Environmental Mitigation & Monitoring Plans (EMMPs)

GEMS Environmental Compliance-ESDM Training Series
Senegal, February, 2014

Session Objectives

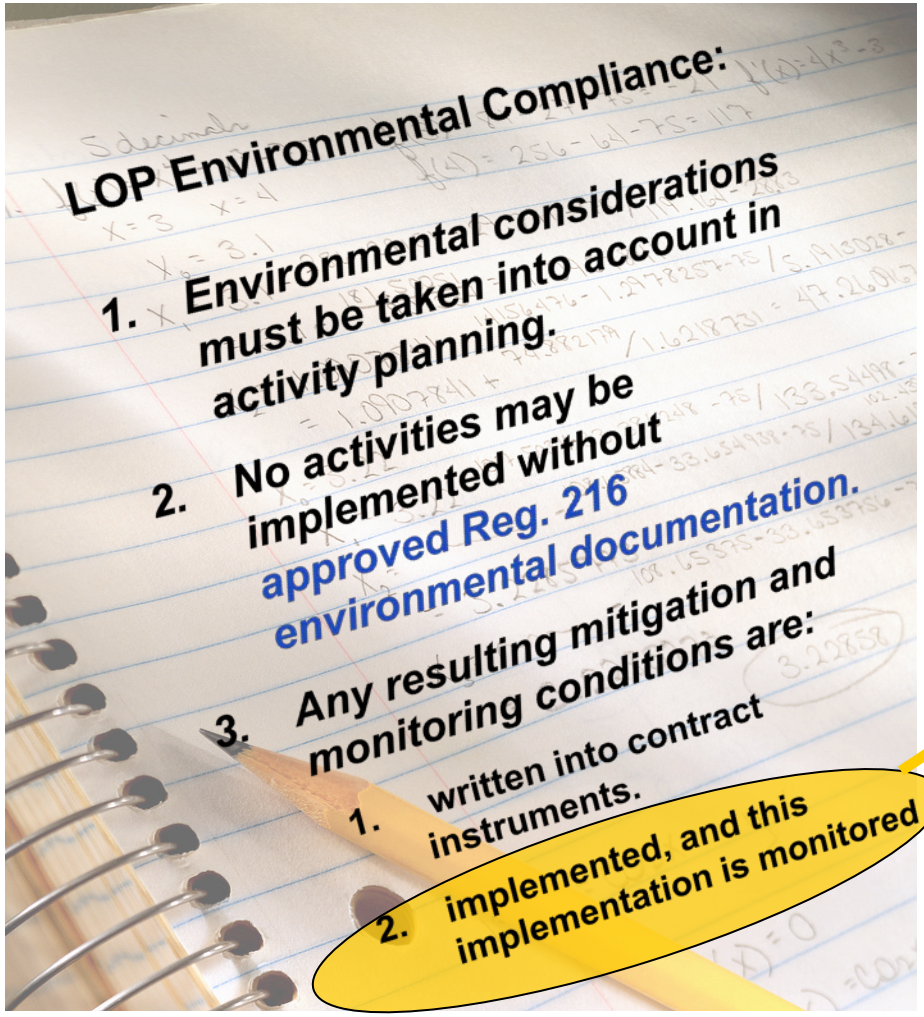
- Understand the USAID requirement for ongoing mitigation and monitoring of environmental impacts
- Learn how to “operationalize” IEE and EA conditions as part of project implementation
- Discuss adapting IEE/EA conditions in response to specific field activities and environments
- Review format and preparation of the Environmental Mitigation and Monitoring Plan (EMMP) via case study

Congratulations…

We are all experts in EIA and USAID Environmental Procedures!

- **Now, we must apply our knowledge of impact assessment and mitigation in a real project setting**
  - *IEEs (and EAs) are useless unless the conditions—environmental management criteria—they establish are implemented!*
  - ***USAID Environmental Procedures therefore require implementation***

USAID requirements are specific



USAID is required to implement and monitor IEE/EA conditions.

What does the ADS say?

Team Leaders and Activity Managers or COR/AORs 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

Implementation of IEE/EA conditions

Practically, implementation & monitoring of mit. & mon. conditions requires that:

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

EMMPs are critical.

What are they?

Except Title II partners, who write their own IEEs.

The EMMP: a simple tool

An EMMP sets out:

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

Carry over from the IEE only those activities with conditions (e.g., "negative determination with conditions")

To determine if mitigation is in place and effective

(e.g., visual inspection for leakage around pit latrine; sedimentation at stream crossing, etc.)

For mitigation, and for monitoring and reporting. (may differ)

Activity	Adverse Impacts	Mitigation Measure	Monitoring Indicators/ Criteria	Monitoring & Reporting Schedule	Responsible Party(ies)

Basic EMMP template

See EMMP template provided in training materials

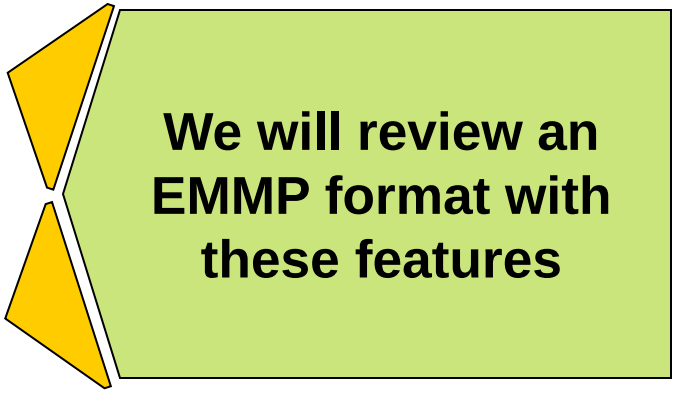
If well specified, excerpt directly from the IEE; If not well specified in IEE, define in better detail

(e.g., monitor weekly, report in quarterly reports and more frequently under specified conditions)

The EMMP: a flexible tool

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 or monitoring results are recorded
3. Other Suggestions?



An effective EMMP is specific + realistic

- **The EMMP must specify practical mitigation measures**
- **The EMMP often "translates" IEE conditions that are written in very general terms**
- **Implementing these conditions requires first translating them into specific mitigation actions**

How do we do this?

For example, WASH-related IEE conditions might state:

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

Or even more generally:

"wells shall be sited consistent with good practices."

EMMPs build on standards & best practice

Determining specific mitigation actions starts with review of appropriate standards or best practice guidance

Host country standards

DIRECTION DE L'ENVIRONNEMENT ET DES ETABLISSEMENTS CLASSES

For our well example:

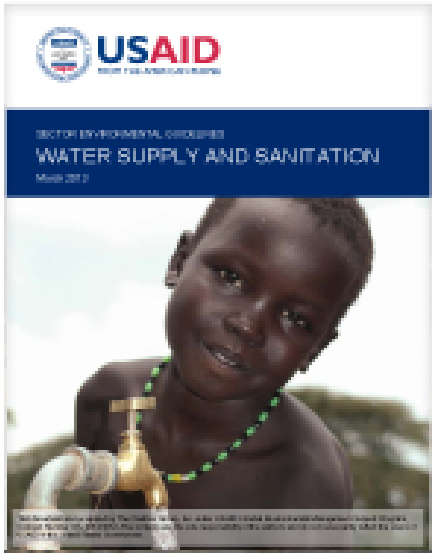
- **Identify and adopt siting criteria from relevant resources**
- **The specific mitigation action/ measure in the EMMP is:**
  - **"Compliance with project well-siting criteria"**
  - **Attach siting criteria to EMMP; make checklist for use by field teams and Monitoring & Evaluation (M&E) staff**

Sphere standards

Sector Environmental Guidelines

ETC.

Best practice guidance: well siting criteria

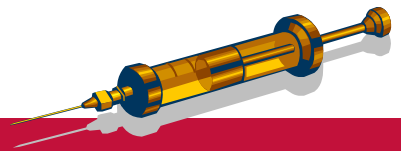


MINIMUM distances from potential sources of contamination for well siting:

- **45m 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 another example:

Health services capacity & policy



IEE stipulates that:

"Capacity building and policy development support to public health delivery and 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."

To "translate" these IEE conditions, the EMMP will need to:

- **identify an appropriate waste management standard; *and***
- **specify what is realistic, given that the project will not have direct control over these systems**

How are EMMPs being required?

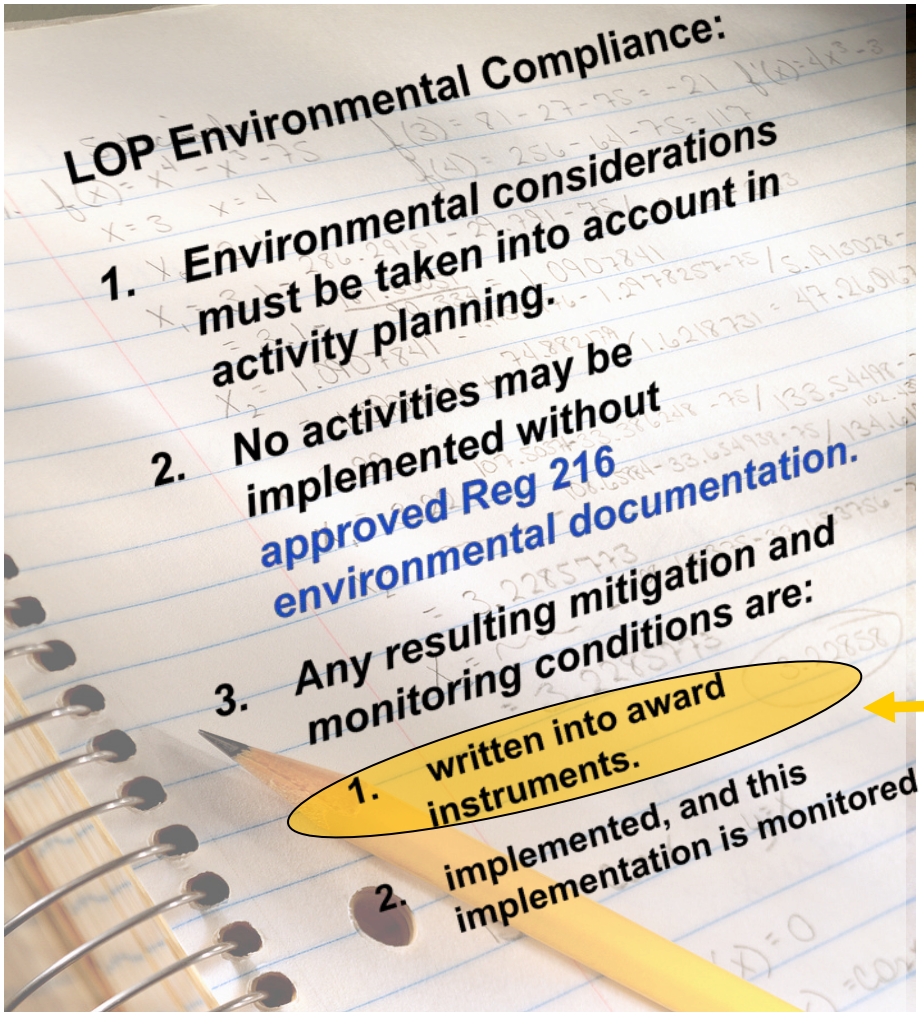
Three mechanisms:

1. Technical direction from COR or AOR
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 environmental conditions requires EMMPs that are incorporated in workplans and budgets**

USAID requirements are specific: Part II



USAID is required to write IEE/EA conditions into awards.

What does the ADS say?

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*)

Current best practice exceeds requirement

USAID is increasingly using best-practice environmental compliance language that goes 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*

And new solicitations require that

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

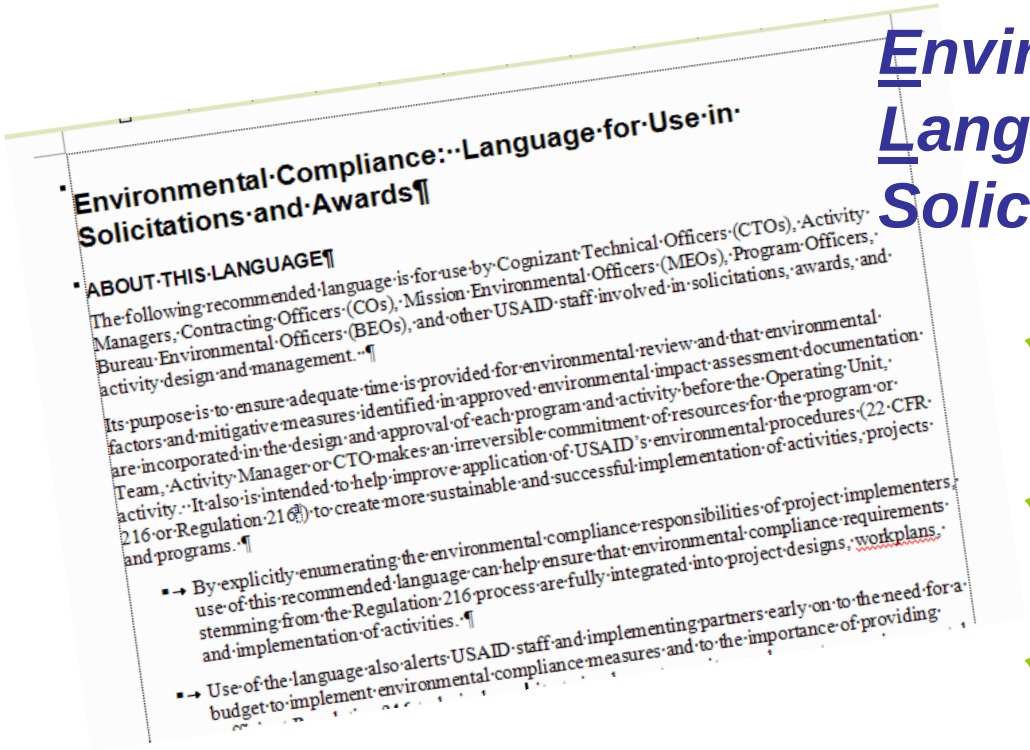
To assure that projects do not "creep" out of compliance as activities are modified and added to over their life

Specifically:

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

Source of best-practice language

(almost) new



Environmental·Compliance:··Language·for·Use·in·Solicitations·and·Awards¶

ABOUT·THIS·LANGUAGE¶

The·following·recommended·language·is·for·use·by·Cognizant·Technical·Officers·(CTOs),·Activity·Managers,·Contracting·Officers·(COs),·Mission·Environmental·Officers·(MEOs),·Program·Officers,·Bureau·Environmental·Officers·(BEOs),·and·other·USAID·staff·involved·in·solicitations,·awards,·and·activity·design·and·management.··¶

Its·purpose·is·to·ensure·adequate·time·is·provided·for·environmental·review·and·that·environmental·factors·and·mitigative·measures·identified·in·approved·environmental·impact·assessment·documentation·are·incorporated·in·the·design·and·approval·of·each·program·and·activity·before·the·Operating·Unit,·Team,·Activity·Manager·or·CTO·makes·an·irreversible·commitment·of·resources·for·the·program·or·activity.··It·also·is·intended·to·help·improve·application·of·USAID's·environmental·procedures·(22·CFR·216·or·Regulation·216)·to·create·more·sustainable·and·successful·implementation·of·activities,·projects·and·programs.·¶

- By·explicitly·enumerating·the·environmental·compliance·responsibilities·of·project·implementers,·use·of·this·recommended·language·can·help·ensure·that·environmental·compliance·requirements·stemming·from·the·Regulation·216·process·are·fully·integrated·into·project·designs,·workplans,·and·implementation·of·activities.·¶
- Use·of·the·language·also·alerts·USAID·staff·and·implementing·partners·early·on·to·the·need·for·a·budget·to·implement·environmental·compliance·measures·and·to·the·importance·of·providing·

Hardcopy in your training materials.

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

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 is use being strongly encouraged**

ECL promotes compliance + ESDM, and …

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 USAID verification/oversight.

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

Implementing Partners

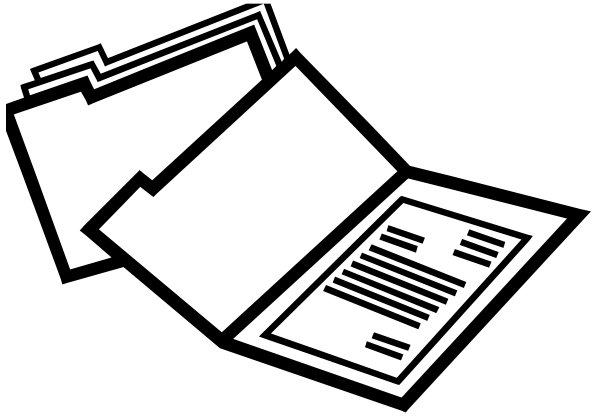
Provides clarity regarding environmental compliance responsibilities

Prevents "unfunded mandates"— requirements to implement mitigation and monitoring after activity has commenced and 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.**

How are EMMPs approved?

- EMMP must be approved by the project COR or AOR
- EMMP is usually submitted and approved with the project workplan or PMP
- EMMP may also be submitted with the project IEE (typical for Title II partner MYAP IEEs)
- Sometimes additional review by the MEO or REA



EMMP example:

Irrigation Rehabilitation

PROJECT BRIEFING:

System reconstructed in 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

Other dam is made of stone and soil

Water source is low in salts; risk of soil salinization is minimal

Diversion works at the head of the system

EMMP example:

Irrigation Rehabilitation

PROJECT BRIEFING:

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

At 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 wildlife habitat

Doing laundry in the canal

EMMP example:

Irrigation Rehabilitation

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

PROJECT BRIEFING:

Canals are hand made and carry open water from upstream

Roads are in poor condition—difficult to get crops out

System maintenance committee is not functional

Allocation: land registration to receive irrigation water was done in early 1980s; no new plots can be registered (but theft from the system is possible)

EMMP example:

Irrigation Rehabilitation

Excerpt of Impacts/Baseline Issues and Mitigations

Sub-activity or component	Description of Adverse 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
	Social impact of inequality of water use increasing # of people using the water	-Existing water committee reinforcement -Land Registration	8
Road rehabilitation: bridges & drainage works	Increased Deforestation (due to increased ease of access)	Work with local officials to control deforestation	9
	Increased sedimentation from enhanced road drainage	Sedimentation control (silt screen and hay bails- local weeds)	10

And finally. . .the EMMP itself

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

EMMP example:

Irrigation Rehabilitation

Excerpt of EMMP and Monitoring Log

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