Environmental Mitigation & Monitoring Plans (EMMPs)
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...

You are supporting improved education, governance, health and economic opportunity in the Middle East Region!

- Now, we must marry development programming with sound environmental management at the project level
  - IEEs (and EAs) are useless unless the conditions—environmental management criteria—they establish are implemented!
  - USAID Environmental Procedures therefore require implementation
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)
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

*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 and effectiveness
- Who is responsible for mitigation and monitoring

<table>
<thead>
<tr>
<th>Activity</th>
<th>Adverse Impacts</th>
<th>Mitigation Measure</th>
<th>Monitoring Indicators/ Criteria</th>
<th>Monitoring &amp; Reporting Schedule</th>
<th>Responsible Party(ies)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic EMMP template</strong></td>
<td></td>
<td></td>
<td>To determine if mitigation is in place and effective</td>
<td>For mitigation, and for monitoring and reporting. (may differ)</td>
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<tr>
<td>Carry over from the IEE only those activities with conditions (e.g., “negative determination with conditions”)</td>
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<td>(e.g., visual inspection for leakage around pit latrine; sedimentation at stream crossing, etc.)</td>
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<td>If well specified, excerpt directly from the IEE; If not well specified in IEE, define in better detail</td>
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<td>(e.g., monitor weekly, report in quarterly reports and more frequently under specified conditions)</td>
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</table>
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

*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
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 DFAP guidance (Title II only)

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)
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
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

ECL promotes compliance + ESDM, and …

Benefits both Mission Staff & partners:

<table>
<thead>
<tr>
<th>USAID Mission Staff</th>
<th>Implementing Partners</th>
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<tbody>
<tr>
<td>Assures that environmental monitoring and reporting is integrated into <em>routine activity monitoring and reporting</em>; reduces the cost and effort of USAID verification/oversight.</td>
<td>Provides clarity regarding environmental compliance responsibilities</td>
</tr>
<tr>
<td>Avoids the effort, costs and loss of good will that come from imposing “corrective compliance” measures after implementation has started.</td>
<td>Prevents “unfunded mandates”—requirements to implement mitigation and monitoring after activity has commenced and without additional budget.</td>
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</table>

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 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 = 150m³)
- 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
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

PROJECT BRIEFING:

EMMP example:
WASH Rehabilitation
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

<table>
<thead>
<tr>
<th>Sub-Activity or Component</th>
<th>Potential Adverse Impact(s)</th>
<th>IEE/EA Condition(s)</th>
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<tbody>
<tr>
<td>Borehole restoration</td>
<td>Uncertain water quality—does water contain heavy metals or other contaminants?</td>
<td>Water quality testing will be completed prior to construction and at regular intervals thereafter and will conform to USAID and host-country standards</td>
</tr>
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<td></td>
<td>Integrity of well—is lining intact and is it properly sited?</td>
<td>Pre-construction assessment will be completed by qualified engineer and reviewed and approved by USAID</td>
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<tr>
<td></td>
<td>Local hydrology—will borehole provide sufficient water to meet anticipated demand?</td>
<td>Hydrological data will be compiled prior to commencement of construction and reviewed by qualified expert with concurrence by USAID</td>
</tr>
<tr>
<td>Water tower rehabilitation</td>
<td>Quality of construction uncertain—does tower have necessary structural integrity?</td>
<td>Construction will be completed by registered/certified firm and all necessary training and PPE provided to workers</td>
</tr>
<tr>
<td></td>
<td>Worker health and safety—can workers be qualified/trained and provided with necessary PPE?</td>
<td>Site security—can site be secured against neighbors, children, and/or unauthorized access?</td>
</tr>
<tr>
<td></td>
<td>Sanitation—will water points be kept clean and operation to ensure access to safe water?</td>
<td>Local water committees will be formed and/or engaged to maintain water collection points</td>
</tr>
<tr>
<td>Water point maintenance</td>
<td>Drainage—will water collection points contribute to unsanitary conditions or vector breeding?</td>
<td>Water points will be sited consistent with best practices for community water provision</td>
</tr>
<tr>
<td></td>
<td>Sanitation—will water points be kept clean and operation to ensure access to safe water?</td>
<td>Local water committees will be formed and/or engaged to administer water collection points</td>
</tr>
<tr>
<td></td>
<td>Access—will water points remain available to participating residents or beneficiaries?</td>
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</tbody>
</table>

Just three of the sub-activities or components this project would entail
And finally. . .the EMMP itself
EMMP example:
WASH Rehabilitation

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<tr>
<th>IEE/EAPA Condition</th>
<th>Mitigation Measures</th>
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<tr>
<td>Water quality testing will be completed prior to construction and at regular intervals thereafter and will conform to USAID and host-country standards</td>
<td>• 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 MEO for review and concurrence</td>
<td>• Conformance with USAID and host-country drinking water quality standards</td>
<td>• All water quality testing and monitoring data will be made available to USAID within one week of analysis by certified laboratory</td>
<td>• IP’s engineer/construction manager, USAID COR</td>
</tr>
</tbody>
</table>
| Local water committees will be formed and/or engaged to maintain water collection points | • New committees (newly chartered) and balanced with 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 | • Results of water quality testing and ongoing monitoring will be made available to USAID and included as part of regular quarterly reporting | • IP’s communications/outreach manager |

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