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Special Topic: WASH and Water Supply Activities

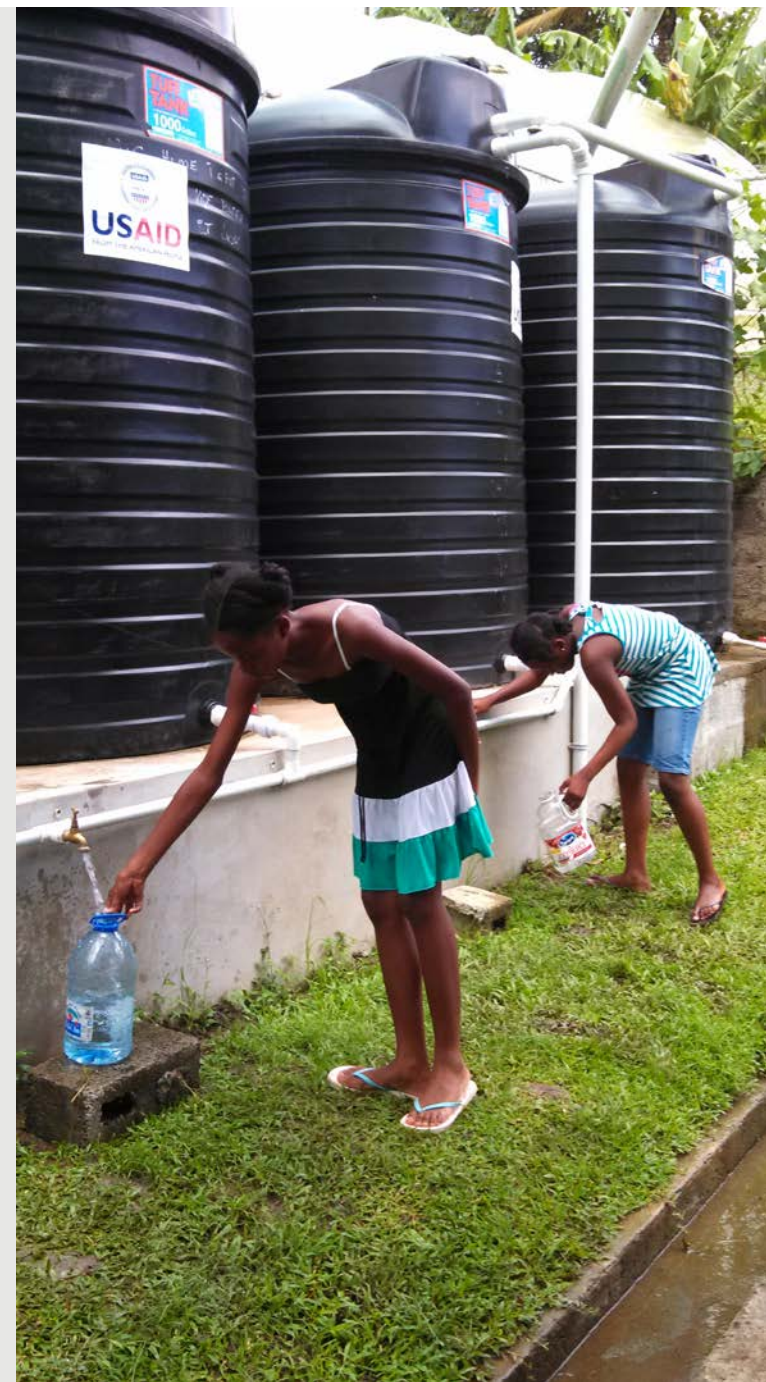


GEMS Environmental Compliance-
ESDM Training Series

Kenya ▪ June, 2016

SESSION OBJECTIVES:

- Understand importance of WASH and water supply activities in USAID programming
 - *Human health*
 - *Food security and economic growth*
- Characterize potential adverse impacts of water provision activities.
- Discuss USAID approach to assessing and mitigating impacts + preparation of compliance documentation.
- Understand water quality management and assurance “best practices” from partner perspective, consider evolving needs.





WATER PROVISION

- Underpins public health + sustained economic growth
- Central to many development objectives
- Can adversely impact human, environmental health
- USAID objective = “Safe Water”
- Local environmental conditions, capacity, and host-country requirements can vary widely
- Water Quality Assurance Plan (WQAP) accounts for variations and provides flexibility



RECENT WQAP ASSESSMENT

- Three-phase AFR/SD-commissioned study to assess extent and efficacy of AFR WQAP requirement
- Phase I: Desk review using IEE database
- Phase II: Verify WQAP preparation (and extent of implementation) for projects for which it is required
- Phase III: Field work to assess WQAP efficacy and attributes (Ghana, Zimbabwe, Kenya + Tanzania)
- Multiple report-outs to AFR and across Agency and USG partners

CHALLENGES TO IMPLEMENTATION

- WQAP not evenly addressed or required in IEEs for applicable projects:
 - *WASH*
 - *Agriculture (irrigation)*
 - *Construction/rehabilitation of schools, clinics, etc.*
- Where required by IEE, sometimes no record of WQAP being developed or implemented
- Some WQAPs not responsive to full range of challenges





FACTORS FOR SUCCESSFUL WQAPS

Verified through field work (Phase III):

- *Clear and consistent host country regulations*
- *Coordination with host country institutions*
- *Structured community operation and maintenance of water points*
- *Quality and experience of IP*
- *Access to well-equipped and well-staffed laboratories*
- *Adequate host-country personnel and expertise*
- *Effective resource management*
- *Inclusion of water quality standards in contracts and awards*

RECOMMENDATIONS

| RECOMMENDATIONS | KEY ACTORS |
|---|--|
| Reconsider the importance of underlying IEE conditions, which devolve too much to a WQAP mechanism versus a traditional EMMP | Agency Environmental Council; Africa Bureau Environmental Officer; Africa Bureau Water Advisor; Regional Environmental Advisors; Office of Water Staff |
| Develop a template and/or example of a high-quality WQAP or EMMP addressing water monitoring requirements for use by Mission Environmental Officers, Agreement Officer's Representative/Contracting Officer's Representative, and IPs | Africa Bureau Environmental Officer; Africa Bureau Water Advisor; Office of Water Staff |
| Select IPs with water quality monitoring experience and a good track record of achieving safe water in the host country by strengthening selection criteria | Policy, Planning, and Learning; Office of Acquisitions and Assistance |
| Provide technical training to all Regional Environmental Advisors and Mission Environmental Officers on water quality monitoring | Africa Bureau Environmental Officer; Africa Bureau Water Advisor; Office of Water Staff |
| Improve community-based monitoring and engagement in the water quality process to foster community ownership of water points and improve the likelihood of long-term monitoring | Office of Water Staff, Mission Environmental Officers, Representatives/Contracting Officer Representatives |
| Seek opportunities to provide low-cost technical support to facilitate community-level water quality analysis | Office of Water Staff, Mission Environmental Officers, Agreement Officer Representatives/Contracting Officer Representatives |



RECOMMENDATION #1: REVISIT IEE LANGUAGE

- IEEs include clearer, more prescriptive WQAP requirement
 - Prior to drinking water provision, the project will prepare and receive approval for a Water Quality Assurance Plan (WQAP). The WQAP will be prepared in consultation with the cognizant AOR/COR and/or Activity Manager. Its purpose is to ensure that all new and rehabilitated USAID-funded sources of drinking water provide water that is safe for human consumption. The completed WQAP must be approved by: the AOR/COR and/or Activity Manager; the MEO; and the REA.
 - Once approved, the WQAP must be implemented in full, and for the duration of drinking water activities. Implementation must include testing of water prior to making the supply point available to beneficiaries.
 - The WQAP constitutes a key element of the project's EMMP. As with all other elements of the EMMP, project budgets, workplans, and staffing plans must provide for its full implementation. The approved WQAP must include at minimum the following sections:
 - Project information (name of project, name of IP, period of performance, contact information, name of COR/AOR)

RECOMMENDATION #2: WQAP TEMPLATE

- Make available a high-quality WQAP template for use by MEOs, A/CORs, and IPs

Table 1. Example Summary EMMP Matrix

XXX WASH PROJECT
SITE: XXX
Environmental Mitigation/ Enhancement Plans for Established WASH Projects

WATER QUALITY ASSURANCE PLAN

Activity: Water Supply
Adverse Impact: Inadequate Water Quality

Sites: Water Pans: Location XXXX. Boreholes: Location XXXX. Pipeline Extension: Location XXXX.
Rock Catchments: Location XXXX. RWH Tanks: Location XXX.

| Source Type | Mitigation Plan | Evidence of mitigation measure | Follow up/ frequency | Responsible persons/ organizations |
|-------------|--|---|---|------------------------------------|
| | Design Stage | | | |
| | Construction Stage | | | |
| Water Pans | a) Construct cattle troughs away from the water pan site b) Provide a cutoff trench for any storm water flowing in from any nearby farms, markets, trading centers etc c) Construct a suitable silt trap to control siltation of the reservoir d) Construct the embankment with gentle and well compacted slopes to prevent any soil erosion of the walls during rainy seasons e) Provide adequate dead storage below the intake chamber to minimize siltation of the draw pipe f) Fence round the water pan site g) Ensure all spilled oils and fuels are properly disposed h) Properly dispose off all waste/ unwanted matter from the reservoir i) Install an appropriate water treatment unit | Installation, completion reports, photos | After construction and every three months | Contractors, community and IP |
| Boreholes | a) Install pipe casings in case the walls are prone to collapse b) Proper drainage of waste materials from the drilled pit to prevent any seepage to the ground water c) Proper development of the pit to remove any unwanted material occurring during drilling process | Installation, completion reports, photos water quality reports, photos, design drawings for treatment units | During construction, after construction and after every three | Contractors, IP, commu |



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