Environmental Mitigation & Monitoring Plans (EMMPs)

GEMS Environmental Compliance-
ESDM Training Series

Ghana · January, 2017

SESSION OBJECTIVES

- Understand the USAID requirement for ongoing mitigation and monitoring of environmental impacts
- Discuss adapting IEE/EA conditions in response to specific field activities and environments
- Introduce the project management tool, the Environmental Mitigation and Monitoring Plan (EMMP)

CONGRATULATIONS…

WE ARE ALL EXPERTS IN EIA AND USAID ENVIRONMENTAL PROCEDURES!

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

USAID REQUIREMENTS ARE SPECIFIC

LOP Environmental Compliance:

- Environmental considerations must be taken into account in activity planning + design.
- No activities may be implemented without approved Reg. 216 environmental documentation.
- Any resulting mitigation and monitoring conditions are:
  1. written into contract instruments.
  2. implemented, and this implementation is monitored

EMMPS are critical.

What are they?

USAID IS REQUIRED TO IMPLEMENT AND MONITOR IEE/EA CONDITIONS.

EMMPs capture IEE/EA conditions and necessary actions.

THE EMMP: A SIMPLE TOOL

Basic EMMP template (see EMMP template provided in the Field Guide)

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)

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?

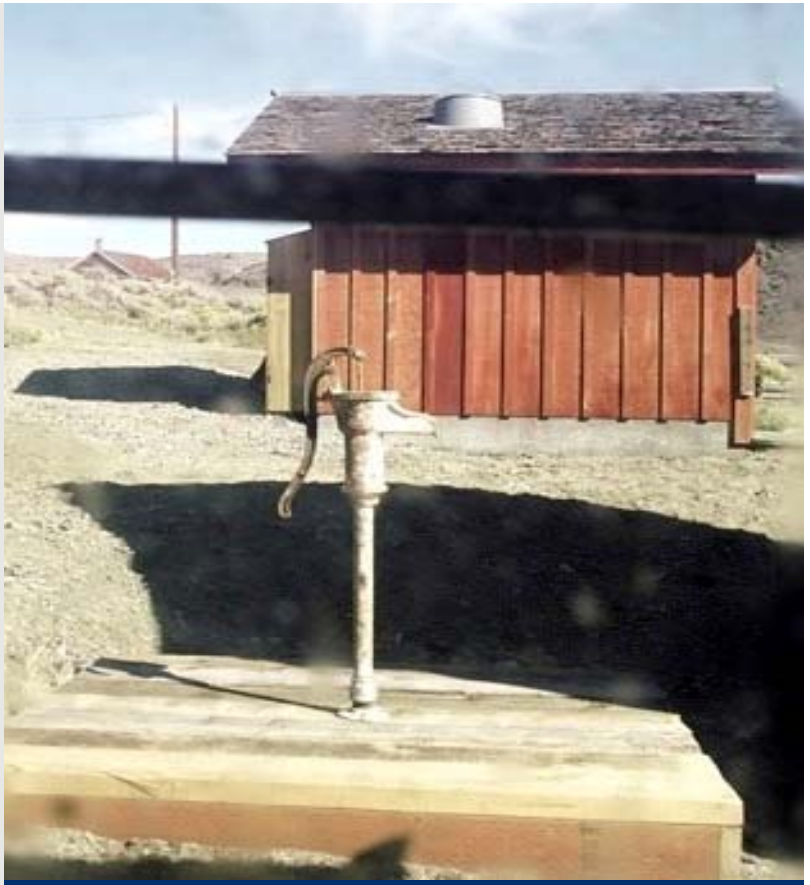
A key "lesson learned" from 40 years of world-wide EIA experience … implementation of environmental conditions requires EMMPs that are incorporated in workplans and budgets

We will utilize an EMMP format with these features for our exercises

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

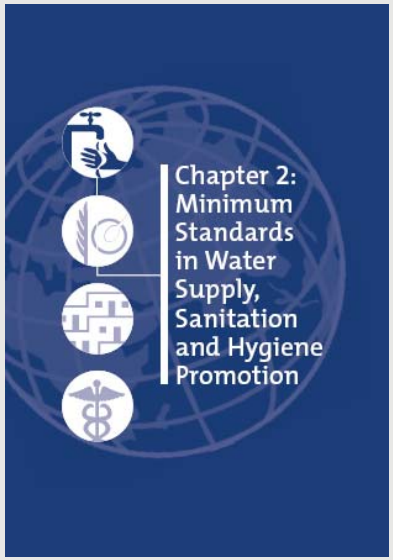
Determining specific mitigation actions starts with review of appropriate standards or best practice guidance

For our well siting 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 this criteria to the EMMP and make a checklist for use by field teams and Monitoring & Evaluation (M&E) staff

HOST-COUNTRY STANDARDS



SPHERE STANDARDS

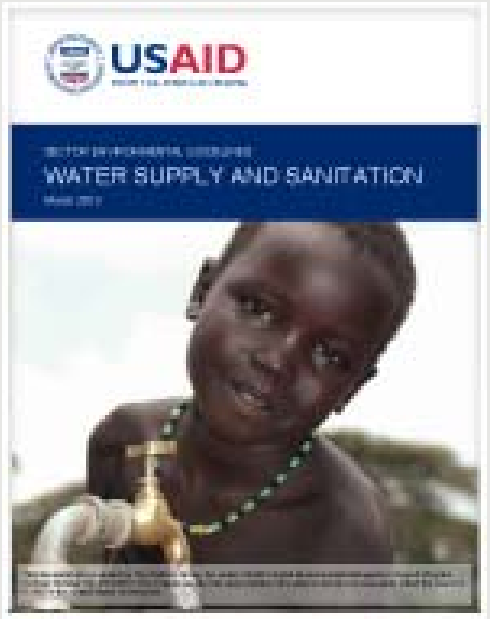
USAID *SECTOR ENVIRONMENTAL GUIDELINES*

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 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 DFAP IEEs)
- Sometimes additional review by the MEO or REA

EMMP example:

WASH Rehabilitation

PROJECT BRIEFING:

Utilize abandoned borehole

Refurbish existing 20m water tower (volume = 150m^3)

34 km of new water line to connect 11 villages

Each village to have 1 – 2 public fountains for water collection

No other readily available dry season water source in selected villages

Water provision to be coupled with latrine construction

EMMP example:

WASH Rehabilitation

PROJECT BRIEFING:

Soil is sandy and rocky with good drainage

Hydrology surrounding borehole is uncertain; source was previously use for road construction

No irrigated agriculture in region; livestock prevalent

Some seasonal wetlands nearby; no protected areas

Water committees present in some villages

EMMP example:

WASH Rehabilitation

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

PROJECT BRIEFING:

Easy access to borehole and water tower along main highway

Latrine construction will use standardized design

Some conflict over water access/rights in region, particularly with passage of nomadic families

Some villages growing as regional capital draws workers.

EMMP example:

WASH Rehabilitation

Excerpt of Impacts/Baseline Issues and IEE/EA conditions

Sub-Activity or Component	Potential Adverse Impact(s)	IEE/EA Condition(s)
Borehole restoration	Uncertain water quality—does water contain heavy metals or other contaminants?	Water quality testing will be completed prior to construction and at regular intervals thereafter and will conform to USAID and host-country standards
	Int[illegible]well—is lining intact and is it properly	Pre-construction assessment will be completed by qualified engineer and reviewed and approved by USAID
	Local hydrology—[illegible]hole provide sufficient water to mee[illegible]anticipated d[illegible]	Hydrological data will be compiled prior to [illegible] reviewed by
Water tower rehabilitation	C[illegible]on u[illegible] ha[illegible] necessary structur[illegible]	[illegible]
	Worker health and safety—ca[illegible] qualified/trained and provided with nec[illegible] PPE?	[illegible]d/certified [illegible] PPE provided to workers
	Site security—ca[illegible]cured against ne[illegible]hb[illegible]nd/or unauthorized [illegible]	Construction site will be secured by fencing or other means of controlling access to authorized personnel
Water point maintenance	Dra[illegible]age—will water collection points contribute to unsanitary conditions or vector breeding?	Water points will be sited consistent with best practices for community water provision
	Sanitation—will water points be kept clean and operation to ensure access to safe water?	Local water committees will be formed and/or engaged to maintain water collection points
	Access—will water points remain available to participating residents or beneficiaries?	Local water committees will be formed and/or engaged to administer water collection points

Just three of the sub-activities or components this project would entail

And finally, the EMMP…

EMMP example:

WASH Rehabilitation

IEE/EA Condition	Mitigation Measures	Monitoring Indicators	Monitoring & Reporting Schedule	Responsible Party(ies)
Water quality testing will be completed prior to construction and at regular intervals thereafter and will conform to USAID and host-country standards	• Certified laboratory will be engaged to test water quality not less than three months prior to construction and results will be made available to USAID COR and [illegible] for review and concurrence • [illegible]ples will be taken from operat[illegible]orehole not less than once a mo[illegible]h and teste[illegible] certified laborato[illegible] made available[illegible] MEO for revie[illegible]	• Conformance with USAID and host-country drinking water quality standards	• All water quality testing and monitoring data will be made available to USAID within one week of analysis by certified laboratory • Results of water quality testing and ongoing [illegible]nitoring will be [illegible] and included as [illegible]ar quarterly [illegible]ting	• IP's engineer, construction manager • USAID COR
Local water committees will be formed and/or engaged to maintain water collection points	• New c[illegible]itte[illegible] comm[illegible] [illegible]artered) and balanced w[illegible] respect to gender, age, social status, etc. with defined mandates for water point maintenance • Training in basic maintenance skills and organizational management will be provided to committees • Sustainable funding schemes will be developed in consultation with and covenanted by water committees in order to sustain operations and effectively maintain water points	participating village/community, including gender, age and family affiliation of each member • Maintenance of water point that is sanitary, unobstructed, and well drained	[illegible]mittee [illegible] rosters will be compiled not less than one month prior to water point installation • Rosters of water committee members will be attached as an annex to the IPs annual project report • Training and capacity building activities for water point committees will be reflected in regular project quarterly reporting	• IP's commun relations/out manager

Just two of the IEE/EA conditions from the preceding table

Questions?

Helen Ho/USAID

USAID
FROM THE AMERICAN PEOPLE