditions implementation not in place.
7. **C/AOR aw areness of environmental compliance responsibilities is generally poor**—and where present, is often limited to "upstream compliance." (Of well-informed/pro-active A/CORs, almost all have attended D9 a { ƶNJ LJNŜŘŜŎŜăăƶNJ ůNJI·inings.)
8. Effective **sector team compliance planning as mandated by ADS is almost non-existent.**
9. **MEO position is chronically under-resourced.** In some cases MEO authority and reporting lines are adequate—in some cases not.
10. **Environmental compliance verification is seldom part of the Mission M&E function.**

Life-of-Project Environmental Compliance & Environmentally Sound Design and Management

A Regional Training Workshop for USAID Staff & Partners

INDIVIDUAL WORKSHOP FOLLOW-UP PLAN

With reference to previous discussions in this session, please identify 3-5 follow-up actions that you plan to take after this workshop to strengthen LOP environmental compliance on your project, in your team, or in your mission/operating unit. For each, state a proposed timeline and immediate next step.

Example actions. Actions might include (but are not limited to):

Brief mission management on key messages identified in this session ▪ Brief contracts team on ECL and inclusion of environmental responsibilities clauses in A/COR letters▪ Require EMMPs for projects for which you are an A/COTR ▪ Deliver a short LOP Environmental Compliance Briefing for mission staff ▪ Work with M&E specialist to better assess env.compliance in field visits.

Action item	Proposed timeline	Immediate step
Ex. Lead Environmental Compliance Session in upcoming team planning retreat. (Develop short presentation using slides from this workshop.)	*3rd week of June*	
1.		
2.		
3.		
4.		

Version: 4 August 2009

Download this factsheet at:
www.encapafrica.org/meoEntry.htm

For more information, email the ENCAP core team at:
encapinfo@cadmusgroup.com

ENCAP FACTSHEET

ENVIRONMENTAL PROCEDURES BEST PRACTICES REVIEW

CONTENTS

WHAT ARE USAID'S ENVIRONMENTAL PROCEDURES?

USAID's Environmental Procedures are set out in Federal regulations (22CFR216, or "Reg. 216") and in USAID's Automated Directives System (ADS), particularly Parts 201.3.12.2.b and 204.

Compliance with these Procedures is mandatory. They apply to every program, project, activity, and amendment supported with USAID funds.

In general, these procedures specify an environmental review process that must be applied to all activities before implementation. This process may result in environmental conditions (mitigation measures) that must be:

- integrated into procurement instruments;
- translated into activity-specific environmental mitigation and monitoring plans; and
- implemented and monitored over the life of the activity.

For more information, read the "USAID Environmental Procedures Briefing for Mission Staff."

WHAT IS AN ENVIRONMENTAL PROCEDURES BEST PRACTICES REVIEW?

The Environmental Procedures Best Practices Review (BPR) is a thorough review of mission environmental compliance status, policies, procedures, and capacities. Its goal is to improve the level, effectiveness and efficiency of Mission compliance with USAID's Environmental Procedures, and to better integrate compliance into normal Mission operations.

The BPR identifies strengths and gaps in a Mission's application of USAID's Environmental Procedures with reference to Africa Bureau's *Mission Environmental Compliance Best Practice Standards*. This includes assessing the extent to which:

- Required Reg. 216 environmental review documentation [Categorical Exclusions, Initial Environmental Examinations (IEEs), and Environmental Assessments (EAs)] is in place for existing activities and "in pipeline" for planned activities;
- Mission and project staff understand their roles and responsibilities related to the Procedures;
- Mission and project staff capacity to implement the Procedures is adequate or staffing and training needs have been identified and plans have been made to address them;
- Procurement instruments reflect IEE and EA conditions;
- Environmental mitigation and monitoring measures

The factsheet was prepared by The Cadmus Group, Inc. for International Resources Group, Ltd. (IRG) under USAID Africa Bureau's Environmental Compliance and Management Support (ENCAP) Program, Contract Number EPP-I-00-03-00013-00, Task Order No. 11. Its contents are the sole responsibility of IRG and do not necessarily reflect the views of USAID or the United States Government.

specified by IEEs and EAs are implemented; and

- Environmental compliance is integrated into partner reporting.

The key output is a *BPR Report and Action Plan* which provides the results of this assessment and sets out recommended actions to address key gaps in compliance and compliance capacity.

WHY SHOULD A MISSION CONDUCT A BPR?

Experience shows that Missions often do not consistently or effectively apply USAID Environmental Procedures over the full project lifecycle. Among others, common gaps in compliance include:

- Objective- and project-level IEEs that inadequately address the specific activities being implemented;
- IEEs or EAs with conditions (mitigation measures) that are not being implemented, monitored, or reported on;
- Procurement instruments that fail to incorporate environmental compliance requirements;
- Project workplanning and budgeting processes that fail to develop an environmental mitigation and monitoring plan (EMMP) responsive to IEE/EA conditions, and/or fail to budget for EMMP implementation; and
- Mission and project staff unaware of their environmental compliance roles and responsibilities.

BPRs were recently endorsed by the Assistant General Counsel for Africa in recommendations to the AA/AFR as a key means of assuring effective implementation of risk management measures needed in Indoor Residual Spray (IRS) programs, particularly those using DDT.

WHO CONDUCTS A BPR?

The BPR is conducted by an external facilitator, a mission counterpart (the MEO or designee), and the Regional Environmental Advisor (REA), who participates for at least part of the in-mission segment.

The roles of each are described below.

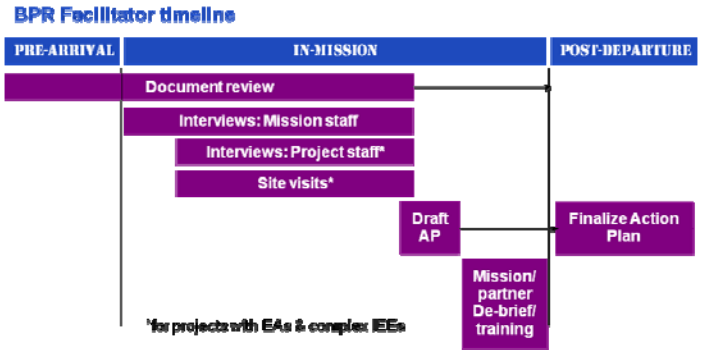
WHAT IS THE BPR METHODOLOGY?

The BPR facilitator first conducts a desk review of key documentation (see box at right).

This is followed by interviews with Team Leaders, Cognizant Technical Officers (CTOs), the Program Officer, Contracting Officer, Legal Advisors, and other key Mission staff. The interviews are structured around a field-tested BPR questionnaire.

Where projects have EAs or complex IEE conditions, the facilitator will interview selected partner staff and may conduct field visits.

The process is summarized in the diagram below.



The BPR takes about 22 days of facilitator LOE: four days for desk review of Mission documents and advance correspondence; two days travel; eight days conducting interviews at the Mission and with target partner staff; three days site visits, two days to develop, prepare and deliver a staff briefing on draft findings and recommendations, and three days to produce the final Report and Action Plan. REA support may shorten this time; remote sites and large/complex portfolios may extend it.

At the end of the in-mission portion of the BPR, the facilitator and the MEO will debrief mission management (and potentially Mission staff more broadly). They may also provide a short training on life-of-project environmental compliance. Partners may be involved in the briefing or training.

Documentation reviewed during a BPR

MEO appointment memo

Mission Order on environmental compliance

Reg. 216 Environmental Documentation (Categorical Exclusions, IEEs, EAs)

Project Quarterly/Semi-Annual Reports; SO Team Semi-Annual Portfolio Review documents & Annual Reports

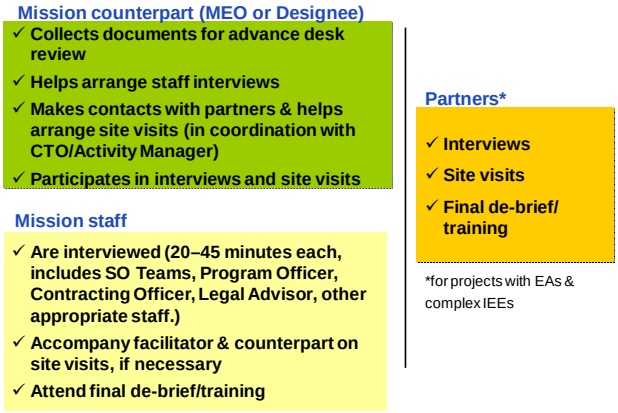
Activity Approval Documents & Procurement Plan

Mission Training Plan

Current 118/9 Assessment

WHAT IS THE MISSION AND PARTNER ROLE IN THE BPR?

The BPR involves a number of Mission Staff. Where projects have EAs or complex IEEs, partners are involved as well. Mission and Partner participation and contributions are summarized in the diagram below.



WHAT ARE THE OUTPUTS OF THE BPR?

At the end of the BPR, the facilitator will draft a *BPR Report and Action Plan*. This document will:

(1) identify all Categorical Exclusions, IEEs, and EAs currently in force, and determine gaps in coverage;

(2) characterize the extent to which IEE and EA conditions are being implemented and monitored;

(3) evaluate capacity of Mission and project staff to apply USAID's Environmental Procedures, and recommend training as necessary;

(4) evaluate environmental compliance-related Mission guidance (Mission Order on Environmental Compliance, MEO Appointment Memo, etc.), and recommend areas that can be strengthened as necessary;

(5) identify procedures and processes at the Mission, sector, and activity levels where environmental compliance should be incorporated, systematized, or strengthened, and recommend improvements;

(6) strengthen field-based tracking and monitoring of implementation of IEE/EA conditions by Mission and Project staff; and

(7) help the Mission to identify locally-based technical support in environmental compliance and environmentally sound design and management, if necessary.

WHAT IS EXPECTED OF THE MISSION ONCE THE BPR IS COMPLETED?

Any gaps in Reg. 216 documentation coverage identified by the *BPR Report and Action Plan* must be corrected per 22 CFR 216. Failures to implement IEE/EA conditions must also be corrected.

The Mission is not obligated to implement other Action Plan recommendations. However, the recommendations are intended to be practical and are meant to strengthen project outcomes.

WHAT RESOURCES ARE AVAILABLE TO ASSIST WITH BPRS?

The following resources are available to help Missions to implement the BPR process and to minimize the burden on Mission staff:

Regional Environmental Advisor (REA) Support. REAs participate in at least part of the in-mission segment of all BPRs. They may also be available to provide BPR coordination or additional technical support.

AFR/SD ENCAP technical support. Africa Bureau's ENCAP program (www.encapafrica.org) is available to provide BPR facilitators and technical assistance to support Action Plan implementation. ENCAP resources are typically provided on a mission cost-share basis. ENCAP support is accessed via request to the REA.

Other External resources: Using its own resources, the Mission may contract directly with a consultant to serve as the BPR facilitator and to provide TA to implement the Action Plan. Ideally, such support would be local and therefore more available for follow-up support. AFR/SD and ENCAP can help identify international consultants, as needed, and can provide assistance with Scopes of Work.

Session 16: Workshop Evaluation

(0:15)

Format

Fill in workshop evaluation form.

Summary

In response to comments received on the previous workshops in this series and in response to evolving Agency and AFR programming, a number of changes to agenda and session content were implemented in this workshop. Your feedback is essential to strengthen materials and agenda—and to draw attention to Mission and Program TA and support needs for ESDM and environmental compliance.

Key Resource

Evaluation form (following pages)

Workshop evaluation

Life-of-Project Environmental Compliance and Environmentally Sound Design and Management

An Africa Regional Training Workshop for USAID Staff & Partners

Mangochi, Malawi ▪ 13–17 May 2013

Your frank and honest feedback will help strengthen future trainings and help prioritize ESDM and environmental compliance support to USAID Programs and Missions in Africa and globally. Thank-you for your time!

Learning approach

For each issue, please check the assessment you most agree with

Issue	Assessment					Comments
Balance of time in classroom to time in field	Much more time in field needed	A bit more time in field needed	About right	A bit more time in classroom needed	Much more time in classroom needed	
In the classroom, balance of presentations to exercises, group work & discussions	Much more emphasis on presentations needed	A bit more emphasis on presentations needed	About right	A bit more emphasis on exercises/ discussions needed	Much more emphasis on exercises/ discussions needed	
Technical level & pace	Much too heavy	A little too heavy	About right	A bit too light	Much too light	
Opportunities for peer exchange & learning	Needed to hear and learn much more directly from facilitators	Needed to hear and learn more directly from facilitators	About right	Some more opportunities for peer learning/ exchange are needed	Many more opportunities for peer learning/exchange are needed	

Highest/Lowest-rated sessions

Please identify the 1 or 2 sessions that you rate most highly (for content, usefulness, approach or for other reasons). Please also identify the 1 or 2 sessions that you found least engaging/useful/relevant. Please briefly indicate the reasons for your choice. (You may wish to refer to the agenda to refresh your memory.)

	Session	Comment (Please explain why you made this choice.)
HIGH-RATED		
HIGH-RATED		
LOW-RATED		
LOW-RATED		

Overall evaluations

Please check the assessment you most agree with.

Issue	Assessment					Comments
	Very poor	Poor	Acceptable	Good	Excellent	
Technical quality (Program & Content)						
Facilitation						
Logistics						
Venue						
Field visits						

Impact

Please circle the characterization you most agree with.

Question	Characterization			Comments
Baseline Knowledge In light of what you have learned in this workshop, how would you rate your understanding of ESDM and USAID's Environmental Procedures BEFORE this workshop?	Had poor or limited understanding	Understood the basics, lacked some details	Had a strong and detailed understanding	
Empowerment To what extent has this workshop increased your knowledge and capabilities to address environmental compliance requirements in the context of your job function/professional responsibilities?	Not at all	Moderately	Strongly	
Motivation To what extent has this workshop increased your motivation to *proactively* address environmental compliance and ESDM in the context of your job function/professional responsibilities?	Not at all	Moderately	Strongly	

Key topics not covered

Were there any topics of key important to you that were not covered/given very limited attention?	

Support needs

Are there particular environmental compliance/ESDM support needs or resources that you require?	

Additional comments welcome on any topic.

Special Topic
Pesticide Risks, Safer Use & USAID's Pesticide Procedures

(duration TBD)

Objective

Brief the environmental, economic and human-health concerns attendant to Pesticide Use. Achieve a common understanding of the special environmental compliance requirements that apply to pesticide use & procurement, and of the key elements of safer pesticide use.

Format:

Presentation and Q&A.

Summary

This sessions summarizes the environmental and health concerns attendant to pesticide use, the key elements of safer pesticide use, and USAID's procedures for environmental review of support to pesticide use and procurement.

These procedures define "use and procurement" broadly and add specific, additional requirements to the general pre-implementation environmental review process established by Reg. 216. These requirements are satisfied via a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP), which is formally an amendment to the project's IEE. The requirements of the Safer Use Action Plan portion of the PERSUAP are thus IEE conditions and their implementation is mandatory.

Although PERSUAPs are generally developed by specialists, workshop participants may be involved in the review and implementation of PERSUAPs.

USAID policy and procedures regarding pesticide use are desc ribed in 22 CFR 216.3(b).

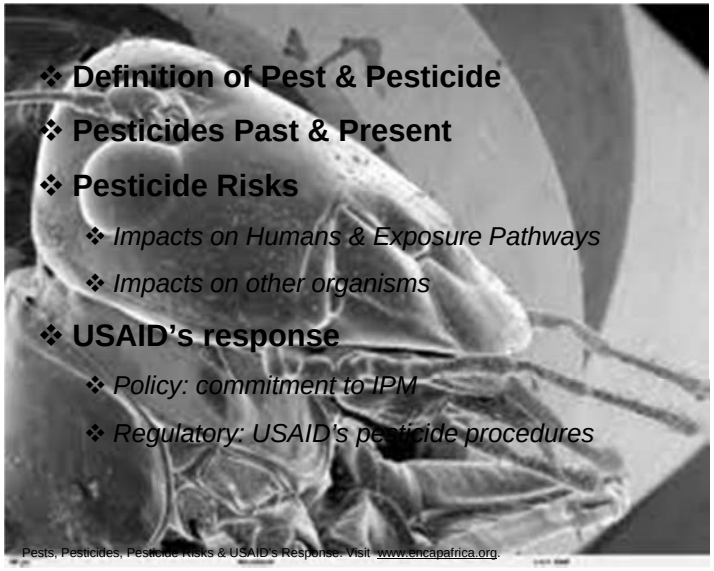
USAID
FROM THE AMERICAN PEOPLE

Special Topic:

What is a Pest? What is a Pesticide? What are the Risks of Pesticides?. . . and What is USAID's Response?

GEMS Environmental Compliance/ESDM Training Workshops
Africa –Asia-Latin America-Middle East 2012-2013

Presentation Overview



- **Definition of Pest & Pesticide**
- **Pesticides Past & Present**
- **Pesticide Risks**
  - *Impacts on Humans & Exposure Pathways*
  - *Impacts on other organisms*
- **USAID's response**
  - *Policy: commitment to IPM*
  - *Regulatory: USAID's pesticide procedures*

USAID follows the US EPA definition of pests

Pests are. . .

living organisms that occur where they are not wanted or that cause damage to crops, animals, humans or other animals.

Examples include: insects, mites, ticks, rodents (and other animals), unwanted plants (weeds, invasives), fungi, bacteria and viruses.

USAID follows the US EPA definition of pesticides.

A pesticide is. . .

Any substance or mixture of substances intended for:

preventing,

destroying,

repelling, or

mitigating any <u>pest</u>.

What about "natural" or "biological" pesticides?

Pesticides derived from natural sources (like Pyrethrum) are still pesticides.

What about disinfectants?

The purpose of disinfectants is to kill bacteria or viruses. Disinfectants are pesticides.

(except household bleach, common cleaners)

What about drugs?

Drugs used to control human or animal diseases are NOT pesticides.

Constituents and formulations

A modern pesticide can come in different formulations:

is a combination of:

Active Ingredient (AI), which kills the pest

+

A surfactant which makes the pesticide stick to the pest or plant

+

(Sometimes) a synergist which enhances the pesticide's action

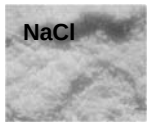
+

A carrier (like water, oil, or a solvent)

A	Aerosol
B	Bait
D	Dust
ED	Emulsifiable Concentrate
F	Flowable
G	Granultes
ULV	Ultra Low Volume
WDG	Wettable Dispersible Granule
WP	Wettable Powder

The need for pesticides in agriculture. . .

. . .is as old as agriculture



The first pesticides: Inorganic metals

4500 years ago
- **Elemental Sulfur— still used today**
- **Sodium Chloride (salt) weed killer— can still be used**

600 years ago
- **Mercury**
- **Lead**
- **Arsenic**

200 years ago for treated wood products, and as herbicides, insecticides and fungicides.
- **Arsenates**
- **Copper, chromium**

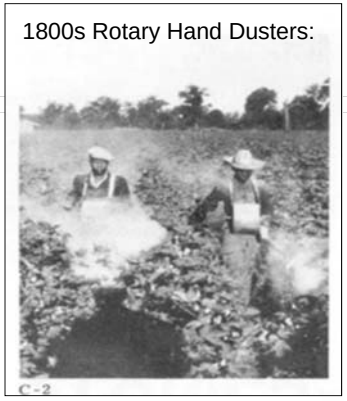
Late 1800s–Early 1900s

Plant Extracts
- Pyrethrum — still used today
- Neem — still used today
- Rotenone — still used today
- Nicotine-Sulfur compounds
- Citronella — still used today

Petroleum products
- Oils, Soaps — still used today
- Kerosene — still used today

Gasses
- Cyanide — gone
- Methyl Bromide — phasing out

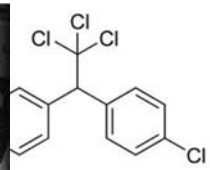
1800s Rotary Hand Dusters:



1920s

Then. . . Synthetic Organic Pesticides

- **When?** 1939 with DDT, followed by other "chlorinated hydrocarbons"
- **Why?** Originally, to kill malaria & yellow fever mosquitoes during World War II



Chlorinated hydrocarbons (DDT, Aldrin, Dieldren) 1940s

Organophosphates (Chlorpyrifos, Diazinon) 1950s

Carbamates (Carbaryl, Bendiocarb, Propoxur)

As synthetic organic pesticides came into widespread use. . .

. . .unexpected things began to happen. . .

- ❖ Need more & more pesticide to kill pests—why?
- ❖ American Eagle populations declined rapidly—what happened?
- ❖ Blood samples from Eskimos in Arctic showed DDT contamination—what happened?

The Modern Era of Pesticides brought the modern era of PESTICIDE RISKS. More on this in a moment. . .

And today we have. . .

"Traditional" synthetic organic pesticides

Pesticide Shop

+

Plant extracted pyrethrum (mix of pyrethrins) revived from the 1800s

Synthetic pyrethroids (cypermethrin, deltamethrin, lambda-cyhalothrin)

Chloro-nicotinyl (imidacloprid, thiacloprid)

+

- ❖ Microbes **(bacteria, fungi, virus)**
- ❖ Microbial extracts **(BT, abamectin, sphinosad)**
- ❖ Insect Growth Regulators—IGRs **(diflubenzuron, hexythiazox, methoprene)**

Put it all together and. . .

About 900 active ingredients in 20,700 products are currently sold in world markets

The need for extra scrutiny & concern

Pesticides are often essential.

But pesticides are potent killing agents. Their use has intrinsic dangers.

In developing areas, these dangers are worse because:

- ***Quality control in manufacture, handling, labeling and packaging is often poor.***
- ***Poor use practices are wide-spread.***

pesticide mis-use and mis-management can. . .

- Damage non-target ecosystems
- Affect non-target organisms (e.g., the "good bugs")
- Cause chronic sickness, birth defects, cancers, & even death
- Persist/accumulate in the environment
- Lead to resistance and to resurgence of pests
- Result in loss of export markets

Pesticide Impacts on Humans

- **Acute Toxicity: Immediate (acute) poisoning leading to serious sickness or death.**
- **Chronic Toxicity: effects over the long term at lower total doses.**
  For example, Cancer, Parkinson's Disease, Sterility, Organ Malfunction and Birth Defects.

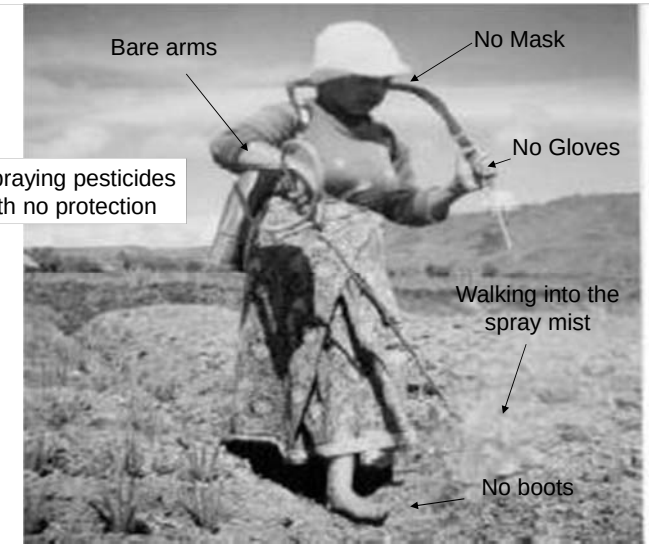
How do people receive dangerous doses of pesticides?

Human Exposure Route #1: Unsafe Application/Handling Practices

Mixing pesticides with bare hands

Pouring pesticide into sprayer without protection

Pesticide Handling: What Not to Do



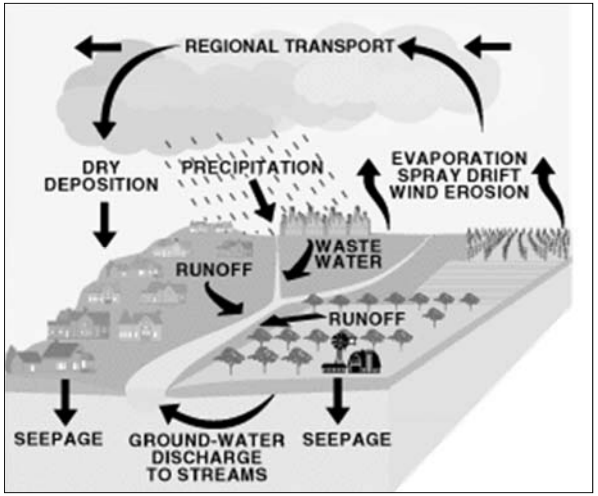
The result . . .

Skin lesions

and unfocused vision

And far worse is possible (acute poisoning, cancers, birth defects, death. . .)

Human Exposure Route #2: Drinking water



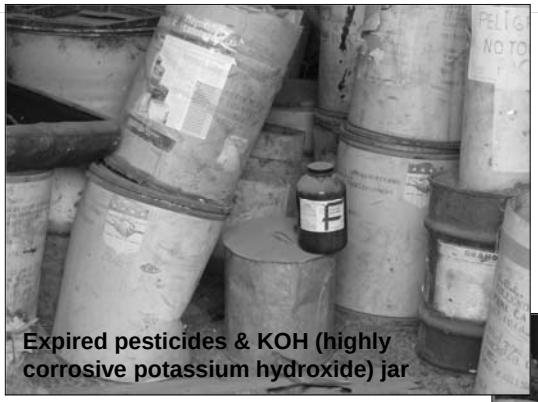
Pesticides can enter surface & groundwater by. . .

Runoff, seepage, spray drift, dust from fields

Well and stream contamination from poor mixing, clean-up practices

Leakage from obsolete pesticide stocks

30+ yr-old obsolete USAID-funded pesticides (found during 2003-2004 FAO Survey)

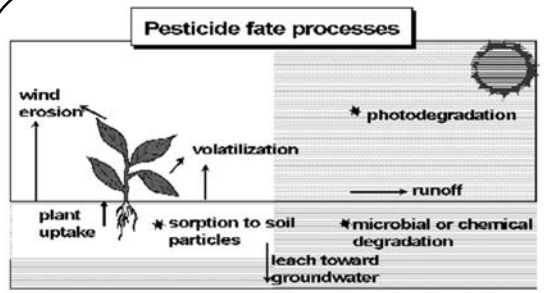


Expired pesticides & KOH (highly corrosive potassium hydroxide) jar

FERBAM ($C_9H_{18}FeN_3S_6$) fungicide oral LD50 of 4,000 mg/kg

- **Proper disposal starts at $3,000 to $5,000 per ton, depending on which pesticides are found. Highly toxic ones are much higher.**
- **Costly site cleanup also needed after the barrels are removed**

Human Exposure Route #3: Food



Only a portion of pesticide ends up on/in food. But this portion can be dangerous (residues), can lead to loss of export markets AND impact non-tareget organisms.

Pesticide is spayed on plants. . .

Spraying too close to harvest

Using the wrong pesticide

Using too much

Excess levels of pesticide in soil

. . .can all lead to harmful pesticide residues on/in food

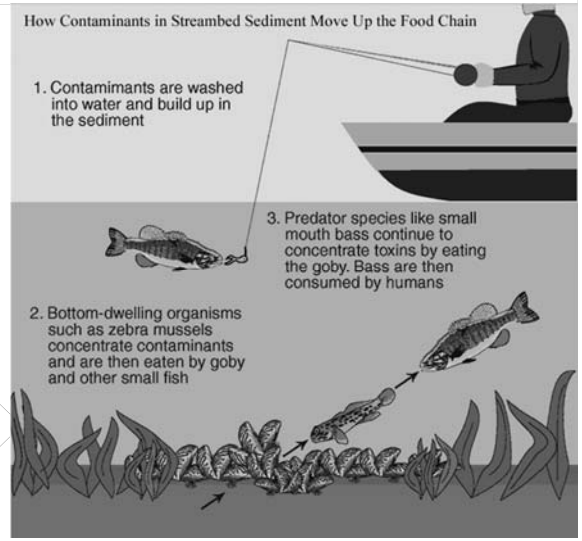
Bioaccumulation makes exposures worse

Some pesticides are PBTs—persistent, bioaccumulative toxins.

They degrade very slowly and accumulate in body tissues. Thus, the amount of pesticide in the body (the "load') increases with every exposure.

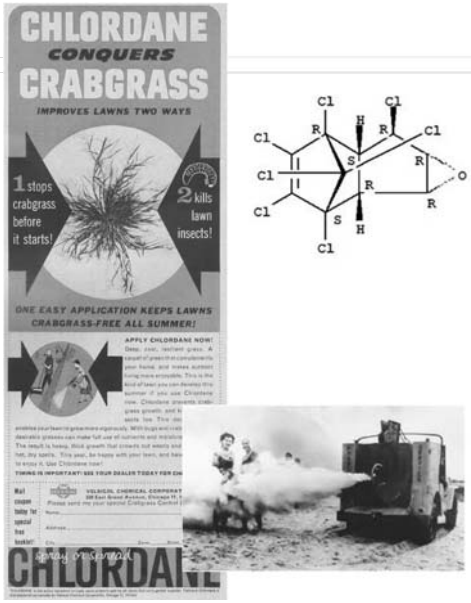
Adverse effects include damage to the nervous system and interference with reproduction & development.

PBTs accumulate in food chains—predators at the top of the chain (including people!) accumulate the heaviest loads.



PBT Pesticides

- Aldrin
- Chlordane
- Dichlorodiphenyl trichloroethane (DDT)
- Dieldrin
- Hexachlorobenzene
- Mercury-based pesticides including, but not limited to, mercurous chloride and mercuric chloride
- Mirex
- Toxaphene
- Heptachlor
- 2,4,5-Trichlorophenol (2,4,5-T)



Pesticides in the environment affect many organisms, not just humans.

They can. . .

- kill pollinating insects necessary for crop production
- kill predator bugs and birds that keep pests in check
- kill organisms necessary for soil health
- kill fish, crustaceans, amphibians, aquatic insects & beneficial microbes

. . .and pesticide misuse (and sometimes even responsible use) breeds pesticide resistance.

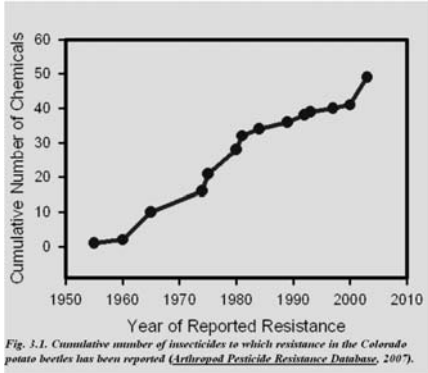
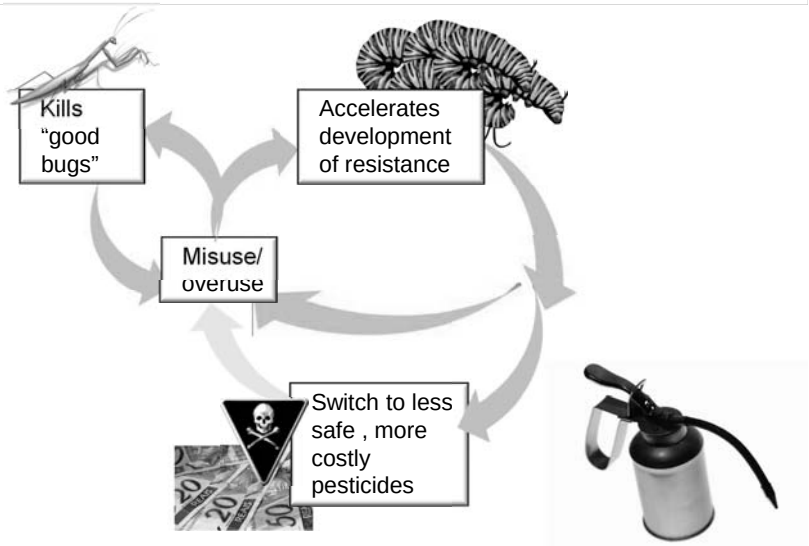


Fig. 3.1. Cumulative number of insecticides to which resistance in the Colorado potato beetles has been reported (Arthropod Pesticide Resistance Database, 2007).

http://resistance.potatobeetle.org

Dangers of mis-use: Commonly observed "vicious circles"



In Asia & Worldwide, the Risks are Real. Pesticide Challenges are Cross-cutting

2010 Pesticide Action Network Study: interviews with 1300 peasant farmers in China, Cambodia, Sri Lanka, the Philippines, Vietnam, India, Indonesia and Malaysia

2/3rds of crop pesticide active ingredients highly hazardous, but use of proper PPE rare, even in middle-income countries

Bangladesh: pesticide poisoning a leading cause of death in official statistics, and the 2nd-highest cause of death among 15-49 age group

Cambodia: At least 88% of farmers surveyed had experienced symptoms of acute pesticide poisoning.

Indonesia: widespread use of pesticides as mosquito repellants

Etc.

USAID's response to these dangers. . .

1. Agency-level policy commitment to Integrated Pest Management and SAFER USE more broadly

2. The "Pesticide Procedures" (Special and additional environmental review requirements under the agency's mandatory environmental procedures.)

USAID & Integrated Pest Management (IPM)

USAID policy: rely on Integrated Pest Management (IPM) as the framework for every activity (agricultural, health or other) that involves pesticide procurement or use

IPM…

Is ecologically-based pest management that promotes the health of crops and animals, and makes full use of natural and cultural control processes and methods, including host resistance and biological control.

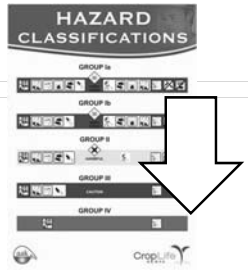
Uses chemical pesticides only where and when the above measures fail to keep pests below damaging levels.

All interventions are need-based and applied in ways that minimize undesirable side effects.*

If a pesticide is used, it is the "least toxic" one to do the job.

USAID policy statement on IPM

Safer Pesticide Use: 3 Basic Elements



1. **Integrated Pest Management**
   - *Reduce the volume & toxicity of pesticides used*
2. **Safer storage, application and disposal**
   - *Minimize human exposure and environmental contamination from the pesticide that is used.*
3. **Safe Purchase/ Quality assurance**
   - *Make sure the bottle contains what the label says.*

Pesticide Procedures: 22 CFR 216.3(b)

- **Apply to every project that will procure, use, or recommend for use one or more pesticides (certain emergency conditions exempted)**
- **The environmental review required for all project or sector programs must assess the proposed pesticide use in terms of the following 12 factors;**
  - ✓ US EPA registration status
  - ✓ Basis for selection
  - ✓ Extent to which IPM is used
  - ✓ Application methods and safety equipment
  - ✓ Toxicology and mitigation measures
  - ✓ Efficacy
  - ✓ Target vs. nontarget species
  - ✓ Environmental conditions at the location of proposed use
  - ✓ Availability of alternatives
  - ✓ Country's ability to control and regulate pesticides
  - ✓ User training
  - ✓ Monitoring provisions

Pesticide Procedures: 22 CFR 216.3(b)

- **This analysis is specialized IEE, sometimes called a PESTICIDE EVALUATION REPORT & SAFER USE ACTION PLAN (PERSUAP)**
- **The SUAP sets out the conditions that would govern pesticide use to assure safety.**
- **Based on the PERSUAP, use of the pesticide(s) is granted or denied, or more detailed study required.**
- **Conditions specified in the SUAP must then be implemented.**

NOTE: Sometimes, a full Environmental Assessment is called for (e.g., for pesticides that are not registered by USEPA but are judged essential)

What is "pesticide procurement or use"?

! ***Be aware. . .***

USAID interprets "pesticide procurement or use" very broadly.

Specifically. . .

What is "pesticide procurement or use"?

Procurement includes . .

1. *Direct purchase of pesticides*
2. *Payment in kind, donations, provision of free samples and other forms of subsidies*
3. *Provision of credit to borrowers could be procurement*
4. *Guarantee of credit to banks or other credit providers could be procurement*

Use includes . .

1. *Sale*
2. *Handling, transport, storage,*
3. *Mixing, loading, application*
4. *Disposal*
5. *Provision of fuel to transport pesticides*
6. *Technical assistance in pesticide management*

The definition of "procurement or use" does NOT include. . .

- **Pesticide used in evaluation plots & other research, IF the following requirements are met:**
  - *Surface area of under 4 ha,*
  - *Supervised by researchers,*
  - *Application by trained individuals*
  - ***The treated products are not consumed by people or livestock,***
- **Technical assistance for development of host country pesticide regulatory capabilities**
- **Support for training in safer pesticide use, not involving actual application or use of pesticides.**

Why is EPA registration status important?

Under US law, US EPA "registers" particular pesticides to particular uses.

When the proposed pesticide is NOT approved for a similar use by USEPA, → **more detailed study is required in the form of a full Environmental Assessment**

When the proposed pesticide IS approved for a similar use by US EPA, BUT the proposed use is RESTRICTED by US EPA on the basis of USER HAZARD, → **The PERSUAP must also contain a user hazard evaluation.**

! Why? Pesticides restricted by or not approved by US EPA are considered high-risk!

Useful Web Sites

- www.epa.gov/pesticides/reregistration/status.htm
- www.pmep.cce.cornell/edu/profiles/extoxnet
- www.pesticideinfo.org
- www.epa.gov/pesticides/safety/healthcare/handbook/handbook.htm (English and Spanish versions of pesticide poisoning recognition handbook)

Note: The information in these websites is useful for development professionals but does not substitute for an expert to apply it correctly

Special Topic: Subproject Review (duration TBD)

Objective

Brief the subproject review concept and procedure and the updated Environmental Review Form.
Outline the circumstances under which this process can be employed within AFR projets/programs.

Format:

Presentation and Q&A.

Summary

Many USAID programs and large projects include *subprojects*— small-scale activities that are (1) carried out within—or "under the umbrella" of—a larger project, and (2) are not fully identified or designed when the larger project or program is approved.

Subprojects pose an environmental compliance challenge: Reg. 216 requires environmental review prior to activity implementation—but subprojects are not specifically defined/designed when the IEE is written.

The solution is typically that the IEE contains a *negative determination with conditions* for these activities. The condition is that a simplified EIA process is established to review subprojects and establish mitigation and monitoring conditions. This is generally only allowable if:

- The *general nature* of sub-project activities is known
- These activities generally have low or easily controllable potential adverse impacts.

The *Environmental Review Form (ERF)* is the most common instrument for implementing these simplified environmental review procedures for subprojects. The form's instructions guide the reviewer through the subproject screening and preliminary assessment processes.

The ERF was recently updated to make appropriate use more clear, and to reflect changes in best practice over the past several years. This session will highlight the changes made.

Under the ERF screening process, activities are classified as either (a) requiring no further environmental review, or (b) requiring at least an environmental review report.

The environmental review report resembles a shorter, simplified IEE. Like the IEE, it is equivalent to a "preliminary assessment" in general EIA procedures.

Key resource

Updated *Environmental Review Form* (in this section of the Sourcebook)

USAID
Environmental Procedures for Sub-Projects

Environmental Compliance/ESDM Training Workshops
Takoradi, Ghana ▪ March 2012

What are sub-projects?

Subprojects are. . .

Smaller activities executed under a larger project or program

e.g. a subgrant program, an "umbrella project"

! **Subprojects are a problem for Reg. 216.**

Why?

What is the problem?

1. Sub-projects are often not defined when the project is proposed & the IEE written

2. But the first step of any EIA (including Reg. 216) process is understanding the activity!

Understand the proposed activity

Why is the activity being proposed?

What is being proposed?

Screen the activity

Based on the **nature** of the activity what level of environmental review is indicated?

! **3. Reg. 216 requires review of activities BEFORE funds are obligated**

How do we solve this "prior review" problem?

Two conditions must be met:

1. **General nature of sub-project activities must be known.**
2. **These activities must have low or easily controllable potential adverse impacts.**

IF these conditions are met, sub-project activities can be approved conditionally.

- *That is, the IEE contains a* ***negative determination with*** **conditions**
- *Condition is that each sub-project is subject to simplified environmental review*

What is a "simplified environmental review process"

The Environmental Review Form (ERF) is the most commonly-used subproject review instrument/process.

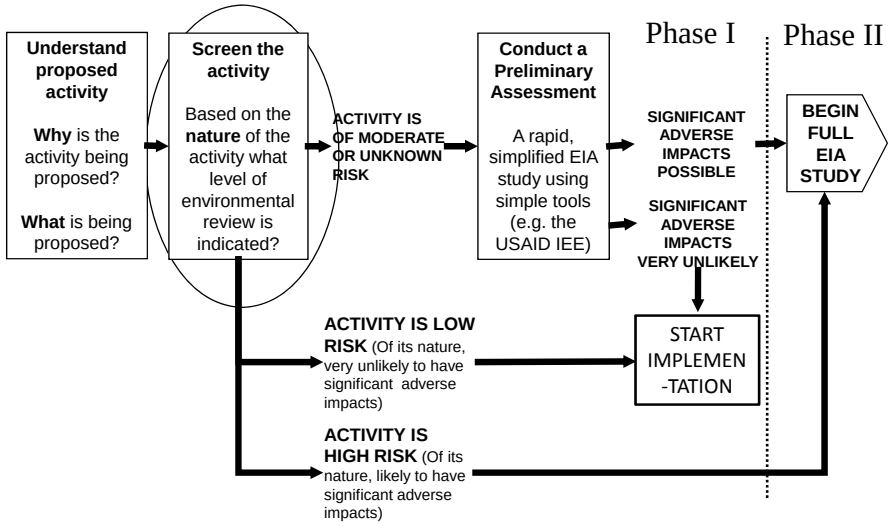
The ERF is usually completed by the IP or their subgrantee.

ERF is being updated—included in sourcebook

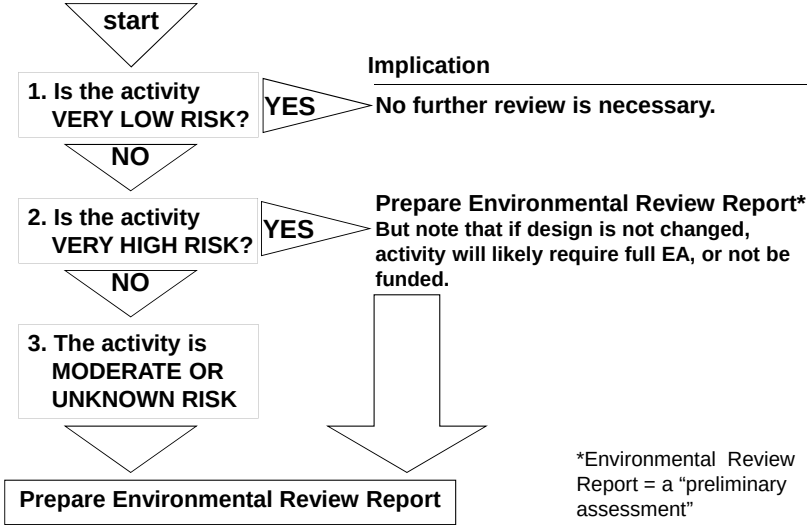
Getting started with the ERF

Sub-project review starts the same way that all EIA processes start. . .

Sub-project review starts the same way that all EIA processes start: understand, then screen



Screening under sub-project procedures



*Environmental Review Report = a "preliminary assessment"

How do we screen?

The ENVIRONMENTAL REVIEW FORM (ERF) guides the process step-by-step:

1. **LIST each activity**
2. **CHECK EACH activity against two lists**
   - A list of "very low risk" activities
   - A list of "very high risk" activities
3. **RECORD the screening result for <u>each</u> activity**
   - 3 possible results:
     very low risk,
     very high risk,
     moderate/unknown risk

B. Activities, screening results, and findings

Proposed activities (Provide DESCRIPTIVE listing. Continue on additional page if necessary)	Screening result (Step 3 of instructions)			Findings (Step 6 of instructions. Complete for all moderate/unknown and high-risk activities ONLY)		
	Very Low Risk	High-Risk*	Moderate or unknown risk*	Significant adverse impacts are very unlikely	With specified mitigation, impacts are very unlikely	Significant Adverse impacts are possible
1.						
2.						
3.						

What is an activity?

✓ **An activity is:**

a desired accomplishment or output

E.g.: a road, seedling production, or river diversion to irrigate land

Accomplishing an activity requires a set of actions

ACTIVITY:	ACTIONS:
market access road rehabilitation	Survey, grading, culvert construction, compaction, etc. . .

! **Screening is done at the activity level, NOT the action level. .**

Examples of "very low risk" & "very high risk" activities

Some very low risk activities

Education, technical assistance, or training. (except for activities directly affecting the environment)

Community awareness initiatives

Technical studies not involving intrusive sampling of endangered species or critical habitats

Some VERY HIGH RISK activities

River basin or new lands development

Planned resettlement of human populations

Penetration road building

Drainage of wetlands or other permanently flooded areas

What about "moderate or unknown risk" activities?

By definition, IF an activity is

- **NOT "very high risk"**
- **AND NOT "very low risk,"**

THEN it IS "moderate or unknown risk"

The form lists some REPRESENTATIVE moderate risk activities

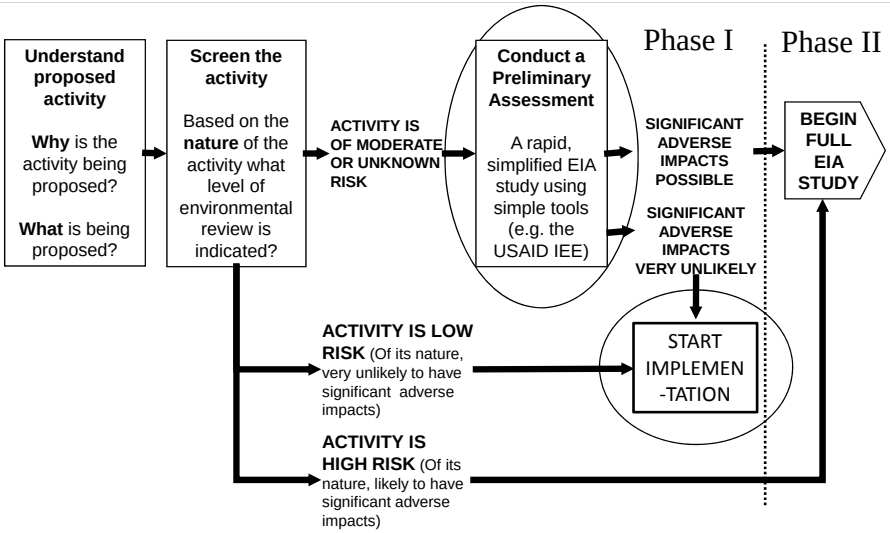
! **This list is not exhaustive!**

Moderate-risk activities include. . .

Small-scale infrastructure with known potential to cause environmental harm

Field agricultural experimentation of MORE than 4 ha.

After screening, what next?



After screening, 2 possibilities....

1. **If ALL activities are "very low risk," environmental review process ends→ sign and submit!**
2. **If ANY activities are:**
   - **moderate/unknown risk OR**
   - **very high risk**

an Environmental Review Report (ERR) must be completed.

Environmental Review Report

1. Summary of Proposal
2. Description of Activities
3. Site-specific environmental Situation & Host Country Requirements
4. Environmental Issues, Mitigation Actions, and Findings
5. EMMP
6. Other information (photos, references, individuals consulted)

ERR Purpose

Like any preliminary assessment the purpose of the ERR is to. . .

Provide documentation and analysis that:

- **Allows the preparer to recommend <u>whether or not significant adverse impacts are likely</u>**
- **Allows the reviewer to agree or disagree with the preparer's recommendations**
- **Sets out mitigation and monitoring for adverse impacts**

What recommendations result from an ERR?

ERR Findings

For EACH:

- **Moderate/unknown risk activity**
- **Very high risk activity**

The IP recommends one of 3 findings:

ERR Findings:

1. **significant adverse impacts very unlikely**
2. **With specified mitigation and monitoring, significant adverse impacts very unlikely**
3. **Significant adverse impacts are possible**

Final steps: the IP. . .

RECORDS the findings

SIGNS the certification

SUBMITS the Environmental Review Form & ERR to the C/AOTR

WAITS for approval before expending any resources on the activity

B. Activities, screening results, and findings

Proposed activities (Provide DESCRIPTIVE listing. Continue on additional page if necessary)	Screening result (Step 3 of instructions)			Findings (Step 6 of instructions. Complete for all moderate/unknown and high-risk activities ONLY)		
	Very Low Risk	High-Risk*	Moderate or unknown risk*	Significant adverse impacts are very unlikely	With specified mitigation, significant adverse impacts are very unlikely	Significant Adverse impacts are possible
1.						
2.						
3.						

What about the signed certification?

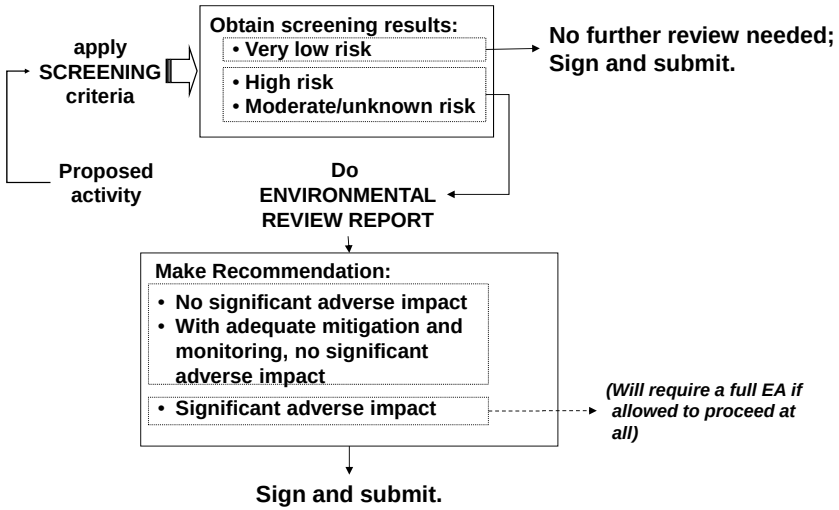
The certification:

- **Affirms that the ERF & ERR are correct & complete**
- **Commits the IP to implementing the mitigation and monitoring measures specified in the ERR**
- **Commits the IP to making sure that field staff, managers & partners understand environmentally sound practices for the activities in question.**

Who approves?	
C/AOTR	Always
MEO	
REA	
BEO	if any screening results are "high risk"* or if there are any findings of "significant adverse impacts possible*

*should be very rare

Overview of the process



Adapting the ERF to project needs

The ERF is a GENERAL form. It should be adapted each time it is used.

For example:

1. **Adapt the screening lists**

   to reflect specific sub-project activities, and specific local environmental issues.

2. **Create "standard mitigation" (best practices) for specific activities.**

   Standard mitigation/best practices for specific activities can save the effort of drafting repetitive ERRs.

   Such activities could fall into a 4th screening category: "moderate risk with standard mitigation."

   Activities in this category would not require an ERR, but would be required to follow the standard mitigation measures developed by the project.

3. **Don't use the ERF at all!**

   Project-specific checklists and other approaches are possible.

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Instructions for environmental review of XXX Program Subprojects/Sub-grants

Note: *These instructions accompany the attached "Environmental Review Form for USAID/XXX Program/Project Activities" (ERF).* ***Follow, but DO NOT SUBMIT, these instructions.***

Who must submit the Environmental Review Form (ERF)?

ALL Implementing Partners seeking to implement [describe qualifying activities] under the XXX Program/Project must complete, sign and submit the ERF to [insert name & email of C/AOTR].

Authority: Use of the ERF for these activities is mandated by the governing Initial Environmental Examination (IEE) for the XXX Project/Program. The IEE can be downloaded at: *[insert URL]*.

No implementation without an approved ERF

The proposed activities cannot be implemented and no "irreversible commitment of resources" for these activities can be made until the ERF (including Environmental Review Report, if required, see Step 4, below) is cleared by the C/AOTR, the Mission Environmental Officer (MEO) and the Regional Environmental Advisor (REA).

NOTE: USAID may deny clearance to the ERF, or may require modification and re-submission for clearance.

Environmental management requirements resulting from the ERF

If the ERF requires preparation of an Environmental Review Report (see Step 4, below), any environmental management measures specified in the approved Environmental Review Report MUST be implemented.

Situations in which additional environmental review is required.

If the ERF finds that one of more of the proposed activities has the potential to cause significant adverse environmental impacts, the activities must be redesigned or an IEE or full Environmental Assessment must be conducted and approved prior to implementation.

If USAID determines that the proposed activities are outside the scope of activities for which use of this form is authorized, the activities must be redesigned or an IEE or IEE Amendment will be required.

In either situation, the C/AOTR will confer with the partner to determine next steps. Note: If an IEE or EA is required, all environmental management measures specified in the IEE or EA must then be implemented.

Step 1. Provide requested "Applicant information" (Section A of the ERF)

Step 2. List all proposed activities

In Section B of the form, list all proposed activities.

Activities are a desired accomplishment or output: e.g. seedling production, road rehabilitation, school construction. Each activities has entailed *actions*—for example, road rehabilitation includes survey, grading, culvert construction, compaction, etc. *Be aware of these entailed actions, but do NOT list them.*

List activities DESCRIPTIVELY. For example, "training" is not a sufficient activity listing. The listing must specify WHO is being trained, and in WHAT.

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.

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.

Very low-risk activities (Activities with low potential for adverse biophysical or health impacts; including §216.2(c)(2))	**High-risk activities** (Activities with high potential for adverse biophysical or health impacts; including §216.2(d)(1))
Provision of education, technical assistance, or training. (Note that activities directly affecting the environment. do not qualify.) **Community awareness** initiatives. **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). **Technical studies and analyses** and other information generation activities not involving intrusive sampling of endangered species or critical habitats. **Document or information transfers**. **Nutrition, health care or family planning**, 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. **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). **Intermediate credit.** Support for intermediate credit arrangements (when no significant biophysical environmental impact can reasonably be expected). **Maternal and child feeding** conducted under Title II of Public Law 480. **Title II Activities.** Food for development programs under Title III of P.L. 480, when no on-the-ground biophysical interventions are likely. **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) **Small-scale Natural Resource Management activities** for which the answer to ALL SUPPLEMENTAL SCREENING QUESTIONS (see *Natural Resources supplement*) is "NO."	**River basin development** **New lands development** **Planned resettlement** of human populations. **Penetration road building, or rehabilitation** of roads (primary, secondary, some tertiary) over 10 km length, and any roads which may pass through or near relatively undegraded forest lands or other sensitive ecological areas **Substantial piped water supply and sewerage** construction. **Major bore hole or water point construction.** **Large-scale irrigation; Water management structures** such as dams and impoundments **Drainage of wetlands** or other permanently flooded areas. **Large-scale agricultural mechanization.** **Agricultural land leveling.** **Procurement or use of <u>restricted use</u> pesticides**, or wide-area application in non-emergency conditions under non-supervised conditions. (Consult MEO.) **Light industrial plant production or processing** (e.g., sawmill operation, agro-industrial processing of forestry products, tanneries, cloth-dying operations). **<u>High-risk and typically not funded by USAID:</u>** **Actions affecting protected areas and species.** Actions determined likely to significantly degrade protected areas, such as introduction of exotic plants or animals. Actions determined likely to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests) **Activities in forests, including:** ▪ **Conversion of forest lands** to rearing of livestock ▪ **Planned colonization of forest** lands ▪ **Procurement or use of timber harvesting equipment** ▪ **Commercial extraction of timber** ▪ **Construction of dams** or other water control structures 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

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.

Small-scale agriculture, NRM, sanitation, etc. (You may wish to define what "small scale" means for each activity)

Agricultural experimentation. Controlled and carefully monitored agricultural experimentation exclusively for the purpose of research and field evaluation of MORE than 4 ha.

> **NOTE Biotechnology/GMOs:** No *biotechnology testing or release* of any kind are to take place within an assisted country until the host countries involved have drafted and *approved* a regulatory framework governing biotechnology and biosafety.
>
> 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.

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.)

Rural roads. Construction or rehabilitation of rural roads meeting the following criteria:

- 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 fr om 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.

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

Sampling. Technical studies and analyses or similar activities that could involve intrusive sampling, of endangered species or critical habitats. (Includes aerial sampling.)

Water provision/storage. Construction or rehabilitation of small-scale water points or water storage devices for domestic or non-domestic use. Water points must be located where no protected or other sensitive environmental areas could be affected.

> **NOTE**: USAID guidance on water quality requires testing for arsenic, nitrates, nitrites and coliform bacteria.

Support for intermediate credit institutions when indirect environmental harm conceivably could result.

Institutional support grants to NGOs/PVOs when the activities of the organizations are known and may reasonably have adverse environmental impact.

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.

> **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)].

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.

Step 4. Determine if you must write an Environmental Review Report

Examine the "screening results" as you have entered them in Table 1 of the form.

i. 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.

ii. If ANY activities are "unknown or moderate risk," you MUST complete an ENVIRONMENTAL REVIEW REPORT addressing these activities. Proceed to Step 5.

iii. 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. Activity re-design is often indicated.

In some cases, it is possible that reasonable, achievable 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 a single, moderate risk activity, the Environmental Review Report is typically a SHORT 4–5 page document. The Report will typically be longer for (1) multiple activities; (2) activities of high or unknown risk; and/or (3) when a number of impacts and mitigation measures are being identified and discussed.

The Environmental Review Report follows the outline below. Alternate outlines are acceptable, so long as all required information is covered.

A. **Summary of Proposal.** Very briefly summarize background, rationale and outputs/results expected. (Reference proposal, if appropriate).

B. **Description of Activities.** For all moderate and high-risk activities listed in Section B of the ERF, 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. **Site-specific Environmental Situation & Host Country 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?

Also note applicable host country environmental regulations and/or policies. (For example, does the project require host country environmental review or permitting? Building approval? Etc.)

NOTE: provide site-specific information in this section, NOT country-level information. General information about country level conditions should already be contained in the IEE governing the XXX project/program.

D. Environmental Issues, Mitigation Actions, and Findings. For ALL proposed activities

i. Briefly note the potential environmental impacts or concerns presented by the proposed activities (if any). *For guidance, refer to Africa Bureau's Environmental Guidelines for Small-Scale Activities; available at www.encapafrica.org/egssaa.htm.*

As per the *Small-Scale Guidelines*, consider direct, indirect and cumulative impacts across the activity lifecycle (i.e. impacts of site selection, construction, and 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). Note that "environment" includes 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.)

ii. Assess the extent to which these *potential* impacts and concerns are significant in the context of the specific activity design and site.

iii. Set out the mitigation actions to be employed to address these issues.

Mitigation actions are means taken to avoid, reduce or compensate for impacts. Mitigation measures must be reasonable and implementable by field staff. They should be consistent with the good practice guidance provided in Africa Bureau's Environmental Guidelines for Small-Scale Activities; (www.encapafrica.org/egssaa.htm.) Cite this or other guidance used for mitigation design.

iv. Reach one of three findings regarding the potential impacts:

a. Significant adverse impacts are very unlikely. Of its nature, the activity in question is very unlikely to result in significant, adverse environmental impacts. Special mitigation or monitoring is not required.
Note: this conclusion is rarely appropriate for high-risk activities.

b. With implementation of the specified mitigation and monitoring, significant adverse impacts are very unlikely.

c. Significant adverse impacts are possible. That is, it is not possible to rule out significant adverse environmental impacts even given reasonable, attainable mitigation and monitoring.

In this case, USAID and the partner will consult regarding next steps. If the activity is to go forward in its current form, additional analysis in the form of an IEE or EA will be required.

Format and structure of this section. Choose a format and structure that presents the necessary information clearly and succinctly.

Table formats can be used. In the example below, the proposed activity was construction of an institutional facility on a 7500m3 plot bisected by a seasonal stream providing drainage to the local area. One potential impact of the activity was reduction of or alteration to the drainage eco-service provided by the seasonal stream.

Issue or cause for concern	Analysis	Finding and conditions/mitigation actions
The seasonal stream running through the plot drains an area of at least 2 km^2 to the WNW. Diminution or alteration to this drainage "service" could result in increased upstream pooling & flooding during the rainy season, with associated property damage and increased breeding habitat for disease vectors.	As indicated at left, this impact only arises if the drainage "service " provided by the seasonal stream is diminished or altered in some adverse manner. So long as compound design maintains the existing service level and construction is managed without disruption to stream flow, actual adverse impact will be negligible or zero.	Per analysis at left, this potential impact is not significant, so long as the following mitigations are implemented: 1. Total stream capacity cannot be diminished by the development of the compound. (Stream channel on average is 3m x 1m.) 2. The stream must remain substantially in the same channel and cannot, e.g., be re-routed around the property. 3. If construction will result in an interruption to stream flow, provision must be made to provide a temporary bypass. Temporary damming of stream flow is not permissible. 4. Post-construction, the stream bed within the property, including point-of-entry (e.g. via culvert under perimeter wall) must be maintained free of obstructions to flow.

E. Environmental Mitigation and Monitoring Plan (EMMP). Set out how compliance with mitigation actions will be monitored/verified. This includes specifying **WHO** will be responsible for the various mitigation actions, and **HOW** implementation of the mitigation actions will be tracked/verified.

Also specify how you will report to USAID on the implementation of mitigation actions. (You are REQUIRED to provide your C/AOTR with sufficient information on the status of mitigation implementation for USAID to effectively fulfill its oversight and performance monitoring role.)

Again, choose a format and structure that presents the necessary information clearly and succinctly. EMMPs are typically in table format, and often include a compliance log or "monitoring record" section that records implementation status of the various mitigation actions. The EMMP with current monitoring log can then simply be submitted to the C/AOTR with the quarterly or 6-month project report, satisfying the environmental compliance reporting requirement. .

The most basic EMMP format is

Mitigation action	Responsible Party	Monitoring/Verification Method	Monitoring Record (date, result, corrective actions taken, if any)

For additional EMMP formats and examples, see the ENCAP EMMP factsheet, available at www.encapafrica.org/ (provide exact URL.)

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. Transcribe findings from the Environmental Review Report to the ERF

For each high-risk or unknown/moderate-risk activity, transcribe your finding from the environmental review report to the last column of Section B of the ERF.

Step 7. Sign certifications (Section C of form.)

Step 8. Submit form to USAID C/AOTR. Be sure to attach the Environmental Review Report, if any.

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Environmental Review Form for XXX Program subprojects/subgrants

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 subproject /subgrant (brief description)	Amount of funding requested
	Period of performance
	Location(s) of proposed activities

B. Activities, screening results, and findings

Proposed activities (Provide DESCRIPTIVE listing. Continue on additional page if necessary)	**Screening result** (Step 3 of instructions)			**Findings** (Step 6 of instructions. Complete for all moderate/unknown and high-risk activities ONLY)		
	Very Low Risk	High-Risk*	Moderate or unknown risk*	significant adverse impacts are very unlikely	With specified mitigation, significant adverse impacts are very ulikely	Significant Adverse impacts are possible
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

*These screening results require completion of an Environmental Review Report

C. Certification:

I, the undersigned, certify that:

1. The information on this form and accompanying environmental review report (if any) is correct and complete.
2. Implementation of these activities will not go forward until specific approval is received from the C/AOTR.
3. All mitigation and monitoring measures specified in the Environmental Review Report will be implemented in their entirety, and that staff charged with this implementation will have the authority, capacity and knowledge for successful implementation.

(Signature) _____ (Date) _____

(Print name) _____ (Title) _____

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

Notes:

1. For clearance to be granted, the activity MUST be within the scope of the activities for which use of the ERF is authorized in the governing IEE. **Review IEE before signature.** If activities are outside this scope, deny clearance and provide explanation in comments section. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.

2. Clearing an ERF containing one or more findings that **significant adverse impacts are possible** indicates agreement with the analysis and findings. It does NOT authorize activities for which "significant adverse impacts are possible" to go forward. It DOES authorize other activities to go forward. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.

Clearance record

C/AOTR ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)
USAID/XXXX MEO ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)
Regional Env. Advisor (REA) ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)
Bureau Env. Officer (BEO)* ☐ Clearance given ☐ Clearance denied	(print name)	(signature)	(date)

C/AOTR, MEO and REA clearance is required. BEO clearance is required for all "high risk" screening results and for findings of "significant adverse impacts possible. The BEO may review "

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 Activies**

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 Progam

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?		

Special Topic.
Health Care Waste

(duration TBD)

Objective:
Attain basic familiarity with the environmental best practices, compliance expectations, and implementation challenges related to management of health care waste

Format:
Presentation or interactive game and Q&A.

Summary
As per objectives.

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Managing Healthcare Waste

Environmental Compliance/ESDM Training Workshops
Mangochi, Malawi ▪ May,2013

Overview

- ❖ Defining Healthcare waste
- ❖ Types of waste
- ❖ Concerns
- ❖ Management Techniques
- ❖ Compliance Actions

Healthcare Waste basics

What are the 2 basic types of medical waste?

- ***Hazardous***
- ***Domestic Solid***

What percentage of healthcare waste is hazardous?

- *75-90% of all hospital waste*

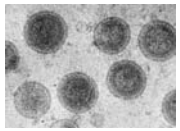
What are sources and requirements for domestic waste?

- *paper, plastic, packaging, food prep*
- *no patient contact*

Why is this important?

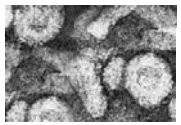
- *Domestic waste can be soundly managed in a less expensive way (sanitary landfill)*

What is the risk of infection after hypodermic needle prick for. . .



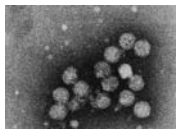
HIV?

- *.3%*



Viral Hepatitis B?

- *3%*



Viral Hepatitis C?

- *3-5%*

What are the major sources of Infectious/hazardous waste?

- Infectious agents or things that have touched infectious agents
- Sharps
- Chemicals/pharmaceutical/Genotoxins
- Body parts, devices from the body
- Radioactive materials

What, in this picture, could be considered hazardous?

Wastes & appropriate receptacles

Waste		**Receptacle**		
Category	Description	Type	Markings/features	Disposal
Hazardous	Non sharps infectious waste	Container, plastic bag or holder	Yellow/red **Leak proof**	
Highly hazardous	Body parts, contaminated gauze, feces	Container, plastic bag	Yellow/red, marked highly infectious **Leak proof** Suitable for autoclaving	Autoclaving Encapsulation Incineration Sterilization
Sharps	Sharps, needles, lancets	Sealable container	**Puncture proof** Marked Sharps **Leak proof**	Reuse Sterilization Autoclaving

How do you store infectious waste?

Hint: NOT in an open cage

- *Double bagged*
- *Hard exterior container (can, plastic bucket) with a lid*
- *Marked*
- *Yellow/red packaging if possible*

Sharps storage?

- **<u>Ideally</u>, what does a sharps container look like?**
  - *Red, puncture proof, leak proof*
- **<u>Realistically</u>, how do you store waste sharps?**
  - *Puncture and leak proof, marked*

What are the 9 major subcategories of hazardous waste?

- *Sharps*
- *Heavy metals*
- *Infectious*
- *Pathological/anatomical*
- *Pharmaceutical waste*
- *Pressurized containers*
- *Hazardous Chemical Waste*
- *HIGHLY infectious waste*
- *Genotoxic/cytotoxic waste*
- *Radioactive wastes*

Hazardous Wastes: More Detail

- **Infectious waste**
  - *Susceptible to contain pathogens or their toxins such as:*
    - Materials or equipment used in the diagnosis, treatment and prevention of disease
    - Materials/equipment that has been in contact with body fluids during diagnosis/treatment
      - Swabs, blood bags, dressings
    - Feces, urine, blood or other body secretions
- **Pathological/anatomical waste**
  - *Organs, tissues, body parts or fluids, even if known to be healthy*
- **Pharmaceutical waste**
  - *Expired, contaminated or unused drugs/chemicals*
  - *Includes bottles, vials and connecting tubing as well as mixing utensils for cytotoxic drugs*

Hazardous Wastes: More Detail

- ***Pressurized containers***
  - 0^2 containers etc
- ***Hazardous Chemical Waste***
  - Toxic, corrosive, flammable
  - These have specialized identification and disposal requirements
- ***Heavy metals***
  - From thermometers, manometers, x-ray
  - Cadmium, mercury, silver, gold
  - These have special identification and disposal requirements
- ***Sharps***
  - Needles (whether infected or NOT)
    - Separately labeled and packaged

Hazardous Wastes: More Detail

- ***HIGHLY infectious waste***
  - Cultures, stocks of infectious agents
- ***Genotoxic/cytotoxic waste***
  - Oncology/radiotherapy
  - Including vomit, urine, feces
  - Special project planning and design as well as disposal is required
- ***Radioactive wastes***
  - Can be in any form
  - Alpha and beta particles should be expected
  - Cobalt 60Co, Iodine 131I and iridium 192Ir

Name 4 waste management techniques. . .

- **Segregation**
- **Minimization**
- **Sharps management**
- **Digital technology, recyclable sharps**

What is each container for?

Practical guidance: First, focus on segregation

Keep non hazardous domestic waste as "domestic waste"

This reduces:

- cost,
- risk from and to scavengers and workers
- quantity of waste

Manage as close to point of generation as possible

- Landfilling
- Incineration
  - Do not incinerate plastic, pvc or packaging as incineration produces dioxins, furans etc

What is the problem?

Practical guidance: Have a sharps system

- **How do you dispose of ALL sharps?**
  - *In rigid, puncture proof containers*
  - *Marked as sharps*
  - *Monitored*
  - *30 day disposal time (for small generators)*
  - *Autoclaved/ sterilized/ encapsulated /incinerated with no plastic products*
  - *Properly disposed landfill, encapsulation etc)*

Disposal Options

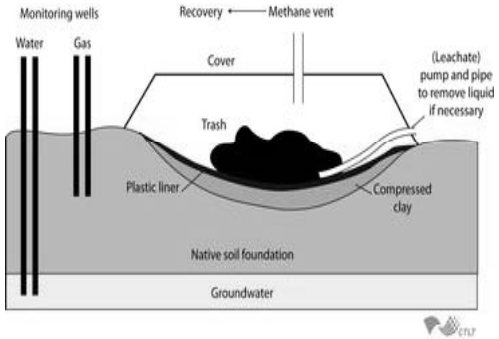
- **What are the major disposal options for domestic waste?**
  - ***Landfill***
  - ***Incineration***

Incinerator: design, location AND operation all critical

What works and doesn't work with this incinerator?

All landfills are not equal

What aspects of this landfill design are typical in SSA? Which are feasible?



Sanitary Landfill

Fenced burial pit

Management Techniques: Proper planning needed

- **Focus on reduction of wastes through:**
  - *Reprocessing, reuse & digital technology (thermometers etc)*
- **Proper training of medical personnel and staff**
  - *Protective gear*
  - *Waste management requirements*
- **Project must plan for and provide secure collection and transportation**
  - *Segregation opportunities must be implemented*
  - *Use burn pits as a last resort*
  - *Prior to project a waste collection plan must be developed and implemented*
  - *Return of unused pharmaceuticals and chemicals to original supplier*

Management Techniques: Proper planning needed

- **If appropriate invest in equipment**
  - *Use burn pits as a last resort*
    - Do NOT burn heavy metals, radio nuclides, pharmaceuticals
  - *Autoclaving is less expensive and less likely to cause secondary infections and air impact than incineration-disposal of sterilized waste is still required*
  - *Incineration must be certified, preferably on hospital grounds*
    - Disposal of fly, bottom ash and other by products must be in a certified disposal facility------Not a bury pit

Management Techniques: Proper planning needed

- **Require a plan, budget and execution for/of the disposal of hazardous waste**
  - *Recycle where available*
  - *Safe disposal includes a certified hazardous waste facility that*
    - Supplies a certificate of disposal
    - Will often help with transportation
      - » Only if contracted early!

Why is sound health care waste management important?

Name 3 (or 4) reasons

- *Health protection*
- *Groundwater protection*
- *Manage costs*
- *Ecological protection*

Human Health can be compromised due to unmanaged exposure

Radiation, poisoning of environment due to unmanaged heavy metals, cytotoxins etc

Mismanagement of waste can contaminate ground and surface water

Improper incineration:

Generation of Dioxins, Furans, PCBs (plastics)

Unhealthy air quality

Incorrect incineration can lead to exposure to infectious disease or poisons

What are C/AOTR responsibilities?*

- **Work with project team to ensure each of the subcategories has a management plan**
- **Ensure there is an inventory management plan (to control quantity and potential expiration of materials)**
- **Visit sites to check the implementation of plans**
- **Ensure that projects have the dollars and contracts in place to dispose of or return wastes**
- **When building permanent disposal facilities (landfill, autoclave, incinerator) ensure that the facility is:**
  - *Away from people*
  - *Away from farms (food or animals)*
  - *Properly designed*
  - *Properly maintained (a plan should be in place prior to operations)*

A/COR should:

- **When building permanent disposal facilities (landfill, autoclave, incinerator) ensure that the facility is:**
  - *Away from people*
  - *Away from farms (food or animals)*
  - *Properly designed*
  - *Properly maintained (a plan should be in place prior to operations)*
  - *Has a appropriate stacks that can achieve EU air quality standards*
  - *Has personal protective gear and sufficient and regular training for personnel*
- **Ensure these plans are referenced/put in the 216 documentation**

An issue of international interest:

- **Basel Convention requires:**
  - *Waste minimization through sound design and planning*
  - *Dispose close to source of generation*
  - *Reduce hazardous waste movement*
- **Stockholm Convention:**
  - *Relates to persistent organic pollutants*
- **WHO and GAVI**
  - *Large interest in this issue*
  - *www.healthcarewaste.org*

Summary

- **These issues should be part of any proposal including:**

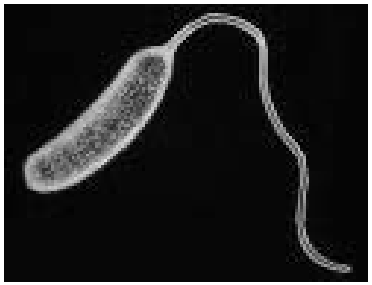
  management plan

  budget

  scope of actions

  roles and responsibilities

Questions?



Special Topic. (duration TBD)
Environmental Compliance & G2G Assistance

Objective:
Attain basic familiarity with the environmental best practices, compliance expectations, and implementation challenges related to management of health care waste

Format:
Presentation and Q&A.

Summary
As per objectives.

Special Topic. (duration TBD)
Water: Special ESDM and Environmental Compliance Considerations

Objective:
Brief the special ESDM and Environmental Compliance Considerations that apply to water; stimulate discussion and exchange on water as a cross-cutting issue in many AFR mission portfolios.

Format:
Presentation and discussion.

Summary
Special environmental compliance considerations apply to water activities. Beyond this, in the context of much of sub-Saharan Africa, water is a cross-cutting development issue.

This session will brief the environmental compliance requirements that pertain to water and highlight these ESDM issues.

Special Topic. Addressing Social Impacts

(duration TBD)

Objective:

Understand the social impacts typical of some common sectoral activities and the importance of addressing them via the Reg. 216 process.

Format:

Presentation and Q&A.

Summary

USAID's environmental procedures—and international standards of EIA practice—are concerned with social and human health impacts in addition to impacts on the biophysical environment. However, historically and currently, IEEs tend to place more emphasis on impacts on the biophysical environment.

Recent sectoral best practice guidance funded by AFR such as the roads and construction *Visual Field Guides* and planned full technical updates to some *Sector Environmental Guidelines* places increased emphasis on social impacts. Globally, the GEMS project has been charged with fully considering social impacts in the Reg. 216 documentation it develops, training it provides, and other environmental compliance TA activities.

This session will illustrate by example social impact of some typical sectoral activities and the importance of addressing them via the Reg. 216/EIA process. These examples will lead to a discussion, exchange and Q&A on this topic.

Version: 14 November 2008

Download the ECL at:
www.usaid.gov/policy/ads/200/204sac.pdf

Download this factsheet at:
www.encapafrica.org/meoEntry.htm

For more information,
email the ENCAP core team at:
encapinfo@cadmusgroup.com

ENCAP FACTSHEET

ENVIRONMENTAL COMPLIANCE: LANGUAGE FOR USE IN SOLICITATIONS AND AWARDS (ECL)

ABOUT THE ECL AND THIS FACTSHEET

The ADS Help Document, "Environmental Compliance: Language for Use in Solicitations and Awards" is a combination of step-by-step guidance and boilerplate text to assemble appropriate, ADS-mandated environmental compliance language for all solicitations and awards. This factsheet is an orientation to the ECL, and particularly targets COs, CTOs, and Activity Managers. It is intended both as a training aid and as a succinct stand-alone reference.

BACKGROUND: USAID'S MANDATORY ENVIRONMENTAL PROCEDURES

Section 117 of the Foreign Assistance Act of 1961, as amended, requires that USAID use an Environmental Impact Assessment (EIA) process to evaluate the potential impact of the Agency's activities on the environment **prior** to implementation, and that USAID "fully take into account" environmental sustainability in designing and carrying out its development programs. This mandate is codified in Federal Regulations (22 CFR 216 or "Reg. 216") and in USAID's Automated Directives System (ADS), particularly Parts 201.3.12.2.b and 204.

Compliance with the procedures is mandatory. With limited exceptions for international disaster assistance, they apply to every program, project, activity, and amendment supported with USAID funds or managed by USAID.

In general, the procedures specify an EIA process must be applied to all activities before implementation—including new activities introduced into an existing program or substantive changes to existing activities. The only exceptions are international disaster assistance activities verified as EXEMPT from the procedures.

Why the environmental procedures?

The procedures are USAID's principal mechanism to ensure environmentally sound design and management (ESDM) of development activities—and thus to prevent significant adverse impacts on critical environmental resources and ecosystems and on the health and livelihoods of beneficiaries or other groups resulting from inadequate attention to environmental issues in design and operation.

In short, the procedures strengthen development outcomes and help safeguard the good name and reputation of the Agency.

To learn more about ESDM, view the presentation *Environment, Development and Environmentally Sound Design and Management* at www.encapafrica.org/tzWorkshop.htm.

The output of this EIA process is "Reg. 216 Environmental Documentation," which takes one of three forms: a Request for Categorical Exclusion, an Initial Environmental Examination (IEE) or an Environmental Assessment (EA).

This documentation must be cleared by the Mission Environmental Officer (MEO) and the Mission Director AND approved by the Bureau Environmental Officer (BEO) PRIOR to any "irreversible commitment" of resources. Most IEEs and all EAs specify environmental mitigation and monitoring measures (IEE and EA "conditions") that must be implemented and verified over life-of-project (LOP).[1]

PROCUREMENT LANGUAGE AND ENVIRONMENTAL COMPLIANCE

USAID oversees and monitors project/activity environmental compliance. Actual implementation of IEE and EA conditions, however, is the responsibility of the prime contractor/grantee ("partner") responsible for project/activity implementation. *The ADS therefore requires that all IEE and EA conditions (or a*

[1] For a more detailed discussion of USAID's Environmental Procedures, see the "USAID Environmental Procedures Briefing for Mission Staff," available at www.encapafrica.org/meoEntry.htm.

The factsheet was prepared by The Cadmus Group, Inc. for International Resources Group, Ltd. (IRG) under USAID Africa Bureau's Environmental Compliance and Management Support (ENCAP) Program, Contract Number EPP-I-00-03-00013-00, Task Order No. 11. Its contents are the sole responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.

statement that requires compliance with them) are incorporated into procurement instruments (ADS 204.3.4.a.6; 303.3.6.3e).

Beyond this, however, LOP environmental compliance is best assured when solicitation and award instruments also incorporate the elements set out and justified in the table below:

Environmental compliance elements in solicitation/award instrument	Reason
No activity is implemented unless covered by approved Reg. 216 environmental documentation.	Establishes the importance of maintaining full environmental documentation coverage.
The partner must verify current and planned activities annually against the scope of the approved Reg. 216 environmental documentation.	Guards against a project "creeping" out of compliance due to the addition or modification of activities outside the scope of the approved Reg. 216 environmental documentation. This usually takes place during the annual work planning process.
Where activities demand environmental management expertise, appropriate qualifications and proposed approaches to compliance must be addressed in technical and cost proposals.	Helps ensure that the partner/team selected for the work is capable of implementing the required environmental management activities. Also sends a clear message that environmental management is not an afterthought, but an integral part of the project, and a core qualification.
The partner must develop an Environmental Mitigation and Monitoring Plan (EMMP) fully responsive to all IEE/EA conditions, unless (1) the EMMP already exists in the approved Reg. 216 documentation, or (2) will be developed by USAID.	The EMMP translates the general mitigation directives in the IEE or EA into more specific measures, assigns responsibilities for their implementation, and sets out monitoring/reporting measures to verify their implementation and effectiveness. Without an EMMP, systematic & verifiable implementation of IEE/EA conditions is almost impossible.
Budgets and work plans integrate the EMMP.	Unless the EMMP is integrated in the budget and work plan, it will not be implemented.
PMPs measure EMMP implementation.	As the EMMP is an integral part of project implementation, it should be treated this way in project evaluation and reporting.

Collectively, incorporating these compliance elements in the solicitation and award (1) ensures that necessary compliance mechanisms are in place, (2) integrates monitoring and reporting on environmental compliance into routine project/activity monitoring and reporting, and (3) clearly communicates and establishes partner responsibility for LOP compliance. The result is *improved compliance, improved project outcomes, and reduced demands on mission staff*—particularly on activity managers and CTOs, who are required to actively manage and monitor compliance with any IEE/EA conditions per ADS 202.3.6 and 303.2.f.

WHY USE THE ECL?

The ECL is a non-mandatory help document. However, its use:

- Results in environmental compliance language that conforms to ADS requirements and best practice, as described in the table above, therefore realizing the compliance, outcomes, and manager workload benefits also noted above.
- Substantially reduces the time required to develop environmental compliance language.
- Improves consistency across the Agency in addressing environmental compliance.

HOW TO USE THE ECL AND WHAT YOU NEED IN HAND

Use of the ECL is self-explanatory:

1. Follow the instructions on page 3 of the document to assemble the compliance language, then
2. Finalize the [text in brackets and blue highlight].

However, both steps require familiarity with the Reg. 216 documentation covering the activities involved in the solicitation/procurement. In some cases, an IEE specific to the procurement is prepared (in which case the compliance language should be assembled at the same time). In other cases, the solicitation/procurement is covered by a strategic- or program-level IEE of broader scope. In this case, the CTO and MEO should identify the IEE determinations and conditions that apply to the procurement. Once this is done, use of the ECL is straightforward.

Regardless, it is the responsibility of the CTO and Activity Manager, working with the CO, to assure that appropriate environmental compliance language is incorporated in solicitation and procurement instruments.

Environmental Compliance: Language for Use in Solicitations and Awards

An Additional Help for ADS Chapter 204

Revision Date: 05/19/2008
Responsible Office: EGAT
File Name: 204sac_051908

HOW TO ASSEMBLE COMPLIANCE LANGUAGE

To assemble the compliance language for a particular solicitation or award, the following table should be used as guidance. Multiple situations can apply to a single procurement; if this is the case, use all indicated language. You may need to revise and/or renumber the language depending on which elements you select and where you place them in the award or solicitation. [*Bracketed text*] in the model language indicates that you must select the appropriate option or provide other input.

When the situation is that. . .	Use these environmental compliance language paragraphs from the Model Language. . .
Approved Regulation 216 documentation[2] exists and it contains. . .	
Categorical Exclusions and Negative Determinations only	1a through 1c 4a through 4c
at least one **Negative Determination with conditions**	1a through 1c 2 4a through 4c 5a through 5d 8a through 8d (optional: to be used when project will involve environmental compliance expertise; collaborate with MEO, or BEO for projects originating out of AID/W, for guidance, as needed)
at least one **Positive Determination**	1a through 1c 3 4a through 4c 5a through 5d 8a through 8d
The contractor/recipient will be required to prepare Regulation 216 documentation (an EA or IEE)	1a through 1c 4a through 4c 5a through 5d 6a through 6c 8a through 8d 2 If there is also an existing IEE that contains a Negative Determination with conditions 3 If there is also an existing IEE that contains a Positive Determination

[2] Note: "Approved Regulation 216 documentation" refers to a Request for Categorical Exclusion (RCE), Initial Environmental Examination (IEE), or Environmental Assessment (EA) duly signed by the Bureau Environmental Officer (BEO).

The project includes a sub-grant fund	To any of the above language/situations that apply, add: 7a and 7b 8a through 8d (Paragraphs 7 and 8 are optional, based on the nature of the grant fund and potential environmental impacts; coordinate with MEO or BEO for projects originating out of AID/W for guidance, as needed)

MODEL LANGUAGE

1. Insert paragraphs 1a, 1b, and 1c in all solicitations and resulting awards:

- In RFAs, insert in the Program Description or in the RFA's instructions regarding Technical Application Format
- In RFPs, insert in the appropriate section, often the "Special Contract Requirements"

1a) The Foreign Assistance Act of 1961, as amended, Section 117 requires that the impact of USAID's activities on the environment be considered and that USAID include environmental sustainability as a central consideration in designing and carrying out its development programs. This mandate is codified in Federal Regulations (22 CFR 216) and in USAID's Automated Directives System (ADS) Parts 201.5.10g and 204 (*http://www.usaid.gov/policy/ADS/200/*), which, in part, require that the potential environmental impacts of USAID-financed activities are identified prior to a final decision to proceed and that appropriate environmental safeguards are adopted for all activities. [*Offeror/respondent/contractor/recipient*] environmental compliance obligations under these regulations and procedures are specified in the following paragraphs of this [*RFP/RFA/contract/grant/cooperative agreement]*.

1b) In addition, the contractor/recipient must comply with host country environmental regulations unless otherwise directed in writing by USAID . In case of conflict between host country and USAID regulations, the latter shall govern .

1c) No activity funded under this [*contract/grant/CA*] will be implemented unless an environmental threshold determination, as defined by 22 CFR 216, has been reached for that activity, as documented in a Request for Categorical Exclusion (RCE), Initial Environmental Examination (IEE), or Environmental Assessment (EA) duly signed by the Bureau Environmental Officer (BEO). (Hereinafter, such documents are described as "approved Regulation 216 environmental documentation.")

2. If the approved Regulation 216 documentation includes any Negative Determinations with conditions, insert 2.

This language stipulates that the activity(ies) must be implemented in compliance with the conditions specified in the Negative Determination.

2) An Initial Environmental Examination (IEE) [*(insert IEE # and download reference here, if available)*] has been approved for [*the Program(s)/Project*] funding this [*RFA/RFP/contract/grant/cooperative agreement (CA)*]. The IEE covers activities expected to be implemented under this [*contract/grant/CA*]. USAID has determined that a **Negative Determination with conditions** applies to one or more of the proposed activities. This indicates that if these activities are implemented subject to the specified conditions, they are expected to have no significant adverse effect on the environment. The [*offeror/applicant/contractor/recipient*] shall be responsible for implementing all IEE conditions pertaining to activities to be funded under this [*solicitation/award*].

3. If the approved Regulation 216 documentation includes a Positive Determination, insert 3.

This language specifies that an approved Environmental Assessment (EA) must exist prior to implementation of the activity(ies), and that the activity(ies) must be implemented in compliance with the conditions in the approved EA.

> 3) An Initial Environmental Examination (IEE) has been approved for the [*Program or project funding*] this [*RFA/RFP/contract/agreement*] and for activities to be undertaken herein [*(insert IEE # and download reference here, if available)*]. The IEE contains a **Positive Determination** for the following proposed activities: [*(specify)*]. This indicates that these activities have the potential for significant adverse effects on the environment. Accordingly, the [*contractor/recipient*] is required to [*comply with the terms of*/prepare and submit***] an Environmental Assessment (EA) addressing the environmental concerns raised by these activities. No activity identified under this Positive Determination can proceed until Scoping as described in §216.3(a)(4) and an EA as described in §216.6 are completed and approved by USAID (Note that the completed Scoping Statement is normally submitted by the MEO to the BEO when the project originates in a Mission. The Statement may be circulated outside the Agency by the BEO with a request for written comments within 30 days and approved by the BEO subsequently. Approval of the Scoping Statement must be provided by the BEO before the EA can be initiated.)

[*]If an EA already exists, and the contractor/recipient will not be required to prepare the EA, but will be required to comply with the terms of an existing EA.

[**]If contractor/recipient must prepare and submit an EA, also insert 6a through 6c.

Note: If the contractor is to prepare an EA, then this should be specified in the RFP/RFA instructions. The final negotiation of the EA will be incorporated into the award. Paragraphs 8a through d will always apply when the approved environmental documentation includes a Positive Determination, whether the contractor/recipient is preparing the EA or simply required to comply with an existing EA.

4. Insert for all solicitations and awards

The language requires that the contractor/recipient must ensure all activities, over the life of the project, are included in the approved Regulation 216 documentation.

> 4a) As part of its initial Work Plan, and all Annual Work Plans thereafter, the [*contractor/recipient*], in collaboration with the USAID Cognizant Technical Officer and Mission Environmental Officer or Bureau Environmental Officer, as appropriate, shall review all ongoing and planned activities under this [*contract/grant/CA*] to determine if they are within the scope of the approved Regulation 216 environmental documentation.
>
> 4b) If the [*contractor/recipient*] plans any new activities outside the scope of the approved Regulation 216 environmental documentation, it shall prepare an amendment to the documentation for USAID review and approval. No such new activities shall be undertaken prior to receiving written USAID approval of environmental documentation amendments.
>
> 4c) Any ongoing activities found to be outside the scope of the approved Regulation 216 environmental documentation shall be halted until an amendment to the documentation is submitted and written approval is received from USAID.

5. If the approved Regulation 216 documentation contains one or more Negative Determinations with conditions and/or an EA, insert 5a through 5d. (These paragraphs should also always be used when the contractor/recipient is writing an IEE or EA.)

The language requires the contactor/recipient to integrate mitigation measures and monitoring into project work plans.

> 5 When the approved Regulation 216 documentation is (1) an IEE that contains one or more Negative Determinations with conditions and/or (2) an EA, the [*contractor/recipient*] shall:
>
> 5a) Unless the approved Regulation 216 documentation contains a complete environmental mitigation and monitoring plan (EMMP) or a project mitigation and monitoring (M&M) plan, the [*contractor/recipient*] shall prepare an EMMP or M&M Plan describing how the [*contractor/recipient*] will, in specific terms, implement all IEE and/or EA conditions that apply to proposed project activities within the scope of the award. The EMMP or M&M Plan shall include monitoring the implementation of the conditions and their effectiveness.
>
> 5b) Integrate a completed EMMP or M&M Plan into the initial work plan.
>
> 5c) Integrate an EMMP or M&M Plan into subsequent Annual Work Plans, making any necessary adjustments to activity implementation in order to minimize adverse impacts to the environment.

6. For solicitations, if the Proposal Instructions specifies that the [*contractor/recipient*] will be required to prepare Regulation 216 documentation (IEE or EA) for some or all activities, insert 6a through 6c.

> 6a) Cost and technical proposals must reflect IEE or EA preparation costs and approaches.
>
> 6b) [*Contractor/recipient*] will be expected to comply with all conditions specified in the approved IEE and/or EA.
>
> 6c) If an IEE, as developed by the [*contractor/recipient*] and approved by USAID, includes a Positive Determination for one or more activities, the contractor/recipient will be required to develop and submit an EA addressing these activities.

Note: In this case, always insert paragraphs 8a through 8d, as well.

7. For solicitations and awards when sub-grants are contemplated, and the IEE gives a Negative Determination with conditions that specifies use of a screening tool for sub-grants, insert 7a and 7b.

> 7a) A provision for sub-grants is included under this award; therefore, the [*contractor/recipient*] will be required to use an Environmental Review Form (ERF) or Environmental Review (ER) checklist using impact assessment tools to screen grant proposals to ensure the funded proposals will result in no adverse environmental impact, to develop mitigation measures, as necessary, and to specify monitoring and reporting. Use of the ERF or ER checklist is called for when the nature of the grant proposals to be funded is not well enough known to make an informed decision about their potential environmental impacts, yet due to the type and extent of activities to be funded, any adverse impacts are expected to be easily mitigated. Implementation of sub-grant activities cannot go forward until the ERF or ER checklist is completed and approved by USAID. [*Contractor/Recipient*] is responsible for ensuring that mitigation measures specified by the ERF or ER checklist process are implemented.

7b)	The [*contractor/recipient*] will be responsible for periodic reporting to the USAID Cognizant Technical Officer, as specified in the Schedule/Program Description of this solicitation/award.

8. For solicitations ONLY: Insert 8a through 8d when:

- **the approved Regulation 216 documentation is a Positive Determination or an EA; or**
- **when the contractor/recipient will be expected to prepare Regulation 216 documentation; or**
- **when there is a sub-grant fund that requires use of an Environmental Review Form or Environmental Review checklist; and/or**
- **when there is a Negative Determination with conditions that will require environmental compliance expertise to prepare and/or implement an EMMP or M&M Plan, as determined in collaboration with the MEO or BEO for projects originating out of AID/W.**

8a)	USAID anticipates that environmental compliance and achieving optimal development outcomes for the proposed activities will require environmental management expertise. Respondents to the [*RFA/RFP*] should therefore include as part of their [*application/proposal*] their approach to achieving **environmental compliance and management,** to include:
8b)	The respondent's approach to developing and implementing an [*IEE or EA or environmental review process for a grant fund and/or an EMMP or M&M Plan*].
8c)	The respondent's approach to providing necessary environmental management expertise, including examples of past experience of environmental management of similar activities.
8d)	The respondent's illustrative budget for implementing the environmental compliance activities. For the purposes of this solicitation, [*offerors/applicants*] should reflect illustrative costs for environmental compliance implementation and monitoring in their cost proposal.

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USAID Environmental Procedures Briefing for USAID/XXX Staff

Contents

Acronyms

ADS	Automated Directives System
BEO	Bureau Environmental Officer
CFR	Code of (US) Federal Regulations
CTO	Cognizant Technical Officer
EA	Environmental Assessment
ECL	Environmental Compliance Language for Use in Solicitations and Awards (ADS 204 help document)
EIA	Environmental Impact Assessment
EMMP	Environmental Mitigation & Monitoring Plan
ESDM	Environmentally Sound Design and Management
IEE	Initial Environmental Examination
LOP	Life-of-Project
MEO	Mission Environmental Officer
PMP	Performance Monitoring Plan
REA	Regional Environmental Advisor
Reg. 216	22 CFR 216

About this *Briefing*

All USAID Missions and operating units are required to fully implement and comply with USAID's mandatory environmental procedures. This briefing is intended to support short mission staff trainings in these procedures and to serve as a succinct post-training reference. Towards these ends, it:

- ✓ summarizes the environmental procedures in plain language, and
- ✓ sets out the roles and responsibilities of organizational units and functions in the Mission in achieving and assuring compliance.

This briefing is closely based on and fully compatible with the new model *Environmental Compliance Mission Order* adopted by Africa Bureau. The plain-language summary in this *Briefing* does not supercede the statutory, regulatory and ADS language that governs and constitutes these procedures. This language may be accessed via http://www.encapafrica.org/meoEntry.htm or provide internal server filelink.

Legal Authority for and Purpose of USAID's Environmental Procedures

Section 117 of the Foreign Assistance Act of 1961, as amended, **requires** that USAID use an Environmental Impact Assessment (EIA) process to evaluate the potential impact of the Agency's activities on the environment **prior** to implementation, and that USAID "fully take into account" environmental sustainability in designing and carrying out its development programs. This mandate is codified in Federal Regulations (22 CFR 216 or "Reg. 216") and in USAID's Automated Directives System (ADS), particularly Parts 201.3.12.2.b and 204.

These procedures are USAID's principal mechanism to ensure environmentally sound design and management (ESDM) of development activities. Put another way, they are USAID's principal mechanism to prevent USAID-funded activities from having significant, unforeseen, avoidable or mitigable adverse impacts on critical environmental resources, ecosystems, and the health and livelihoods of beneficiaries or other groups. They strengthen development outcomes and help safeguard the good name and reputation of the Agency.

Compliance with these procedures is mandatory. With limited exceptions for international disaster assistance, they apply to every program, project, activity, and amendment supported with USAID funds or managed by USAID. USAID/XXX is fully committed to their systematic and complete implementation.

Environmental Compliance Requirements over Life of Project

In general, the procedures specify an EIA process that must be applied to all activities *before implementation*—including new activities introduced into an existing program or substantive changes to existing activities. This pre-implementation EIA process, defined by Reg. 216, frequently results in environmental management requirements (mitigative measures) that must be implemented and monitored over the life of the activity.

Specifically, EXCEPT for international disaster assistance activities verified as EXEMPT from the procedures, the procedures impose the following compliance requirements over life of project (LOP):

1. **Environmental considerations must be taken into account in activity planning**. (ADS 201.3.12.6 & 204.1).

2. **No activity is implemented without approved Reg. 216 environmental documentation. This documentation must be approved PRIOR to any irreversible commitment of resources.** (ADS 204.3.1).

   This documentation is the output of the EIA process specified by Reg. 216 and takes one of three forms: Request for Categorical Exclusion, Initial Environmental Examination (IEE) or Environmental Assessment (EA).

   Documentation is approved ONLY when it is signed by the Mission Environmental Officer, the Mission Director AND the Bureau Environmental Officer. As a condition of approval, most IEEs and all EAs contain environmental mitigation and monitoring requirements ("IEE or EA conditions") for at least some of the activities they cover.

   Note that Activity Approval Documents must summarize how environmental documentation requirements have been met. (ADS 201.3.12.15).

3. **All IEE and EA conditions are incorporated in procurement instruments.** (ADS 204.3.4.a.6; 303.3.6.3e).

4. **All IEE and EA conditions are implemented, and this implementation is monitored and adjusted as necessary.** (ADS 204.3.4; 303.2.f).

Operationally, this requires that:

- ✓ *Conditions established in program- ("FO"-)level IEEs and EAs are mapped to the activity level;*
- ✓ *Environmental Mitigation and Monitoring Plans (EMMPs) are developed at the project or activity level to implement these conditions. EMMPs* set out *the mitigation measures required by the IEE/EA; indicators or criteria for monitoring their implementation & effectiveness; and the parties responsible for implementation & monitoring;*
- ✓ *Project workplans and budgets specifically provide for implementation of EMMPs; and*
- ✓ *PMPs incorporate measures of EMMP implementation.*

USAID/XXX mission policy is that each of these prerequisites for successful implementation of IEE and EA conditions will be executed in full.

An annotated EMMP template is attached to this Briefing *and also available at www.encapafrica.org/meoEntry.htm and provide internal server filelink.*

5. **Environmental compliance is assessed in annual reports.** (ADS 203.3.8.7; 204.3.3.a).

   Annual reports must assess environmental compliance of existing activities, including whether all activities are covered by approved Reg. 216 environmental documentation, whether the mitigation measures specified in IEEs and EAs are being implemented, and whether these measures are adequate. If activities are discovered to be out of compliance, the report must specify actions to be taken to remedy the situation.

6. **Environmental compliance documentation is maintained in Program area Team files.** (ADS 202.3.4.6).

A more extensive discussion of LOP environmental compliance requirements is found in the Bureau for Africa's *Mission Environmental Officer Handbook*, available via www.encapafrica.org/meoentry.htm and provide internal server filelink.A hardcopy of the handbook is available for loan from the Mission Environmental Officer.

Responsibilities for Implementation

Primary responsibility: Team Leaders, CTOs, and Activity Managers. The ADS makes clear that primary responsibility and accountability for environmental compliance is shared by the USAID staff acting in the capacities of Team Leader and each CTO or Activity Manager. This includes assuring that Reg. 216 documentation is developed and in-place for activities under their purview.

Specific responsibilities established by the ADS and Mission policy for these positions are set out in the table below. All UAID/XXX staff are obliged to fulfill the enumerated environmental compliance responsibilities attendant to their position.

Final responsibility: Mission Director. Final responsibility for environmental compliance lies with the Mission Director. The Mission Director must approve all Reg. 216 documentation for Mission activities.

Field Implementation: Contractors and Implementing Partners. Environmental management must be an integral part of project implementation, and thus field implementation of environmental mitigation is the responsibility of contractors/IPs with oversight from USAID.

Advice & Gatekeeping: Mission Environmental Officer (MEO). The MEO (1) is a core member of each mission program team and serves the team as an environmental compliance advisor; (2) serves as a gatekeeper (quality and completeness reviewer) for Reg. 216 Documentation and must clear all

documentation before submission to the Mission Director; and (3) is the primary point of Mission contact with the Bureau Environmental Officer and the Regional Environmental Advisor (see "Environmental Compliance Resources and Key Contacts," below).

A more complete description of MEO roles and responsibilities is provided by the Bureau for Africa's MEO Handbook*, available via* www.encapafrica.org/meoEntry.htm and provide internal server filelink.

Regional Environmental Advisors (REAs). REAs advise MEOs and program teams on environmental compliance, including development of Reg. 216 documentation and monitoring protocols, and can assist teams in obtaining additional environmental expertise when required. REAs also help to monitor the mission's implementation of the Agency's Environmental Procedures. The MEO is the liaison with the REA on behalf of program teams. The REA supporting XXXX is based in USAID/(EA/WA/SA), CITY.

Bureau Environmental Officers (BEOs). The BEOs, based in Washington, DC, must clear all Reg. 216 documentation for activities under the purview of their Bureau. USAID/XXXX activities are under the purview of the AFR, EGAT, GH and DCHA Bureaus.

Environmental Compliance Responsibilities of Team Leaders, CTOs, Activity Managers and the MEO

Compliance action	Responsible parties
Prepare Reg 216 environmental documentation. Reg 216 documentation includes: ✓ Requests for Categorical Exclusions (RCEs) ✓ Initial Environmental Examinations (IEEs) ✓ Environmental Assessments (EAs) ✓ Amendments to all of the above	**CTO/Activity Manager** (MEO reviews/provides advice). EXCEPT: ✓ Teams may engage **partners** or **outside contractors** to prepare IEEs under the supervision of the CTO/Activity Manager. The use of external expertise is RECOMMENDED for complex programs and activities. ✓ EAs are almost always prepared by 3rd-party contractors. ✓ Title II IEEs are prepared by Implementing Partners as part of their MYAP submissions.
Approve and Clear Reg. 216 Documentation.	**All** of the following must clear: ✓ CTO, Activity Manager or Team Leader ✓ MEO ✓ Mission Director ✓ Bureau Environmental Officer
Clear sub-project/sub-grant Environmental Reviews.	**Activity Manager AND MEO** (Activities identified by the sub-project/sub-grant screening process as "high risk" are forwarded for REA & BEO review and clearance.)
Incorporate environmental compliance requirements into procurement documents.	**CTO/Activity manager** (MEO assists.)
Ensure Reg. 216 documentation is current and covers all activities being implemented.	**CTO/Activity Manager**
Assure an EMMP addressing all relevant mitigation and monitoring conditions is	**CTO/Activity Manager** (MEO may review)

Compliance action	Responsible parties
developed, and reflected in workplan, budget, and PMP.	Contractors/IPs will in most cases develop EMMPs for CTO/Activity Manager review. If they do not, this responsibility falls directly on the CTO/Activity Manager.
Monitoring to ensure partner/contractor compliance with IEE/EA conditions.	**CTO/Activity Manager** (MEO assists)
Ensure that environmental compliance lessons learned are incorporated in closure reports & environmental compliance issues are included in SOWs for evaluations.	**MEO**
Prepare environmental compliance section of Mission Annual Reports.	**MEO,** with support from CTOs and Activity Managers.
Maintain environmental compliance documentation.	**Program Officer, CTO/Activity Manager/Team Leader, MEO**

Additional Directives and Responsibilities to Assure LOP Compliance

To assure that the LOP compliance elements listed in the table above are well-implemented, the following directives and responsibilities apply Mission-wide:

1. **Awareness of Activity Determinations and Conditions.** It is the responsibility of each CTO and Activity Manager to know the **Reg. 216 Determination**, **including any conditions**, assigned to the activities under their purview. These conditions are assigned in the Reg. 216 documentation that applies to the activity. The possible determinations are enumerated in the table below:

Categorical Exclusion	The activity falls into one of the classes of activities enumerated by Reg, 216 as posing low risks of significant adverse environmental impacts, and no unusual circumstances exist to contradict this assumption. The activity has no attached environmental management conditions.
Negative Determination	Per analysis set out in an IEE, the activity is found to pose very low risk of significant adverse environmental impact. The activity has no attached environmental management conditions.
Negative Determination with Conditions	Per analysis set out in an IEE, the activity is found to pose very low risk of significant adverse environmental impact *if* specified environmental mitigation and monitoring measures are implemented. The activity proceeds on the condition and requirement that these measures ("conditions") are fully implemented.
Positive Determination	Per analysis set out in an IEE, the activity is found to pose substantial risks of significant adverse environmental impacts. Therefore, the activity cannot proceed until an Environmental Assessment (EA) is developed and duly approved, and then on the condition that environmental mitigation and monitoring measures specified by the EA are fully implemented.

   The only activities not assigned such determinations are international disaster assistance activities verified as **exempt** from the procedures. CTOs and Activity Managers must also be aware of any activities under their purview having exempt status, and when such exempt status will terminate.

2. **Team-level Compliance Planning & Compliance Verification Systems.** As specified by ADS 204.3.4, each program team must collaborate effectively with the MEO during all program designs and approvals to create a system and secure adequate resources to ensure LOP environmental compliance.

This system must include: EMMP review and approval; assuring the budgets provide for EMMP implementation, and that PMPs integrate measures of EMMP implementation. Environmental compliance verification will be part of field visits/inspections.

Note that several general and sector-specific tools exist to support field and desk assessment and tracking of partner environmental compliance. Use of these tools is recommended and may be required in some circumstances. Examples include the "Environmental Mitigation and Monitoring Tracking System" (developed in the Southern Africa region for compliance monitoring of Indoor Residual Spraying activities and the general "Site Visit Guide and Report Template." Both are available at www.encapafrica.org/meoentry.htm (Mitigation and Monitoring section) or provide internal server filelink. Contact the MEO for more information.

3. **Functional specifications for Environmental Compliance Clauses in Procurement Instruments.** The ADS states that CTOs and Activity Managers are responsible for ensuring that environmental conditions from IEEs and EAs are incorporated into solicitation and award documents (ADS 204.3.4.a.6; 303.3.6.3e). Beyond this, **it is Mission policy that environmental compliance language in all solicitation *and* award instruments specifically requires that:**

   - ✓ The partner verifies current and planned activities annually against the scope of the approved environmental documentation.
   - ✓ Where activities demand environmental management expertise, appropriate qualifications and proposed approaches to compliance are addressed in technical and cost proposals.
   - ✓ The partner develop an EMMP fully responsive to all IEE/EA conditions, unless this already exists in the Reg. 216 documentation or will be developed by Mission program staff.
   - ✓ Budgets and workplans integrate the EMMP.
   - ✓ PMPs measure EMMP implementation.

   The ADS help document *Environmental Compliance Language for Use in Solicitations and Awards* (ECL) provides a combination of step-by-step guidance and standard text to assemble environmental compliance language meeting these requirements for any solicitation or award. Its use is strongly recommended.

   The ECL and an annotated EMMP template are attached to this Order and also available at www.encapafrica.org/meoentry.htm and provide internal server filelink.

4. **Confirming Reg. 216 documentation coverage in the course of project designs, amendments, extensions, and during the preparation of the Annual Reports.** During these exercises, the Team should review planned/ongoing activities against the scope of existing, approved Reg. 216 documentation and either: (1) confirm that the activities are fully covered or (2) assure that such documentation is developed and approved *prior* to implementation. For activities begun under a disaster assistance exemption, the Team must confirm that their exempt status still applies.

   Activities modified or added during project implementation may require new or amended Reg. 216 documentation. Maintaining Reg. 216 documentation coverage of all *activities is critical, as the ADS requires that ongoing activities found to be outside the scope of approved Reg. 216 documentation* ***be halted*** *until an amendment to the documentation is approved by the Mission Director and the BEO.*

Critical Non-Compliance Situations

If any USAID/XXX staff member believes that (1) failure to implement mitigation measures or (2) unforeseen environmental impacts of project implementation is **creating a significant and imminent danger to human health or the integrity of critical environmental resources**, **IMMEDIATELY notify the CTO, MEO and Mission Management.**

Environmental Compliance Resources and Key Contacts

The on-line MEO Resource Center contains a wide range of environmental compliance and best practice materials, including step-by-step guidance for development of Reg. 216 documentation and sectoral guidance for design of environmental mitigation and monitoring measures. The Center is hosted on Africa Bureau's ENCAP website (www.encapafrica.org/meoEntry.htm) and copied in full at insert internal server filelink.

Reg. 216 documentation for Mission programs is posted at insert internal server filelink.

Key contacts. As of INSERT DATE, key environmental compliance contacts for USAID/XXX are as follows. Up-to-date contacts are available via www.encapafrica.org/meoEntry.htm.

Mission Environmental Officer	**Insert name, email and extension**
Regional Environmental Advisors (REAs)	East and Central Africa (USAID/EA, Nairobi) *David Kinyua: dkinyua@usaid.gov* Southern Africa R (USAID/SA, Pretoria) *Camilien J.W. Saint-Cyr: csaint-cyr@usaid.gov** West Africa (USAID/WA, Accra) *Bob Buzzard: robuzzard@usaid.gov*
Bureau Environmental Officers (BEOs; Washington, DC)	Bureau for Africa (AFR/SD) *Brian Hirsch: bhirsch@usaid.gov* Bureau for Economic Growth, Agriculture & Trade Bureau (EGAT): *Joyce A. Jatko: jjatko@usaid.gov* Democracy, Conflict and Humanitarian Assistance (DCHA): *Erika Clesceri: eclesceri@usaid.gov* Global Health (GH/HIDN) *Theresa Bernhard, tbernhard@usaid.gov*

Review DRAFT: 22 July 2011

Download this factsheet at:
www.encapafrica.org/meoentry.htm
[see mitigation and monitoring topics]

To submit comments or for more information, email the ENCAP core team at:
encapinfo@cadmusgroup.com

ENCAP FACTSHEET

ENVIRONMENTAL MITIGATION & MONITORING PLANS (EMMPs)

CONTENTS

1. INTRODUCTION

Environmental Mitigation and Monitoring Plans (EMMPs) are now required for most USAID-funded projects in Africa.

Specifically, EMMPS are required when the Reg. 216 documentation governing the project is either an IEE or an EA that imposes conditions on at least one project activity. (See box at right if these terms are unfamiliar.)

Responsibility for developing the EMMP usually lies with the implementing partner (IP), though it may be assigned to the C/AOTR. In either case, the responsible party can develop the EMMP directly, or engage a consultant. (The C/AOTR could also seek assistance from the Mission Environmental Officer (MEO).)

This factsheet describes the EMMP concept and its role in life-of-project environmental compliance for USAID-funded activities. It provides practical guidance and examples to inform EMMP development. It is intended for IPs, A/COTRs, MEOs, Monitoring and Evaluation (M&E) Officers, and consultants who may be engaged to develop EMMPs for USAID projects in Africa.

2. WHAT IS AN EMMP?

An EMMP is a document that sets out:

1. **Mitigation actions.** The EMMP specifies the actions that will be taken to satisfy the IEE or EA conditions.
2. **Monitoring actions.** The EMMP sets out the indicators or criteria that will be used to monitor (1) whether the mitigation actions have been implemented, and (2) whether they are effective and sufficient.
3. **Responsibility and schedule for mitigation, monitoring, and reporting**. The EMMP specifies the parties responsible for these actions and the schedule for these tasks.

USAID's Environmental Procedures

USAID's mandatory environmental procedures apply to all USAID-funded and USAID-managed activities. They consist of 22 CFR 216 ("Reg. 216") and related mandatory provisions of USAID's Automated Directives System (ADS)—especially, but not only, ADS 201.3.12.2.b and 204).

In summary, these procedures mandate (1) a pre-implementation environmental impact assessment (EIA) process, and (2) implementing and reporting on any environmental conditions (required mitigation measures) that result from this review.

The pre-implementation environmental review is documented in a Request for Categorical Exclusion (RCE), Initial Environmental Examination (IEE) or an Environmental Assessment (EA). Each of these Reg. 216 documents must be approved by both the Mission Director and Bureau Environmental Officer (BEO). Most IEEs and all EAs impose conditions on some or all of the activities they cover.

For more information see ENCAP's *USAID Environmental Procedures Briefing for Mission Staff.*

The factsheet was prepared by The Cadmus Group, Inc. for International Resources Group (IRG) under USAID Africa Bureau's Environmental Compliance and Management Support (ENCAP) Program, Contract Number EPP-I-00-03-00013-00, Task Order No. 11. It is currently under review by the Africa Bureau Environmental Officer and USAID's Africa-based Regional Environmental Advisors. It is not a statement of agency policy, and its contents do not necessarily reflect the views of USAID or the United States Government.

EMMPs may also include a log of monitoring results and budget estimates for mitigation and monitoring activities.

EMMPs may also be called *Mitigation and Monitoring Plans* and *Environmental Management Plans*.

3. WHY EMMPs?

EMMPs provide a basis for systematic implementation of IEE and EA conditions: In addition to establishing responsibilities and schedules, EMMPs are a vehicle for translating IEE conditions (which are often very general) into specific, implementable, verifiable actions. For example:

> *An IEE for a water and sanitation project may require that wells and latrines be sited "consistent with good practices."*
>
> *The EMMP would specify the site-specific standards that the project must follow, e.g., wells must be located at least 50 meters from any pesticide or chemical store, and 25m from any cesspool, leaching pit, septic field, latrines, poultry yards, or livestock watering point..*

EMMPS also provide a framework for environmental compliance reporting. (See section 5)

Without EMMPs, experience shows that IEE and EA conditions will not be implemented systematically, if at all. This defeats the purpose of the pre-implementation EIA process as documented by the IEE or EA, increasing the probability that well-intentioned activities will result in needless adverse impacts on beneficiaries, communities, environmental resources and ecosystems.

For USAID activities, failure to implement IEE or EA conditions puts the activity in non-compliance. The AOTR or COTR is REQUIRED to compel compliance or end the activity.

4. HOW ARE EMMPs REQUIRED?

EMMPs are not specifically required by Reg. 216 or the ADS. However, they ARE required by (1) contract and award language, (2) the IEE and/or (3) A/COTR technical direction:

- Increasingly, contracts and awards specifically require that an EMMP be developed and implemented. (This is part of a broader trend within USAID to use "best practice" environmental compliance language in solicitations and awards.)
- Most recent and all new sector-level IEEs (e.g. an IEE covering a Mission's health or economic growth portfolio) require that an EMMP will be developed for each individual project.
- For new project-level IEEs, the BEO will typically require that an EMMP be submitted as part of the IEE. If not, the IEE will require that the EMMP be submitted with the project workplan or performance management plan (PMP).
- For projects conducted under older IEEs, A/COTRs can issue technical direction requiring EMMPs.

In addition, Title II Cooperating Sponsors are required to develop IEEs by the Agency's MYAP guidance and these IEEs must include an EMMP.

5. EMMP FORMATS

EMMPs are usually in table form. Critical elements of a **basic EMMP** are captured in the illustrative format below. For detail, see examples in the Annex to this Factsheet.

EMMP for Project XXX

Person Responsible for Overseeing EMMP:
[name, contact information]

Activity 1: [name of activity] **[briefly describe activity & summarize potential adverse environmental impacts]**			
IEE or EA Condition (reproduced or summarized from the IEE or EA)	**Mitigation** Specific actions to be taken to comply with the condition. (if an IEE or EA condition is already specific to the project/ activity and implementation actions self-evident, this "translation step" can be omitted)	**Monitoring** How will the project verify that mitigation is being implemented and is both effective and sufficient?	**Timing and Responsible Parties** Who is responsible for mitigation, monitoring, reporting? Timing/frequency of these actions

[add rows for additional conditions]
[repeat table for additional activities]

If an EMMP will contain cost information, a separate column can added. An example of an EMMP with a monitoring log, where monitoring results can be recorded, is included in the Annex.

More advanced EMMP formats can serve as both a detailed monitoring log and a management/field guide to implementing mitigation. EMMP example #3 (Small Facilities Construction) in the Annex is an example of such an "advanced format." Such advanced formats are not required, but in some circumstances they can make it easier for project management and field supervisors to oversee and implement mitigation.

6. STEPS IN EMMP DEVELOPMENT

EMMP development consists of 5 basic steps.

1. Review the governing IEE or EA to understand the conditions that apply to your project.

2. Translate IEE or EA conditions into specific mitigation actions.

3. Specify monitoring measures.

4. Specify timelines and responsible parties.

5. Determine who will have overall responsibility for EMMP implementation/environmental compliance.

Each is addressed below.

1. Review the governing IEE or EA to understand the conditions that apply to your project.

If the IEE governing your project is sector-level, the IEE usually describes activities in a high-level, general way without matching or "mapping" them to particular projects.

For example, your project might be working with agro-processors to improve product quality. In the IEE, this might be described as a "value chain strengthening" activity.

In this case, your first step in EMMP development is to match the activities in the project SOW to the general activity descriptions in the IEE, and on that basis determine which IEE conditions apply to your project activities

Even if you are developing a project-specific IEE with annexed EMMP as a package for submission (see Section 9), re-read the IEE conditions you have developed before beginning development of the EMMP.

2. Translate IEE conditions into specific mitigation actions.

(see resources for mitigation and monitoring design, at end.)

If an IEE condition is well-specified, the necessary actions to implement the condition may be self evident. However, often IEE/EA conditions are very general and they must be "translated" into well-specified, implementable, and verifiable mitigation actions.

This translation is a key purpose of the EMMP, and a key step in developing one.

Implementation, monitoring, and reporting on IEE conditions will be easier if mitigation measures are as specific as possible.

Factors to consider in **translating conditions to actions** include:

- the specifics of the site or sites
- the extent of project control

Site specifics. IEE conditions are often written without knowledge of the specific project site. You need to determine *how* and *whether* the conditions apply given the specifics of your site.

For example, an IEE might impose the following conditions on construction activities:

a. *No construction permitted in protected areas or relatively undisturbed ecosystem areas.*

b. *Construction & facilities operation may not result in significant adverse impacts on ecosystem services*

If your proposed site is in a peri-urban area already undergoing and zoned for development, condition (a) poses little concern.

But what if a seasonal stream draining several square kilometers traverses your site? In that case, a major "ecosystem service" provided by your site is drainage. So to comply with the IEE, your design must assure that there is no reduction in stream capacity or alteration to local drainage patterns.

Extent of Project Control. Often IEE conditions are phrased as "to the greatest extent practicable," or "to the degree feasible the project shall. . ."

This language is used to accommodate different levels of control over on-the-ground activities.

For example, the IEE for an agricultural project may require that an IP "assure availability, and require use and maintenance of appropriate personal protective equipment specified by the pesticide label <u>to the greatest degree feasible</u>."

What is "feasible" will depend on the level of project control over on-the-ground crop protection activities. For example:

- On a project-run demonstration farm, that control is essentially complete.
- By contrast, if a project is providing training to strengthen government extension services, the project has full control over content of the training, limited control over the recommendations made by Extension Agents, and no control over the farmers' actions. (However, other components of the project may provide closer control over farmer's actions).

The EMMP examples in the Annex illustrate this issue.

Retaining General Language in an EMMP. In some cases, it may not be possible to fully specify mitigation

actions in an EMMP, and the EMMP may include language such as "if feasible," "as practicable," or "as necessary."

For example, the EMMP for a health activity might read:

> In all plans, strategies, and other relevant documents, the need for environmentally sound collection, management, and disposal of healthcare waste, will be incorporated, as appropriate; and a budget for implementation must be included.

However, if such language is used, the need for specificity does not disappear. It is simply transferred to the person responsible for overseeing EMMP implementation. In the above case, this party would review documents and report on inclusion of healthcare waste management in these documents— and on instances where the issue was not incorporated, and why.

3. Specify Monitoring Measures.

(see resources for mitigation and monitoring design, at end.)

The EMMP should specify monitoring that will ascertain BOTH:

(1) whether mitigation was implemented.

(2) whether mitigation was sufficient and effective.

For example: To safeguard water quality, a water and sanitation IEE might require that water points be sited well away from sources of contamination and that livestock be physically excluded from the water points.

A visual inspection would show whether the mitigation was implemented. But showing that the mitigation was *sufficient* and the water safe to drink would require water quality testing.

The ENCAP training presentation "Principles of Environmental Monitoring" provides an introduction to environmental monitoring design. Examples of monitoring measures are found in the Annex to this factsheet.

Environmental compliance monitoring should be integrated into project M&E. See section 6.5, below & section 10, implementing EMMPs.

4. Specify timelines and responsible parties

EMMPs not only specify the mitigation and monitoring actions themselves, but who is responsible for them, and on what timeline or schedule.

This is not always possible for the EMMP preparer to do—s/he may be a consultant or specialist without detailed knowledge of project management and staffing. In this case, specifying timelines and responsible parties can be handed off to the individual responsible for overseeing EMMP implementation. (See immediately below).

5. Determine who is responsible for overseeing EMMP implementation/environmental compliance.

Once the EMMP is drafted, the COP or responsible senior project manager must review it and determine who will be assigned responsibility for overseeing EMMP implementation.

Overseeing EMMP implementation means having overall responsibility for verifying that mitigation measures are being implemented and for other aspects of monitoring, as well as *reporting* (see Section 8 below). Note that while one individual is typically responsible for oversight, individual mitigation and monitoring actions must be integrated into the implementation of core project activities and M&E. As such, they will be carried out by a number of project staff.

If mitigation and monitoring are complex or extensive, a project may hire a dedicated environmental compliance manager. This would often be appropriate, for example, for road rehabilitation projects—which tend to involve complex, technical mitigation and monitoring—and for agricultural projects involving pesticides or encroachment issues.

If the EMMP is fairly simple, responsibility for overseeing EMMP implementation can be assigned to the M & E Specialist, or a training or technical specialist.

Regardless, EMMP implementation oversight must be included in the job description of the individual who is assigned this responsibility.

7. PITFALLS TO AVOID

Good EMMPs avoid a set of common pitfalls. They do NOT:

- **Use unclear, ambiguous, non-actionable and/or non-verifiable mitigation measures.** For example, Good EMMPs do NOT include mitigation measures that simply state "good practices will be implemented per Chapter X of the *Environmental Guidelines for Small-Scale Activities in Africa* (EGSSAA). They DO specify which practices and which guidance from the EGSSAA will be implemented.
- **Include "extra" mitigation.** All mitigation measures must respond to a specific IEE or EA condition.
- **Use language like "as feasible," "as appropriate," etc.** unless doing so is absolutely unavoidable. (See discussion of "retaining general language in an EMMP" at the top of this page.)

8. EMMPs & ENVIRONMENTAL COMPLIANCE REPORTING

To enable C/AOTRs to fulfill their mandated responsibility to "actively manage and monitor" compliance with IEE/EA conditions, IP quarterly or semi-annual progress reports must provide an auditable record of environmental compliance—and especially of implementation of IEE/EA conditions. EMMPs provide the framework for this "environmental compliance reporting."

Sometimes the governing IEE or the C/AOTR specifies compliance reporting requirements and formats. If so, these requirements must be met.

If the reporting requirements are not specified, follow the guidance in the table below:

Situation	Environmental Compliance Reporting Content and Format
EMMP is fairly simple & contains a monitoring log section	Update EMMP with most recent monitoring data & annex to quarterly or semi-annual progress report.
EMMP is fairly simple but does not contain a monitoring log section	Consider adding a monitoring log to the EMMP and proceed as above. OR: Develop a simple table-based reporting format that lists activities, planned mitigation, and mitigation status/issues encountered.
EMMP is longer and more complex	Provide a text summary of EMMP implementation and issues encountered and resolved. Maintain a full monitoring log on file and provide to USAID upon request.

Environmental Compliance and Project Core Performance Indicators

For new projects, Africa Bureau best practice is that at least one core project performance indicator should be "environmentalized"— that is measure the extent to which core project activities are being executed with attention to environmental soundness and compliance.

For example, in a water point provision project, the IP might use the indicator "number of protected water points established with zero fecal coliform after 6 months" rather than "number of water points established."

In a road rehabilitation project, the IP might use the indicator "km or road rehabilitated under environmentally sound practices" rather than "km of road rehabilitated."

It is NOT necessary or appropriate to "environmentalize" every core indicator, or to capture every mitigation measure in core project reporting.

9. EMMP REVIEW AND APPROVAL

For project-specific IEEs (including IEE Amendments and Amendments with PERSUAPs), the EMMP will usually be developed with and submitted as an annex to the IEE. In this case, the EMMP is reviewed and approved as a part of the IEE. (Note that IEEs receive final clearance with the signature of the BEO.)

Otherwise, the EMMP will be developed together with the project workplan, budget, and performance management plan (PMP). In this case, the EMMP will be submitted together with the workplan and/or PMP to the C/AOTR, who is responsible for reviewing and approving it.

The C/AOTR may involve the MEO in this review, especially for environmentally sensitive activities. The IEE/EA will sometimes specify that the REA must review and approve the EMMP as well.

10. IMPLEMENTING EMMPS

Experience shows that systematic EMMP implementation requires:

- **Establishing accountability.** As noted in section 5.5, oversight responsibility for EMMP implementation must be assigned to an appropriate, qualified project staff member, and this responsibility must be part of their job description.
- **Workplan integration.** Where the EMMP requires discrete actions, these must be entered into the project workplan. Examples of discrete actions include, e.g. "train staff and partners in environmental compliance," "develop a PERSUAP," "undertake pollution prevention/cleaner production assessments," etc.

  By contrast, some mitigations do not result in separate workplan actions *per se*. For example, an EMMP could require that "all plans, strategies, and other relevant documents address environmentally sound collection, management, and disposal of healthcare waste."

  Environmental compliance monitoring should be a workplan item.
- **Budget integration.** Workplan items must be reflected in the project budget. However, even EMMP requirements that do *not* result in discrete actions can have cost implications. Continuing the example above, a consultant or home office technical support might be needed to assure that a plan or strategy properly addresses "environmentally sound collection, management, and disposal of healthcare waste."

The best way to make sure that cost implications of the EMMP are captured is to develop mitigation and monitoring cost estimates as part of EMMP development.

If this is not possible, budget notes should be developed for mitigation items that have cost implications, and these notes passed on to the budgeting team.

- **Management commitment & staff awareness.** Project management must communicate to all staff and partners its commitment to environmental compliance as a means to strengthen development outcomes.

  All staff should be aware in general terms of the core environmental conditions that apply to the project, and of the existence of the project EMMP.

11. ENCAP RESOURCES FOR MITIGATION AND MONITORING DESIGN

Per the table below, ENCAP has developed a set of resources to support mitigation and monitoring design.

Topic	Recommended Resource
Mitigation and Monitoring Principles	*Principles of Environmental Mitigation* *Principles of Environmental Monitoring* ENCAP training presentations; convey key principles with multiple visual examples. Include slide notes www.encapafrica.org/meoentry.htm (access via mitigation & monitoring topic)
Sectoral mitigation and monitoring guidance	*Environmental Guidelines for Small-Scale Activities in Africa. (EGSSAA)* Covers more than 20 common development sectors, and provides mitigation and monitoring guidance in table format. On-line annotated bibliographies provide links to detailed resources. www.encapafrica.org/egssaa.htm
Field Monitoring for non-specialists	*ENCAP Visual Field Guides* A supplement to the EGSSAA, these photo-based field guides allow non-specialists to quickly identify key, common environmental management deficits in small-scale activities in the following sectors: Water supply, sanitation, health care (waste), and roads. www.encapafrica.org/egssaa.htm#Guides

ACRONYMS

ADS	Automated Directives System
A/COTR	AOTR and/or COTR
AOTR	Agreement Officer's Technical Representative
AFR/SD	USAID Bureau for Africa, Office of Sustainable Development
BEO	Bureau Environmental Officer
CFR	Code of (US) Federal Regulations
COP	Chief of Party
COTR	Contract Officer's Technical Representative
EA	Environmental Assessment
EGSSAA	USAID *Environmental Guidelines for Small-Scale Activities in Africa*
ENCAP	Environmental Compliance and Management Support for Africa (AFR/SD project)
EMMP	Environmental Mitigation and Monitoring Plan
IEE	Initial Environmental Examination
IP	Implementing Partner
M&E	Monitoring and Evaluation
MEO	Mission Environmental Officer
PERSUAP	Pesticide Evaluation Report & Safer Use Action Plan
PMP	Performance Management Plan
REA	Regional Environmental Advisor
USAID	United States Agency for International Development

ANNEX: EMMP EXAMPLES

This annex contains 3 EMMP examples for typical activities and IEE conditions in the health, agriculture, and construction sectors. The examples are real, though project names and some details have been changed for the purpose of this factsheet:

1. **"The Health Improvement Program " (THIP)**
2. **"Agricultural Services Project" (ASP)**
3. **"Small Facilities Construction Project" (SFC)**

The first two examples use the general EMMP format presented in section 5. In each of these examples, a monitoring log column could be added to the far right of each table. The 3rd example is an alternate EMMP format.

Note that the examples are for a few REPRESENTATIVE ACTIVITIES within projects of this type. Most projects would have more activities, and the EMMPs would therefore be longer.

EXAMPLE 1: THE HEALTH IMPROVEMENT PROGRAM (THIP)

THIP Activity 1:
Prepare strategies and action plans to increase the import and internal distribution of pharmaceuticals

Potential Environmental Impact: Strategies and action plans could indirectly result in larger and more widely distributed in-country stocks of pharmaceuticals. These may expire prior to being distributed and/or used, and will need to be disposed of. Unsafe disposal could affect aquatic and terrestrial resources and human health.

IEE Condition	Specific mitigation actions to implement the condition	Person responsible for implementing mitigation Timing	How implementation will be verified (monitoring indicator) Responsible party & Timing
Contractor shall provide advice for safe storage and disposal of expired pharmaceuticals.	In all strategies and action plans for which THIP provides assistance, include measures for: a) storage in accordance with labels; b) disposal of expired and unused pharmaceuticals; and c) a budget to implement these safeguards.	*Responsible Party:* THIP Policy Technical Advisors *Timing:* During preparation phase of all strategies and action plans	Review of all strategies and action plans to ensure they include information about safe disposal of pharmaceuticals and a budget *Responsible Party*: THIP Policy Director *Timing*: During preparation of drafts and final documents

THIP Activity 2:
Procure pharmaceuticals from US companies.

Potential Environmental Impact: Procurement of pharmaceuticals could generate unused/expired drugs that if not disposed of safely, could affect aquatic and terrestrial resources and human health.

IEE Condition	Specific mitigation actions to implement the condition	Person responsible for implementing mitigation Timing	How implementation will be verified (monitoring indicator) Responsible party & Timing
Contractor shall provide advice for safe storage and disposal of expired pharmaceuticals.	Advise at MOH and district levels on the storage of the product according to the information provided on the manufacturer's Materials Safety Data Sheet (MSDS)	*Responsible Party:* THIP Policy Technical Advisors *Timing:* When meeting with appropriate MOH & district staff	Check storage practices are in compliance with MSDS *Responsible Party*: THIP M & E Advisor *Timing*: Semi-annually
	Train MOH and local level health practitioners and management staff on aspects of medicine supply chain management, including estimating demand, distribution constraints, and storage issues of time and temperature.	*Responsible Party:* THIP Training Advisor *Timing:* Two times/year	1) Training is implemented: M & E Advisor; monitor semi-annually; 2) Supply chain has improved (constraints/bottlenecks have decreased) THIP Policy Advisor; monitor annually

THIP Activity 3: Train healthcare workers on use of new medical procedures. **Potential Environmental Impact:** As an indirect result of training, healthcare waste (HCW) will be generated. If not collected and disposed of safely, aquatic and terrestrial resources and human health could be adversely affected			
IEE Condition	**Specific mitigation actions to implement the condition**	**Person responsible for implementing mitigation** **Timing**	**How implementation will be verified (monitoring indicator)** **Responsible party & Timing**
Training of healthcare workers should include best practices in disposal of HCW as described in the EGGSAA Healthcare Waste chapter:	Training courses should incorporate the following items, which should be included in all training on implementing new medical procedures: ▪ How to Prepare an HCW Plan ▪ Developing a Waste Segregation System ▪ Minimize, Reuse, Recycling Procedures ▪ Incorporating Good Hygiene Practices	*Responsible Party:* Training Advisor *Timing:* When course material is being developed; when training is delivered	Course material includes these topics; when course material is developed; M & E Advisor Trainings include these topics; when trainings are delivered; M & E Advisor

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EXAMPLE 2: AGRICULTURAL SERVICES PROJECT (ASP)

ASP Activity 1: Training Ministry of Agriculture extension officers to provide sound crop production advice to ASP-supported farmers **Potential Environmental Impact:** MOA extension officers could provide advice to farmers which results in expansion of agricultural land into natural areas; or that results in the unsafe use of pesticides.			
IEE Condition	**Specific mitigation actions to implement the condition**	**Person responsible for implementing mitigation** **Timing**	**How implementation will be verified (monitoring indicator)** **Responsible party & Timing**
Training shall not result in direct or indirect effects on the environment.	Training of MOA extension officers shall incorporate conservation agriculture; information on ecosystem services; and measures to minimize impacts to natural ecosystems.	*Responsible Party:* ASP Crop Production Specialist *Timing:* Curriculum Development; During trainings	Review of curricula; attend various trainings *Responsible Party:* ASP Training Officer *Timing:* At time curricula are being developed; when trainings are provided
Trainings shall not recommend pesticides without first preparing a PERSUAP that is approved by the Bureau Environmental Officer.	Note: these mitigation measures are from the PERSUAP approved by the BEO on [xxx date]: 1) Only PERSUAP-approved pesticides shall be included in training for extension officers. 2) Trainings shall include safeguards for health and safety of workers, and measures to protect the environment (Annexes A and B of the PERSUAP). 3) Trainings shall include monitoring the efficacy of pesticides as described in Annex C of the PERSUAP.	ASP Crop Production Specialist During trainings	Review of curricula; attend various trainings *Responsible Party:* ASP Training Officer *Timing:* At time curricula are being developed; when trainings are provided

EXAMPLE 3: SMALL FACILITIES CONSTRUCTION PROJECT (SFC)

NOTE: This example uses an alternate EMMP format. In this case, a project-specific IEE existed with highly specific conditions regarding siting, design requirements, and construction management practices for the small facilities (training centers, community centers) to be constructed by the project. These conditions were translated into table form (below), and for each condition a *compliance process* was specified. This EMMP format serves both as a detailed monitoring log and a management tool and guide to implementing mitigation.

IEE Condition 1: Siting Requirements for New Construction

Compliance process. At the time of initial site selection, SFC must answer the questions below for each proposed site. If a proposed site meets one of the below-listed criteria, the site must be changed OR an Africa Bureau Environmental Review Form (www.encapafrica.org/documents/AFR-EnvReviewForm-20Dec2010.doc) must be completed and approved by USAID prior to the start of construction. SFC must then implement the environmental conditions specified by the ERF.

Note: completed ERFs include an EMMP. SFC will maintain the ERF EMMPs as an annex to this project EMMP and report on their implementation to USAID.

Compliance record. The table below documents the compliance process. Note: all table entries must be dated & initialed.

Proposed Site	GPS Coordinates	Is/Does the site. . . Within 30m of a permanent or seasonal stream or water body?	Have existing settlement /inhabitants?	Have an average slope in excess of 5%?	Heavily forested?	If yes to any question, indicate ERF status or note site change; add additional row for new site.
Village A						
Village B						
(add sites as necessary)						

IEE Condition 2: Design Requirements for Small Facilities

Compliance process: (1) Design elements specified by the IEE will be incorporated into the final technical/contract specification that governs the general contractor's work. SFC will verify this for each mandated design element. (2) SFC will verify via field inspection that the final works meet these specifications, requiring remedy or otherwise resolving any non-compliant elements.

Compliance record. The table below lists all design elements mandated by the IEE and serves to document compliance status.

Required Design Elements—Training and Community Centers

A. Latrine/septic tank design prevents in-and-out access for insects or other disease vectors from the pit or holding tank.

B. Latrines are accompanied by handwash stations.

C. All sources of gray water (kitchen sinks and handwash stations) discharge to either (1) a seepage pit or sump at least 15m from any source of groundwater or surface water tapped for domestic use, or (2) to an impermeable pump-out tank.

D. Latrines or the terminus of any septic leach field must be at least 30m from any source of shallow groundwater or surface water tapped for domestic use, OR discharge to an impermeable pump-out tank.

E. Siting, grading and/or drainage structures prevent runoff from the compound from creating standing water on the compound or adjacent land during the rainy season (instances of generalized flooding excepted.)

F. Septic pump-out point, if any, shall feature a concrete apron and drain with return to the septic tank.

G. Concrete aprons with berms or gutters/sumps shall be placed under generators, fuel storage, and fuel pump-in point (if different) sufficient in each case to capture at least a 20 liter spill.

Site	Incorporated in Final Technical Specifications? *(Y/N; reference to list above)*							Built as-specified? (confirmed by field inspection) (Y/N; reference to list above)							Notes (issues and resolution)
	A	B	C	D	E	F	G	A	B	C	D	E	F	G	

Village A	Date confirmed & initials	Date of inspection & initials	
Village B	Date confirmed & initials	Date of inspection & initials	
Add sites as needed	Date confirmed & initials	Date of inspection & initials	

IEE Condition 3: Construction Management

Compliance process: (1) Construction management practices specified by the IEE will be incorporated into the final technical/contract specification that governs the general contractor's work. (2) SFC will verify that each construction management practices is being implemented via at least one field inspection during the construction process. (3) SFC will require remedy or otherwise resolve any deficits identified.

Compliance record. The table below lists all construction management practices mandated by the IEE and documents compliance status.

Required Construction Management Elements—Training and Community Centers

A. During construction, prevent sediment-heavy run-off from cleared site or material stockpiles to any surface waters or fields with berms, by covering sand/dirt piles, or by choice of location. (Only applies if construction occurs during rainy season.)

B. Construction must be managed so that no standing water on the site persists more than 4 days.

C. SFC must require its general contractor to certify that it is not extracting fill, sand or gravel from waterways or ecologically sensitive areas, nor is it knowingly purchasing these materials from vendors who do so.

D. SFC must identify and implement any feasible measures to increase the probability that lumber is from legal, well-managed sources.*

Site	Incorporated in Final Technical Specifications? *(Y/N; reference to list above)*							Implemented as-specified? (confirmed by field inspection) (Y/N; reference to list above)							Notes (issues and resolution)
	A	B	C	D				A	B	C	D				
Village A															
	Date confirmed & initials							Date(s) of inspection & initials							
Village B															
	Date confirmed & initials							Date of inspection & initials							
Add sites as needed															
	Date confirmed & initials							Date of inspection & initials							

*MEASURES IDENTIFIED, IF ANY, REGARDING SUSTAINABLE SOURCING OF TIMBER: [FILL IN]