

Participants' Sourcebook:

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

A Training Workshop for USAID/Zambia Staff & Partners

Chipata, Zambia
7–11 May 2012

Host:
USAID/Zambia

Co-sponsor:
USAID/AFR/SD

Prepared under:

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DISCLAIMER

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Acknowledgement:

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Agenda & Table of Contents

version: 9 April 2012

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

A Training Workshop for USAID/Zambia Staff & Partners

Session type: P=presentation. E=exercise/discussion; F= field visit; B=Break

Type	Lngh	Start	Finish	#	Session Name	Objectives/content summary
Day 1/Monday						
	0:15	8:00	– 8:15		Arrival/Registration	
	0:15	8:15	– 8:30		Official Opening	
E	0:30	8:30	– 9:00	1	Participant & Facilitator Introductions, Objectives	<ul style="list-style-type: none"> b. Participant Introductions c. Overview of Agenda: Tools and Techniques d. Administrivia: Room and Board e. Setting Expectations f. Establishing a Learning Agreement g. Creating a Parking Lot
P	1:00	9:00	– 10:00	2	What is Environment? Why Environmentally Sound Design and Management?	Achieve a common understanding of "environment"; motivate ESDM as a necessary and explicit objective for effective development; establish the basic principles for achieving ESDM.
B	0:15	10:00	– 10:15		Tea Break	
P	0:30	10:15	– 10:45	3	EIA and ESDM	<p>Achieve a common, basic understanding of the EIA process and key EIA concepts; Motivate the EIA process by establishing that EIA is the internationally accepted standard framework for achieving ESDM in project-based development</p> <p>Brief the origin of, mandate behind and purpose of USAID's mandatory, EIA-based environmental procedures.</p>
P	0:30	10:45	– 11:15	4	Overview of Life-of-Project Environmental Compliance for USAID Staff & Implementing Partners	<p>Achieve a common understanding of the key LOP environmental compliance requirements created by these procedures.</p> <p>Specifically establish (1) that the primary environmental compliance responsibility of IPs is implementation of environmental conditions resulting from the pre-implementation environmental review process, and (2) that providing participants with the tools, skills and knowledge to do so is the primary purpose of the workshop.</p>
P	0:30	11:15	– 11:45	5	Core EIA Skills Parts 1 (Baseline Characterization/Identifying Issues of Concern.)	Build familiarity with the principles and processes that constitute these core EIA skills. Establish that because effective mitigation design must be highly responsive to site conditions, effective mitigation design requires baseline characterization and issues identification skills.
P	0:45	11:45	– 12:30	6	Local Environmental and Social Context	Become familiar with the elements of the environmental, social, and economic context most relevant to environmentally sound design of development activities in Chipata --- and in Zambia more generally.
B	1:00	12:30	– 13:30		LUNCH	
P	0:30	13:30	– 14:00			Field Visit Briefing (10 mins) + Working Groups orient for the field (20 mins)
F	3:00	14:00	– 17:00	6a	Field Visit: Practicing Core EIA Skills (cont'd)	Build and apply the core EIA skills briefed in Session 5 via a field visit & follow-up group work to (1) synthesize field observations, and (2) with reference to the Small-Scale Guidelines, identify possible mitigation measures to respond to issues of concern. (This exercise is generic and conducted without reference to the specific requirements of Reg. 216.)
Day 2/Tuesday						
	0:15	8:15	– 8:30		Review of Day 1, Orientation to Day 2	<ul style="list-style-type: none"> a. Day One Review/What have we learned? b. Review of Expectations c. Day Two at a Glance
	0:30	8:30	– 9:00		Core EIA Skills 2: Principles of Mitigation	

E	1:15	9:00 – 10:15	6b	Field Visit--Follow-up Group Work	see 6a, above
B	0:15	10:15 – 10:30		Tea Break	
P	0:45	10:30 – 11:15	7	Core EIA skills Part 3: Env Monitoring	Establish the objective of environmental monitoring (determining clearly and cost-effectively if mitigation is sufficient and effective); brief the two types of monitoring indicators & achieve a common understanding of the principles of monitoring design.
E	1:15	11:15 – 12:30	8	Indicators exercise (break-out groups)	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.
B	1:00	12:30 – 13:30		Lunch	
P	0:40	13:30 – 14:10	9	Intro to EMMPs	a. Brief the EMMP concept. b. Establish that EMMPs are critical to effective and systematic implementation of IEE/EA conditions. c. Explain the mechanisms by which USAID Missions can require IPs to develop and implement EMMPs.
B	0:05	14:10 – 14:15		Short break to change over to parallel sessions	

parallel session bloc: upstream compliance					
P	0:45	14:15 – 15:00	10a	Intro to Reg. 216 & Screening Activities Under Reg. 216	Reg 216 sets out USAID's mandatory pre-obligation EIA process. Environmental mitigation and monitoring conditions established by this process become required elements of activity design and implementation. This session briefs the entire process and then examines in detail the first step in this process: screening.
B	0:15	15:00 – 15:15		Tea Break	
E	1:00	15:15 – 16:15	10b	Exercise: Screening Activities Under Reg. 216	Screening activities for a proposed project using Reg. 216 criteria. (Working groups). The project will be related to the Day 3 field visit.
P	0:30	16:15 – 16:45	11a	Effective IEEs: Well-Considered & Well-Written	The IEE is USAID's "Preliminary Assessment" and the most common type of env. review documentation required by Reg. 216. Overview of the IEE (Structure, purpose, nature of "determinations") + characteristics of well-written, well-considered IEEs. (These characteristics also apply to subproject environmental review reports.)
E	0:15	16:45 – 17:00	11b	IEE Review exercise: Briefing & field visit preview	For the project screened above, we will review and critique a draft IEE. (provided in 2-page bullet format). We undertake a field visit to the project site to better evaluate the IEE.

parallel session bloc: downstream compliance					
P	0:30	14:15 – 14:45	10	Translating General IEE Conditions into Specific Implementation: Key Principles	Addresses a key challenge facing many partners in developing EMMPs: IEE conditions are extremely general, and require IPs to translate them into specific mitigation actions.
E	0:30	14:45 – 15:15	11a	EMMP Development Exercise: Project Scenario & Briefing	Integrate, build and apply all EMMP skills in an EMMP development exercise using a field visit informed by a field visit
B	0:15	15:15 – 15:30		Tea Break	
E	1:30	15:30 – 17:00	11b	EMMP Development: Group Work	see 11a; (note--participants work on their laptops to fill in a provided EMMP template.)

Day 3/Wednesday

	0:10	8:15 – 8:25		Review of Day 2, Orientation to Day 3	a. Day Two Review/What have we learned? b. Review of Expectations c. Day Three at a Glance
F	4:00	8:30 – 12:30	11c	Field Visits for EMMP Development exercise (upstream compliance) / IEE Review (downstream compliance)	
B	1:00	12:30 – 13:30		Lunch	

parallel session bloc: upstream compliance					
E	1:00	13:30 – 14:30	11d	Classroom Follow-up for IEE Review Field Visit (small group work)	see 11b above
P	0:45	14:30 – 15:15	ST	IEE Determinations & Conditions for "Tricky Activities"	e.g., Policy development; Trade; SME Support; Private Sector Credit Support including DCA.

parallel session bloc: downstream compliance					
E	1:45	13:30 – 15:15	11d	Field visit follow-up: EMMP Development small group work	Continue EMMP development exercise. Finalize presentation.
B	0:15	15:15 – 15:30		Tea Break	

E	1:00	15:30 – 16:30	11e	EMMP Group Presentations	Teams will present their EMMPs in plenary, participants in the "upstream compliance" bloc will attend these presentations, practicing their USAID staff role as receivers and reviewers of EMMPs
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P	0:30	16:30 – 17:00	12	IP Reporting on Environmental Compliance	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.
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Day 4/Thursday

	0:10	8:15 – 8:25		Review of Day 3, Orientation to Day 4	a. Day Two Review/What have we learned? b. Review of Expectations c. Day Three at a Glance
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P	0:30	8:25 – 8:55	ST	Water: Special Env Compliance & ESDM Considerations	
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P	0:45	8:55 – 9:40	ST	Zambia National Environmental Requirements	
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P	1:00	9:40 – 10:30	ST	Medical Waste Pesticide Compliance, IPM & Other Elements of Safer Use: Agriculture	Briefing on environmental best practices, compliance expectations, and implementation challenges related to management of health care waste
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B	0:15	10:30 – 10:45		Tea Break	
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E	1:45	10:45 – 12:30	ST	Incorporating GCC Adaptation and Mitigation in Project Design	Briefing on mitigation & adaptation concepts, followed by small group exercise identifying adaptation and mitigation measures that could be integrated into hypothetical projects; report-out.
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B	1:00	12:30 – 13:30		Lunch	
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P	2:00	13:30 – 15:30	ST	Indoor Residual Spraying: Env Compliance & Best Practice	IRS Spray Contractor will provide a briefing on environmental management aspects of IRS activities and a short practical demonstration of spray techniques. Participants will have the opportunity to don PPE and practice proper spray technique.
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B	0:15	15:30 – 15:45		Tea Break	
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E	1:15	15:45 – 17:00	13	ESDM/Env Compliance Knowledge Game	review and synthesize workshop content via a small-teams competition
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E	0:30	17:00 – 17:30	14	Final technical Q&A	address questions raised by the knowledge game and any technical questions remaining in the "parking lot"
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Day 5/Friday

	0:10	8:30 – 8:40		Review of Day 4, Orientation to Day 5	a. Day 4 Review/What have we learned? b. Review of Expectations c. Day 5 at a Glance
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P	0:10	8:40 – 8:50	15	Resources for ESDM and Compliance	Become familiar with the key resources available on the ENCAP website to support the EMMP exercise, and environmental compliance and ESDM more generally; introduce the offline version of the ENCAP website.
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P	0:40	8:50 – 9:30	16	State of Environmental Compliance: Results of AFR BPRs to date & the USAID/Zambia BPR	Presents synthesis of BPR results to date; identifies good mission/project practices and common deficits
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E	1:00	9:30 – 10:30	17a	Separate focus sessions: (1) USAID Staff + (2) IPs	Identify key messages to communicate to project management (IPs) and mission management and sector team leaders (USAID 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.
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B	0:15	10:30 – 10:45		Tea Break	
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E	1:00	10:45 – 11:45	17b	Way Forward discussion	Includes brief report-outs from the 2 focus sessions;
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	0:15	11:45 – 12:00	18	Evaluations	Fill in individual evaluation forms
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	0:30	12:00 – 12:30		Closing & Certificates.	
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B		12:30 –		LUNCH & DEPARTURE	
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Workshop time allocation summary ("downstream compliance" stream)
 Total Exercise/Disc time 12:15
 Total Field Time 7:00
 Total Presentation time 11:15
 Total Break time 5:50

Acronyms

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

(0:30)

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/Zambia staff & partners 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 in Zambia 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 four main components, each corresponding to key workshop objectives.

Agenda component	Corresponding objectives: By the end of the workshop, we will be able to:
<p>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.</p>	<ul style="list-style-type: none"> • 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
<p>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.</p>	<ul style="list-style-type: none"> • 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.

life-of-project.	mitigation and monitoring.
<p>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.</p> <p><i>Upstream</i> 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).</p> <p><i>Downstream</i> compliance consists primarily of <i>implementing</i> the environmental management conditions specified in approved 22 CFR 216 documentation, and <i>reporting</i> on this implementation. The <i>environmental mitigation and monitoring plan (EMMP)</i> is the key instrument for systematic implementation of these conditions—and thus for achieving ESDM.</p> <p>After surveying LOP environmental compliance and building needed core skills, we will split into two “streams” for a portion of the workshop: one focused on upstream compliance, and one on downstream compliance.</p>	<ul style="list-style-type: none"> • (All) Describe the basic elements of LOP compliance, and attendant roles and responsibilities. • (Upstream Participants) Demonstrate basic proficiency in the pre-implementation environmental review process established by Reg. 216. • (Downstream Participants) Develop and critique environmental mitigation and monitoring plans. Demonstrate basic proficiency in developing environmental mitigation and monitoring plans. Articulate the environmental compliance reporting requirements attendant to EMMP implementation.
<p>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.</p>	<ul style="list-style-type: none"> • Explain the key compliance issues involved in each special topic, and articulate recommended best practice.
<p>5. Improving Compliance Processes. Achieving LOP compliance and ESDM requires both that individual USAID staff understand their roles and responsibilities and master key skills <i>and</i> that mission processes support and “mainstream” environmental compliance.</p>	<ul style="list-style-type: none"> • 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.

Components 1 and 2 are sequential and occupy most of the first 1.5 days of the workshop. The remainder of day 2 and day 3 address the third component. Day 4 is focused on “special topics” (component 4). Day 5 (a half-day) focuses 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 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.

(1:00)

What is Environment? & Why Environmentally Sound Design & Management (ESDM)?

Objectives

- Achieve a common understanding of "environment."
- Understand Environmentally Sound Design & Management as a necessary and explicit objective for effective development.
- Establish the basic principles for achieving ESDM.

Format

Presentation, solicitation of participant experiences, and a segment from a recently produced ESDM video.

Summary

This session will:

- Develop a common understanding of the term “environment.”
- Highlight some of the “big picture” environmental trends affecting human health and livelihoods in Eastern and 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.
- By example, demonstrate that “environment” and “development” are concepts further linked by the need to 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.

This is **Environmentally Sound Design and Management (ESDM)**.

- Highlight the most common root causes of ESDM failures or lapses.
- Set out the basic rules or principles for achieving ESDM.
- Establish that ESDM is a necessary and explicit objective for effective development, and that ESDM requires systematic and explicit attention over life-of-project.

Key resource

“I.02 Environmentally Sound Design” in *Environmental Guidelines for Small Scale Activities in Africa*. (USAID/AFR/SD; available at www.encapafrika.org/egssaa.htm).

Environment, Development, and Environmentally Sound Design and Management

Environmental Compliance/ESDM Training Workshops
Zambia ▪ May 7 – 11, 2012

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.

❖ USAID's environmental procedures are concerned with the "natural and physical environment," but in practice social and cultural issues are often not separable

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

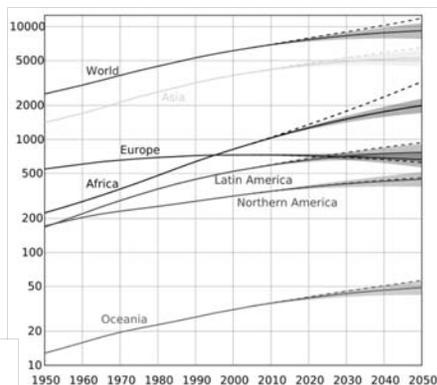
2

1. Population growth

UN Population estimates:*

	Today	2050	% change
World	6.9bn	9.15bn	+32%
Africa**	1.02 bn	2.19 bn	+114.7%
SS Africa**	856 mn	1.96 bn	+129%
Zambia	13.1 mn	45.04 mn	+243.8%
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>
**includes Zambia



Increasing Population in SS Africa

LEADS TO

Increased demands for water, land, fish & timber, energy, infrastructure & social services. Increased waste production.

2. 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%
SS Africa**	38%	54%	+228%
Zambia	36%	39%	+259%
Less-Developed Regions**	45.3%	67%	+107%
LDCs**	29.4%	55.5%	+280%

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

**includes Zambia

Most urban growth in the next 25 years in developing countries

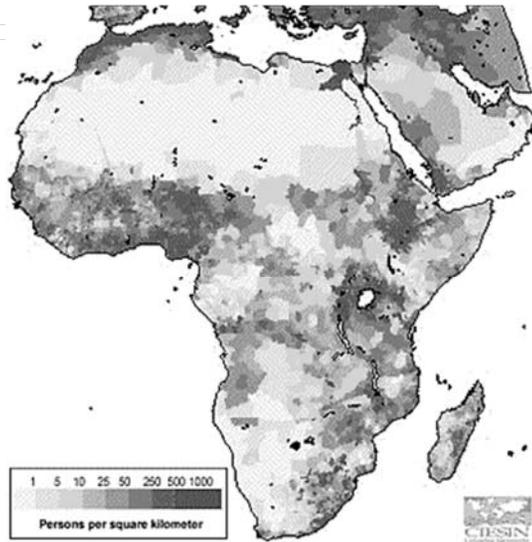
LEADS TO

Increased urban environmental health hazards (given poor municipal sanitation, waste management capacity).



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

Population Density in SS Africa



Source: NASA Earth Observatory

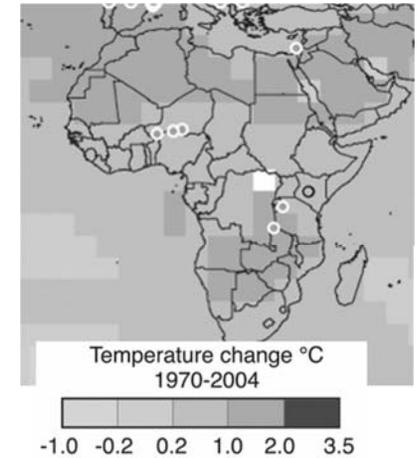
Environment, Development & ESDM. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafira.org

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3. Global climate change: SS Africa & Zambia

- ❖ Annual rainfall ☞
- ❖ Warm Spells ☞ 1961 – 2000
- ❖ Cold Days ☹ 1961 – 2000
- ❖ Severe droughts (dry spells), desertification ☞ since 1960s
- ❖ Stream flow ☹
- ❖ Sea Level Rise ☞ 0.5 m by 2050
- ❖ Climate variability & extreme events ☞

100% of observed data series in Africa for physical, biological systems consistent with global change



IPCC 4th Assessment Report, 2007.

www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf

Environment, Development & ESDM. Visit www.encapafira.org.

6

Global change + population growth = INCREASED WATER STRESS
 Greatest impacts on poor, subsistence agriculture.

AREAS OF PHYSICAL AND ECONOMIC WATER SCARCITY



Source: Comprehensive Assessment of Water Management in Agriculture, 2007

Environment, Development & ESDM. Visit www.encapafira.org.

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Global Climate Change: SS Africa and Zambia

Zambia/SS Africa is vulnerable & effects are already being felt. . .



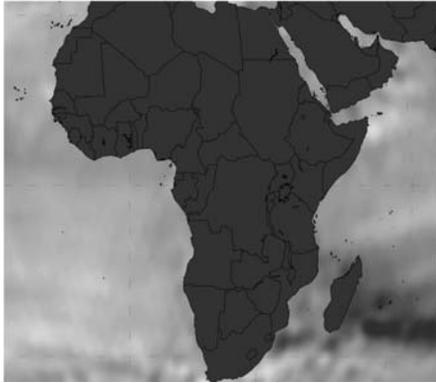
Source: United Nations www.un.org.

Environment, Development & ESDM. Visit www.encapafira.org.

- ❖ Zambia is one of the most vulnerable countries in the world to climate change
- ❖ Climate change predictions include increased droughts, floods, heat, & shorter growing season, reducing crop yields
- ❖ SS Africa: Temperature & rainfall variation drove 2.35 million people to move between 1960 – 2000
- ❖ North Africa, West Africa and South Africa are at high risk of flooding

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Key SS Africa Env. Development Challenges...



Sea Level Trend 1993-01/2012-01 (mm/Year)

-9 -7.5 -6 -4.5 -3 -1.5 0 1.5 3 4.5 6 7.5 9

- ❖ Traditional unsustainable farming practices lead to forest depletion, soil erosion and runoff
- ❖ Desertification threatens sensitive drylands
- ❖ 0.5 meter sea level rise by 2050, 10.2 million people likely to be affected
- ❖ Decline in natural resource productivity and food security in SS Africa

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Environment and development are not separable

- ❖ Much of USAID's portfolio in the region is already a direct response to or directly affected by these environmental trends
- ❖ But good development does not simply respond to external environmental challenges. Good development ...
 - is **AWARE** of its potential adverse impacts on ecosystems, environmental resources and environmental quality and
 - **PROACTIVELY** seeks to limit these adverse impacts, particularly where they affect health and livelihoods

Why? To avoid MISTAKES. . .

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June 2011. An open pile of mixed medwaste behind Juba hospital drains to on-site agricultural fields behind the mortuary.

Environment, Capacity Plus and Environmental Compliance

11



June 2011. Open-air abattoir with uncontrolled effluent & waste disposal features a USAID-branded gate.

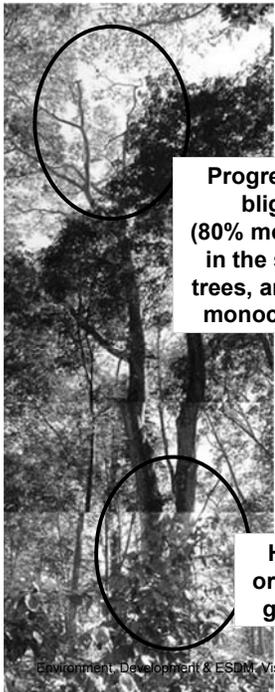
Environment, Capacity Plus and Environmental Compliance

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KOH (highly corrosive) in jar

30+ yr-old obsolete USAID-branded pesticides (found during 2003-2004 FAO Survey). Proper disposal starts at \$3,000 to \$5,000 per ton. Costs rise for highly toxic pesticides. Costly site cleanup also needed after the barrels are removed



Is this a nice picture? (Mature Reforestation Area)

Progressive blight (80% mortality) in the shade trees, an aging monoculture

UNFORTUNATELY NOT.

Unforeseen long-term vulnerabilities created by monoculture reforestation will likely affect thousands of small coffee producers.

High-quality organic shade-grown coffee

Why are “environmental mistakes” made?

Sometimes obvious (previous examples).

But often difficult to foresee, predict

Often rooted in a few common design problems



Failure to plan for the effects of increased scale

Designing for average conditions

Ignoring economic-environmental linkages

Failure to understand system complexity

Common root causes #1

! 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)

Common root causes #2

Global change will affect both average conditions & expected variability

! Designing for average conditions, not expected variability



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

Why? Strong winds ripped the aluminum sheet roofing off the "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?

Common root causes #3

! Ignoring economic-environmental linkages

Another failure to plan for success!

Household consumption depends on income.

Success in raising income in a community may increase

- demand for building materials (brick & timber)
- the number of livestock,
- demand for water
- generation of waste, including disposable packaging

All can have significant adverse environmental impacts!



Common Root Cause #4: Failure to understand system complexity



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

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

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

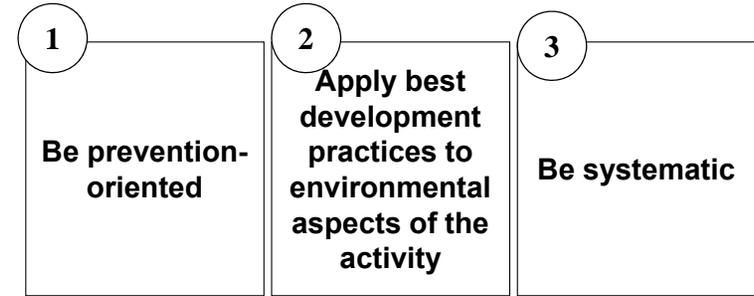
Today ~3000 Bangladeshis die each year of As-induced cancer; 2 mn live with chronic As poisoning

How can we avoid these environmental mistakes (and maximize environmental benefits)?



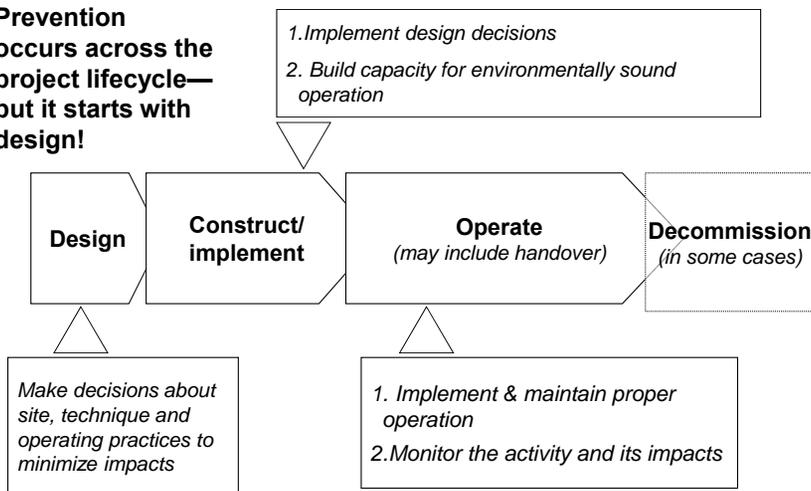
How do we achieve ESDM?

3 basic rules:



1 Be prevention-oriented

Prevention occurs across the project lifecycle—but it starts with design!



ESDM is prevention-oriented

- ❖ Prevention starts with **DESIGN**
- ❖ **DESIGN** starts with the choice of means.
- ❖ Environmental impacts are 1 factor considered

Objective

Improve agricultural productivity

Possible means

How do we choose?



Apply best practices

Apply general best development practices. . .

A technically sound design

To build beneficiary capacity & stakeholder commitment

To design for the local social & policy context

To adjust what we do as results come in

. . .to environmental aspects of the activity

AND design for climate change

BP #1: Technically sound design

Environmental application:

The design must be appropriate for local environmental conditions . . .taking into account likely climate change.

... Rainfall, temperature, soils, flood, drought and earthquake potential, the built environment. . .

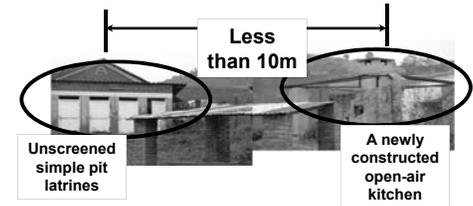
For example. . .



Appropriate choice of crops or trees?



Appropriate choice of siting?



BP #2: Design for the policy and social context

Environmental applications:

Compliance

with national and local environmental laws and policies

Language, literacy

Environmental management measures must be matched to capabilities

NRM 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

BP #3: Build stakeholder 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.
- maintain 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

BP #4: Adjust what we do as results come in

Practice Adaptive management –

adjusting implementation of our activity based on results from the field

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

Communities are often essential to monitoring results from the field

Adaptive environmental management requires:

- A project budget that funds environmental monitoring
- The flexibility to adapt the project in response to unanticipated adverse impacts
- Adjusting implementation of our project based on the experiences of others

BP #5: Design for Climate Change

Already mentioned:

Climate change will affect future baseline conditions—projects must be designed to be **ROBUST** to these conditions

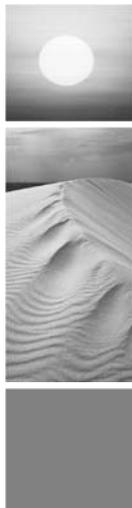
BUT IN ADDITION

While individual projects are rarely significant contributors to GCC...

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

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

USAID Policy!



Best Practice: Design for Climate Change

Example actions in small-scale projects:

reduce GHG emissions

Use alternative energy (PV, windmill water pumping, etc)

Improve thermal performance in building design

Buy carbon offsets for int'l travel.

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

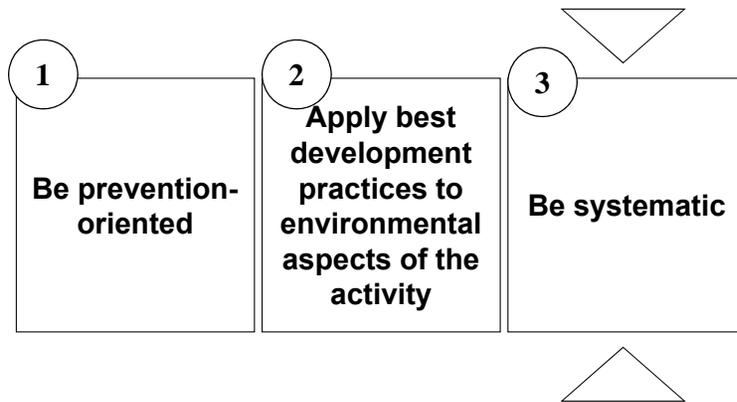
Tree-planting.

Land management (sustainable grazing, cropping)



Soil carbon measurement by hand in Senegal

Now, 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)!

Session 3.

(0:30)

Environmental Impact Assessment (EIA) and ESDM

Objectives

- Achieve a common, basic understanding of the EIA process and key EIA concepts.
- Motivate the EIA process by establishing that EIA is the internationally accepted standard framework for achieving ESDM in project-based development.

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.
- Show that the EIA process provides a systematic framework to achieve ESDM and establish that this process is the internationally accepted standard framework for achieving ESDM in project-based development.
- Outline how the EIA process is being used to address the effects of climate change on projects, and to inform mitigation planning.
- Explain that EIA-based environmental “safeguard” processes are now standard requirements of nearly all donors and governments, including the US Government/USAID.

Key resource

“IV.1: Topic Briefing—Introduction to EIA” in *Environmental Guidelines for Small Scale Activities in Africa*. (USAID/AFR/SD; available at www.encapafrika.org/egssaa.htm).

EIA: A framework for ESDM

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



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

A USAID's environmental procedures are a specific implementation of the general EIA process

Understanding the basic EIA process makes USAID's procedures much easier to understand.

Mastering a set of core EIA skills is required for effective compliance during project design and implementation.

Defining EIA



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

Origins of EIA



Cuyahoga River burns in 1966 (3rd time), Cleveland, Ohio, U.S.

1952 "Killer fog" kills 4,000 in London

1963 *Silent Spring* documents the effects of DDT

Etc. . .

1960s & 70s:
Environmental crisis affects all industrialized economies

EIA is one response:

First national EIA requirements: 1970 US National Environmental Policy Act (NEPA) requires EIA for US government projects.

Other responses:
regulation of industry, environmental treaties. . .

EIA today

- ❖ **Most countries & almost all donors (including USAID) 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, national environmental regulation is centered on EIA requirements**

Key EIA concept: What is an impact?

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

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

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

The baseline situation is a key concept in EIA.

More...

Characterizing the baseline situation. . .

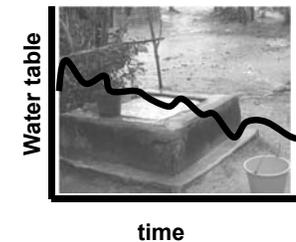
the environmental components of interest are those:

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

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

The baseline situation

The baseline situation is not simply a "snapshot."



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

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

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

But all impacts are NOT treated equally.

Focus on the most significant impacts is **ESSENTIAL**

You probably 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

Accomplishing an activity requires a set of actions

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

A project or program may consist of many activities

The EIA process

**Phase I:
Initial inquiries**

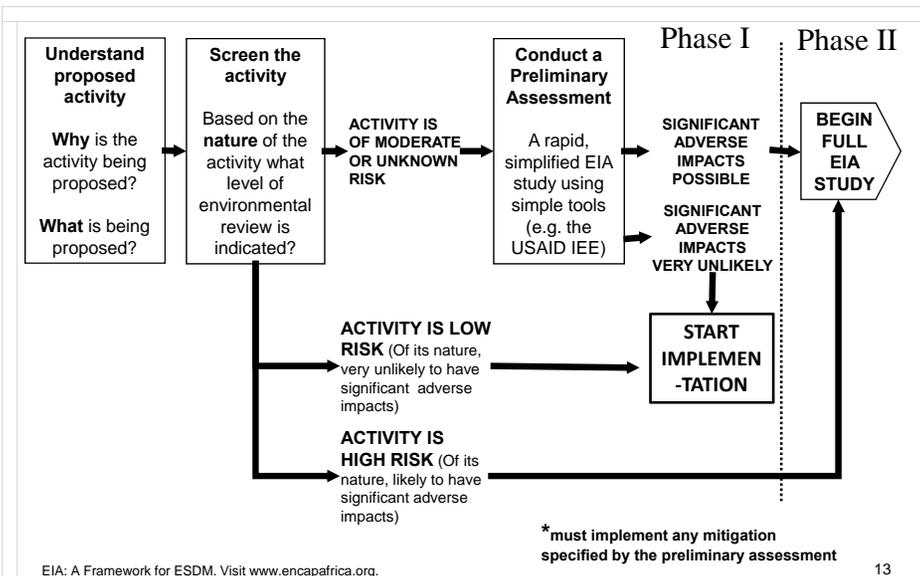
- Understand proposed activities
- Screen
- Conduct preliminary assessment (if needed)

**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 1 of the EIA Process



Phase 1 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

! Each donor agency (like USAID) and national EIA law has its own set of screening criteria.

Phase 1 of the EIA process: The Preliminary Assessment (e.g. USAID's IEE)

Conduct a Preliminary Assessment

A rapid, simplified EIA study using simple tools (e.g. the USAID IEE)

Purpose: provide documentation and analysis that:

- Allows 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

**Phase 1 of the EIA process:
The Preliminary Assessment**

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)

!
We only proceed to Phase II of the EIA process **if** Phase I indicates that a **FULL EIA STUDY** is required

**Phase 2 of the EIA process:
The Full EIA study (e.g. USAID's Env Assessment)**

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

However, the full EIA study differs in important ways:

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

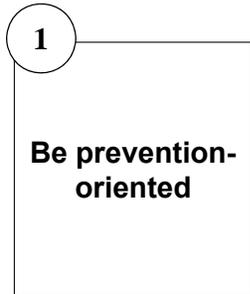
- !** A formal scoping process precedes the study to ID issues to be addressed
- !** Analysis of environmental impacts is much more detailed
- !** Alternatives* must be formally defined. The impacts of each alternative must be identified & evaluated, and the results compared.
- Public participation is usually required.
- !** A professional EIA team is usually required.

EIA: A framework for ESDM

❖ EIA: the internationally accepted process to achieve ESDM.

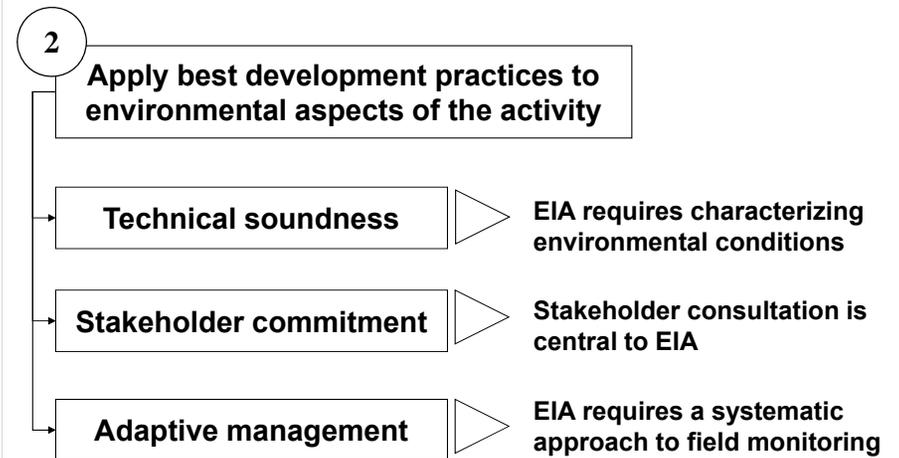
Why?
The EIA process requires a systematic treatment of all ESDM elements.

EIA: A framework for ESDM



- ❖ Prevention begins with choice of means. “Consider alternatives” is a key principle of EIA.
- ❖ EIA provides a formal process to consider environmental issues and make changes at early stages in project design. Early consideration is key to prevention.

EIA: A framework for ESDM



How does EIA address Climate Change?

Institutional and professional practice is evolving rapidly . . .

- ❖ “Pure” EIA assesses the impacts of an activity on the environment
 - Usually only very large projects are significant contributors to GCC
- ❖ Usually of greater concern: the impacts of GCC on project performance/sustainability
 - = a *climate vulnerability assessment*
 - Requires same skills as EIA
 - Focus is not mitigation of impacts, but changes to project design to reduce climate vulnerability

Highly complementary, and therefore combined into a single process/document

Meaning . . .

When climate change considerations are important. . .

- climate change mitigation and adaptation planning and management should be addressed in the outputs of the EIA process
 - *Adaptation planning and management mechanisms should be incorporated in the environmental mitigation and monitoring plan*
- Examples:
 - Add project component targeted at clean energy or avoiding emissions
 - Siting options for the extension or modification of roads
 - Add activities to reduce flood and landslide risk



EIA: More than just a good idea

! EIA is:

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

Summing up

- ❖ **ESDM requires (a) design and implementation of activities with an understanding of their environmental impacts, and (b) active efforts to minimize these impacts.**
- ❖ **ESDM requires following 3 basic rules:**
 - be prevention-oriented,*
 - apply best development practices, and*
 - be systematic.*
- ❖ **EIA is a tool to make ESDM a reality.**

Session 4.

Overview of Life-of-Project Environmental Compliance for USAID Staff & Partners

(0:40)

Objectives

Brief the origin of, mandate behind and purpose of USAID's mandatory, EIA-based environmental procedures.

Achieve a common understanding of the key LOP environmental compliance requirements set out by these procedures.

Specifically establish (1) that the primary environmental compliance responsibility of IPs is implementation of environmental conditions resulting from the pre-implementation environmental review process, and (2) that providing participants with the tools, skills and knowledge to do so is the primary purpose of this workshop.

Format

Presentation.

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 FAA requirements, and to the mandatory procedures and directives contained in the ADS.

Summary

The preceding sessions make the case that:

- ESDM is a key objective for the ethical and effective practice of development.
- Achieving ESDM requires explicit and systematic attention to environmental issues in program/project development and implementation.
- The EIA process is the internationally accepted standard for achieving ESDM in project-based development activities.

USAID's mandatory, EIA-based Environmental Procedures are intended to assure that this 'explicit and systematic attention' actually occurs over life-of-project. 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 EIA process that must be applied to all activities **before** implementation.
- The output of this process, defined by 22 CFR 216 (Reg. 216), 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 (mitigative 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 implementing partner.
- 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.

This session will introduce —*but not go into detail regarding*—these key LOP compliance requirements and who is responsible for them. (MEOs, CORs/AORs, Activity Managers, Implementing Partners, etc.).

This LOP compliance process can be divided into “upstream compliance”—the pre-implementation environmental review process culminating in approved Reg 216 documentation—and “downstream compliance,” focused on implementation of IEE/EA conditions and associated reporting. Later, we will divide into two “streams,” with one stream focusing on building skills and knowledge for upstream compliance and one for downstream compliance.

In AFR missions and programs and across the agency, downstream compliance is weaker than upstream compliance. To strengthen downstream compliance, AFR IEEs and award documents are increasingly requiring IPs to develop, submit and implement environmental mitigation and monitoring plans (EMMPs) for their projects. EMMPs are a systematic vehicle to implement IEE and EA conditions. EMMPs are the focus of the downstream compliance stream.

More about Reg. 216 (22 CFR 216)

Reg. 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 environmental review 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.)

Across USAID programs, **Reg. 216 documentation is developed both by Mission staff and Partners**, depending on the situation. Title II Cooperating Sponsors, for example, are required to develop IEEs as part of their MYAPs, and other partners are often asked to develop Reg. 216 documentation for new project components. Reg. 216 documentation covering multiple projects at the sector program level is developed by Mission staff or 3rd-party contractors.

Reg 216 is the best-known portion of USAID’s environmental procedures. However, Reg. 216 simply defines the pre-implementation EIA process. Unless the IEE and EA conditions that result from this process are actually 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.

Key resource

The *Environmental Procedures Briefing for Mission Staff* is a key reference to LOP environmental compliance. This training draws heavily from the *Briefing*. It is included in this Sourcebook and available at www.encapafrika.org/meoEntry.htm.

Overview of LOP Environmental Compliance for USAID Staff and Partners

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

USAID'S ENVIRONMENTAL PROCEDURES: Origin & mandate

An "environmental failure"

1974

First a court mandate

In 1974, USAID provided highly concentrated Malathion to poorly trained field workers on an agricultural project in Pakistan. Working without protective equipment in the heat, the workers sprayed each other. 5 died.

Then a mandate in law:

§117 of the FAA requires that USAID:

- utilize an Environmental Impact Assessment (EIA) process to evaluate the potential impact of USAID's activities on the environment prior to implementation
- "fully take into account" environmental sustainability in designing and carrying out its development programs.

1975

Sued by US NGOs, USAID settled out of court, agreeing to develop environmental safeguard procedures.

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--201.3.12.2.b and 204.)

Compliance with the procedures is mandatory.

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 EIA 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 env. mitigation and monitoring conditions are:*
 1. written into contract instruments.
 2. Implemented by the IP, and this implementation is monitored

CEs, IEEs, EAs*. All are the result of the EIA process specified by 22 CFR 216

Approval =
MD & BEO signatures

USAID monitors via field inspections and review of routine project reports submitted by IPs

*Categorical Exclusions, Initial Environmental Examinations, and Environmental Assessments.

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What do the procedures require? (cont'd)

4. *Environmental compliance is assessed in Mission Annual Reports*
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

More information:
USAID Environmental Procedures Briefing for Mission Staff

(in Sourcebook;
e-copy on flashdrive)

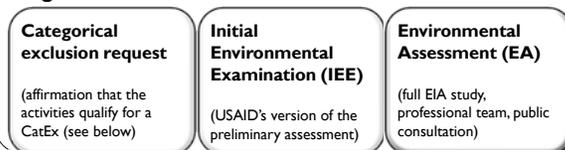
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About Reg. 216 & Reg. 216 documentation

- ❖ Reg. 216 defines the pre-implementation EIA process
- ❖ The output of this process is Reg. 216 documentation.
- ❖ The documentation assigns a determination to each activity:

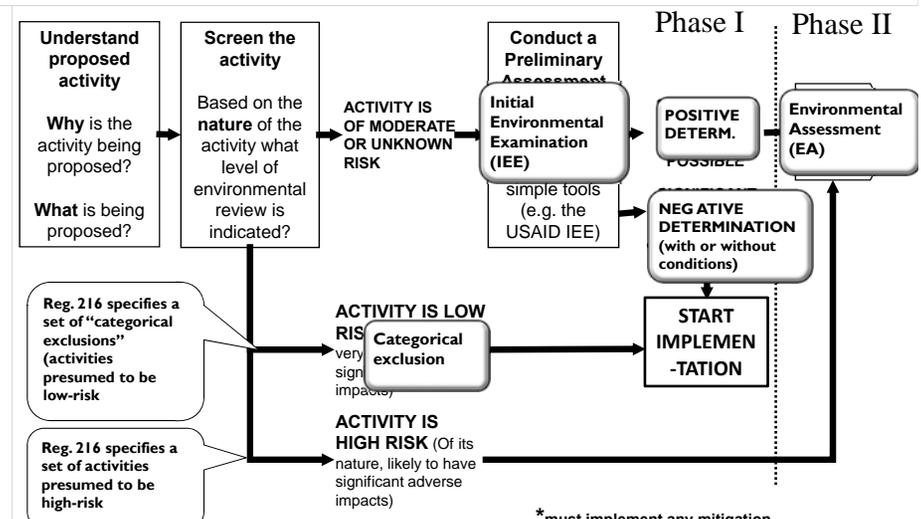
Reg. 216 documentation



Categorical exclusion	Specified classes of low-risk activities. No attached environmental management conditions.
Negative determination	IEE analysis shows that the activity presents low risk of significant adverse environmental impacts. No attached environmental management conditions.
Negative Determination w/ Conditions	As above, IF specified mitigation and monitoring is implemented. Activity proceeds on the condition and requirement that these measures are implemented.
Positive Determination	IEE analysis shows the activity poses non-negligible risks of significant adverse impacts. A full EIA study ("EA") must be developed and approved before the activity can proceed, and env management measures specified by the EA must be implemented.

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Reg. 216 implements the general EIA process



* must implement any mitigation specified by the preliminary assessment

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8

What is the status of the USAID portfolio across SSA?

❖ **Upstream compliance: not bad.**
Reg. 216 documentation exists for most projects/activities

❖ **Downstream compliance: not so good.**
Many activities have received a negative determination with conditions.

Implementation of conditions uneven;
USAID oversight inadequate

Key practices/processes to assure downstream compliance often missing:

- + Env Mitigation and Monitoring Plans
- + IP Environmental Compliance Reporting
- + Staff and IP Awareness/Skills

All are key topics in this workshop.

Implemented via contract requirements or C/AOTR technical direction

Why is downstream compliance (implementing IEE/EA conditions) important?

❖ “Reg. 216” is the part of the procedures that most people are familiar with.

❖ However, Reg. 216 simply defines the pre-implementation environmental review process.

❖ Unless the environmental mitigation and monitoring conditions that result from this process (“IEE/EA conditions”) are actually implemented*:

- *The activity is out of compliance.*
- *The Reg. 216 process is meaningless.*
- *Objectives of the environmental procedures (ESDM) are not achieved.*

For these reasons, the ADS requires C/AOTRs to (1) actively manage and monitor compliance and (2) modify or end activities that are not in compliance!

Who is responsible?

USAID

Assures Reg. 216 documentation in place. Establishes/approves environmental 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.

Sessions 5A&B.

Core EIA Skills I: Baseline Characterization, Identifying Issues of Concern

(0:50)

Objectives

Become familiar with the principles and processes that constitute the core EIA skills of (1) baseline characterization and (2) identifying issues and impacts of concern.

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, “EIA and ESDM.”)

This session addresses core skills 1 thru 3; monitoring is addressed in a later session.

Part A: Baseline Characterization & Determining Impacts of Concern (30 mins)

At first thought, characterizing the baseline situation and identifying issues of concern might seem relevant only to developing IEEs and EAs—not to implementing IEE and EA conditions (i.e. mitigation).

However, IEE and EA conditions 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 A 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 project in the East Africa subregion 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, the simple, logical process described here,

supported by good judgment and the information contained in the *Small Scale Guidelines* (or similar resources), is sufficient.

Part B: Mitigation. (30 mins)

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 (Session 8) 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 the *Environmental Guidelines for Small-Scale Activities in Africa* is a key resource for (1) identification of potential adverse environmental impacts and (2) design of mitigation and monitoring measures.

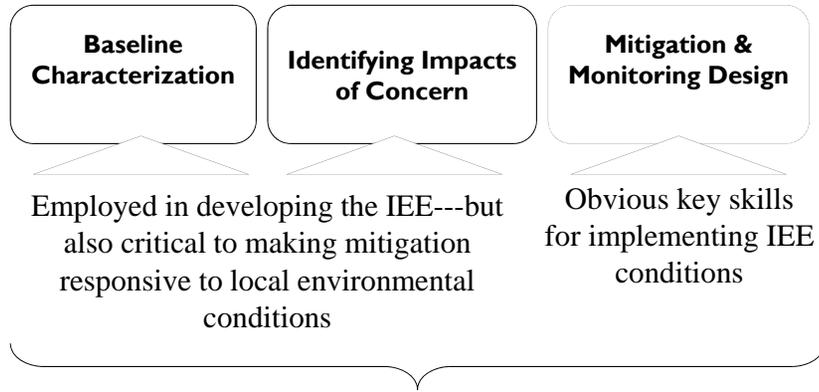
“IV.1: Topic Briefing—Introduction to EIA” in *Environmental Guidelines for Small Scale Activities in Africa*. (USAID/AFR/SD; available at www.encapafrika.org/egssaa.htm) is a general resource for core EIA skills.

Core EIA Skills I:

Characterizing the baseline situation, Identifying Environmental Impacts & Principles of Environmental Mitigation

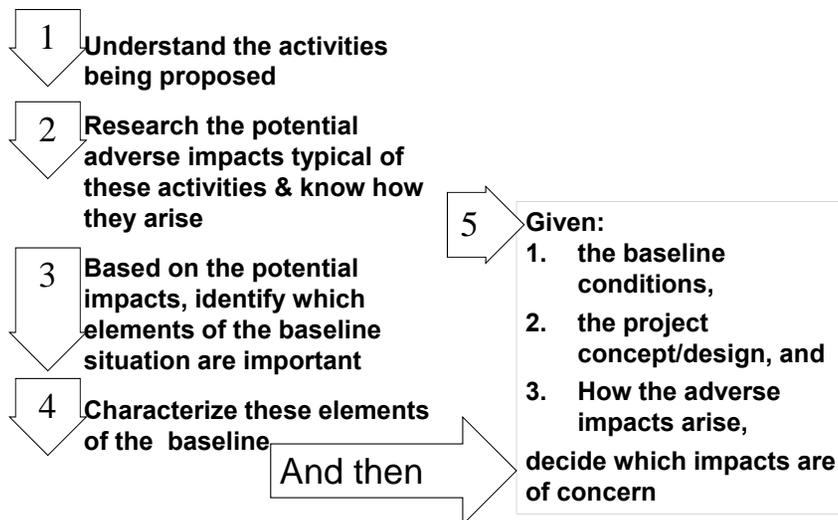
GEMS Environmental Compliance-ESDM Training Series
Africa-Asia-Latin America-Middle East 2012-2013

Core EIA Skills for Implementing IEE/EA conditions

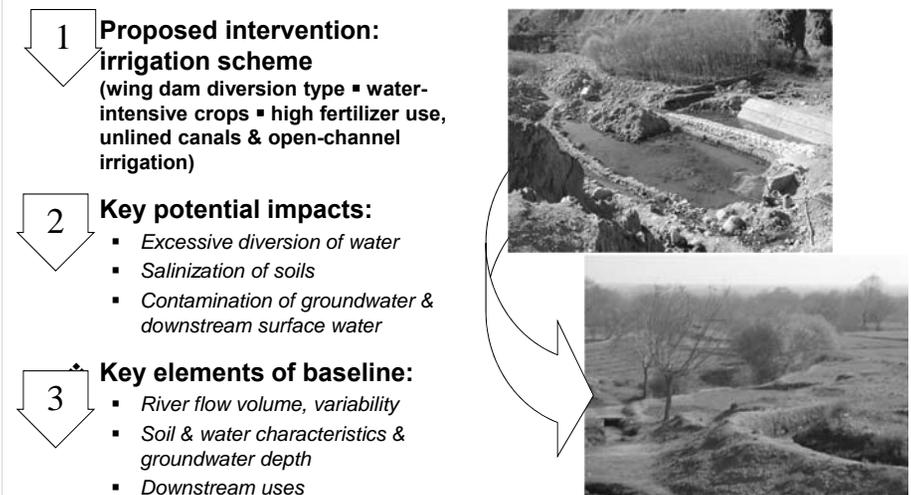


Therefore, we cover all 3 core skills. . .

Impact evaluation process: theory



Impact evaluation process: example



Impact evaluation: example

4 Baseline characterization

- *River flow volume, variability*
 - Will divert 3% of normal flow
 - low-year flows are 50% of normal
 - River is not over-utilized downstream
- *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?



*Why is this relevant to me?
I thought the IEE for my project already identified all the "impacts of concern"?*

A IEE conditions are often very general.

- ❖ They require IPs to identify issues of concern particular to a site & respond with appropriate, specific mitigation measures.

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.
- Etc.



Proposed site

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. . .

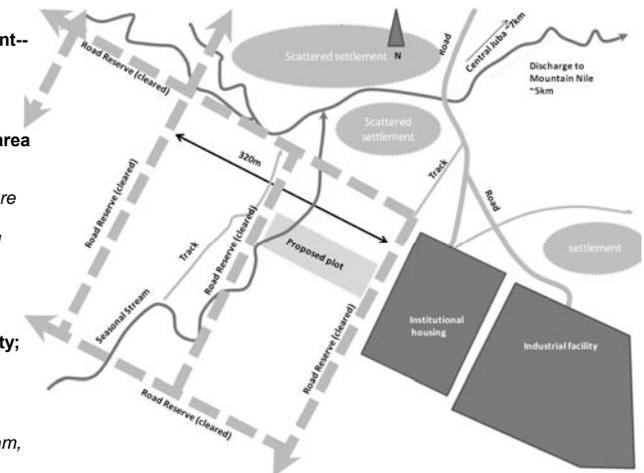
- 1: Site is in area already allocated for development--ecosystem integrity already disrupted.

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

Implication: design must assure no reduction in stream capacity/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.



How do I learn about potential impacts and how they arise?



**USAID's
Environmental
Guidelines for
Small-Scale
Activities in
Africa**

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 links to key additional resources

Hardcopy provided.

Available in your e-materials and at www.encapafrica.org.

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.

! Wait! What if I can't travel to the sites?

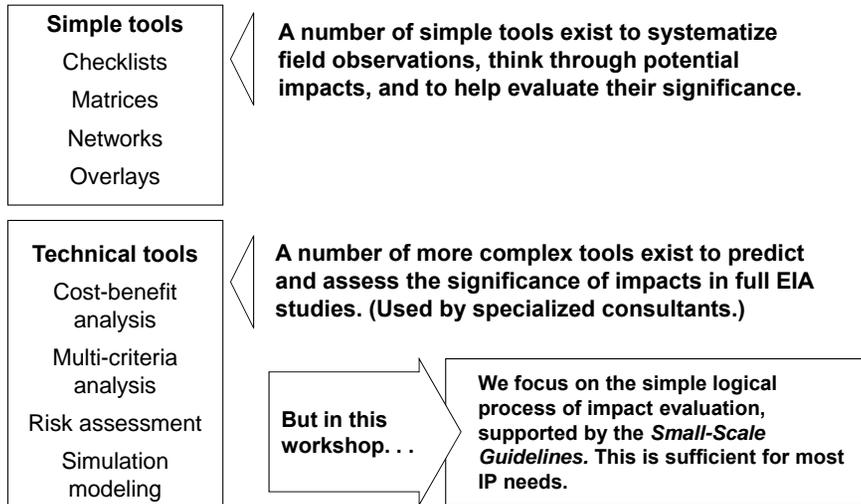
If at all possible, **DON'T** make the site characterization a desk exercise.

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

Do I need tools to evaluate impacts?



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 reduce 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

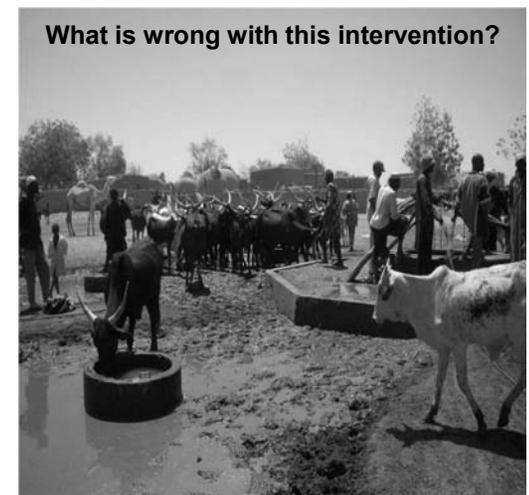
How does mitigation reduce adverse impacts?

Type of mitig measure	How it works	Examples
Prevention and control measures	Fully or partially prevent an impact/reduce a risk by: <ul style="list-style-type: none"> ▪ <i>Changing means or technique</i> ▪ <i>Changing or adding design elements</i> ▪ <i>Changing the site</i> ▪ <i>Specifying operating practices</i> 	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 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



Proper treatment system OPERATIONS

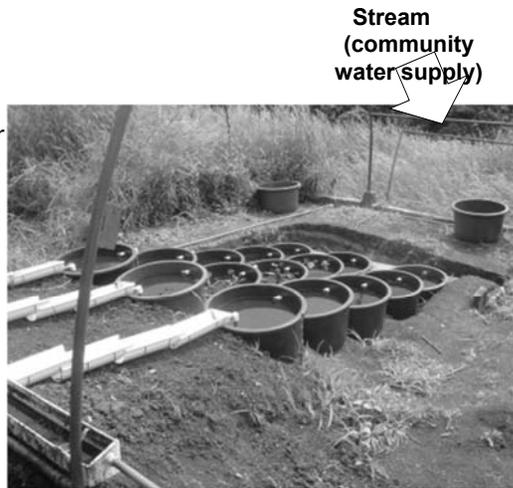
❖ Agric Processing (Coffee Washing)

▪ **Potential impacts:**
Contamination of water supplies; excessive water draw

▪ **Mitigations:**
Wash water recycling

Basic wastewater treatment (pictured)

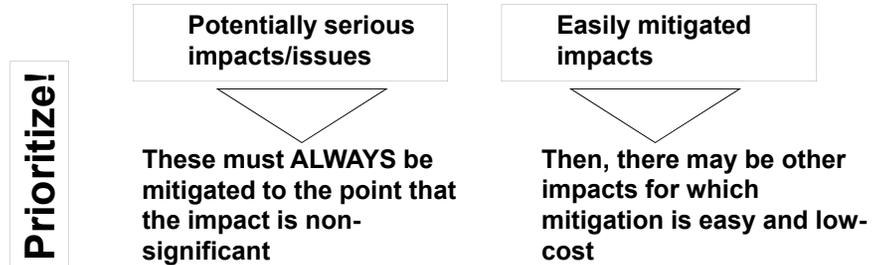
→ Proper treatment system operation is essential



Must I mitigate EVERY impact?

Mitigation specified by the IEE/EA must be implemented

But often IEE conditions are general & require the IP to exercise judgment in designing specific mitigations. In this case, apply the following principle:



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

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

Community Maintenance

Grading/planting/draining borrow pits

Siting

Design elements

Operating Practice

Remediation



Gullying can be serious!

Prevention is best

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

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

What is the best resource for mitigation design?



**USAID's
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Africa**

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 links to key additional resources

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Session 6.

Local Environmental & Social Context

(0:45)

Objectives

Become familiar with the elements of the environmental, social, and economic context most relevant to ESDM of development activities in Chipata --- and in Zambia more generally.

Format

Presentation and Q&A.

Summary

The EIA process, beginning with the identification of impacts and extending to the design of mitigation measures, is fundamentally *context-dependent*. To effectively undertake the field visits and follow-up classroom exercises that begin today, we need a basic appreciation of the environmental, social and economic context in the local area.

To address this need, invited experts have prepared 2-page “field briefings” on the issues of local context most important to understand for field review, and placing these within the context of Zambia more generally.

The briefings follow in this section.

Everyone is expected to read these briefings in advance; each expert will be allotted 15 minutes to highlight their most important points, and an additional 15 minutes are reserved for Q&A.

Resources:

Attached briefings.

Sessions 7A&B.

(4:45)

Field Visit I: Practicing Baseline Characterization, Identifying Issues of Concern & Mitigation Design

Objectives

Conduct mentored field observations to build and apply the core EIA skills briefed in Session 5.

Further build and apply these core EIA skills by (1) synthesizing field observations, and (2) with reference to the *Small-Scale Guidelines*, identifying possible mitigation measures to respond to issues of concern.

Format:

0:30 classroom briefing + preparation

3:00 site visit (including transit)

1:15 classroom follow up (working groups) and synthesis (plenary)

Summary/Instructions

Session 5A presented the basic theory of baseline characterization and impact evaluation. At the start of the day tomorrow, we will address the principles of mitigation design in session 5B.

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*.

PART A—DAY 1

A.1 Briefing and Team Assembly (10 mins)

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

A.2 Classroom Preparation (0:20)

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

Identify the most critical potential 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.

A.3. 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:

- **Observe & ask questions of the host:** (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.)

- **(For some sites) 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!

PART B—DAY 2

B.1 Classroom follow-up (1:00)

Each team will re-convene in the classroom in the morning 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 (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.
- For any sites that are already in operation or advanced construction, this will not be a pre-implementation environmental review process; rather we are examining facilities already in place, and suggesting corrective measures.

Thus (for those who may already know these terms), team outputs are *not* expected to be in the form of an IEE outline or phrased in terms of “recommended determinations.”

B.2 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 8A.

Core EIA Skills II: Principles of Environmental Monitoring

(0:45)

Objective

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

Format

Presentation

Summary

Definition. Environmental monitoring is both:

- A. Systematic observation of key environmental conditions.
- B. Systematic verification of the implementation of mitigation measures.

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. 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.

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.

B. 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.

Key resource

The *Environmental Guidelines for Small-Scale Activities in Africa* is a key resource for design of mitigation and monitoring measures.

Core EIA Skills II:

Principles of Environmental Monitoring

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

Definition of monitoring

Environmental monitoring is BOTH. . .

- ✓ 1. Systematic observation of key environmental conditions
- ✓ 2. Systematic verification of mitigation measure implementation

Purpose:
to tell you clearly and cost-effectively if mitigation is sufficient and effective

Env. Monitoring should be a normal part of project M&E.

Monitoring environmental conditions

1. **Systematic observation of key environmental conditions**

= Environmental conditions that:

Example: an irrigation project may contaminate groundwater. **Ground-water quality** is monitored.

❖ correspond to impacts & mitigation measures

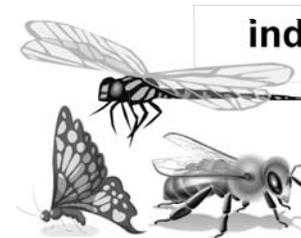
❖ Upon which the project depends for its success

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

Monitoring environmental conditions

1. **Systematic observation of key environmental conditions**

Means that environmental indicators are chosen and assessed systematically.



indicators are

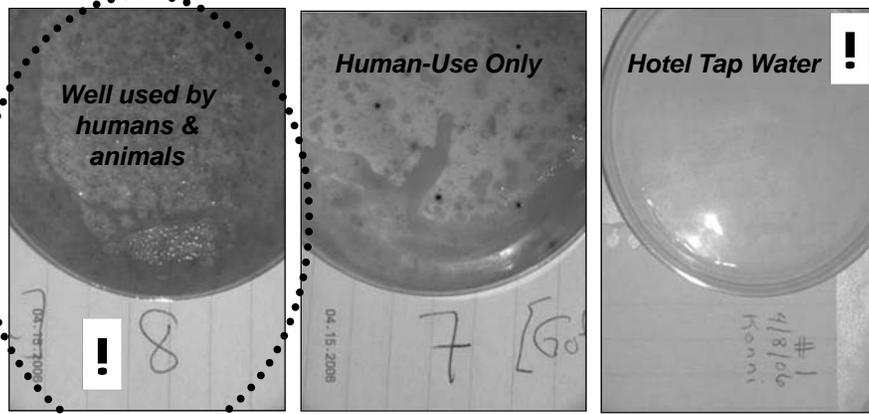
Signals of or proxies for

- Environmental health
- Ecosystem function

For example. . .

Example Indicator: coliform contamination

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



Purple Color = Fecal Coliforms
Pink Color = Non-Fecal Coliforms

Examples of indicators

Environmental components that may be adversely affected by small-scale activities

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

indicators

Environmental Indicators: sometimes complicated, often simple

- ❖ Environmental Indicators may require laboratory analysis or specialized equipment & techniques
 - Testing water for pesticide residues
 - Automatic cameras on game paths for wildlife census
 - Etc.

❖ But indicators are often VERY SIMPLE. . .

❖ . especially for small-scale activities

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

For example. . .

Examples of simple environmental indicators

Erosion measurement.



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

Surface sewage contamination

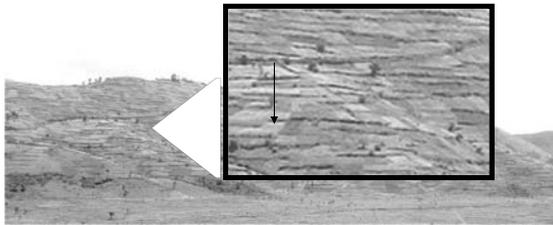


Visual inspection behind the latrine (top) reveals a leaking septic tank (bottom).



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

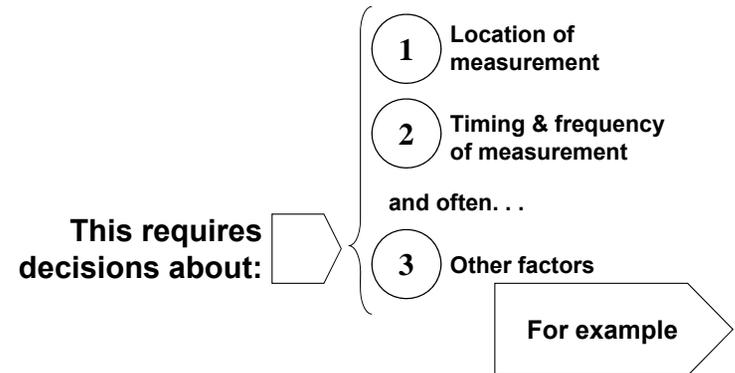
Are measured at shallow wells with a rope and bucket.



Choose the simplest indicator that meets your needs!

Assessing environmental indicators systematically

❖ Monitoring often requires **SYSTEMATIC** measurement of indicators to distinguish the impacts of the activity from other factors



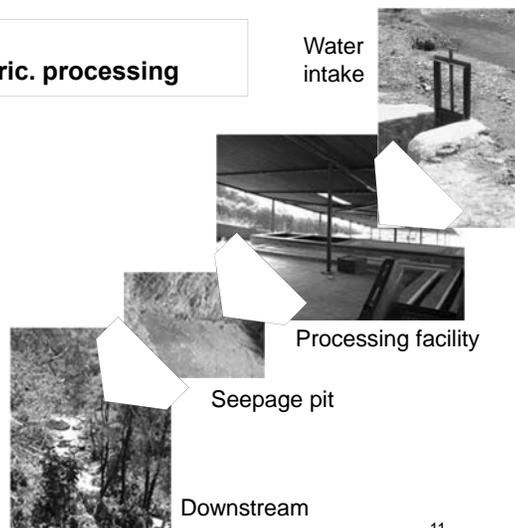
Assessing environmental indicators systematically

Example:
Water quality impacts of agric. processing

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?



Assessing environmental indicators systematically

Measuring water quality impacts from a point source of pollution (the previous example) is fairly straightforward

Often 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

Monitoring: Part 2

2. Systematic verification of mitigation measure implementation

= *Verifying whether or not the mitigation measures specified by the EMMP have been implemented. This includes quantifying mitigation: how may staff trained? How many trees planted?*

This will often not show whether the measures are effective. This is the role of environmental indicators.

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

For example

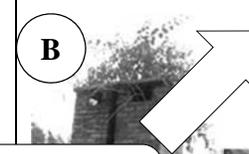
Ways to quantify implementation of mitigation

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.

Good environmental monitoring...

... tell you **clearly** and **cost-effectively** if mitigation is sufficient and effective

- ❖ Do no more than needed. Prioritize the most serious impacts & issues
- ❖ Usually requires a combination of:
 - Environmental conditions indicators
 - Mitigation implementation indicators

Example: ENCAP visual field guides



Version: 4 December 2009
download at www.encapofafrica.org/encap/visual.htm
comments and corrections to encap@ofafrica.org

ENCAP Visual Field Guide: WATER SUPPLY for quick identification of serious environmental concerns in small-scale water supply activities

About the ENCAP Visual Field Guide Series
ENCAP Visual Field Guide Series are intended for use during field visits by USAID and implementing partners and are not for environmental operations. They are intended to assess the most common serious environmental deficits in activity design and management and quickly and easily identify for corrective action.

PROBLEMS: A "YES" answer to any of the following indicates an environmental deficit in activity design or management. For USAID-funded activities, corrective action will be required. Notify the Chief of Party and the USAID Project Manager.

1. Is a tank or well supplying water for domestic use unsecured?	Issue: Early results in contamination of water with pathogens. Can provide breeding habitat for disease vectors, including mosquitoes. (Photo depicts unsecured well.)
2. Is there stagnant water around the water supply point?	Issue: May provide habitat for disease vectors and attract livestock (see below). There is a high likelihood that stagnant water around a shallow well will compromise water in the well.
3. Do livestock share the water supply point?	Issue: Early results in contamination of water with livestock feces & body fluids. May attract disease vectors (particularly flies) which are transmitters of disease of consumption.
4. Is there soil erosion in the vicinity of the water supply point?	Issue: Quickly reduces the service period of the supply point by undercutting concrete aprons, earthen and pump footings. Other leads to stagnant water around the supply point (see question 2, above).



And now for some practice!

Session 9: Small-group indicators exercise



Version: 12 January 2016
 Revised at www.encapafrika.org/encapafrika/updates/updates.html
 comments and corrections to encap@encapafrika.org

ENCAP Visual Field Guide: HEALTHCARE WASTE for quick identification of serious environmental & biosafety concerns in management of waste from small health care facilities

About the ENCAP Visual Field Guide Series

ENCAP Visual Field Guides are intended for use during field visits by USAID and implementing partners and to assess and recommend remedial actions.

These are intended to ensure that the most serious serious environmental details in activity design and implementation are quickly and easily identified for remedial action.

Note that an activity user is subject to environmental laws and management conditions identified in the Environmental Assessment or Initial Environmental Examination that are required in the jurisdiction.

The field guides complement the more detailed guidance found in the ENCAP Environmental Guidelines for Small Scale Activities in Africa.

Consult the Guidelines for guidance regarding remedial, mitigation and corrective actions. The Guidelines are available at www.encapafrika.org/encapafrika/

Disclaimer: The field guide was prepared by The Center Group, Inc. (The Center Group), an International Development Group, LLC, under USAID Africa Bureau's Environmental Compliance and Management Support (ECMS) Program. Contact Number: 202-748-6000. The Center Group, Inc. is the contractor on the work responsibility of the author and is not responsible for the name of USAID or the United States Government.

ATTENTION: Also use the visual field guide for TOILETS/LATRINES when visiting a small health facility.

WARNING: Do NOT attempt any of the following activities at environmental sites unless you are properly trained and authorized to do so. If you are not properly trained and authorized, you must not attempt any of the following activities. Notify the Chief of Party and COVID Project Manager if you are not properly trained and authorized.

1. Are sharps, bandages, other clearly infectious medical waste or contamination visible in or near ground? or in or around the facility?

YES: Sharps, bandages, other clearly infectious medical waste or contamination visible in or near ground? or in or around the facility? **NO**

2. Is there evidence for burning or burial waste in the open, or in anything other than secure, tightly closed containers?

YES: Is there evidence for burning or burial waste in the open, or in anything other than secure, tightly closed containers? **NO**

3. Is the wastewater (if present) clearly stored in a container or being used for water storage?

YES: Is the wastewater (if present) clearly stored in a container or being used for water storage? **NO**

4. Is personal protection equipment (for serious infectious disease) visible on or above the signs of use? (includes masks, hand gloves, safety glasses, aprons and boots?)

YES: Is personal protection equipment (for serious infectious disease) visible on or above the signs of use? (includes masks, hand gloves, safety glasses, aprons and boots?) **NO**

5. Issue: Significantly higher infection rates for some handoffs?

YES: Issue: Significantly higher infection rates for some handoffs? **NO**

Core EIA Skills II. Visit www.encapafrika.org

Making Mitigation & Monitoring effective

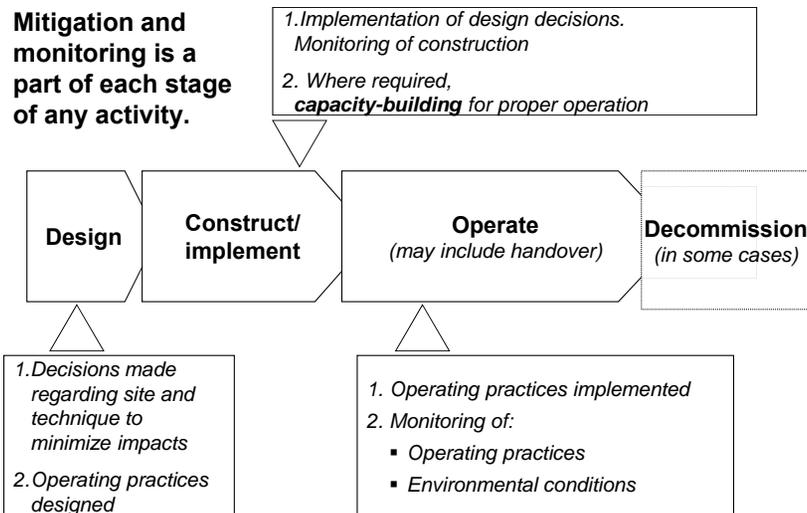
For mitigation and monitoring to be effective, it must be:

<p>Realistic. M&M must be achievable within time, resources & capabilities.</p>	<p>Targeted. Mitigation measures & indicators must correspond to impacts.</p>	<p>Funded. Funding for M&M must be adequate over the life of the activity</p>
<p>Considered early. Preventive mitigation is usually cheapest and most effective. Prevention must be built in at the design stage.</p>		<p>Considered early. If M&M budgets are not programmed at the design stage, they are almost always inadequate!</p>

Core EIA Skills II. Visit www.encapafrika.org

Mitigation & monitoring in the project lifecycle

Mitigation and monitoring is a part of each stage of any activity.



Core EIA Skills II. Visit www.encapafrika.org

Session 8B.

Small Group Indicators Exercise

(1:15)

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

0:55 Small Group Exercise

0:10 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 ENCAP 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 the *Environmental Guidelines for Small-Scale Activities in Africa*, 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.

1. Insects and other disease vectors shall not have “in and out” access to latrine pits.
2. 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.
3. 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)
4. Latrines shall include hand-washing stations, and all reasonable efforts made to encourage their use.
5. 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,
6. 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:

ENCAP Visual Field Guides

Relevant sector chapters of the *Environmental Guidelines for Small-Scale Activities in Africa*.

Session 9.

Introduction to EMMPs

(0:40)

Objective

- a. Brief the EMMP concept.
- b. Establish that EMMPs are critical to effective and systematic implementation of IEE/EA conditions.
- c. Explain the mechanisms by which USAID is requiring IPs to develop and implement EMMPs.

Format

Presentation with mini case study

Summary

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.

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, all new AFR IEEs do require that EMMPs be developed and implemented. This requirement can be operationalized either as technical direction from the C/AOTR or as a provision of new contracts and agreements.

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

EMMPs are being required because 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.

EMMP requirements written into agreements and contracts. For new awards and significant modifications to existing awards, USAID Missions and Bureaus are increasingly requiring EMMPs in the language of award instruments. This is part of a broader trend within USAID to use "best practice" environmental compliance language in solicitations and awards.

This language goes beyond the minimum requirement established by the ADS that mitigation measures be incorporated into "implementation instruments." It requires that: (1) a complete EMMP be developed; (2) workplans and budgets integrate the EMMP; and (3) project reporting tracks EMMP implementation.

The source of this “best practice language” is the *Environmental Compliance: Language for Use in Solicitations and Awards* (ECL) tool. This tool is a non-mandatory part of the ADS, and combines step-by-step guidance and “boilerplate” language. The BEOs and REAs strongly encourage its use.

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

[Title II Partners sometimes submit them as part of the IEE, itself a part of the MYAP package.]

Key Resources

Simple EMMP Template (included in Sourcebook)

EMMP Template with Monitoring Log and Budget (included in Sourcebook)

EMMP Factsheet (included in Sourcebook—see Annexes)

Environmental Compliance: Language for Use in Solicitation and Awards (ADS 204 Help Document) (included in Sourcebook)

Introduction to Environmental Mitigation & Monitoring Plans (EMMPs)

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

Congratulations...

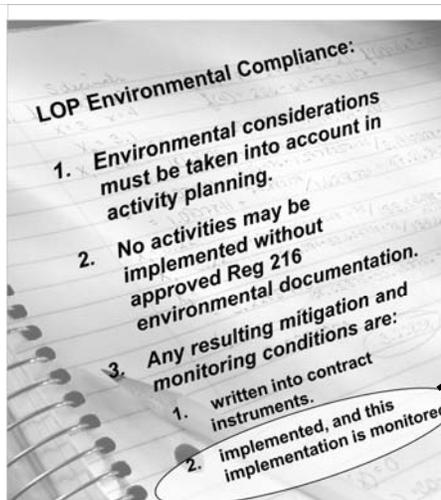
✓ **We are all Mitigation and Monitoring Experts!**

- ❖ **Now, we must apply our knowledge**
 - *IEEs (and EAs) are useless unless the conditions they establish are implemented!*
 - **USAID's environmental procedures therefore require implementation**

Introduction to EMMPs. Visit www.encapafrika.org.

2

Review: Key LOP Env. Compliance Requirements



What does the ADS say?

Team Leaders and Activity Managers or C/AOTRs must actively manage and monitor compliance with any IEE/EA conditions, modifying or ending activities not in compliance.
(ADS 202.3.6 , 204.3.4 and 303.2.f)

Introduction to EMMPs. Visit www.encapafrika.org.

3

Implementation of IEE/EA conditions

Practically, implementation & monitoring of M&M conditions requires that:

1. USAID communicates applicable IEE/EA conditions to the IP*
2. Complete **Environmental Mitigation and Monitoring Plan (EMMP)** exists
3. Workplans and budgets integrate the **EMMP**
4. Project reporting tracks **EMMP** implementation

**Except Title II partners, who write their own IEEs.*

Introduction to EMMPs. Visit www.encapafrika.org.

EMMPs are critical.
What are they?

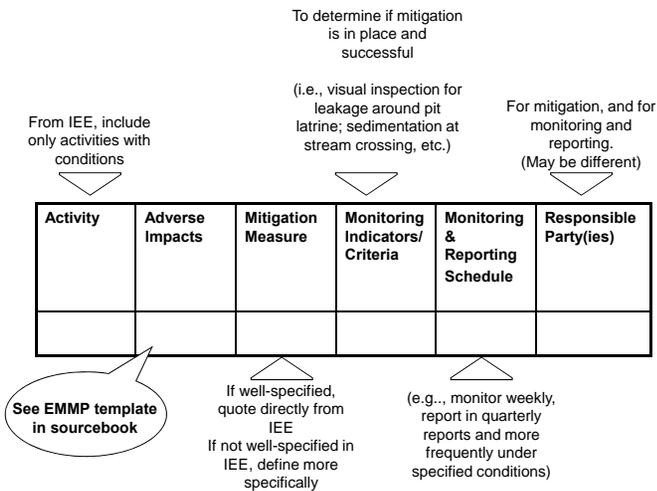
4

EMMPs: Simple in concept

Basic EMMP template

An EMMP sets out:

- ALL the mitigation measures required by the IEE/EA
- indicators or criteria for monitoring their implementation & effectiveness
- who is responsible for mitigation & monitoring.



Introduction to EMMPs. Visit www.encapafrika.org.

5

Implementation of IEE/EA conditions

More sophisticated EMMP formats can include:

1. Budgeting information---how much will a mitigation or monitoring measure cost? What is the LOE involved
2. A Monitoring Log section—where mitigation implementation information/the results of monitoring
3. Etc.

We will use an EMMP format with these features

Introduction to EMMPs. Visit www.encapafrika.org.

6

How are EMMPs being required?

Three mechanisms:

1. Technical direction from C/AOTR
2. Required by contract/agreement
3. Required by MYAP guidance (Title II only)

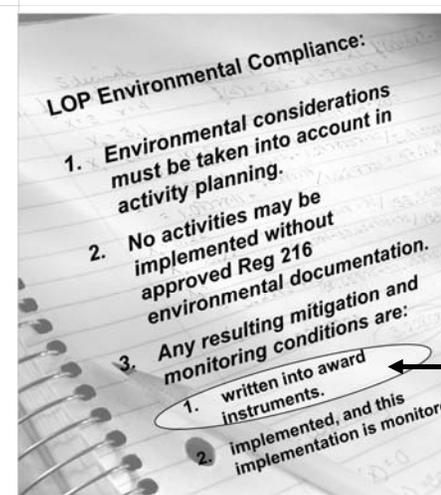
More about this...

! A key lesson learned from 40 years of world-wide EIA experience: implementation of env. conditions requires EMMPs that are incorporated in workplans and budgets

Introduction to EMMPs. Visit www.encapafrika.org.

7

USAID is Required to Write IEE/EA Conditions into Awards



ADS requires "incorporating . . . mitigative measures identified in IEEs [and] EAs into implementation instruments for programs, projects, activities or amendments."

(204.3.4.a.6; also 303.3.6.3e)

Introduction to EMMPs. Visit www.encapafrika.org.

8

Increasingly USAID is using best-practice environmental compliance language beyond the ADS minimum

New awards and significant modifications are requiring that:

1. The partner verifies current and planned activities annually against the scope of the RCE/IEE/EA.
2. The **necessary mechanisms and budget** for partner implementation of IEE/EA conditions are in place

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

◀ Specifically:

1. Complete EMMP exists/is developed.
2. Workplans and budgets integrate the EMMP
3. Project reporting tracks EMMP implementation

And new solicitations require that

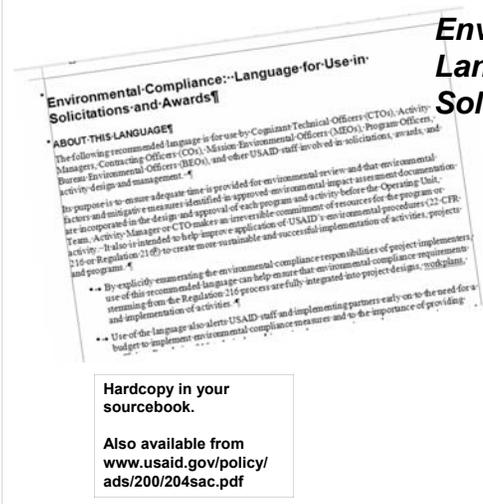
Proposals address **qualifications and proposed approaches to compliance/ ESDM** for environmentally complex activities.

Introduction to EMMPs. Visit www.encapafrika.org.

9

Source of best-practice language

(almost new)



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

- ✓ An ADS “Additional Help” document
- ❖ Easy step-by-step guidance and “boilerplate” language
- ✓ For RFAs/ RFPs/ agreements/ grants/ contracts
- ✓ Optional— but its use being strongly encouraged

Introduction to EMMPs. Visit www.encapafrika.org.

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In addition to improving LOP compliance and better achieving ESDM. . .

The ECL benefits both Mission Staff & partners:

USAID Mission Staff

Assures that environmental monitoring and reporting is integrated into routine activity monitoring and reporting— reduces the cost and effort of verification/oversight.

Avoids the effort, costs and loss of good will that come from imposing “corrective compliance” measures after implementation has started.

Implementing Partners

Provides clarity regarding environmental compliance responsibilities

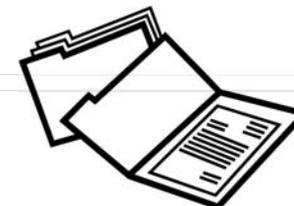
Prevents “unfunded mandates”— requirements to implement M&M after implementation has started & without additional budget.

! Missions and centrally funded programs are increasingly using the ECL. Partners should expect that future solicitations and awards will incorporate ECL-based environmental compliance language

Implementing IEE/EA Conditions. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

11

How are EMMPs approved?



EMMPs must be approved by the C/AOTR

Usually submitted & approved with the workplan or PMP

(For Title II, sometimes submitted as part of the IEE, with the MYAP.)

Sometimes additional review by the MEO or REA.



Implementing IEE/EA Conditions. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

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EMMP example: Irrigation Rehabilitation

PROJECT BRIEFING:

System reconstructed early 1980s

Abstracts water from high-level river source and irrigates 140 Ha (2 parcels; valley & hillside lands)

One dam is made of brush, straw, soil, and stone

The other is made of stone and soil

Water source low in salts; soil salinization potential is minimal.



Implementing IEE/EA Conditions. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafica.org

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EMMP example: Irrigation Rehabilitation

PROJECT BRIEFING:

Canals used for many purposes: irrigation, bathing, drinking water, laundry. . .

At the end of the dry season, not enough water for all plots

During heavy rains, canals fill with sediment from hillside erosion—result: not enough water for all plots.

No adjacent wetland nor critical wild life habitat.



Implementing IEE/EA Conditions. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafica.org

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EMMP example: Irrigation Rehabilitation



PROJECT BRIEFING:

The canals are hand made and carry open water from upstream

Roads: In poor condition—difficult to get crops out.

System maintenance committee not functional

Water distribution: Land registration to receive irrigation water was done in early 1980's. No new plots can be registered (but theft from the system is possible.)

! There are many baseline issues that are not impacts of the rehabilitation, but should be addressed in the EMMP

Implementing IEE/EA Conditions. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafica.org

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EMMP example: Irrigation Rehabilitation

Impacts/Baseline Issues & Mitigations

(Excerpt—summary language)

Sub-activity or component	Description of Impact/Baseline Issue	Mitigation Measures	#
Dam & primary canals re-construction /replacement & subsequent operation	Flooding of irrigated areas/damage to system during high-flow events	Design so that excess of water won't damage systems (excess flow diversion, removable dam etc....)	1
	Soil erosion from hillsides and secondary/tertiary canals	Install & properly operate flow regulation structures for secondary canals	2
		Protect upper slope with fruit trees (mangoes, citrus, avocado) and native forest trees	3
	Water losses (from evaporation and leaching but also from canal blockage from dirt, debris etc....)	Line primary canals with concrete	4
		Train water committee on heavy rain after-maintenance	5
	Health issue (drinking irrigation water because it appears cleaner)	Community education on water quality/use/management Water committee to enforce use restrictions	6
	Water contamination from animals, construction	Provide separate water points for construction washing stations and animal watering	7
Road rehabilitation: bridges & drainage works	Increased Deforestation (due to increased ease of access)	-Existing water committee reinforcement	8
		-Land Registration	8
Road rehabilitation: bridges & drainage works	Increased sedimentation from enhanced road drainage	Work with local officials to control deforestation	9
		Sedimentation control (silt screen and hay bails- local weeds)	10

Implementing IEE/EA Conditions. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafica.org

16

And finally. . .the EMMP itself



(Uses a Title II format that includes a monitoring results log.)

EMMP example: Irrigation Rehabilitation

EMMP & Monitoring Log

(Excerpt)

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	<ul style="list-style-type: none"> • # 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	<ul style="list-style-type: none"> • # 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				
5. Line primary canals with concrete	Engineering Contractor	<ul style="list-style-type: none"> • % of primary canals lined with concrete. • # of additional hectares irrigated 	Reports Field visit Comparison with baseline information	Quarterly				

Basic EMMP Template

(To use, fill in text in **green highlight**. Delete explanatory comments in **yellow highlight**.)

EMMP for Project **XXX**

Person Responsible for Overseeing EMMP:

[name, contact information]

Activity I: [name of activity] [briefly describe activity & summarize potential adverse environmental impacts—from IEE]			
IEE or EA Condition <small>(reproduced from the IEE or EA)</small>	Mitigation <small>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)</small>	Monitoring <small>How will the project verify that the mitigation action is being implemented and is both effective and sufficient?</small>	Timing and Responsible Parties <small>Who is responsible for mitigation, monitoring, reporting? Timing/frequency of these actions</small>
	<small>A single IEE/EA condition may require multiple action to implement—add rows as necessary</small>		

[add rows for additional conditions]

[repeat table for additional activities]

EMMP Template with Monitoring Log & Budgeting Information

Activity or Component	Potential Impact	Mitigation Measure	Responsible Party	Monitoring Methods		Estimated Cost	Monitoring Log			
				Indicator	Data source; frequency			Date	Result	Recommended Action
							1			
							2			
							3			
							4			

UPSTREAM Session 10a. Introduction to Reg. 216 & Screening Activities Under Reg. 216

(0:45)

Objective

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 and in particular the first step in this process: screening.

Format

Presentation and demonstration/discussion Summary

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 environmental review 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.)

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 both by Mission staff, Partners and 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. (Note: such IEEs are being phased out in some missions (e.g. USAID/Sudan) and in some regions (e.g. Asia and the Middle East).

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

Reg. 216 Screening and the IEE Assistant. The on-line *IEE Assistant* is introduced as a key resource to facilitate the screening process and Reg. 216 documentation development. To show the use of the tool and

to practice the screening process, we will work together to screen one or more of the following example activities:

1. An NGO will sponsor training in rodent control.
2. A group of transporters and two villages have formed a cooperative association and plan to rehabilitate a 20 km road, passing through cultivated fields, a wetland, and several smaller communities, in order to link the villages to a market town.
3. Open-ended grants are to be given to district councils, who will determine various projects to be funded with the grant monies. The principal criteria are that the projects must be designed in a participatory manner; respond to a broad range of community interests and concerns; target a community in need; and provide for the repair of war-torn infrastructure.
4. An NGO with USAID funding will drill 200 boreholes and install hand pumps to provide water for 200 schools in a province

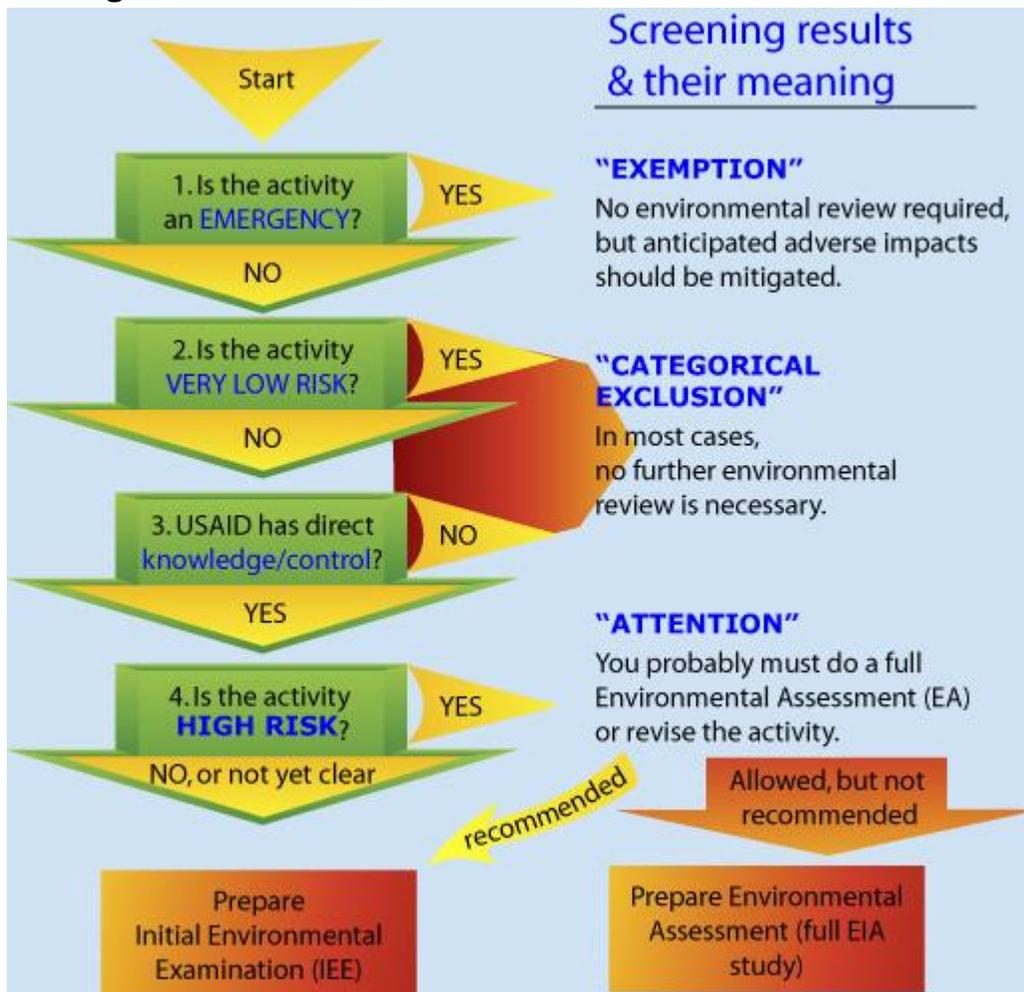
(Not all screening decisions are obvious. For some of these examples, we will discuss what additional information is required to make a well-informed decision.)

Initial Environmental Examinations. The most frequent result of the screening process is that an *IEE is required*. This session presents the basic structure of the IEE and the nature of the *recommended determinations* it may reach regarding the environmental impact of the proposed activities. The IEE is briefed in more detail in Session 13.

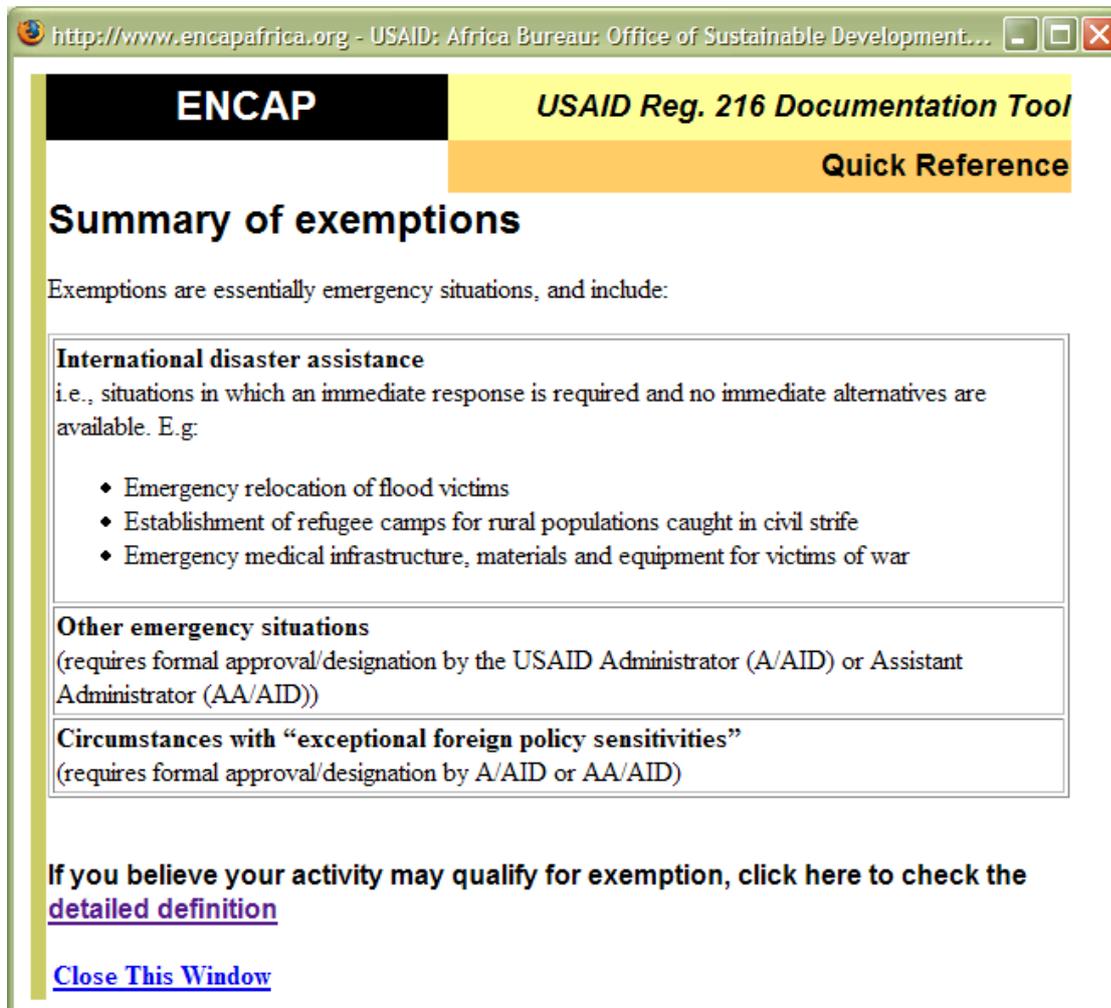
Key resource:

The on-line *IEE Assistant* (www.encapafrika.org/assistant.htm). The key screening guidance from the *IEE Assistant* is reproduced on the following pages.

Screening Flow Chart from the IEE Assistant



Summary of exemptions (IEE Assistant)



The screenshot shows a web browser window with the address bar displaying "http://www.encapafrika.org - USAID: Africa Bureau: Office of Sustainable Development...". The page content is as follows:

ENCAP	USAID Reg. 216 Documentation Tool
	Quick Reference

Summary of exemptions

Exemptions are essentially emergency situations, and include:

International disaster assistance i.e., situations in which an immediate response is required and no immediate alternatives are available. E.g: <ul style="list-style-type: none">◆ Emergency relocation of flood victims◆ Establishment of refugee camps for rural populations caught in civil strife◆ Emergency medical infrastructure, materials and equipment for victims of war
Other emergency situations (requires formal approval/designation by the USAID Administrator (A/AID) or Assistant Administrator (AA/AID))
Circumstances with “exceptional foreign policy sensitivities” (requires formal approval/designation by A/AID or AA/AID)

If you believe your activity may qualify for exemption, click here to check the [detailed definition](#)

[Close This Window](#)

Summary of categorical exclusions (IEE Assistant)

http://www.encapafrika.org - USAID: Africa Bureau: Office of Sustainable Development...

USAID Reg. 216 Environmental Documentation Tool

Quick Reference

Summary of categorical exclusions

Categorical exclusions include 2 types of activities:

1. activities which, by their nature pose very low risks of causing significant adverse environmental impacts
2. activities in which USAID has no direct control over the activity

Examples are given in the table below.

<p>Activities normally qualifying for categorical exclusions because they pose inherently low risks of adverse environmental impacts</p> <ul style="list-style-type: none">◆ Education, training or technical assistance◆ Limited experimental research◆ Analysis, studies, workshops, meetings◆ Documents or information transfer◆ General institutional support◆ Capacity building for development◆ Nutrition, health, population and family planning activities (except for construction)
<p>Activities normally qualifying for categorical exclusions because USAID has no direct control over or knowledge of the activity</p> <ul style="list-style-type: none">◆ Support to intermediate credit institutions if USAID does not review or approve loans◆ Commodity Import Programs (CIPs), when USAID has no knowledge of or control over use;◆ Support to intermediate credit institutions if USAID does not review or approve loans; Projects where USAID is a minor donor;◆ Food for development programs under Title III, when USAID has no specific knowledge or control; and◆ Grants to PVOs where USAID has no specific knowledge or control.

If you believe your activity may qualify for a categorical exclusion, confirm by checking the [detailed definition](#), including the proper regulatory citation.

[Close This Window](#)

Done

Summary of activities usually requiring an EA (IEE Assistant)

http://www.encapafrica.org - USAID: Africa Bureau: Office of Sustainable Development...

USAID Reg. 216 Environmental Documentation Tool

Quick Reference

Summary of activities normally having significant adverse impacts on the environment

Regulation 216 lists the following as activities that typically have significant adverse impacts on the environment and therefore are likely to require an ENVIRONMENTAL ASSESSMENT (EA). An EA is the fullest form of environmental review.

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

If you believe your activity falls into this category, confirm by checking the [detailed definition](#), including the proper regulatory citation.

[Close This Window](#)

Overview of Reg. 216

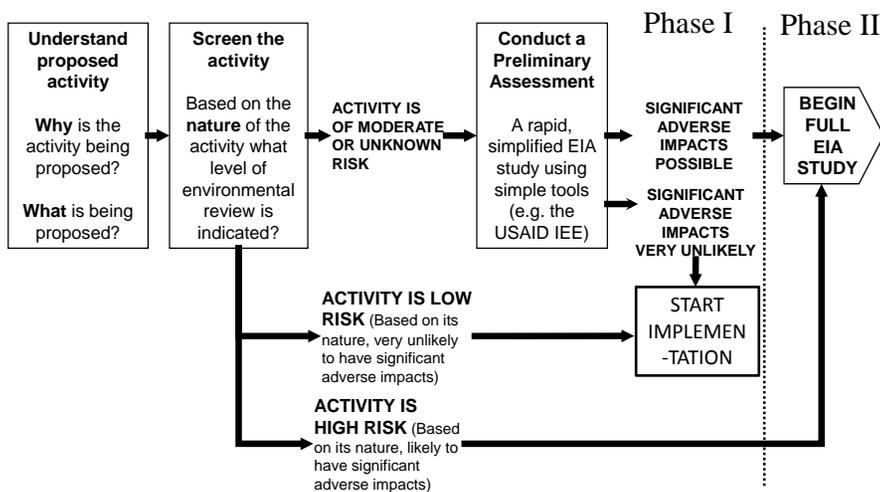
GEMS Environmental Compliance-ESDM Training Series
Africa-Asia-Latin America-Middle East 2012-2013

What is Reg. 216?

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

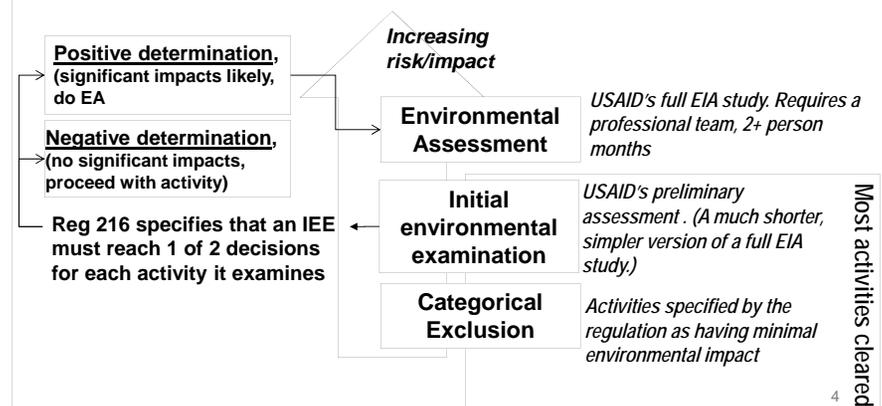
! Reg. 216 (22 CFR 216) is a US FEDERAL REGULATION. Compliance is mandatory.

Review of the EIA Process

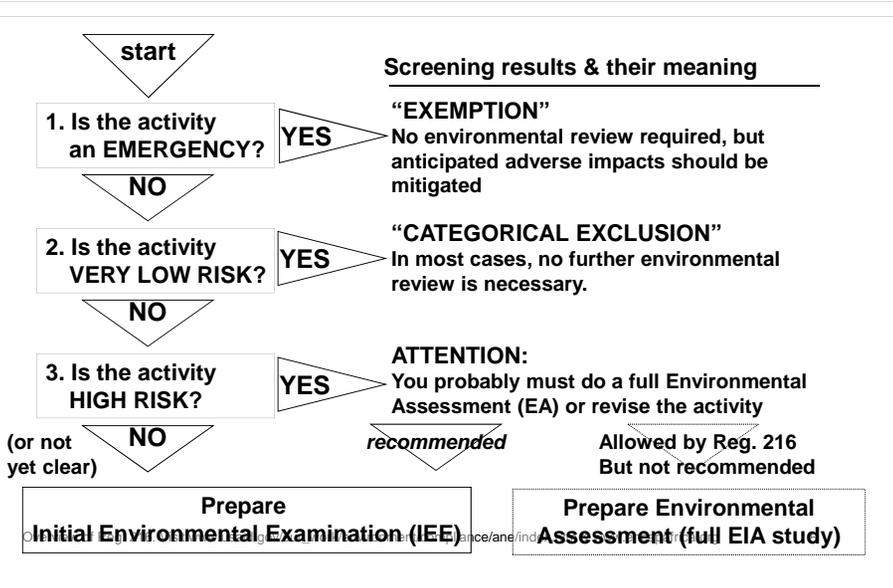


Reg 216: The big picture

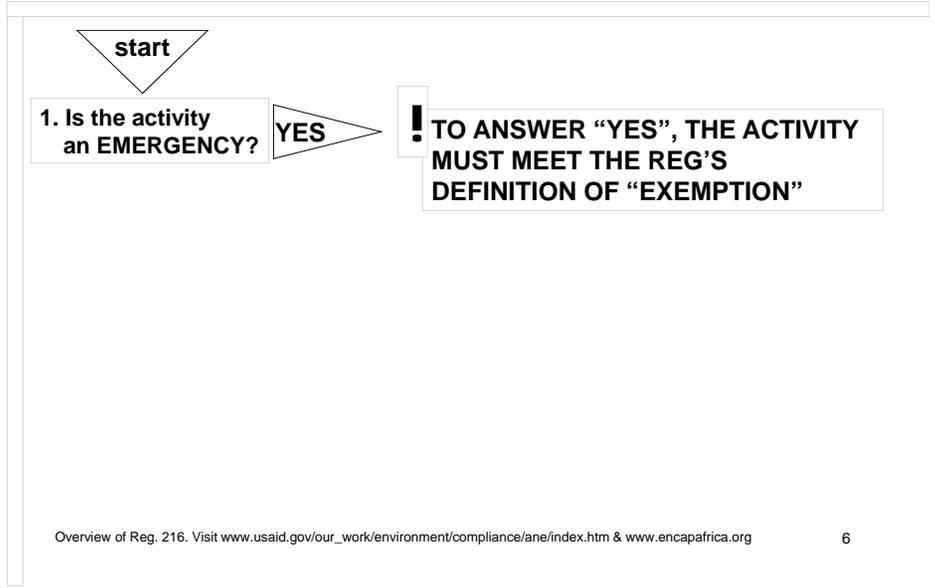
Like any EIA system, Reg. 216 features a tiered review system to focus review effort where it is needed.



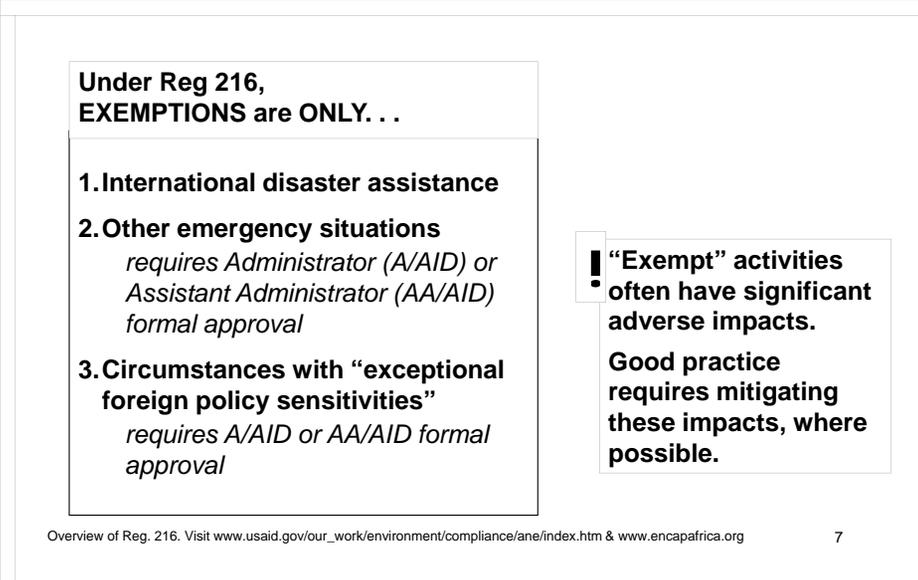
Screening under Reg. 216



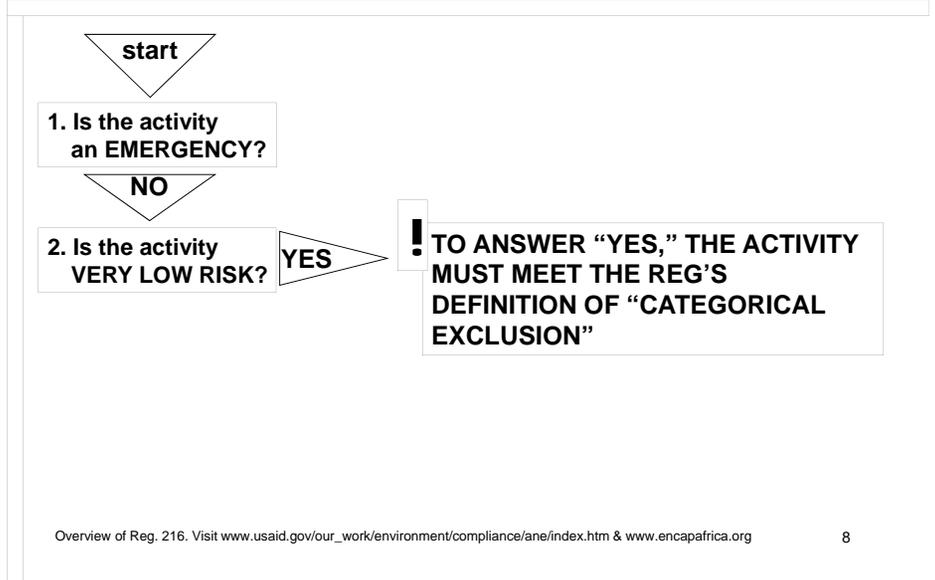
USAID Screening Categories: Exemptions



USAID Screening Categories: Exemptions



USAID Screening Categories: Categorical Exclusions



USAID Screening Categories: Categorical Exclusions (CEs)

Under Reg. 216,
ONLY a specific set of activities may receive categorical exclusions. . .

1. Education, tech. assistance, training
2. Documents or information transfers
3. Analyses, studies, academic or research workshops and meetings
4. Support to intermediate credit institutions *where USAID does not review loans*
5. Nutrition, health, family planning activities *except where infectious medical waste is generated*

And certain other situations where USAID does not have direct knowledge or control

! No categorical exclusions are possible when an activity involves pesticides

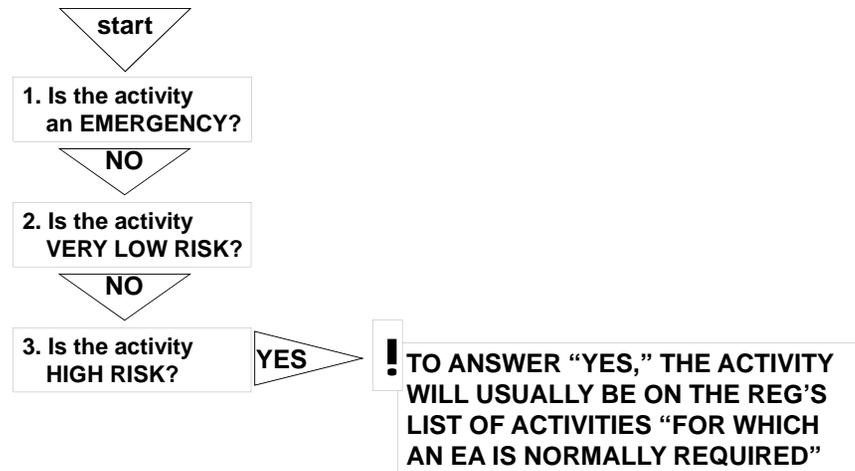
! CEs do NOT apply when a significant adverse direct or indirect effect on the environment is possible.

Note:
see 22 CFR 216.2(c)(2)
for full list

[dex.html](http://www.usaid.gov/our_work/environment/compliance/ane/index.htm) & www.encapafica.org

9

USAID Screening Categories: EA Typically Required



Overview of Reg. 216. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafica.org

10

USAID Screening Categories: EA Typically Required

Under Reg. 216, the following activities **USUALLY** require a full environmental assessment

- 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"

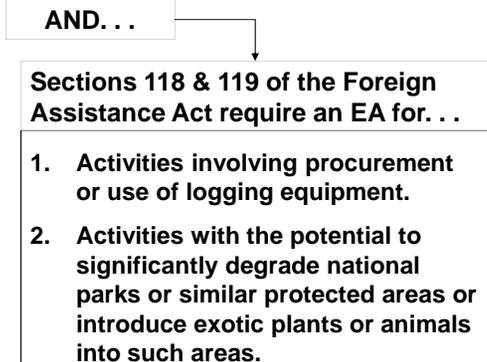
AND. . .

! Reg. 216 does not specify scales for these activities.

Overview of Reg. 216. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafica.org

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USAID Screening Categories: EA Typically Required



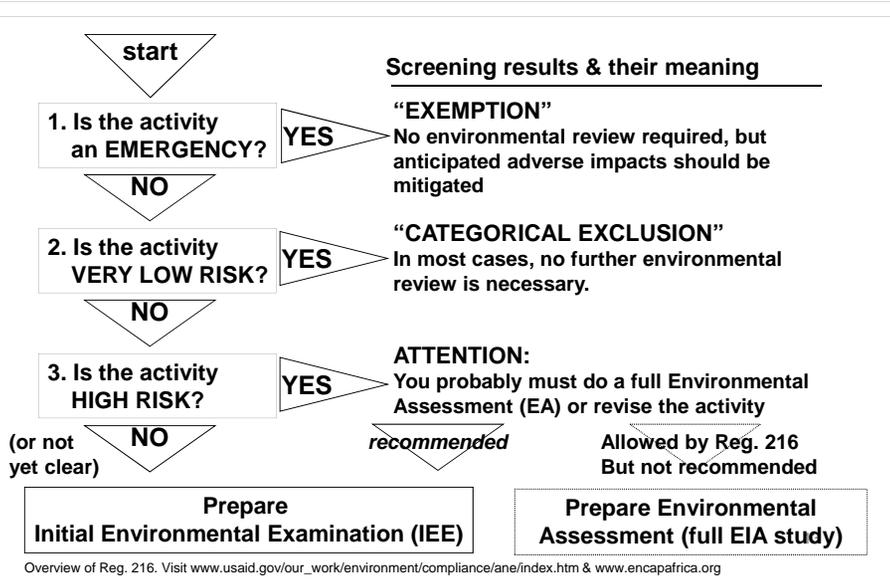
! Reg. 216 allows you to proceed directly to an Environmental Assessment for these activities.

However, we generally recommend doing a preliminary assessment (IEE) first.

Overview of Reg. 216. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafica.org

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Review: Screening under Reg. 216



What documentation is required?

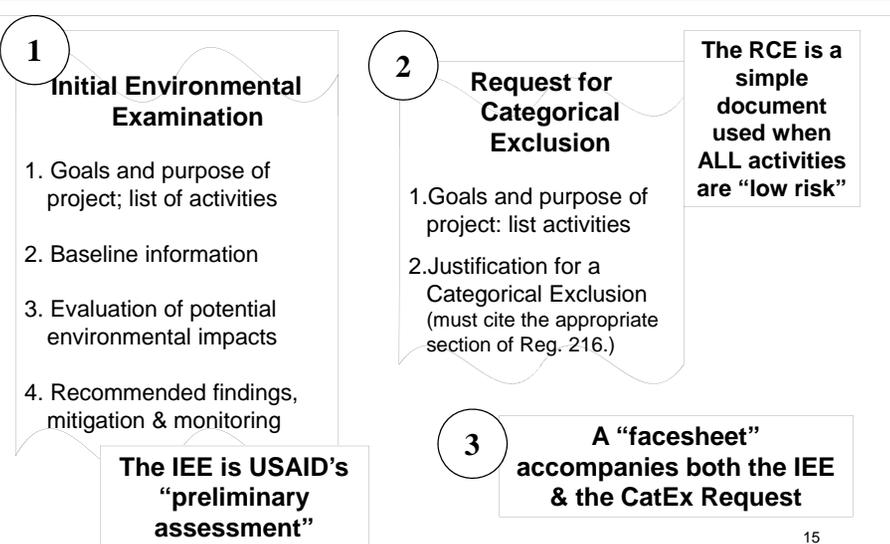
❖ The outcome of your screening process determines the documentation you must submit:

Overall screening results	Environmental documentation required
All activities are exempt	None*
All activities are categorically excluded	Categorical Exclusion request*
All activities require an IEE	IEE covering all activities*
Some activities are categorically excluded, some require an IEE	An IEE that*: <ul style="list-style-type: none"> covers activities for which an IEE is required AND Justifies the categorical exclusions

***plus a Compliance facesheet**

Overview of Reg. 216. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrica.org

Basic Reg. 216 compliance documents



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

IEEs for activities involving pesticides. . . must satisfy additional requirements via a Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP)

What does “approved” mean?

- ❖ Both IEEs and RCEs must be cleared at the Mission Level & by the BEO
- ❖ BEO concurrence *not* automatic or guaranteed
- ❖ Back-and-forth dialogue is sometimes required

Who signs?

Clearances:

- Team leader
- MEO
- Regional Environmental Advisor
- Mission Director

Concurrence

- Bureau Environmental Officer

Approval

- General Counsel (rarely)

Be aware. . .

! **Categorical exclusions exist AT THE DISCRETION of the BEO**

To avoid rejection or delay of IEEs, RCEs . .

Consult with the MEO/BEO/ REA on difficult issues BEFORE submission.

Submit a quality IEE (coming up)

An IEE is a likely result of the screening process. . .

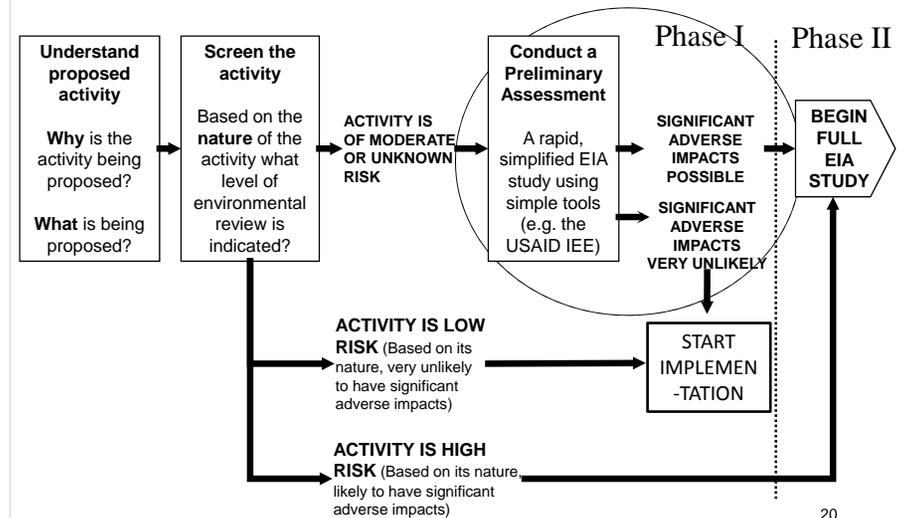
The most common screening result is that an IEE is required.

The IEE is USAID’s “preliminary assessment”

What is the purpose of a preliminary assessment?

?

Review: Purpose of the Preliminary Assessment



Purpose of the IEE

Like any preliminary assessment the purpose of the IEE is to . . .

Provide documentation and analysis that:

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

What determinations result from an IEE?

Recommended Determinations in the IEE

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

Recommendation	Reg. 216 terminology	Implications (if IEE is approved)
No significant adverse environmental impacts	<i>NEGATIVE DETERMINATION</i>	Activity passes environmental review
With specified mitigation and monitoring, no significant environmental impacts	<i>NEGATIVE DETERMINATION WITH CONDITIONS</i>	The activity passes environmental review on the condition that the specified mitigation and monitoring is implemented
Significant adverse environmental impacts are possible	<i>POSITIVE DETERMINATION</i>	Do full EA or redesign activity
Not enough information to evaluate impacts	<i>DEFERRAL</i>	You cannot implement the activity until the IEE is finalized

Note:

! If a "negative determination with conditions" is approved, those conditions become **REQUIRED** parts of project implementation & monitoring

Applying Reg. 216 at the Sector level

- ❖ Reg. 216 was written with the idea that it would be applied at the project or activity level
- ❖ Over the past decade, many IEEs written at the SO/Sector Program level
 - To make MEO, BEO workload more manageable
 - To better consider environmental issues early in program design
- ❖ The success of these IEEs depends on:
 - Mitigation and monitoring conditions successfully transferred to projects (e.g., written into contractor/partner SOWs)
 - Effective implementation of sub-project review where required

PARALLEL SESSION BLOC: UPSTREAM COMPLIANCE

UPSTREAM Session 10b.

(1:00)

Case Study: Screening Activities per Reg. 216

Objective

Via a case study, master the Reg. 216 screening process, including identifying discrete activities for environmental review from project descriptions.

Format

0:05 Briefing

0:45 Small Group Exercise

0:10 De-brief

Scenario

You are USAID program supervisory staff and will be adding a major new program component not covered by the existing IEE. You are aware that Reg. 216 documentation must be developed *prior to implementation*. You therefore meet with your team to review the proposed activities and determine the type and scope of the Reg. 216 documentation required.

Instructions

We will divide into working groups.

Each group will review their case study brief (see following pages) and use the screening guidance from the *IEE Assistant* reproduced in the previous section of this sourcebook to:

- (1) Determine the set of activities that must be screened.
- (2) Screen these activities according to Reg. 216 criteria.

Feedback will be provided within the working groups by facilitators. Activities should be listed and screening results recorded in the table below.

Activity	Screening Result			
	Exempt	Categorical Exclusion	IEE Required*	IEE Required and high risk*

*EA likely required

Key resource:

The on-line *IEE Assistant* (www.encapafrika.org/assistant.htm). The key screening guidance from the *IEE Assistant* is reproduced in the previous (Session 12a) section of this sourcebook.

Project Briefing 1:

[to be inserted]

Project Briefing 2:

[to be inserted]

Project Briefing 3:

[to be inserted]

Practice with Screening & Getting started with the on-line IEE Assistant

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

About this session

✓ In this session:
we practice Reg. 216 screening using the step-by-step guidance and linked resources in the on-line *IEE Assistant*

www.encapafrika.org/assistant.htm
[and on your flashdrive]

Practicing Reg. 216 Screening. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

www.encapafrika.org/assistant.htm

IEE Assistant: Overview

The Assistant organizes the Reg 216 documentation process into 6 basic steps:

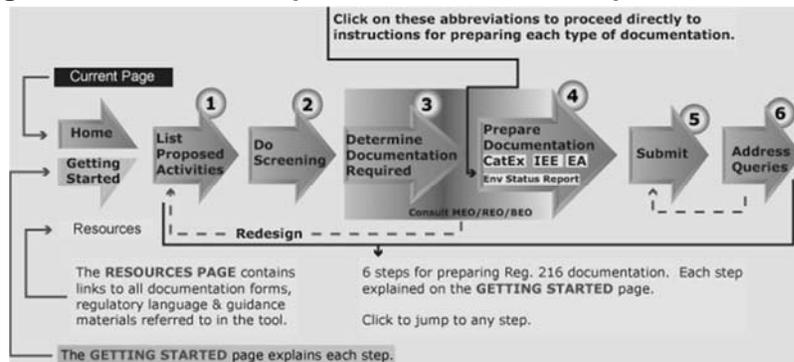
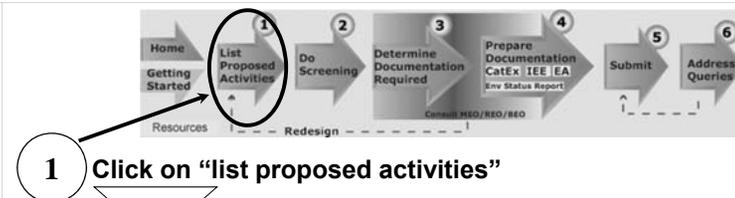


diagram functions as a navigation bar

Practicing Reg. 216 Screening. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

Getting started with Screening. ..



- ❖ The assistant defines the differences between "activities" and "actions"
- ❖ Provides a summary table to help you stay organized
 - List *each* activity
 - Record screening results

Activities (with optional notes about scale, location, etc.)	Screening Result	(If IEE is required) IEE Recommended Determination
An activity is a defined accomplishment or output (e.g. a road, seedling production, or river diversion to irrigate land). Accomplishing an activity requires a list of actions (for example, a access road rehabilitation involves survey, grading, culvert construction, connection, etc.). List activities, NOT actions.	Possible results: • Categorical Exclusion, • IEE Required, • IEE Required and High Risk	Possible determinations: • Negative Determination • Negative Determination with Conditions • Positive Determination
1. Market access road rehabilitation (~100km in up to 10 locations).	IEE required	Negative Determination with Conditions
2.		
3.		
4.		

Practicing Reg. 216 Screening. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

Review: what is an activity?

✓ **An activity is:**

a desired accomplishment or output

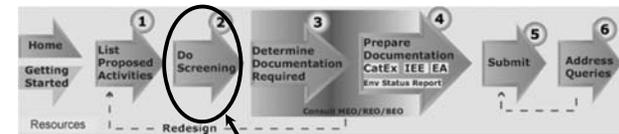
E.g.: a road, seedling production, or river diversion to irrigate land

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. .

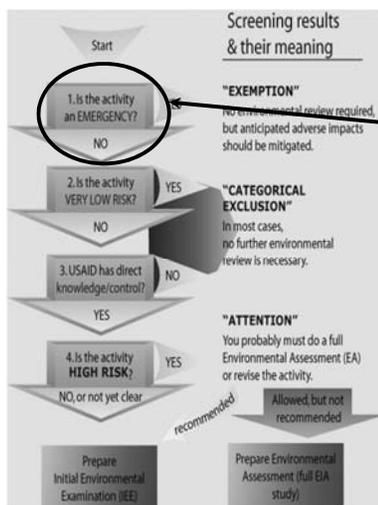
Next step: the screening decision tree



2 Click on “do screening”

The assistant shows the screening “decision tree”

Follow the screening decision tree



Click on any of the screening questions and get a pop-up summary definition

Another click gives you the detailed definition

Complete the decision tree for each activity listed. Enter the results in the summary table.

! **REMEMBER, Reg. 216 defines “Emergencies” (EXEMPTIONS) and “Low Risk Activities” (CATEGORICAL EXCLUSIONS) very specifically.**

YOUR ACTIVITY MUST SATISFY THE REG. 216 DEFINITIONS, or it is NOT an exemption/ categorical exclusion!

Review: What documentation is required?

❖ The outcome of your screening process determines the documentation you must submit:

Overall screening results	Environmental documentation required
All activities are exempt	None*
All activities are categorically excluded	Categorical Exclusion request*
All activities require an IEE	IEE covering all activities*
Some activities are categorically excluded, some require an IEE	An IEE that*: <ul style="list-style-type: none"> ▪ covers activities for which an IEE is required AND ▪ Justifies the categorical exclusions

***plus a Compliance facesheet**

Practicing Reg. 216 Screening. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

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Review: Basic Reg. 216 compliance documents

1

Initial Environmental Examination

1. Goals and purpose of project; list of activities
2. Baseline information
3. Evaluation of potential environmental impacts
4. Recommended findings, mitigation & monitoring

The IEE is USAID's "preliminary assessment"

2

Categorical Exclusion Request

1. Goals and purpose of project: list activities
2. Justification for a Categorical Exclusion (must cite the appropriate section of Reg. 216.)

The categorical exclusion request is a simple document used when **ALL** activities are "low risk"

3

A "facesheet" form accompanies both the IEE & the CatEx Request

Practicing Reg. 216 Screening. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

10

The EPTM



The IEE Assistant is based on the *Environmental Procedures Training Manual*

- Also provides step-by-step guidance & resources
- Available online at www.usaid.gov/our_work/environment/compliance/ane/eptm.htm

Practicing Reg. 216 Screening. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

11

PARALLEL SESSION BLOC: UPSTREAM COMPLIANCE

UPSTREAM Session 11a.

(0:30)

Effective IEEs: Well-written, Well-considered

Objective

Understand the basic structure of an IEE and the characteristics of well-written, well-considered IEEs.

Format

Presentation

Summary

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/COTRs, 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 (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.

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

This session will brief the structure and content of the IEE. The rules for effective IEEs will be illustrated using examples of actual IEE language:

1. Make a determination for each activity.
2. Specify a mitigation for each impact.
3. Make mitigation commensurate to impacts.
4. Use clear, uncluttered language.
5. DON'T copy blindly.

We close by noting some key tools and resources to help with writing the IEE.

Key Resources

Presentation: Writing the IEE. (ENCAP EA-ESDM training; day 2. Available on flashdrive & www.encapfrica.org)

Environmental Procedures Training Manual, Chapter 3.

Pointers and Pitfalls

A guide to successful & effective IEEs

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

This session applies equally to sub-project *Environmental Review Reports*

Objective

- ❖ Illustrate the key attributes of good and poor IEEs with examples of language from submitted IEEs
- ❖ As an IEE author or user, you want:
 - **A successful IEE.**
An IEE that is approved so work can start!
 - **An effective IEE.**
An IEE that is a basis for effective action to control the adverse impacts of the activities.



Well-considered, well-written IEEs. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

The Initial Environmental Examination (IEE)

Basic IEE outline

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

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

Well-considered, well-written IEEs. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

5 basic rules of good IEEs

1. Make a determination for each activity
2. Specify a mitigation for each impact
3. Make mitigation commensurate to impacts
4. Use clear, uncluttered language
5. DON'T copy blindly

Well-considered, well-written IEEs. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

1. A determination for each activity

- ❖ Remember, the IEE requires a recommended determination for EACH activity

Outcome	Reg. 216 terminology	Implications (if IEE is approved)
No significant adverse environmental impacts	NEGATIVE DETERMINATION	Activity passes environmental review
With specified mitigation and monitoring, no significant environmental impacts	NEGATIVE DETERMINATION WITH CONDITIONS	With the inclusion of the specified mitigation and monitoring, the activity passes environmental review
Significant adverse environmental impacts are possible	POSITIVE DETERMINATION	Do full Environmental Assessment or redesign activity
Not enough information to evaluate impacts	DEFERRAL	You cannot implement the activity until the IEE is finalized

Well-considered, well-written IEEs. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrica.org

5

1. A determination for each activity

- ❖ Therefore, clearly state the specific activity and corresponding recommendation!

“A negative determination with conditions is recommended...for activities in cluster formation. This component includes . . . introducing grading and quality control facilities, and promoting the use of post harvest and handling facilities.”

Good! ✓

“A categorical exclusion is recommended for training activities. APEP intends to train farmers belonging to producer organizations in financial and business management. These activities will have no effect on the environment.”

Good! ✓

Well-considered, well-written IEEs. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrica.org

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1. A determination for each activity

- ❖ Don't make the IEE reviewer search for the activity that corresponds to the recommendation

“For activities involving increased production, include the condition to monitor the impact of activities on land use to ensure that expansion of crop area does not lead to land degradation, destruction of forest or other adverse impacts.”

UNCLEAR ✗

What is the problem?

This paragraph does not state clearly which activities involve increased production.

Well-considered, well-written IEEs. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrica.org

7

2. Mitigation for each impact

- ❖ Mitigation measures should be clearly matched to impacts

“For activities supporting improved milling and processing technologies where waste disposal could result in adverse environmental impacts, XXX will conduct training of staff and will ensure that an environmental management plan (EMP) is developed and implemented. . . .”

OK. . . ✓

And even better. . .

The RESPONSIBILITY for these mitigation measures is also clearly established.

Well-considered, well-written IEEs. Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrica.org

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3. Mitigation commensurate to impacts

❖ **Strong, rigorous mitigation measures are needed to minimize potentially significant impacts.**

Consider. . .

“For activities that might result in expansion of the agricultural frontier into sensitive or relatively undisturbed habitat, ensure that farmers understand concepts of soil erosion control.

What do you think?



Is this mitigation measure commensurate with the impact?

3. Mitigation commensurate to impacts

X **NO! This is a potentially significant environmental impact!**

The mitigation measure is not rigorous enough

! **This example has the same problem. . .**

IMPACT: “there will be an increased risk of significant adverse environmental impacts if activities result in increased agricultural production without corresponding investments in sustainable natural resource use.”

MITIGATION: Monitor the impact of activities on land use to ensure that crop expansion is not leading to land degradation, destruction of forest or other adverse impacts.

3. Mitigation commensurate to impacts

? **What about this one?**

IMPACT: Misuse of fertilizers could negatively impact the soil ecology and result in pollution of watercourses and wetlands.

MITIGATION: Therefore, this IEE recommends that training in proper use be an integral part of any program to introduce fertilizers.

! **BASIC CRITERIA FOR MITIGATION MEASURES**

Mitigation measures should be. . .

1. **Commensurate** with the potential impact **AND**
2. **MONITORABLE**
Implementation of the measure can be monitored
3. **MEASURABLE**
Their effectiveness can be measured
4. **REPORTABLE**
to USAID

4. Use clear language

? **Consider. . .**

“The **negative determination** is also conditioned on the provision of supplemental project technical assistance and training support to augment existing efforts aimed at the establishment of appropriate, sustainable policies and programs stimulating agricultural productivity and economic growth.”

! **If you read this, what is your reaction?**

4. Use clear language

Unclear and cluttered language makes the reviewer suspicious and confused.

The reviewer reaches 1 of 2 conclusions:

! Either the author doesn't know what they are trying to say
or
They are trying to hide something!

4. Use clear language

Using clear language in an IEE means following 2 basic rules:

- 1 WRITE IN ACTIVE VOICE
- 2 BE SUCCINCT

X "It will be monitored..."

✓ "In coordination with the COTR, the MEO will monitor..."

The passive tense hides responsibility and cause and effect. The active voice requires you to explain WHO monitors, and HOW they monitor.

4. Use clear language

- 1 WRITE IN ACTIVE VOICE
- 2 BE SUCCINCT

NEPA says it best. . .

"concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail."

Give precisely enough information so that the reviewer can make an informed decision.

Be analytic, not encyclopedic

4. Use clear language

To paraphrase NEPA:

! The purpose of environmental review is "not to generate paperwork, even excellent paperwork, but to foster excellent action..."

5. Don't copy blindly!

? Consider. . .

Monitoring. "As required by ADS 204.5.4, the SO team will 'actively monitor and evaluate whether the environmental features designed for the activity...are being implemented effectively and whether there are new or unforeseen consequences....' If additional activities not described in this document are added to this program, an amended environmental examination must be prepared and approved."

What is the problem?

This text is copied directly from the ADS. It does not specify:

WHO will monitor

HOW they will monitor

HOW they will determine if there are "new or unforeseen circumstances"

5. Don't copy blindly!

Simply copying language from from previous IEEs or from USAID IEE guidance causes the reviewer to lose confidence:

The reviewer reaches 1 of 2 conclusions:

! Either the author has given no thought to the issue,
or
they are deliberately avoiding making specific commitments.

Either way, this IEE will NOT "foster excellent action."

Caveats. . .

❖ IEEs that follow these 5 rules will not be accepted automatically.

- *An informed reviewer may have a different opinion than you regarding the likely impacts of your activities.*
- *Different MEOs, REAs, and BEOs interpret the regulations differently.*
 - Categorical exclusions, and the sufficiency of IEE conditions are all subject to interpretation
 - Although USAID is moving towards more conformity, we have not yet achieved it!

Guidance & resources for writing IEEs

Presentation: "Writing the IEE"	Available at www.encapafrica.org/ESDM/day2.htm (under Module 9)
EPTM	Available at www.encapafrica.org
Archive of approved AFR IEEs & EAs	
On-line IEE Assistant	Available at www.encapafrica.org
Other resources in the MEO Resource Center	

PARALLEL SESSION BLOC: UPSTREAM COMPLIANCE

UPSTREAM Sessions 11b-d

(5:15)

Effective IEEs: IEE Review Case Study

(includes 2nd field visit)

Objective

Apply the principles outlined in the previous section to evaluate IEE quality, including whether recommended determinations and conditions are appropriate.

Format

0:15 briefing & field visit preview

4:00 field visit (including travel time)

0:50 small group work

0:10 plenary discussions

Summary/Scenario

This session continues the case study begun in UPSTREAM Session 10b. You are again USAID program supervisory staff in the process of adding a new program component. Following the internal screening exercise (upstream session 10b), you engaged a contractor to develop the IEE for this new component.

Your team has now received the draft IEE and must evaluate/critique it with respect to the following:

- Does the IEE address the full scope of the activities you identified in Part 1?
- Does it characterize the most critical elements of the baseline situation?
- Are potential impacts evaluated logically and appropriately?
- Are mitigation measures (1) *adequate* and (2) *within the scope of your reasonable authority*? (For example, you cannot impose conditions on actors not involved in the project.)
- Are recommended determinations reasonable? (If categorical exclusions differ from your screening results, do you agree?)

To help you evaluate the IEE and the proposed IP workplan and PMP, you undertake a field visit to either (1) the site of the proposed project, or (2) a similar activity already in implementation/implemented. In both cases, your field observations should allow you to make a more informed critique/evaluation of the IEE.

Note: Sadly, your consultant did not submit a quality product. The draft IEE has some clear deficiencies and some deficiencies that are more subtle or debatable.

11b. Briefing (0:15 end of Day 2)

The training team will brief both the overall IEE review exercise and the field site(s).

11c. Field Visits (4:00; beginning of day 3)

We will travel to the field to visit either (1) the site of the proposed project, or (2) a similar activity already in implementation/implemented. In both cases, our field observations should allow us to make a more informed critique/evaluation of the IEE.

This field exercise is intended to further sharpen observational and impact-prediction skills, give us practice/experience in implementing these skills within the IEE framework, *and sharpen our* understanding of what constitutes a good quality/poor quality IEE.

11d. Team Working Sessions & Plenary Synthesis (1:00)

Upon our return from the field (and after lunch!), we will divide into teams. Each team will critique their draft IEE (beginning on the next page), being sure to review (1) the project description provided in Upstream Session 10b, and (2) the screening results, also from session 10b.

Key sections of the *Small-Scale Guidelines* are provided as impacts and mitigation design references.

The groups will then evaluate/critique the IEE using the criteria listed above. Key points from the discussion should be recorded on flip charts in bullet-point form. Feedback will be provided within the working groups by facilitators.

Follow-up plenary discussions may feature either working group de-briefs, or a discussion of issues such as:

When are IEE amendments required? How should sector/SO-level IEE conditions be “mapped” to the activity level? What are typical IEE conditions for common classes of activities? etc.

Key Resources

Field notes/observations

Project Scenarios & Screening Results from UPSTREAM session 10b

Small Scale Guidelines excerpts

SITE BRIEFING 1: XXXXXX

Draft IEE for Project 1:
XXXXX

(in bullet-point form for quick reading)

(to be inserted)

UPSTREAM Session 11e. Effective IEEs: Follow-thru

(1:00)

Objective

Practice our USAID staff role as receivers and reviewers of EMMPs by attending EMMP presentations by teams acting in the role of an IP.

Format

EMMP Plenary Presentations by “downstream” teams with feedback from the training team and Q&A.

Summary/Scenario & Instructions

This session concludes the case study we began in UPSTREAM session 10b and have continued in UPSTREAM sessions 11b-d.

You are again USAID program supervisory staff in the process of adding a new program component or beginning a new project. The problems you identified with the IEE (session 13b) have been corrected and the IP has developed an EMMP for the activity responding to the final IEE (or EA) conditions. (See below)

You ask the IP to come and present their workplan and EMMP to your team. Listen to the presentation, evaluate it critically, and ask questions.

Final IEE Conditions:

PROJECT 1 (insert)

Final IEE Conditions:

PROJECT 2 (insert)

DOWNSTREAM Session 10.

(0:30)

Translating General IEE Conditions Into Specific Mitigation Actions: Key Principles

Objective

Understand by example basic principles and approaches for translating general IEE conditions into specific mitigation actions.

Format

Presentation and discussion

Summary

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 *Small Scale 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 through a set of actual examples of “general IEE conditions” and discuss as a group how to translate them into specific mitigation actions.

■ _____

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

Translating General IEE Conditions into Specific Actions: Key Principles

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

The Issue: Extremely General IEE Conditions

- ❖ IEE conditions are often written very generally
- ❖ Implementing these conditions requires first translating them into specific mitigation actions

How do we 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.”



Translating IEE Conditions to Actions.

2

The Basic Approach: Refer to Appropriate Standards or Best Practice Guidance

For our well example:

- ❖ Identify & adopt siting criteria from appropriate standards or best practice guidance
- ❖ The concrete mitigation action in the EMMP is:
“Compliance with project well-siting criteria”
- ❖ Attach siting criteria to EMMP; make checklist for use by field teams and M&E staff.

Host country standards



Sphere standards



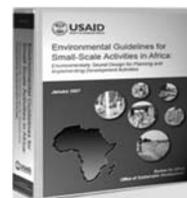
Small-Scale Guidelines

ETC.

Translating IEE Conditions to Actions.

3

Well siting criteria from the *Small-Scale Guidelines*



MINIMUM distances from potential sources of contamination for well siting:

- ❖ 45 m from a preparation or storage area for agrochemicals, fuels, or industrial chemicals.
- ❖ 25m from cesspools, leaching pits, and dry wells.
- ❖ 15m from a buried sewer, septic tank, subsurface disposal field, grave animal or poultry yard or building, latrine pit, or other contaminants that may drain into the soil.
- ❖ More than 45m from a septic tank leach field

Let's discuss some other examples:

Translating IEE Conditions to Actions.

4

Example 2: Health Services Capacity & Policy



“Capacity-building and policy development support to public health delivery & management systems must involve all feasible efforts to assure that these systems:

- ❖ address and support proper waste management (including handling, labeling, treatment, storage, transport and disposal of medical waste)
- ❖ address and support the capacity of medical facilities for waste management;
- ❖ prioritize environmental health considerations”

Requires identifying an appropriate waste management standard & specifying what is feasible, given that the project will not have direct control over these systems.

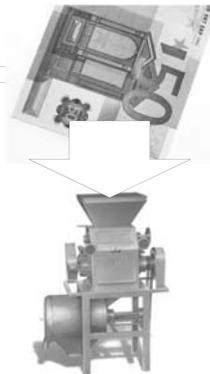
Example 3: Direct Financial or Technical Assistance to Agroprocessing Enterprises



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

Example 4: Strengthening Finance for Micro & Small Enterprises

Financial Institution capacity-building shall incorporate basic environmental due diligence concepts and development of appropriate due diligence processes, to include screening both for environmental compliance and for enterprises that represent high environmental risks.



PARALLEL SESSION BLOC: DOWNSTREAM COMPLIANCE

Session 11a-e (downstream).

(8:45)

EMMP Development

(includes 2nd Field Visit)

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 & field visit briefing (day 2)
- 1:30 11b. EMMP development group work (end of day 2)
- 4:00 11c. Field visit (day 3)
- 1:45 11d. EMMP Development group work (day 3)
- 1:00 11e. Team presentations of EMMPs (time limit per team provided by facilitators)
& wrap-up discussions

Summary

From session 9, 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 developed the core EIA skills required for development of an EMMP.

In this session, we will integrate and further 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.

Part A. Briefing (0:30)

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

Part B. Group Work: EMMP Development (1:30)

Teams will initiate development of their EMMP, using the *Small-Scale 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 the mitigation and the 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 of the *Environmental Guidelines for Small-Scale Activities in Africa*.

Part C. Field Visit (3:15)

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 (1:45)

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 (1:00)

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 12.

(0:30)

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.

Best practice for IP environmental compliance reporting consists of two elements:

1. Project reporting should provide an auditable record of environmental compliance.

Generally, IP's 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. One or more key project performance indicator(s) (project results framework) should 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 of 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 necessary 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 or health care activities, use the ENCAP Visual Field Guides). For environmentally complex activities, specific field visits should be made to verify EMMP implementation.

In summary, IP and USAID environmental compliance roles and responsibilities 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: <ol style="list-style-type: none"> the EMMP (for responsiveness to IEE/EA conditions & sufficiency of monitoring); The budget/workplan (to verify that EMMP implementation is planned and funded); and 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.

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:

Reporting on Environmental Compliance. Visit www.encapafrika.org

“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.

	Incorporated in final technical specifications		Built-as specified? (confirmed by field inspect.)			Notes (Issues & resolution)
	Date Confirmed	Initials	Y/N	Date of inspection	Initials	
Design requirement						
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.)						Excerpt of EMMP with monitoring record for medium-scale construction project.
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.						

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	<ul style="list-style-type: none"> # 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	<ul style="list-style-type: none"> # 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				

The irrigation rehabilitation EMMP from the “Intro to EMMPs” session

❖ 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

Reporting on Environmental Compliance. Visit www.encapafrika.org



Fuel Wood & Deforestation

9

“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



Reporting on Environmental Compliance. Visit www.encapafrika.org

10



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.

Reporting on Environmental Compliance. Visit www.encapafrika.org

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)

Reporting on Environmental Compliance. Visit www.encapafrika.org

12

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.

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

“Performance Assessment aligns with Programming Framework”:

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 4 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: Resources for ESDM & Compliance

(0:10)

Objective

Review the key ESDM/environmental compliance resources introduced during the workshop; introduce the offline version of the ENCAP website.

Format

Short presentation & demonstration of offline version of ENCAP website

Summary

This session familiarizes us with the ESDM and environmental compliance resources available on the ENCAP website (www.encapafrika.org) and on the flashdrives provided to each participant. (The flashdrives contain a full off-line copy of the site.)

These resources include:

- The *Small-Scale Guidelines*
- A number of other sectoral resources
- Training Materials
- The searchable Africa IEE and EA Archive, and the
- *MEO Resource Center*.

The session also summarizes the environmental compliance & ESDM support services available to Missions via USAID/AFR/SD's ENCAP program.

Key Resources

As referenced above.

Resources for ESDM & Env. Compliance

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

Key resources on www.encapafrika.org:



MEO Handbook
LOP Env. Compliance

New ANNEX:
short, stand-alone environmental procedures briefing for Mission Staff

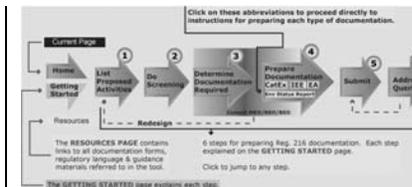


Small-Scale Guidelines
Impacts/ Issues of concern; Mitigation & Monitoring



Visual Field Guides
Quick field identification of common problems

Individual copies provided



IEE Assistant & Env Procedures Training Manual
Screening and RCE/IEE development



All are available via...

ESDM and Env. Compliance Resources. Visit www.encapafrika.org

MEO Resource Center



ENVIRONMENTALLY SOUND DESIGN AND MANAGEMENT CAPACITY-BUILDING FOR PARTNERS AND PROGRAMS IN AFRICA

Home | Training | Tools and References | Search | Contacts | Links | Download Adobe/Microsoft Viewers

Welcome to the MEO Resource Center

The MEO Resource Center is a single point of access to a wide range of environmental compliance, best practice, and related references for MEOs. It was created as a companion to the MEO Handbook. Together, the Resource Center and the Handbook are intended to provide USAID Mission Environmental Officers (MEOs) in Africa with the guidance and the resources they need to be as effective as possible in helping their Missions attain and maintain full compliance with USAID's Environmental Procedures and to mainstream environmentally sound design and management (ESDM).

Compliance Forms

- Environmental Review Form Word (201 KB)
- Statement of Environmental Characterization PDF (44 KB)
- Template for IEE and CE Requests and IEE Outline Word (46 KB)
- Template for IEE and CE Requests and RCE Outline Word (36 KB)
- Annotated Outlines and Templates for IEE and CE Word (50 KB)
- IEE and Categorical Exclusion Worksheet Word (28 KB)

MEO Training Courses

- Kasene, Botswana 2005
- Cape Coast, Ghana 2007

Tool Box

- IEE Assistant
- IEE Archive
- Compliance Language
- FAQs

Basic Concepts and Knowledge - Basic information about ESDM, the EIA process, and USAID's Environmental Procedures.

RCE, IEE & PERSUAP Development - Step-by-step guidance, recommended language, and forms and templates for Reg 216 documentation.

Mission Processes and MEO Authority - Some of these files are located on SharePoint and requires user authorization. For a username and password, please contact Encap@USAID.gov.

Mitigation and Monitoring - Principles of Mitigation and Monitoring, EMMP template and guidance, and tools for Mission monitoring of partner implementation of IEE/EA conditions & best practices.

Contacts & Training - BEO, REA, and MEO names and contact information, Agendas, and full course materials for ENCAP training courses.

Environmental Compliance and Partner Responsibilities - Step-by-step guidance and boilerplate language for incorporating partner environmental compliance responsibilities into USAID procurement instruments.

“a single point of access to a wide range of environmental compliance, best practice, and related references. . .”

www.encapafrika.org/meentry.htm (GEMS website coming soon)

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MEO Resource Center: 12 topic areas

Basic concepts and knowledge	USAID Regulations, Procedures and Official Guidance	Frequently asked questions
Basic information about ESDM, the EIA process, and USAID's Environmental Procedures. Includes this Handbook	Reg 216, ADS chapters and excerpts relevant to environmental compliance, MYAP Environmental Compliance Guidance, etc.	Brief answers to and discussions of common environmental compliance questions. Fully searchable with linked resources and documents.
Special compliance topics	IEE Archive The searchable, on-line BEO Actions Tracker stores the full text of Reg. 216 documents from Africa region.	RCE, IEE & PERSUAP development Step-by-step guidance, recommended language, and forms and templates for Reg 216 documentation.
Sectoral guidance	Mitigation and monitoring (M&M) Principles of Mitigation and Monitoring, EMMP template and guidance, and tools for Mission monitoring of partner implementation of IEE/EA conditions & best practices	Mission processes & MEO authority Resources for Environmental Compliance Best Practice Reviews, Sample MEO appointment memos, SOVs and Mission Environmental Orders.
Environmental Compliance & Partner Responsibility	Contacts & Training BEO, REA, and MEO names and contact information Agendas and full course materials for ENCAP training courses.	ENCAP Services and Assistance ENCAP, an AFR/SD program, provides tools, resources, technical assistance and capacity building to USAID/Africa Missions and partners to strengthen environmental management and environmental compliance.

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GEMS Services

- ❖ **GEMS . . .**
 - *A program of USAID/AFR/SD*
 - *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)

ESDM and Env. Compliance Resources. Visit www.encapafrika.org

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IMPLEMENTING MECHANISM FACTSHEET

GLOBAL ENVIRONMENTAL MANAGEMENT SUPPORT (GEMS)

CONTENTS

1. GEMS Overview
2. Implementers
3. Period of Performance
4. Scope of Services
5. Accessing GEMS Services
6. Pricing
7. Award Details
8. Contacts

1. GEMS OVERVIEW

GEMS is a global program implemented under a USAID Africa Bureau contract which provides on-demand environmental compliance, management, and sound design support to USAID's Environmental Officers, individual agency operating units and their projects and programs.

The Africa Bureau developed GEMS collaboratively with other USAID bureaus, and the program was therefore made global in scope. Subject to available ceiling, GEMS services are available to any bureau or operating unit that elects to incrementally fund the contract.

GEMS effectively replaces certain USAID environmental compliance support programs, such as the Africa Bureau's long-running ENCAP project, the Asia/Middle East Bureau's EMCB project, and the Global Health Bureau's EMCAB project.

2. IMPLEMENTERS

GEMS was awarded in late September 2011 to **The Cadmus Group, Inc.** under the GSA Multiple Award Schedules (MAS) program.

The core team includes principal partners Cadmus (prime contractor) and Sun Mountain International, who together provide the primary environmental compliance/environmentally sound design and

management expertise. Other core team members are DAI, World Education, Inc. and Eurasia Environmental Associates, LLC.

A number of on-call local partners may be engaged depending on the location of programmed activities.

3. PERIOD OF PERFORMANCE

GEMS is authorized for a 1-year base period beginning late September 2011, with an option to renew for a second year. The program cannot be extended beyond end September 2013.

4. SCOPE OF SERVICES

A broad range of environmental compliance, management, and sound design support services are available under GEMS, including but not limited to:

- A. TRAINING.** Planning, design and delivery of general and sector-specific training in environmental compliance and environmentally sound design and management; development of training curricula and materials; and development and delivery of online/distance learning on these topics.
- B. GUIDANCE, TOOLS AND SYSTEMS.** Development and review of environmental compliance/best practice guidance for individual projects or sector programs. Development of software/IT and other tools and systems to support environmental compliance, management and M&E from mission portfolio to project level.
- C. 22 CFR 216 DOCUMENTATION.** Development and review of documentation prepared under USAID Environmental Procedures (22 CFR 216), including Initial Environmental Examinations (IEEs), scoping statements, and Environmental Assessments (EAs) and Programmatic Environmental Assessments (PEAs), including health, gender and social impacts analyses.

D. EMMPs/EMPRs. Development and review of Environmental Mitigation and Monitoring Plans (EMMPs) and Environmental Mitigation Plans and Reports (EMPRs) and TA to support to field implementation of such plans.

E. COMPLIANCE ASSESSMENTS, FIELD MONITORING AND EVALUATION.

Environmental compliance assessments, from mission portfolio to project and site-level. Field monitoring and evaluation of environmental compliance/management.

F. ENVIRONMENTAL MANAGEMENT IN DISASTER ASSISTANCE. Support to environmental management of disaster assistance, including rapid environmental assessments (REAs).

G. BEO, REA AND MEO SUPPORT & BACKSTOPPING. Screening and quality control of submitted 22 CFR 216 documentation and advice/TA for IPs and USAID staff developing this documentation.

H. OTHER ENVIRONMENTAL ANALYSES. Scoping, development and review of FAA 118/119 analyses, climate vulnerability assessments, health and social impact assessments, among others.

I. HOST COUNTRY ENVIRONMENTAL MANAGEMENT CAPACITY. Capacity-building of host country environmental management systems and professionals.

J. KNOWLEDGE MANAGEMENT, LEARNING & COMMUNICATIONS. Web-based and hardcopy dissemination of environmental management guidance, strategic and high-impact environmental communications, environmental management community-of-practice development and support.

5. ACCESSING GEMS SERVICES

Bureau Environmental Officers (BEOs) from participating Bureaus serve as Activity Managers for GEMS activities within their region/sector. In this capacity, they are “gatekeepers” for the GEMS work plan, in consultation with the COTR.

Operating units interested in accessing GEMS services, whether funded by the participating Bureaus or with their own buy-in funds, should first contact the relevant BEO/Activity Manager. See contact list at right.

The Activity Manager will work with the requesting operating unit and the prime contractor to reach an agreed scope of work, staffing, scheduling and budget.

6. PRICING

The GEMS award establishes fixed prices for a set of common training and environmental review tasks (exclusive of travel and logistics costs). For other tasks, it establishes fixed time and materials (T&M) rates for different categories of expertise. These price schedules are available from the COTR and Activity Managers.

7. AWARD DETAILS

Award #	AID-OAA-M-11-00021
Issued under	GSA Multiple Award Schedule (Cadmus GSA Multiple Award Schedule Contract No.: GS-10F-0105J)
Period of Performance	22 Sept 2011–21 Sept 2012 base yr 22 Sept 2012–21 Sept 2013 ext year
Ceiling	\$7.7mn base year; \$7.9mn extension year

8. CONTACTS

Contract Officer	Patrick Mudd, OAA pmudd@usaid.gov
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Session 16.

(0:40)

State of Environmental Compliance in AFR Missions: Results of BPRs to Date

Objective

Survey the Mission and team 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) conducted across the region.

Format

Presentation and participant reactions

Summary

This workshop has set out LOP environmental compliance requirements, and how the responsibilities for fulfilling these requirements are allocated among IPs, C/AOTRs 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 staff understand their roles and responsibilities and master key skills; mission and team processes must be in place that support (and require) the exercise of these responsibilities.

This is well-illustrated by the results of 10 Environmental Procedures Best Practices Reviews (BPRs) conducted in AFR missions over the past 3 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).

In this session, we will:

- Examine the *AFR Best Practice Standard* to better understand the mission processes and capacities required for LOP environmental compliance;
- 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.

With this information, we will be ready to begin Session 17's discussion on ways forward: how to strengthen mission and team compliance processes and capacities to improve LOP environmental compliance and better achieve ESDM.

■ _____

³ In addition, USAID's Office of the Inspector General conducted formal Environmental Compliance audits of the Kenya and DRC missions as part of a global effort.

Key Resources

ENCAP BPR Factsheet
AFR Environmental Compliance Best Practice Standard
Synthesis of BPR Findings

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	
10) Federal Management Financial Information Act (FMFIA) review, wherein, on an annual basis, every mission conducts a review of all their systems (financial and otherwise, including ADS 204)	

Synthesis of BPR Findings (all BPRs thru August 2010)

(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/AOTR, 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/AOTR awareness of environmental compliance responsibilities is generally poor**—and where present, is often limited to “upstream compliance.” (Of well-informed/pro-active A/COTRs, almost all have attended ENCAP trainings.)
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**.



ENCAP FACTSHEET

ENVIRONMENTAL PROCEDURES BEST PRACTICES REVIEW

CONTENTS

What are USAID's Environmental Procedures?	1
What is an Environmental Procedures Best Practices Review?	1
Why Should a Mission Conduct a BPR?	2
Who Conducts a BPR?	2
What is the BPR Methodology?	2
What is the Mission and Partner Role in the BPR?	3
What are the Outputs of the BPR?	3
What is Expected of the Mission once the BPR is Completed?	3
What Resources are Available to Assist with BPRs?	3

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

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.

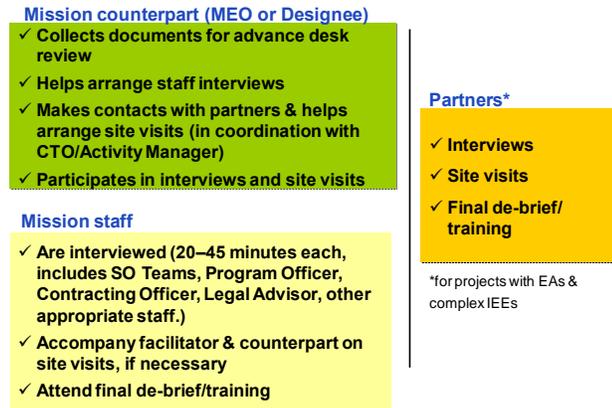
At the end of the in-mission portion of the BPR, the facilitator and the MEO will debrief mission management (and potentially Mission staff more broadly). They may also provide a short training on life-of-project environmental compliance. Partners may be involved in the briefing or training.

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 I18/9 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.encapafrika.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 17.

Strengthening Compliance Systems and Processes: Charting a Way Forward

(2:00)

Objective

Identify key messages to communicate to project management (IPs) and mission management and sector team leaders (USAID 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

1:00 17a. Separate focus sessions: (1) Mission Staff; (2) IPs

1:00 17b. Plenary discussion

Summary

Informed by the previous session (Synthesis of BPR findings; examples of Mission good environmental compliance practices) this session will consist of discussions and individual planning on “ways forward”—i.e., how to strengthen mission/team and IP/project compliance processes and capacities to improve LOP environmental compliance and better achieve ESDM:

17a. Focus Groups.

For the first part of the session we will divide into two focus groups: (1) Mission Staff and (2) IPs. Each group will engage in a facilitated discussion

Focus Group Questions:

- What elements of LOP compliance are well-implemented in your mission/project? Why?
- Have you/your team/the mission/your project 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?

17b. 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 or COPs, 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 individual workshop follow-up plans, using the template on the following page. We will for volunteers to share some of their follow-up items.

Key resources

AFR Environmental Compliance Best Practice Standard (previous session)

Synthesis of BPR Findings (previous session)

Environmental Compliance Action Plan template (following page).



USAID
FROM THE AMERICAN PEOPLE

Life-of-Project Environmental Compliance & Environmentally Sound Design and Management
A Training Workshop for USAID/Zambia 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):

Mission Staff: *Brief mission management on key messages identified in this session ▪ Brief contracts team on ECL and inclusion of environmental responsibilities clauses in A/COTR 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.*

IPs: *Brief your COP and M&E lead on key environmental compliance requirements as conveyed by the workshop ▪ Lead an environmental compliance session ion an upcoming staff training ▪ Developing a first-draft EMMP for internal review ▪ Developing a TOR for an external consultant or requesting TA from your home office to assist with EMMP development*

Action item	Proposed timeline	Immediate step
<i>Ex. Lead Environmental Compliance Session in upcoming staff training. (Develop short presentation using slides from this workshop.)</i>	<i>Last week of May</i>	<i>Contact training coordinator.</i>
1.		
2.		
3.		
4.		
5.		

Session 18: 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 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 A Training Workshop for USAID/Zambia Staff and Partners

Chipata, Zambia / May 2012

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. 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 <u>knowledge and capabilities</u> 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 <u>motivation</u> to <i>proactively</i> 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 (“Upstream” bloc). (0:30)

IEE/EA Conditions and Environmental Compliance

Best Practice for “Tricky Activities”

Objective

Appreciate why categorical exclusions often do not apply to activities like Policy development; Trade; SME Support; and Private Sector Credit Support, and the principles that inform the conditions that should be applied to these activities.

Format

Presentation and Q&A

Summary

While Reg. 216 enumerates classes of activities eligible for categorical exclusions, it also states that categorical exclusions do not apply if “at any time in the design, review or approval of the activity. . . it is determined that [it]. . . is subject to the control of USAID and may have a significant effect on the environment.” (22CFR216.2(c)(3)).

For this reason, a number of typical USAID-funded activities are NOT eligible for categorical exclusions—even though they fall within a general class of activities that are eligible.

In these and other typical activities, USAID’s “knowledge and control” may be less than complete. What does this mean for the development and implementation of appropriate IEE conditions?

This session explores these questions via a set of brief case studies and participatory discussion.

When is a training or policy activity NOT a categorical exclusion?

In essence, the answer to this question depends on what is being planned or taught or encouraged, and whether adverse environmental impacts may result when trainees carry through on their training, or a policy is implemented. If adverse impacts may result, the training/technical assistance (policy strengthening) activity in question would not necessarily be categorically excluded.

For example, training in better recordkeeping will result in records being kept in improved ways. This has no foreseeable significant adverse environmental impact. But training for an immunization or HIV testing program is intended to influence how health care workers implement an activity that will generate significant quantities of hazardous medical waste (used needles and blood samples.) Therefore, this type of health sector training would not be considered a categorical exclusion; it would rather receive a negative determination with conditions; the key condition would be that the training must address appropriate handling and disposal of used needles and blood samples.

This question often comes up in relation to training in pesticide use and policy strengthening in sustainable natural resources management. Consider this: USAID is asked to plan for or train Ministry of Agriculture staff on the use of DDT or to assist Ministry of Natural Resources staff to write natural resources management policy which includes harvesting rainforest resources. Would we be able to say that since we were not actually applying DDT or we were not actually harvesting the forest, what the staff did after we taught them or how the policy was applied after we wrote it was not our concern and therefore that our actions did not result in adverse environmental impacts? No, we can not. Therefore a categorical exclusion is not appropriate.

Environmental Conditions & Best Practice for “Tricky Activities”

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

“Tricky activities” . . .

For many projects/activities:

- ❖Categorical exclusions do not apply, even if the activity is of the right general type
- ❖USAID shares or has indirect responsibility for adverse impacts---but very limited control over the actors directly responsible.

Getting mitigation for these “tricky activities” right is critical to achieving ESDM and minimizing USAID’s liabilities.

Policy development & implementation ▪
credit enhancement ▪
SME support ▪ trade promotion ▪ value-chain strengthening ▪
etc.



Env. Compliance & Best Practice for “Tricky Activities”
Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

. . . can be a headache

Problem: Resolving determinations and conditions for these “tricky activities” can take time, and lead to frustration and increased transaction costs on the parts of missions and partners.



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But. . .
difficulties can be minimized or eliminated when a few basic “tricky activity principles” are understood.

This session:

Explores these principles with mini-case studies based on actual programs/IEEs
Illustrates emerging best practice /agency expectations.

Case 1: Policy implementation & institution-strengthening

The project:

Building gov’t capability to transparently manage natural resources

Context:

High-level policy commitment to increased extraction to fund national (re-)development

Components:

- 1. Senior LT technical expert:**
 - advise the ministry of mining/minerals/energy on mineral concession best practice
 - assist with concession negotiations as requested,
 - supervise nat’l cadastre implementation and legal reform work and production of new regulations.
 - Initially will have co-signature authority on concession awards.
- 2. Complementary STTA for expert review of draft regulations and specific concession agreements.**
- 3. Complementary training for ministry staff**

**The ESDM/
env compliance issue**

Reg. 216 provides for a categorical exclusion for “education, technical assistance or training programs, except to the extent such programs include activities directly affecting the environment”*

Should the Catex apply?

*text in red applies to all activities considered for categorical exclusion

Env. Compliance & Best Practice for “Tricky Activities”
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**Case 1:
Policy implementation & institution-strengthening (cont'd)**

No!

The IEE found:

"The significant and often irreversible adverse environmental impacts of mining expansion and the substantial influence that the project will have over the policies under which and the process by which this expansion occurs render the TA ineligible for a categorical exclusion."

However, the IEE noted. . .

1. the policy decision to expand and promote the mining sector comes from the highest levels of the national government not the project.
2. the project is intended to strengthen environmental safeguards as compared to mining expansion undertaken without USAID assistance.

Env. Compliance & Best Practice for "Tricky Activities"
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Result:

ND w/ conditions intended to "maximize the project's greening influence on mining expansion to the fullest extent practicable."

- > Full harmonization of all products/ guidance with national env requirements (or accepted env, management good practice, where requirements are lacking)
- > Systems of monitoring and enforcement to fully integrate environmental requirements pertaining to licenses, concessions and regulations
- > USAID-funded outside review of concession applications and investment plans to include expert reviews of EIAs, EMMPs. Where deficient, a recommendation of remedy or rejection is required.

**Case 2:
Policy implementation & institution-strengthening**

The project:

Streamlining business start-up and permitting approvals for land use changes

**Context:
MCC Threshold project designed & implemented by USAID**

Components:

- > Put in place administrative structures/procedures needed to implement reforms already adopted by national government ; capacity-building support to gov't departments involved
- > Public awareness campaigns
- > Establish one-stop licensing centers and start to migrate application processes on line
- > Provide business development services via one-stop centers
- > Public awareness and how-to guides

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**The same ESDM/
env compliance issue**

Reg. 216 provides for a categorical exclusion for "education, technical assistance or training programs, except to the extent such programs include activities directly affecting the environment"*

Should the Catex apply?

*text in red applies to all activities considered for categorical exclusion

**Case 2:
Policy implementation & institution-strengthening (cont'd)**

No! (but a slightly harder call)

The IEE found:

The project has the "potential for significant environmental impacts deriving from the enterprise creation, land development, construction and/or overall private sector expansion it is intended to stimulate."

However, the IEE noted. . .

"it is not possible to predict the particular enterprises and land development activities that will result, nor in most cases will it be possible to ascertain whether a particular enterprise would have been launched or a particular land development undertaken in the absence of the project. . . This significantly limits USAID's direct responsibilities for these impacts and the range of feasible actions to address them.

Env. Compliance & Best Practice for "Tricky Activities"
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Result:

**ND w/ conditions
"The project implemter must develop for COTR and REA approval a strategy for:**

- > Informing licensees/permittees of environmental compliance obligations under national law at the time of license/permit award
- > Incorporate and promote cleaner production approaches in TA for enterprise efficiency and good management
- > include in BDS support screening for environmental compliance and for enterprises that represent high environmental risks.

**Case 3:
Credit enhancement/private sector support**

The project:

Enhancing credit availability to SMEs and strengthening agro-processing

**Vehicle:
DCA Loan Portfolio Guarantee for \$13mn SME loan program by a commercial bank**

Components:

- > Make local currency loans available to SMEs under more favorable terms than are currently available from commercial financial institutions.
 - > Provide credit in rural areas to small and medium enterprises (SMEs) and for seasonal agricultural activities.
- (Neither USAID nor the IP reviews or approves individual loans.)

Env. Compliance & Best Practice for "Tricky Activities"
Visit www.usaid.gov/our_work/environment/compliance/ane/index.htm & www.encapafrika.org

**The ESDM/
env compliance issue**

Reg. 216 provides for a categorical exclusion for "support to intermediate credit institutions" when USAID does not reserve the right to review and approve individual loans

Should the Catex apply?

**Case 3:
Credit enhancement/private sector support**

Enhancing credit availability to SMEs and strengthening agro-processing

And again—no.

The general premise behind DCA credit enhancement is that the activities supported would not otherwise be financed. Thus, when these activities may have significant environmental impacts, categorical exclusions cannot apply.

In this case, the expansion of private sector activity that is the intended result of this project has potential, perhaps significant, adverse environmental impacts

However, USAID does not have direct control over the loan recipients but only over the general parameters and conditions of the loan-making process.

**Result:
ND w/ conditions:**

The IP and the COTR shall assure that the recipient bank will have the capacity to and shall fully implement an environmental due diligence process which:

- > bars funding to activities for which funding is prohibited under the Sections 118 & 119 of the Foreign Assistance Act;
- > bars funding for “classes of action normally having a significant effect on the environment (per 22 CFR 216.2.d) pending an Environmental Assessment acceptable to USAID and USAID’s approval of that assessment, and
- > ascertains compliance with national environmental requirements as a condition for loan-making.

Env. Compliance & Best Practice for “Tricky Activities”
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**Case 4:
Integrated production and processing support**

The project:

Small- and medium-scale aquaculture production and processing promotion

Concept:

Direct TA and GDAs to promote small- and medium-scale scale freshwater aquaculture & fish processing for rural food security and income enhancement.

Components:

1. Train local extensionists in business development and aquaculture technique
2. Extensionists provide TA to small holder producers
3. Support formation of new processing MSMEs.
4. Grow & provide fingerlings; sell quality fish feed and other inputs at a profit.

The ESDM/
env compliance issue

Reg. 216 provides for a categorical exclusion for “education, technical assistance or training programs, except to the extent such programs include activities directly affecting the environment”

Should the Catex apply to components 1-3?

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**Case 3:
Credit enhancement/private sector support**

Small- and medium-scale aquaculture production and processing promotion

And finally—no.

The IEE found: Training and extension/technical assistance activities contribute to the project’s goal of expanding and intensify aquaculture activities. This has potential for, perhaps significant, adverse environmental impacts. A Categorical Exclusion cannot apply.

However, the IEE notes:

- > experience shows that small- & medium-scale aquaculture impacts are avoidable or controllable with appropriate siting and application of basic good environmental management principles
- > USAID’s direct control over entities responsible for impacts (and thus USAID’s direct responsibility) is limited, as are measures feasible to address impacts.

Result: ND w/ conditions for the project in its entirety:

1. Training & TA will incorporate (1) sound env. management practices per the *Small Scale Guidelines* and (2) host country environmental requirements.
2. A commitment to sound env. management, compliance & cleaner production will be incorporated in all GDA agreements and in programming & actions.
3. Existing aquaculture or processing facilities receiving direct USAID support will be reviewed to identify any significant deficiencies in basic environmental management or compliance with host country environmental requirements, and these deficiencies promptly corrected.
4. An ERF-based subproject review process is required for (1) any new aquaculture or processing facilities, and (2) for significant expansion of existing facilities, where funded or partially funded by USAID.

Env. Compliance & Best Practice for “Tricky Activities”
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Special Topic/Sectoral Best Practice. Water: Special ESDM and Environmental Compliance Considerations

(0:30)

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 requirements 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. We will also bring to completion the water testing portion of our site visits by reading the coliform test results.

WATER: Environmental Compliance Requirements & ESDM Considerations

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

Water, Development & Human Needs. . .



Photo: Africa Renewal,
United Nations (vol. 21#3)

In SSA, diarrheal disease is the leading cause of death for children under 5, directly resulting in the death of ~2.6% of all children born in the region.

In addition to direct fatalities, diarrheal diseases worsen malnutrition and weaken the immune system, leading to decreased resistance to other diseases (e.g. Malaria.)

Ingesting contaminated water is the overwhelming cause of diarrheal disease.

Poor access to water makes good hygiene difficult → thereby increasing disease

In many rural areas (particularly arid ones), time spent fetching water adversely affects girls' education and women's income-generation opportunities.

ST: Water : Environmental Compliance & ESDM. Visit www.encapafrika.org

2

Therefore. . .

❖ Water (& sanitation) has been and continues to be a key focus of USG and other donor assistance in Africa

❖ A “water focus” has been built into this workshop

- *Indicators exercise: water and sanitation sectors*
- *Water an aspect of almost every field visit*
- *This session*

MDG 7c
Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

USG: Paul Simon
“Water for the Poor” act makes affordable & equitable access to potable water and sanitation a key component of U.S. foreign assistance.

3

ST: Water : Environmental Compliance & ESDM. Visit www.encapafrika.org

Because water and health are so closely linked, water interventions have several important environmental compliance requirements. . .

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4

Health Threat: Arsenic in Groundwater

- ❖ A potent & bio-accumulative poison → skin lesions, neurological disorders, skin lesions, heart & lung disease, cancer
 - ❖ Occurs naturally in geologic formations and can move into groundwater
 - ❖ No way to predict which formations contain arsenic. May be significant variations within an aquifer.
 - ❖ Can be mobilized by human-induced changes to hydrology (mining, irrigation, flood control)
 - ❖ In 1980s, widespread poisoning in Bangladesh/West Bengal (India) highlighted the issue
- Today ~3000 Bangladeshis die each year of As-induced cancer; 2 mn live with chronic As poisoning
- Poisoning occurred when villages switched from surface water to “cleaner” tube wells

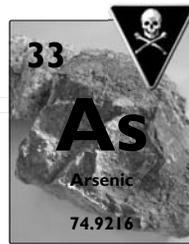


Photo: UNESCO-IHE

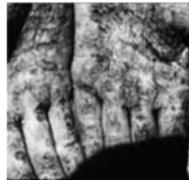


Photo: USGS

Skin condition typical of advanced arsenic poisoning (China)

5

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COMPLIANCE REQUIREMENT: Arsenic Testing

USAID policy requires:

TESTING of water supplied by any USAID-funded well/borehole for **INORGANIC** arsenic:

- Test initially (prior to public provision of the water and after the borehole “stabilizes”)
- Test quarterly thereafter for 4 quarters.
- Use the **Hach Arsenic test kit** (www.hach.com). (EZ test kit acceptable.)

If arsenic is at **ANY** time over 10ppb, test must be re-done by a qualified laboratory. If the result is confirmed, the well must be decommissioned.

Tests must be performed on **EVERY** well.

Test before the tap opens!



Photo: www.hach.com



Arsenic cannot be removed by common filtration or boiling

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Health Threat: Fecal-Oral Route Pathogens

- ❖ Ingesting water contaminated with fecal-oral route pathogens is the leading cause of diarrheal diseases
 - Dysentery, Cholera, Typhoid, other gastroenteritis, (and also hepatitis, shistosomiasis. . .)
- ❖ These diseases are a leading cause of infant & young child mortality
- ❖ Shallow groundwater easily contaminated by latrines, livestock, exchange with surface waters.
- ❖ Shallow wells tapping “clean” groundwater easily contaminated by dirty buckets, ropes, & soil.
- ❖ Water from boreholes can be contaminated by seepage thru a faulty sanitary seal or can be contaminated at the tap.



Entamoeba histolytica
(cause of amoebic dysentery)



Vibrio Cholerae
(the cholera bacteria)

7

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Key Indicator: Fecal Coliform

Fecal coliform bacteria species are not especially harmful themselves, but indicate that water is likely contaminated with fecal matter, and fecal-oral route pathogens may be present.

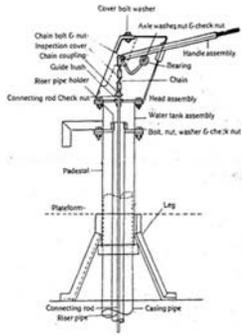
As we have seen, testing is easy and quick . . .



Test dish showing fecal coliforms (purple) and non-fecal coliforms (pink). Inset is magnified image of fecal coliform bacteria

ST: Water : Environmental Compliance & ESDM. Visit www.encapafrica.org

**COMPLIANCE REQUIREMENTS:
Fecal Coliform Testing, Best Practices**



USAID AFR IEEs require:

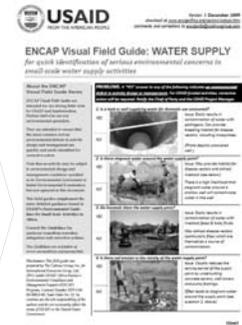
1. TESTING of water supplied by any USAID-funded well/borehole/public tap for fecal coliform:

- As a practical matter, follow the same testing regime as arsenic, and test at the same time.
- If fecal coliform is detectable in an 100ml sample, water must be treated/filtered, source of contamination eliminated, or contamination route blocked.

2. GOOD PRACTICES to minimize fecal-oral route transmission (and other problems)

Good practices. . .

IEEs define good practices by reference to the *Small-Scale Guidelines*



The basic minimum of “good practice” has been distilled into the **Visual Field Guide**—but this is not a substitute for the full *Guidelines* chapter.

Partners then translate the general IEE condition into specific practices in their EMMP

Special Topic.

Zambia's National Environmental Requirements

(0:45)

Objective

Brief Zambia's National Environmental Requirements & understand the categories of USAID-funded activities that may need to comply with these requirements in addition to USAID environmental procedures.

Format

Presentation and Q&A.

Summary

Host country EIA regulations are *legal requirements* from which donor projects (USAID included) are rarely exempt. We need to satisfy both local requirements and our pre-implementation environmental review requirement under Reg. 216—preferably by meeting both requirements with the same process and document.

(Since USAID's Environmental Procedures are based on the standard EIA process, it is likely that host country and USAID requirements can be met with one process and by producing one document.)

Accordingly, this session summarizes Zambia's National Environmental Requirements. All A/CORs and IPs should understand when their activities are subject to these requirements.

Compliance with Zambia's EIA Procedures is Mandatory---Provides many co-benefits

Note that beyond the legal requirement, there are many good reasons for complying with Host country EIA procedures:

- The EIA process helps to strengthen civil society since it gives local citizens a way to have input into how a development project will be undertaken.
- Rule of law and anti-corruption benefits accrue from a transparent and lawful decision making process on economic development.
- The host country strengthens its capacity to undertake state of the art design of economic development projects so they will be less dependent on donors such as USAID.

For all of these reasons (among others), the Paris Declaration on Aid Effectiveness **specifically commits donors and host countries to harmonization of their EIA procedures, and to building host country EIA capacity.** (The US is a signatory party to the Paris Declaration).

What do I do if my activity must comply with both Zambia and Host Country Procedures?

The table below outlines the way forward for two typical scenarios under which both host country and USAID environmental review is required.

Reg 216 requirement	Host country requirement	Reg. 216 compliance strategy
IEE	Preliminary assessment (IEE analogue) or full EIA study	<p>The host country document serves as the body of the IEE. A short cover document is prepared that frames the documents in terms of a Reg. 216 threshold decision and that provides for clearance signatures.</p> <p>Contact the REA at the start of the process.</p>
EA	Full EIA study	<p>Coordinate the USAID EA & host country EIA scoping statements so that a single document can fulfill both requirements.</p> <p>Contact the REA at the start of the process.</p>

Special Topic. Medical Waste

(1:00)

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.



Overview

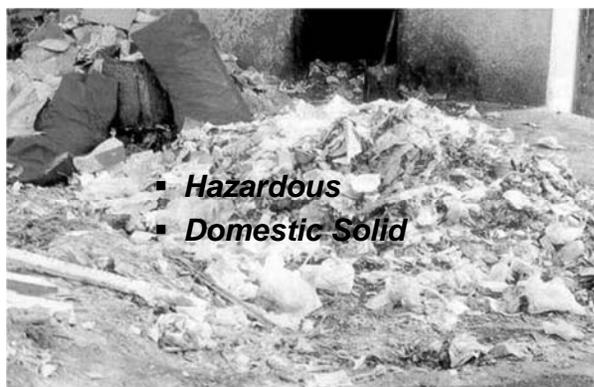
- ❖ Defining medical waste
- ❖ Types of waste
- ❖ Concerns
- ❖ Management Techniques
- ❖ Compliance Actions



Medical Waste Management: Visit www.encapafrika.org

2

What are the 2 major types of medical waste?



Medical Waste Management: Visit www.encapafrika.org

3

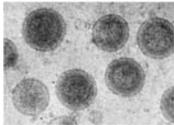
Waste basics

- ❖ **What percentage of medical 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)*

Medical Waste Management: Visit www.encapafrika.org

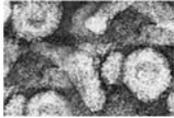
4

What is the risk of infection after hypodermic needle prick for. . .



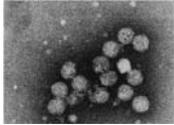
HIV?

- .3%



Viral Hepatitis B?

- 3%



Viral Hepatitis C?

- 3-5%

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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

Medical Waste Management: Visit www.encapafrika.org

6

What, in this picture, could be considered hazardous?



Medical Waste Management: Visit www.encapafrika.org

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

Medical Waste Management: Visit www.encapafrika.org

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?



❖ Ideally, what does a sharps container look like?

- Red, puncture proof, leak proof

❖ Realistically, 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**
 - O₂ 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?



Medical Waste Management: Visit www.encapafrika.org

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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)*

Medical Waste Management: Visit www.encapafrika.org

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Disposal Options

❖ What are the major disposal options for domestic waste?

- *Landfill*
- *Incineration*

Medical Waste Management: Visit www.encapafrika.org

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Incinerator: design, location AND operation all critical

What works and doesn't work with this incinerator?

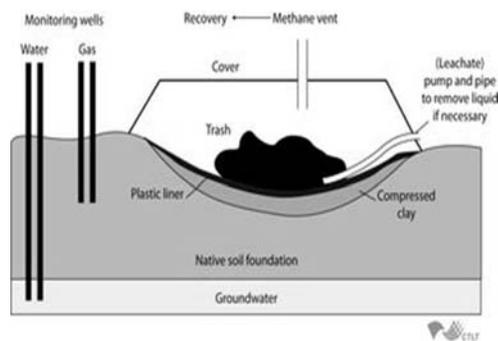


Medical Waste Management: Visit www.encapafrika.org

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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/COTR 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/Sectoral Best Practice. Pesticides, Safer Use & USAID's Pesticide Procedures

(1:00)

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 module 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 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 described in Reg. 216.3(b).

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 Series
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*

Pests, Pesticides, Pesticide Risks & USAID's Response. Visit www.encapafrika.org

2



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 or humans or other animals.

Examples include: insects, mice (and other animals), unwanted plants, fungi, bacteria and viruses.



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3



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 pest.

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.

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4

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	Granulites
ULV	Ultra Low Volume
WDG	Wettable Dispersible Granule
WP	Wettable Powder

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The need for pesticides in agriculture. . .

. . . is as old as
agriculture

The first pesticides: Inorganic metals

4500 years ago

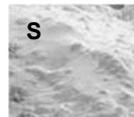
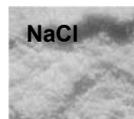
- ❖ Elemental Sulfur— still used today
- ❖ Sodium Chloride (salt) weed killer— can still be used

600 years ago

- ❖ Mercury
- ❖ Lead
- ❖ Arsenic

200 years ago

- ❖ Arsenates (copper, lead, calcium, magnesium)



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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:



C-2

1920s



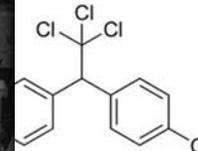
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7

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)

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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

Newer insecticides modeled after plant extracts

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

Synthetic pyrethroids (cypermethrin, deltamethrin, lambda-cyhalothrin)

Chloro-nicotinyl (imidacloprid, thiacloprid)

+

“Next Generation Insecticides”

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

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

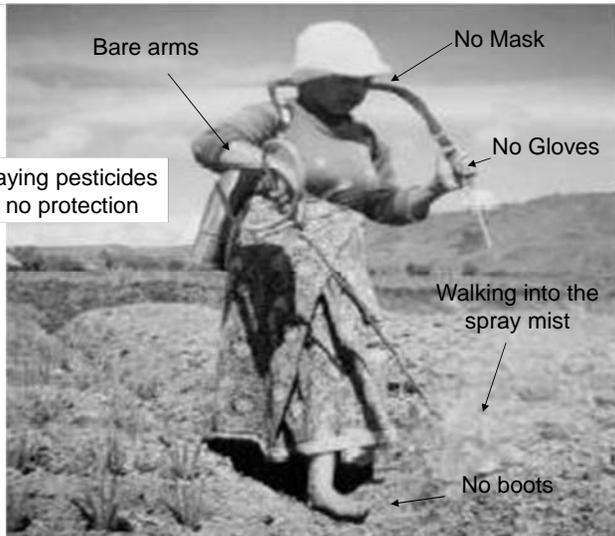


Mixing pesticides with bare hands



Pouring pesticide into sprayer without protection

Pesticide Handling: What Not to Do

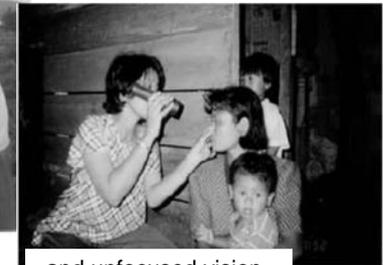


Spraying pesticides with no protection

The result . . .



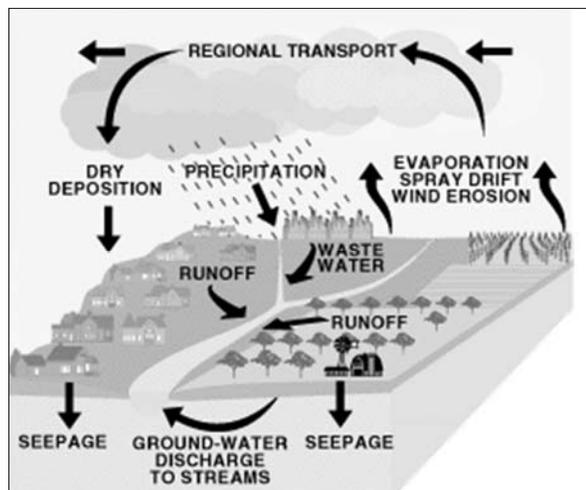
Skin lesions



and unfocused vision

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

Human Exposure Route #2: Drinking water



Pests, Pesticides, Pesticide Risks & USAID's Response. Visit www.encapafrika.org.

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

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



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

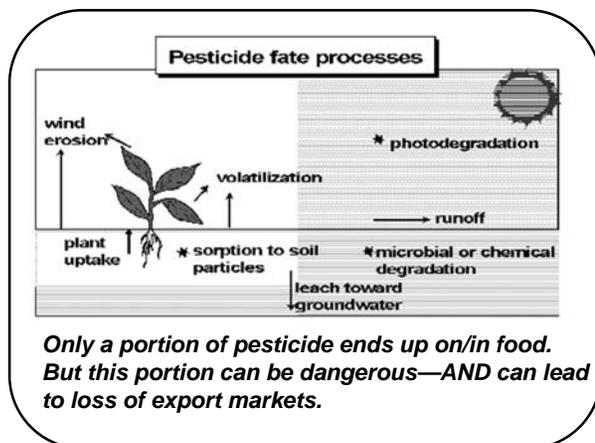
Plaguicidas Caducados (expired pesticides) & KOH (highly corrosive) jar

- 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

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Human Exposure Route #3: Food



Only a portion of pesticide ends up on/in food. But this portion can be dangerous—AND can lead to loss of export markets.

Pesticide is sprayed 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

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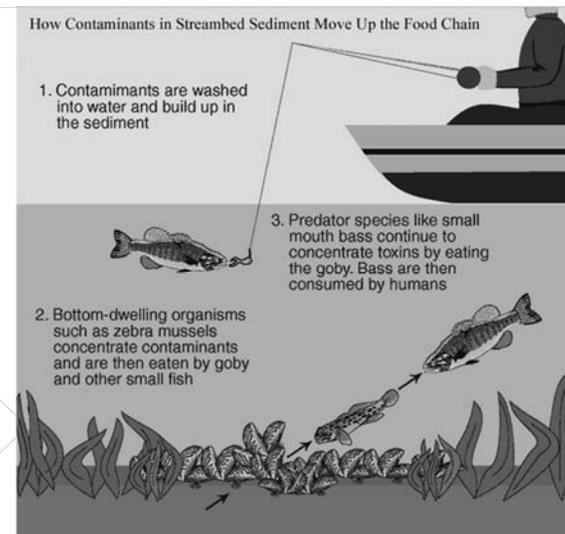
Bioaccumulation makes exposures worse

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.



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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)

CHLORDANE CONQUERS CRABGRASS
IMPROVES LAWNS TWO WAYS

1 stops crabgrass before it starts!
2 kills lawn insects!

ONE EASY APPLICATION KEEPS LAWNS CRABGRASS-FREE ALL SUMMER!

APPLY CHLORDANE NOW! One easy, repeat application of Chlordane keeps crabgrass and lawn insects under control. This is the only lawn care product that does both. Chlordane kills crabgrass before it starts and kills lawn insects.

CHLORDANE

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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



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

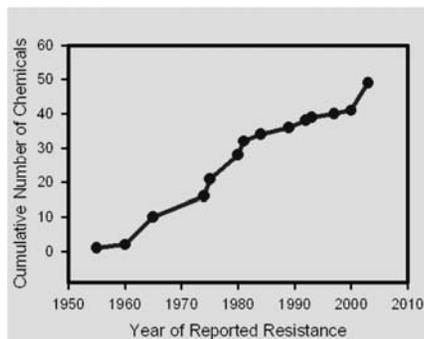


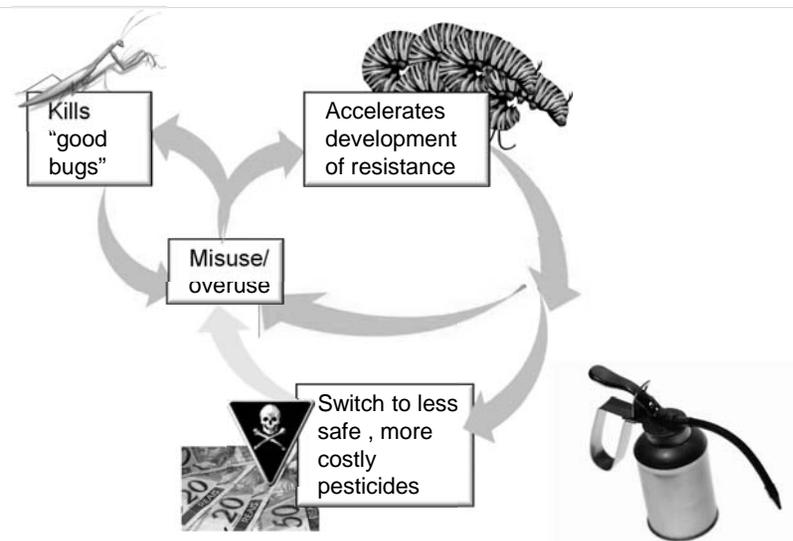
Fig. 3.1. Cumulative number of insecticides to which resistance in the Colorado potato beetles has been reported (Arthropod Pesticide Resistance Database, 2007).

<http://resistance.potatobeetle.org>

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Pests, Pesticides, Pesticide Risks & USAID's Response. Visit www.encapafrika.org.

Dangers of mis-use: Commonly observed “vicious circles”



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In Africa, the Risks are Real. Pesticide Challenges are Cross-cutting

- ❖ AFR countries have pesticide use in crops, clothing/fabric export, food safety & vector control
- ❖ Angola, Ethiopia, Kenya, Liberia, Malawi, Mozambique, Rwanda, Senegal, Sudan, Uganda, ... major, well-publicized pesticide management problems in food, export & health sectors
- ❖ Major pesticide quality, storage, transportation, application, misuse, disposal issues

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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.)

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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.*

*CGIAR policy statement on IPM



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

Pests, Pesticides, Pesticide Risks & USAID's Response. Visit www.encapafrika.org

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Safer Pesticide Use: 3 Basic Elements

1. Integrated Pest Management

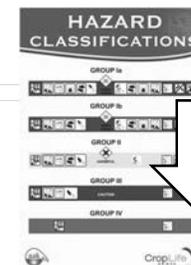
Reduce the volume & toxicity of pesticides used

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.



Fundamentals of IPM. Visit www.encapafrika.org

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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 pre-implementation environmental review 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 usually 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.

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 US EPA,

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.pmp.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.

Incorporating GCC Adaptation and Mitigation in Project Design

(1:45)

Objective

Understand the basic concepts of GCC adaptation and GHG mitigation in design of typical sectoral activities; practice identifying needs or opportunities for GCC adaptation and GHG mitigation in such activities.

Format:

Brief presentation and small group exercise

Summary

Global Climate Change is expected to have very significant impacts in Africa, with disproportionate impacts on the most vulnerable. USAID is increasingly designing and implementing projects and programs whose primary objective is GCC-related:

- adaptation programming to help communities and countries build resilience to climate change impacts;
- clean energy programming to support low emission economic growth; and
- sustainable landscapes programming focused on conserving forests and reducing deforestation to reduce emissions)

But beyond programming centered on GCC objectives, robustness to GCC has become a key dimension of environmentally sound design and management for almost all projects and activities.

For example as discussed in session 2 of this workshop: are the crop varieties to be promoted by a project appropriate given likely changes in precipitation? Are structure siting and designs appropriate given likely changes in storm frequency/intensity and flood probabilities?

Assuring that *all* designs are robust to anticipated GCC-driven changes in local environmental conditions is one way in which USAID programming should support the concept of *resilience* and *adaptation* to GCC.

USAID-funded activities rarely have significant effects ON climate change in the sense of being significant contributors to global GHG emissions. However, climate change is driven by the sum of many small actions. So even small-scale projects should, while operating within their development objectives, implement feasible *emissions mitigation*. That is, means and measures to reduce their direct or indirect GHG emissions and/or increase sequestration.

Incorporating GCC Adaptation & GHG Mitigation in Project Design

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

Global Climate Change (GCC)

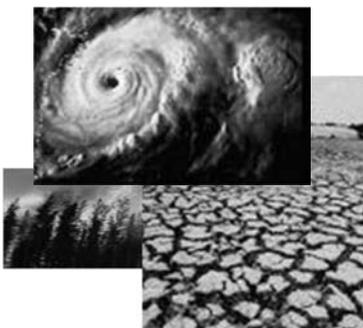
- ❖ **Increasing concentration of greenhouse gases (GHGs) in the atmosphere are altering global climate**
 - Increase in global average temperature, most extreme at poles (= sea level rise)
 - Changes to precipitation patterns; ocean circulation
 - Timescale: discernible NOW, changes will accelerate.



GCC Impacts: General

Increase in global average temperature, most extreme at poles (= sea level rise)

Changes to precipitation patterns; ocean circulation

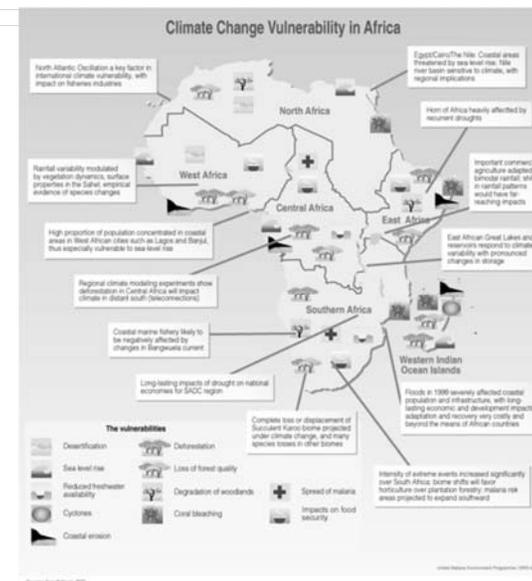


- ❖ **Alter the emergence and distribution of infectious diseases in plants, animals, and humans**
- ❖ **Affect the productivity of biological resources and ecosystems**
- ❖ **Changes in water availability**
- ❖ **Loss of biodiversity**
- ❖ **Increased extreme weather events; coastal flooding → displaced persons & infrastructure damage**

Africa: the Most Vulnerable Continent

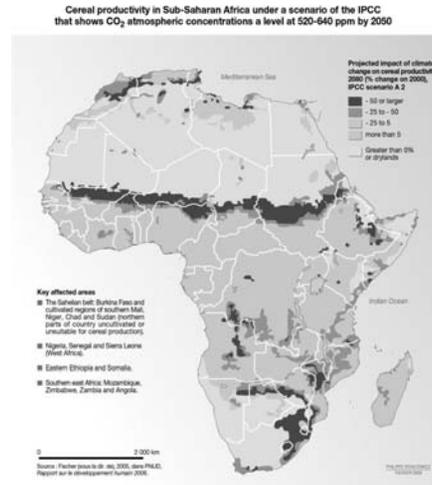
Why?

- ❖ **GCC will result in significant changes to climate, natural systems**
- ❖ **Poverty = high direct dependence on these systems, low capacity to adapt**
- ❖ **Result: high vulnerability**



Africa: the Most Vulnerable Continent

❖ High dependency on rain-fed agriculture in areas likely to become more arid and variable



USAID Response

Increasingly designing and implementing projects and programs whose primary objective is GCC-related:

- **adaptation programming** to help build resilience to climate change impacts;
- **clean energy programming** to support low emission economic growth; and
- **sustainable landscapes programming** focused on conserving forests and reducing deforestation to reduce emissions

BUT IN ADDITION

(Day 1 Review)

Design for Climate Change is ESDM best practice

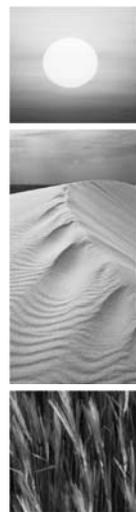
Climate change will affect future baseline conditions—**all** projects should be designed to be **ROBUST** to these conditions

AND

While **USAID** projects are rarely significant contributors to **GCC**...
...climate change is driven by the sum of many small actions.

So even small-scale projects should seek to:

- reduce their direct or indirect **GHG emissions/increase sequestration**
- reduce climate vulnerability in the local area in a manner consistent with their development objectives.



Environment, Development & ES DM. Visit www.encafrica.org.

USAID Policy!

Typical sources of project direct GHG emissions & mitigation options

(direct emissions = emissions from project operations)

Project Aspect	Some Potential Mitigation Actions
Electricity Production & Use when fossil-fuel based	Investigate renewable energy alternatives to diesel gensets for field offices. Purchase efficient AC units.
International Travel by project staff and consultants	Reduce non-essential travel; use local consultants; purchase carbon offsets
Project Motor Pool Operations	Use sedans, not 4X4s for in-town travel; consider fuel efficiency as a selection criteria.
Reduced carbon sink (land development that requires cutting trees or other land conversion – e.g. roads, schools. . .)	Minimize clearing/re-plant Compensatory reforestation in a nearby location.

Some typical sectoral activities with significant indirect GHG emissions & mitigation actions

(indirect emissions = emissions from activities supported or promoted by the project)

Sector/Activity	Issue	Potential Mitigation Actions
Promotion animal husbandry	Methane emissions	Methane recovery from manure; wastewater
Support for Industrial, agro-processing or manufacturing activities	CO2 emissions from equipment and processes	Emphasize industrial energy efficiency/incorporate cleaner production
Tourism Promotion	CO2 emission from tourist facilities & travel	Promote adoption of green certification standards and practices
Urban Sanitation	Methane emissions	Methane recovery from landfills & from wastewater treatment

9

Illustrative GCC Adaptation Measures

Energy

- *Hydro-electric facilities – Design for extreme events*

Water

- *Increase Water Use Efficiency*

Agriculture

- *Crop Diversification*

Health

- *Disease Warning and Epidemic Management System*

Coastal Infrastructure

- *Integrated Coastal Zone Planning and Management*
- *Assess effects of sea level changes on ports; coastal roads; drainage—design and build to accommodate expected sea level rise*

Tourism

- *Assess climate change impacts on tourism “product”*

10

Small Group Exercise: 2 Project Scenarios

COASTAL ZONE REGIONAL DEVELOPMENT PROJECT

- **Urbanizing coastal district with poor infrastructure**
- **Key infrastructure upgrades planned: coastal highway, increased electric generation capacity; water system expansion; hospital.**

AGRICULTURAL IMPROVEMENT PROJECT

- Traditional pastoralist culture changing; agricultural diversification needed.
- Farmer training & extension
- Irrigation expansion; agricultural processing facilities; roads

11

Small Group Exercise – Instructions

- ❖ **Read one-page project scenario**
- ❖ **Identify needs and opportunities for GCC adaptation and GHG mitigation**
 - *Refer to presentation; in-group expertise; adaptation & mitigation measures table*
- ❖ **Propose changes that support GCC adaptation and GHG mitigation**
 - *Revise proposed activities*
 - *Suggest new activities*
- ❖ **Document in EMMP-type table (issue→ action/response→ monitoring for effectiveness)**

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Illustrative Global Climate Change Adaptation and Mitigation Measures

Sector	Adaptation	Mitigation
Energy		Minimize use of fossil fuels
		Promote renewable energy generation (e.g., through use of tax incentives and disincentives) Solar PV Wind Methane Capture Biomass Geothermal Hydro Nuclear
		Promote tree plantation/reforestation
		Avoid tree cutting (e.g. REDD)
		Promote energy efficient electrical applications
		Reduce road transport/Promote commercial and passenger rail transport
		Promote least polluting fossil fuel sources
		Promote trading of carbon credits and carbon offsets
	Hydro-electric facilities – Design for extreme events applying adaptive risk management modeling; retrofit for anticipated changes in river volumes and flows	
	Power plants (Coal and Nuclear) – Modeling to anticipate cooling requirements (e.g., water source, cooling tower design)	
Water	Increase water use efficiency/Better water management	
		Reduce methane emissions from wastewater treatment
Agriculture	Implement famine early warning system	Reduce methane emissions (e.g., rice cultivation, livestock raising)
	Diversify crops	
	Plant drought resistant crops	
	Anticipate changes in historical baseline patterns of precipitation and river flows in design and operation of irrigation schemes	

Sector	Adaptation	Mitigation
Human Health	Implement disease warning and epidemic management system	
Municipal Services	Promote integrated coastal zone planning and Management	Promote dense urban development (e.g., tax incentives and disincentives)
	Relocate critical infrastructure	Promote mass transit (e.g., tax incentives and disincentives)
	Floodproof critical infrastructure	
	Implement storm monitoring and warning system	
	Implement disaster management system	
Transport	Anticipate changes in baseline historical patterns of precipitation and river flows in design and operation of roads, bridges and rail systems	Promote fuel switching to lower carbon emitting fuels (e.g., CNG)
	Assess effects of sea level changes on port development	
	Anticipate changes in sea routes	
Tourism	Use adaptive risk management to assess effects of changes in baseline precipitation, climate, and of extreme weather events on species composition	Promote adoption of green certification standards and practices
	During design assess potential impacts of species loss, fluctuations in water availability, and sea level rise on ecotourism facilities and the tourism industry	

GCC Small-Group Exercise: Country X Agricultural Improvement Project

Objective

Improve food security and increase economic development opportunities by diversifying and expanding agricultural development.

Background

This \$30 million project is planned to develop and diversify agricultural sector activities in a region of Country X. The agriculture sector in Country X is dominated by traditional livestock raising by nomadic and semi-nomadic communities, but there is growing attention by the government to improve the livelihood security and economic growth opportunities in rural areas by introducing new crops and expanding agricultural support systems. As more people abandon nomadic traditions and human population increases in some areas, the land is being stressed by overgrazing and economic opportunities do not meet the needs of the changing populations. While some resources have been allocated to improving non-livestock agricultural development, there is still a lack of basic infrastructure and expertise.

Key Issues

- Irrigation systems are inadequate for expansion of croplands or diversification of crops.
- The transport network is insufficient to bring crops to market.
- Processing facilities, such as cold storage, are lacking.
- Information about weather patterns, soil conditions and crop selection and other information to improve agricultural productivity for non-traditional crops and to make informed decisions is limited.

Environmental Context

The project area is typical of a steppe environment. The topography is predominately open plains, with some gently rolling hills. The flat open plains create strong and constant wind patterns in the area. Rainfall is extremely limited, though local people comment that weather patterns have been strange in recent years, with more rainfall than in the past. There is a river running through the project area that provides water for livestock and domestic needs and has been tapped for very limited agricultural use. The river is experiencing increasing sedimentation as over-exploitation of the surrounding area is overgrazed by communities that have increased their livestock activities and are living more settled livelihoods. There also is a major electrical transmission line running through the project area, carrying electricity from an aging and inefficient coal-fired power station to the north of the project area to Country X's capital.

Proposed Activities

The project will include a large technical assistance and training component, intended to increase the knowledge and expertise of local farmers, so that they can increase their agricultural yields and diversify their crop varieties. Support will be provided to the government to strengthen and expand the reach of the agricultural extension service. A variety of infrastructure improvement activities are planned including significant expansion of the irrigation network, using water from the river in the project area. The project also will improve existing roads and construct new roads to facilitate transport of harvested crops and livestock. In addition, the project will fund the construction of agricultural processing facilities, particularly cold storage for cash crops grown in the area.

GCC Small-Group Exercise: Country Y Coastal District Development Project

Objective

Improve economic growth and livelihood security by the quality of services provided to local residents.

Background

This \$25 million project is planned for a group of historically rural but rapidly urbanizing communities on Country Y's eastern coast. The area's economy has traditionally been based on small scale fishing and agriculture, but now finds itself in the middle of an area that is becoming more urban and is attracting manufacturing and other industry. Local government capability to deliver services to the growing and urbanizing population is extremely limited.

Key Issues

- Roads are inadequate to handle the growing number of passenger cars and commercial vehicles.
- The electricity supply is inadequate, leading to periodic load shedding; the transmission and distribution (T&D) network does not serve all areas, particularly the coastal communities that were once small fishing villages, but have now grown into unplanned and densely populated residential and industrial centers.
- The water supply system also does not cover the entire municipality, with many poorer communities relying on shallow wells and trucked water for the daily needs. The municipal wastewater treatment facility was built 30 years ago to serve 20,000 households; it now serves 50,000, with many more households and business not connected to the system.
- The area's only official landfill is well engineered with a clay lining, but it is reaching capacity.
- The main municipal hospital is aging and in need of rehabilitation. It occupies a low-lying plot in one of the area's historic coastal fishing communities.

Environmental Context

This part of eastern, coastal Country Y includes hilly areas that were once forested, but were long ago cleared for terraced farming on their steep slopes. The hills extend to within five kilometers of the sea where they flatten out into a coastal plain. Most of the urban development has occurred within this coastal plain. Although the small scale farming in the terraced hills of the area has historically been productive, in recent years the monsoon rains that are the primary source of water for farmers, have decreased and become less predictable. Fishermen report that fisheries are being compromised by sedimentation running off the hillsides during flash flood events and from industrial and municipal waste. The area also has experienced an increase in violent and destructive storms in recent years.

Proposed Activities

The Local Government Development Project will combine technical assistance and training for local officials and community based organizations, and funding for rehabilitation of existing infrastructure and extension of existing infrastructure. Proposed infrastructure activities include (a) repaving the coastal highway and expanding it from two to four lanes, (b) increasing the generation capacity of the area's coal-fired power plant and extending the T&D network, (c) extending the municipal water supply system to underserved communities, (d) expanding the municipal landfill to adjacent land currently part of a residential community, and (e) expanding the municipal hospital to land within into grounds.

Special Topic

Indoor Residual Spraying:

(2:00)

Environmental Compliance & Best Practice



USAID
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Version: 14 November 2008

Download the ECL at:
www.usaid.gov/policy/ads/200/204sac.pdf

Download this factsheet at:
www.encapafrika.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.

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*

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.encapafrika.org/tzWorkshop.htm.

¹ For a more detailed discussion of USAID’s Environmental Procedures, see the “USAID Environmental Procedures Briefing for Mission Staff,” available at www.encapafrika.org/meoEntry.htm.

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.



USAID
FROM THE AMERICAN PEOPLE

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).

<p>The project includes a sub-grant fund</p>	<p>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)</p>
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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 contractor/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.

USAID Environmental Procedures Briefing for USAID/XXX Staff

Contents

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Attachments:

1. *Environmental Compliance Language for Use in Solicitations and Awards*
2. *Annotated Environmental Mitigation and Monitoring Plan (EMMP) Template*

Acronyms

ADS	Automated Directives System	EMMP	Environmental Mitigation & Monitoring Plan
BEO	Bureau Environmental Officer	ESDM	Environmentally Sound Design and Management
CFR	Code of (US) Federal Regulations	IEE	Initial Environmental Examination
CTO	Cognizant Technical Officer	LOP	Life-of-Project
EA	Environmental Assessment	MEO	Mission Environmental Officer
ECL	Environmental Compliance Language for Use in Solicitations and Awards (ADS 204 help document)	PMP	Performance Monitoring Plan
EIA	Environmental Impact Assessment	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 supersede the statutory, regulatory and ADS language that governs and constitutes these procedures. This language may be accessed via <http://www.encapafrika.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.encapafrika.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.encapafrika.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 USAID/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.encapafrika.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
<p>Prepare Reg 216 environmental documentation.</p> <p>Reg 216 documentation includes:</p> <ul style="list-style-type: none"> ✓ Requests for Categorical Exclusions (RCEs) ✓ Initial Environmental Examinations (IEEs) ✓ Environmental Assessments (EAs) ✓ Amendments to all of the above 	<p>CTO/Activity Manager (MEO reviews/provides advice).</p> <p>EXCEPT:</p> <ul style="list-style-type: none"> ✓ Teams may engage partners or outside contractors to prepare IEEs under the supervision of the CTO/Activity Manager. <u>The use of external expertise is RECOMMENDED for complex programs and activities.</u> ✓ EAs are almost always prepared by 3rd-party contractors. ✓ Title II IEEs are prepared by Implementing Partners as part of their MYAP submissions.
<p>Approve and Clear Reg. 216 Documentation.</p>	<p>All of the following must clear:</p> <ul style="list-style-type: none"> ✓ CTO, Activity Manager or Team Leader ✓ MEO ✓ Mission Director ✓ Bureau Environmental Officer
<p>Clear sub-project/sub-grant Environmental Reviews.</p>	<p>Activity Manager AND MEO</p> <p>(Activities identified by the sub-project/sub-grant screening process as “high risk” are forwarded for REA & BEO review and clearance.)</p>
<p>Incorporate environmental compliance requirements into procurement documents.</p>	<p>CTO/Activity manager (MEO assists.)</p>
<p>Ensure Reg. 216 documentation is current and covers all activities being implemented.</p>	<p>CTO/Activity Manager</p>
<p>Assure an EMMP addressing all relevant mitigation and monitoring conditions is</p>	<p>CTO/Activity Manager (MEO may review)</p>

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 <i>if</i> 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.encapafrika.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.encapafrika.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.encapafrika.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.encapafrika.org/meoEntry.htm.

Mission Environmental Officer	Insert name, email and extension
Regional Environmental Advisors (REAs)	East and Central Africa (USAID/EA, Nairobi) <i>David Kinyua: dkinyua@usaid.gov</i> <hr/> Southern Africa R (USAID/SA, Pretoria) <i>Camilien J.W. Saint-Cyr: csaint-cyr@usaid.gov*</i> West Africa (USAID/WA, Accra) <i>Bob Buzzard: robuzzard@usaid.gov</i>
Bureau Environmental Officers (BEOs; Washington, DC)	Bureau for Africa (AFR/SD) <i>Brian Hirsch: bhirsch@usaid.gov</i> Bureau for Economic Growth, Agriculture & Trade Bureau (EGAT): <i>Joyce A. Jatko: jjatko@usaid.gov</i> Democracy, Conflict and Humanitarian Assistance (DCHA): <i>Erika Clesceri: eclesceri@usaid.gov</i> Global Health (GH/HIDN) <i>Theresa Bernhard, tbernhard@usaid.gov</i>



Review DRAFT: 22 July 2011

Download this factsheet at:
www.encapfrica.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)

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(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.

I. 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

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.

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 I: [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 be 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 to the greatest degree feasible.”

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.

II. 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	<p><i>Principles of Environmental Mitigation</i> <i>Principles of Environmental Monitoring</i></p> <p>ENCAP training presentations; convey key principles with multiple visual examples. Include slide notes www.encapafrika.org/meoentry.htm (access via mitigation & monitoring topic)</p>
Sectoral mitigation and monitoring guidance	<p><i>Environmental Guidelines for Small-Scale Activities in Africa. (EGSSAA)</i></p> <p>Covers more than 20 common development sectors, and provides mitigation and monitoring guidance in table format.</p> <p>On-line annotated bibliographies provide links to detailed resources. www.encapafrika.org/egssaa.htm</p>
Field Monitoring for non-specialists	<p><i>ENCAP Visual Field Guides</i></p> <p>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:</p> <p>Water supply, sanitation, health care (waste), and roads. www.encapafrika.org/egssaa.htm#Guides</p>

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 <i>Environmental Guidelines for Small-Scale Activities in Africa</i>
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: <ol style="list-style-type: none"> a) storage in accordance with labels; b) disposal of expired and unused pharmaceuticals; and c) a budget to implement these safeguards. 	<i>Responsible Party:</i> THIP Policy Technical Advisors <i>Timing:</i> 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 <i>Responsible Party:</i> THIP Policy Director <i>Timing:</i> 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)	<i>Responsible Party:</i> THIP Policy Technical Advisors <i>Timing:</i> When meeting with appropriate MOH & district staff	Check storage practices are in compliance with MSDS <i>Responsible Party:</i> THIP M & E Advisor <i>Timing:</i> 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.	<i>Responsible Party:</i> THIP Training Advisor <i>Timing:</i> 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: <ul style="list-style-type: none"> ▪ How to Prepare an HCW Plan ▪ Developing a Waste Segregation System ▪ Minimize, Reuse, Recycling Procedures ▪ Incorporating Good Hygiene Practices 	<i>Responsible Party:</i> Training Advisor <i>Timing:</i> 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

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.	<i>Responsible Party:</i> ASP Crop Production Specialist <i>Timing:</i> Curriculum Development; During trainings	Review of curricula; attend various trainings <i>Responsible Party:</i> ASP Training Officer <i>Timing:</i> 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 <i>Responsible Party:</i> ASP Training Officer <i>Timing:</i> 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.encapfrica.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. . .				If yes to any question, indicate ERF status or note site change; add additional row for new 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?	
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	

