



# OFFICE OF INSPECTOR GENERAL

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## AUDIT OF USAID/KENYA'S EFFORTS TO MITIGATE ENVIRONMENTAL IMPACT IN ITS PROJECT PORTFOLIO

AUDIT REPORT NO. 4-615-10-008-P  
September 29, 2010

PRETORIA, SOUTH AFRICA



*Office of Inspector General*

September 29, 2010

**MEMORANDUM**

**TO:** USAID/Kenya, Mission Director, Erna Kerst

**FROM:** Regional Inspector General/Pretoria, Christine M. Byrne, CPA /s/

**SUBJECT:** Audit of USAID/Kenya's Efforts to Mitigate Environmental Impact in Its Project Portfolio (Report No. 4-615-10-008-P)

This memorandum transmits our report on the subject audit. The report includes 13 recommendations to strengthen USAID/Kenya's efforts to mitigate environmental impact. In finalizing the report, we carefully considered your comments on the draft report and have included those comments (without attachments) in Appendix II.

The Regional Inspector General has reviewed the mission's comments and supporting documentation and determined that management decisions have been reached on all recommendations except Recommendation 8, and that final action has been taken on Recommendation 10. Please provide the Audit Performance and Compliance Division in the USAID Office of the Chief Financial Officer (M/CFO/APC) with the necessary documentation to achieve final action on Recommendations 1–7, 9, 11, 12, and 13.

Recommendation 8 remains without a management decision because the mission's comments did not address the incorporation of environmental expertise into the selection criteria for future awards. We ask that you notify us within 30 days of any additional actions planned to implement Recommendation 8.

I want to express my sincere appreciation for the cooperation and courtesy extended to my staff during the audit.

# CONTENTS

<b>Summary of Results</b> .....	1
<b>Audit Findings</b> .....	4
Responsibilities Not Clearly Defined for Disposing of Health-Care Waste.....	5
Water Testing Not Being Performed .....	7
Environmental Responsibilities Not Given High Priority.....	10
Environmental Guidance Not Implemented Adequately .....	12
<b>Evaluation of Management Comments</b> .....	18
<b>Appendix I – Scope and Methodology</b> .....	21
<b>Appendix II – Management Comments</b> .....	23
<b>Appendix III – Funding Levels for Programs Reviewed</b> .....	30
<b>Appendix IV– Selected Water Quality Test Results From a     USAID-Sponsored Shallow Well</b> .....	31
<b>Appendix V – Summary of USAID/Kenya’s Environmental Staffing and     Procedures</b> .....	32

# SUMMARY OF RESULTS

Damage to the environment stemming from economic development is a fundamental concern in the developing world. To guarantee adequate environmental oversight and ensure that environmental considerations are integrated into the decision-making process for all USAID-funded projects, programs, and activities, USAID implements Title 22 of the Code of Federal Regulations, Part 216—Environmental Procedures (22 CFR 216).

The Code of Federal Regulations (22 CFR 216) assigns USAID responsibility for assessing the foreseeable environmental impacts of the Agency's actions, requires that environmental safeguards be incorporated into program planning and design, and directs that programs be continually monitored and modified when necessary to mitigate environmental impact. The CFR states that it is USAID policy to assist host countries with strengthening their capability to evaluate potential environmental effects of proposed projects, and to develop effective environmental programs. USAID's Automated Directives System (ADS) 204, "Environmental Procedures," provides policy directives and required procedures on how to apply 22 CFR 216. If properly implemented throughout the project cycle, 22 CFR 216 will result in the promotion of environmental policies consistent with USAID's development mandate and environmentally sound activities.

The Regional Inspector General/Pretoria conducted this audit at USAID/Kenya as part of a worldwide series of audits to evaluate the implementation of the above environmental regulation. U.S. assistance to Kenya promotes peace and manages conflict; stimulates economic growth; and supports improvements in governance, health, education, and environmental management. In these program areas, USAID/Kenya funds activities with varying potential environmental impact. The primary scope of the audit included activities involving HIV/AIDS, water sources, maize production, dairy operations, and a variety of activities under small grants.

The objective of the audit was to determine whether USAID/Kenya was achieving its goal of mitigating environmental impact in its project portfolio. As shown in Appendix III, the audit focused primarily on five USAID/Kenya programs implemented between 2008 and 2010. A sixth program in the malaria sector was also reviewed, but because the program had just been reawarded following a competitive bidding process, no site visits were conducted. The total amounts awarded and obligated for these six programs were approximately \$104,162,369 and \$69,512,563, respectively, as of March 31, 2010.<sup>1</sup> (See Appendix III.)

Although the audit disclosed that some USAID/Kenya-sponsored shallow well projects were providing water of unknown quality to intended beneficiaries (page 7), USAID/Kenya was generally achieving its goal to mitigate environmental impact in its project portfolio. However, the lack of adverse impact was not always a direct result of the mission's properly implementing Agency environmental requirements, clearly communicating these requirements to implementing partners, or actively monitoring activities.

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<sup>1</sup> Dollar amounts referenced in this report were not audited.



Source: U.S. Department of State

Instead, environmentally sound design and management of USAID/Kenya's activities, adherence to the Government of Kenya's environmental regulations and requirements, and implementing partners' awareness of good environmental practices all mitigated impact (pages 3 and 4).

Despite generally achieving its goal of mitigating environmental impact, the mission should address the following problem areas to strengthen its program:

- Responsibilities were not clearly defined for disposing of health-care waste (page 5).
- Water testing was not being performed (page 7).
- Environmental responsibilities were not given high priority (page 10).
- Environmental guidance was not being implemented adequately (page 12).

This report makes 13 recommendations to address these issues, including:

- Determining the extent of USAID's environmental responsibilities for disposing of health-care waste generated by service providers' activities and developing a plan to carry out those responsibilities (page 7).
- Conducting water tests and establishing a plan to ensure future water testing (page 10).
- Developing a mission order to delineate responsibilities for environmental compliance (page 11).

- Providing adequate resources and environmental training to appropriate staff and implementing partners (pages 11 and 12).
- Establishing a plan to ensure that environmental assessment and expertise requirements are incorporated into solicitations and signed awards (page 13).
- Establishing a plan to ensure that environmental documentation is completed and maintained (page 15).
- Establishing procedures to ensure that required environmental oversight is being performed during site visits (page 16).
- Notifying mission personnel and implementing partners about the Agency's free resources to aid environmental monitoring (page 17).

Appendix I contains a discussion of the audit's scope and methodology, and Appendix II presents USAID/Kenya's comments (without attachments).

In response to the draft report, USAID/Kenya agreed with all 13 recommendations and provided supporting documentation for actions taken and target dates for actions to be taken. The Regional Inspector General has reviewed the mission's comments and supporting documentation and determined that management decisions have been reached on all recommendations except Recommendation 8, and that final action has been taken on Recommendation 10.

# AUDIT FINDINGS

Environmentally sound design and management of USAID activities are essential to successful development outcomes. The six programs reviewed for this audit demonstrated to some extent environmentally sound design and management. Furthermore, training activities for beneficiaries in each of the six programs included at least a minor environmental component. Examples are listed below.

- **Kenya Maize Development Program, implemented by ACDI/VOCA.** One element of this program is the dissemination of new and improved technologies and information emphasizing agricultural sustainability to farmers. Farmer training in best practices resulted in (1) greater outputs for the same or smaller amounts of inputs, (2) efficient and correct application and handling of fertilizer, top dressing, and pesticides, and (3) improved soil management and planting techniques. The program also encouraged participants to plant trees and protect river banks.
- **Kenyan Civil Society Strengthening Program, implemented by Pact.** The natural resources management component of this program aimed to help communities generate income in an environmentally sustainable way. For example, one project to develop ecotourism helped communities realize and appreciate long-lasting benefits from the area's natural resources. To encourage ecotourism, one community began planting trees and allowing indigenous vegetation to regrow in areas that had been cleared for farming.
- **Kenya Water and Sanitation Program in Narok and Lamu Districts, implemented by World Concern.** To bring improved water and sanitation to underserved communities, this program trained communities in these two districts in water conservation, hygiene, and water source protection, and established community water groups to encourage local involvement in water projects. Additionally, the program helped these communities construct shallow wells and pumps from locally available materials to promote long-term sustainability.
- **Kenya Dairy Sector Competitiveness Program, implemented by Land O'Lakes.** USAID/Kenya's interventions in the dairy sector helped smallholder farmers improve their practices to increase household income from the sale of quality milk. Many of these improvements have lessened the smallholders' impact on the environment. Some examples include development of biogas as an alternative source of fuel, improved and reduced use of pesticides, and production of renewable feed for livestock. Furthermore, the dairy processors supported through this program and selected for auditor site visits received certification from the Kenya National Environmental Management Authority for complying with Kenya's environmental regulations.
- **USAID-AMPATH (Academic Model Providing Access to Healthcare) Partnership, implemented by Indiana University.** Training provided through AMPATH for health-care workers in patient-initiated treatment centers included a unit on biosafety. Additionally, AMPATH's Imani Workshop, a livelihood development project for people living with HIV/AIDS, used materials recycled from the main hospital for income-generating activities. Paper waste from the AMPATH training

center was recycled into journals, beads, and decorative bowls, and vegetable oil cans from AMPATH's food distribution center were turned into small, energy-efficient stoves called *jikos*.

- **Indoor Residual Spraying Program, implemented by RTI International.** Staff carried out several levels of environmental review, including environmental audits, for this malaria program, and the implementing partner hired a full-time environmental compliance manager. Environmental monitors in every targeted community were trained to perform daily monitoring of spraying activities. Additionally, the implementing partner stated that project staff members conduct interviews with communities following spraying to identify any adverse effects of the project.

The audit found no evidence of adverse impact to the environment resulting from USAID/Kenya's activities, and in some cases found that USAID/Kenya's activities had benefited the environment. Still, the mission can further strengthen its program and reduce the risk of potential environmental impact by addressing the following problem areas.

### **Responsibilities Not Clearly Defined for Disposing of Health-Care Waste**

Through the USAID/AMPATH<sup>2</sup> Partnership, USAID/Kenya provides medical staff, drugs, and other medical supplies to private and government health clinics and hospitals for the testing and treatment of HIV/AIDS. In turn, USAID/Kenya relies on the health-care facilities for disposal of all waste, including general, hazardous, and highly infectious medical waste. Auditors observed some positive health-care waste management practices, such as separation of general and hazardous waste and disposal of syringes in special containers, during visits to 5 of the 23 rural and urban sites where AMPATH provides services.

However, site visits to these locations also raised several concerns. At one facility run by the Government of Kenya, the audit team observed an individual scavenging through a pile of waste, including medical waste that had been dumped on hospital property behind a nonfunctioning incinerator. At the same site, the audit team found evidence of medical waste comingled with general waste in an open burn area. At another facility, the audit team observed an unprotected, unlined pit being used for disposal of infectious and potentially hazardous waste. Several bags of such waste, including blood-contaminated waste—part of which was identified as possibly coming from USAID-funded activities—were scattered around the opening of the pit, unprotected against scavengers, animals, and other disease carriers. (See photo on page 6.)

The Code of Federal Regulations<sup>3</sup> states, "It is USAID policy to ensure that the environmental consequences of USAID-financed activities are identified and considered by USAID and the host country prior to a final decision to proceed and that appropriate environmental safeguards are adopted." The regulation further states that USAID policy is to "assist developing countries to strengthen their capabilities to appreciate and

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<sup>2</sup> AMPATH is a model of HIV/AIDS control in western Kenya. It grew out of a long-standing partnership between Indiana University, Moi University, and Moi Teaching and Referral Hospital.

<sup>3</sup> 22 CFR 216.1(b)(1), 22 CFR 216.1(b)(2), 22 CFR 216.2(a).

effectively evaluate the potential environmental effects of proposed development strategies and projects, and to select, implement, and manage effective environmental programs.” With the exception of certain classes of projects, programs, and activities enumerated in 22 CFR 216.2(b), these policies apply to all new projects, programs, or activities authorized or approved by USAID.

The initial environmental examination<sup>4</sup> that USAID/Kenya prepared for its strategic objective addressing HIV/AIDS is consistent with 22 CFR 216. The examination requires mission implementing partners<sup>5</sup> to hold their subpartners<sup>6</sup> responsible for complying with the initial environmental examination by including compliance provisions in all subagreements. The initial environmental examination also stipulates conditions that implementers must meet before starting activities that involve the generation, storage, handling, and disposal of medical waste.



**Bags of blood-contaminated and potentially infectious waste lie in and around an unprotected and unlined pit at a service provider’s site near Eldoret. (Photo by RIG/Pretoria, March 2010)**

However, mission staff were unsure about the extent to which initial environmental examination conditions and relevant environmental standards applied to service providers, which are independent organizations that have funding sources other than USAID and serve patients other than those funded by USAID. As a result,

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<sup>4</sup> An initial environmental examination is the first review of the reasonable foreseeable effects of a proposed action on the environment. See Appendix V for additional information.

<sup>5</sup> Implementing partners are organizations that have signed agreements with the mission to implement its programs and that receive funding directly from the mission.

<sup>6</sup> Subpartners sign agreements known as subagreements with implementing partners to implement aspects of the mission’s programs. Subpartners receive funding indirectly from the mission through implementing partners.

subagreements<sup>7</sup> with the service providers operating health facilities did not assign responsibility or define requirements for appropriate disposal of health-care waste. Since many of the facilities where the HIV/AIDS programs operate belong to the Government of Kenya, some mission personnel felt that it was the Government's responsibility to enforce compliance with its own national environmental regulations for health-care waste disposal.

As a result of the poor compliance of some USAID-assisted HIV/AIDS service providers with accepted standards for disposing of health-care waste, USAID/Kenya's HIV/AIDS program is contributing to heightened risk of damage to the environment and to the health of surrounding communities. The program is also vulnerable to any negative publicity<sup>8</sup> that might result from the improper disposal of hazardous medical waste.

Although a significant budget of \$2.1 billion was approved for USAID's HIV/AIDS activities worldwide in fiscal year 2009 (\$334.2 million approved for Kenya), the mission was not aware of any specific policies or procedures issued by USAID for the disposal of health-care waste resulting from HIV/AIDS interventions. Since there is a gap in USAID guidance concerning the disposal of HIV/AIDS-related health waste, the mission needs to consult with USAID/Washington to determine the proper application of current environmental policies and procedures to the HIV/AIDS program in Kenya. For this reason the audit makes the following recommendations.

***Recommendation 1.*** We recommend that USAID/Kenya determine the extent of its responsibilities for health-care waste generated by its HIV/AIDS service providers.

***Recommendation 2.*** We recommend that USAID/Kenya develop a plan with milestones to implement its responsibilities for health-care waste generated by its HIV/AIDS service providers, including the revision of all relevant program documents and agreements.

## **Water Testing Not Being Performed**

USAID/Kenya's water and sanitation program in Narok and Lamu aims to increase access to, and improve the quality of, potable water for human and livestock consumption, while increasing community capacity to manage and maintain those water resources. To date, USAID/Kenya, through its implementing partner, World Concern, has constructed several shallow wells and water catchment systems<sup>9</sup> for human consumption, as well as a water pan for livestock. Regarding such water and sanitation

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<sup>7</sup> The typical subagreement used between AMPATH and its service providers was in the form of a memorandum of understanding.

<sup>8</sup> On March 26, 2009, an article by the Associated Press surfaced a complaint that plastic fishing nets purchased as part of a USAID/Kenya livelihood project were destroying Kenya's coastal ecosystem. This article ran in major news media, including *USA Today* and MSNBC. USAID/Kenya holds that there is no clear indication that USAID-provided nets caused harm or detriment, and that the nets funded by USAID represent a very small fraction of all the nets being used along Kenya's 600 kilometers of coastline. Although this article did not refer to medical waste disposal, it exemplifies how USAID is vulnerable to negative publicity.

<sup>9</sup> A water catchment system is a structure used to gather and store rainwater.

projects, USAID/Kenya's initial environmental examination states that water quality testing is essential both to determine whether the water from a constructed water source is safe to drink and to establish a baseline so that any future degradation can be detected. The document goes on to state that among the water quality tests that must be performed are tests for the presence of arsenic.

Also relevant to water projects is a December 2003 document issued by USAID's Bureau for Africa. "Guidelines for Determining the Arsenic Content of Ground Water in USAID-Sponsored Well Programs in Sub-Saharan Africa" states that assistance objective teams must ensure that the standards and testing procedures described in the document are followed for activities affecting the supply of potable water. Agreement and contracting officer's technical representatives (technical representatives) and activity managers are responsible for ensuring that initial water quality testing is carried out. They are also responsible, when feasible, for ensuring that capacities and plans have been developed to provide reasonable assurance that ongoing monitoring of water quality occurs.

Earlier USAID guidance<sup>10</sup> on water testing requires that any environmental assessment carried out in accordance with 22 CFR 216 on projects involving potable water supplies include testing for arsenic, in addition to the usual testing for coliform bacteria<sup>11</sup> and nitrate. Prior to public provision, all USAID-funded water supplies should be tested for arsenic and fecal coliforms<sup>12</sup> at a minimum—and ideally also for lead, copper, nitrate, nitrite, and fluoride.

USAID/Kenya's agreement with World Concern stated that water from any new source that World Concern developed would be tested to ensure its fitness for human consumption. However, testing was not always done. For example, World Concern stated that it had not conducted water testing at all sites in Narok (photo on page 9) and Lamu, and had not tested for arsenic at any sites. Neither World Concern nor the agreement officer's technical representative, who stated that he had not received any specific training on the subject, was certain of the exact requirements for water testing. A World Concern representative stated that he had received no specific instructions from the mission concerning water testing. As a result of their unfamiliarity with water testing requirements and staffing and time constraints, mission officials did not conduct site visits or require documentation to confirm that necessary testing had been completed before beneficiaries used the water.

Because neither USAID/Kenya nor World Concern regularly tested water sources, the audit team requested that water tests be conducted during audit site visits. A pH test conducted in the field during one site visit revealed a pH level higher than 10. This reading was a concern because World Health Organization standards indicate that a pH level above 9.2 would markedly impair water potability (pure, neutral water has a pH of 7, whereas ammonia has a pH of 11). A water sample from the same source was sent

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<sup>10</sup> USAID Cable 051298, May 12, 1998.

<sup>11</sup> According to the Environmental Protection Agency, coliform bacteria are a group of closely related bacteria that are (with few exceptions) not harmful to humans. They are natural and common inhabitants of the soil and ambient waters—lakes, rivers, and estuaries—as well as of the gastrointestinal tracts of animals.

<sup>12</sup> The Environmental Protection Agency describes fecal coliforms as bacteria associated with human or animal wastes.

to a registered laboratory<sup>13</sup> for further testing. Test results showed that, in addition to a pH level of 10.6, the water had levels of suspended solids, dissolved solids, chloride, fluoride, nitrite, sodium, and potassium that were above the guidelines for drinking water.<sup>14</sup> (See Appendix IV.) The laboratory stressed that this water should be treated to reduce the elevated substances to acceptable levels; World Concern indicated that it would work with the Ministry of Water to do so.



**An overgrown water source near a USAID-funded shallow well in Narok indicates possible ground water contamination, according to USAID guidance. The well nearby had not been tested. (Photo by RIG/Pretoria, March 2010)**

The situation described above demonstrates that, in the absence of required water testing, USAID/Kenya and its implementing partner were providing water of questionable quality to intended beneficiaries. The mission and World Concern were unaware of the need for and therefore not implementing appropriate mitigation measures. As a result, USAID/Kenya faced increased risk of providing and promoting the use of unsafe drinking water. Given the mission's objective of improving access to potable water for human consumption, it is imperative that the water provided through USAID-sponsored activities be of acceptable quality for drinking.<sup>15</sup>

To help ensure that water testing requirements are implemented now and in the future, the audit makes the following recommendations.

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<sup>13</sup> This laboratory was approved by the National Environmental Management Authority of Kenya.

<sup>14</sup> Parameters for pH, dissolved solids, chloride, and fluoride are secondary standards and are not considered a health risk, according to the Environmental Protection Agency. However, secondary contaminants present above the suggested acceptable levels cause water to look, taste, and smell bad and may discourage people from using the water.

<sup>15</sup> The implementing partner and agreement officer's technical representative stated that all water sources would be tested as required. All shallow wells visited by the audit team have since been tested for arsenic, and arsenic levels at all sites have been found acceptable for human consumption.

**Recommendation 3.** *We recommend that USAID/Kenya immediately require, in writing, that implementing partners conduct necessary water tests at all completed water points constructed or refurbished for human consumption, take any corrective action necessary, and require written reports detailing test results and actions taken.*

**Recommendation 4.** *We recommend that USAID/Kenya develop and implement a plan to ensure that all implementing partners conduct required water tests at all future water points constructed or refurbished for human consumption.*

## **Environmental Responsibilities Not Given High Priority**

USAID's Automated Directives System (ADS) 204<sup>16</sup> states that operating units—that is, missions—are responsible for providing the staff and resources needed to implement the mission's environmental compliance strategies consistent with the Agency's environmental procedures. It goes on to state that mission environmental officers must serve as a member of each team in the operating unit to advise the teams, their activity managers, and technical representatives on specific needs and approaches to meet 22 CFR 216 requirements, and assist with monitoring compliance of ongoing activities. Furthermore, USAID best practices for environmental compliance call for mission staff and implementing partners to be trained in complying with 22 CFR 216, and recommend that a mission order on environmental compliance be in place.

Contrary to guidance, the audit found that USAID/Kenya had not provided adequate staff time or resources, including training, needed to implement the mission's environmental compliance strategy. Also, the mission did not have a mission order on environmental compliance, leaving the mission without a single, consolidated statement of environmental compliance roles and responsibilities.

While USAID/Kenya had designated an experienced mission environmental officer<sup>17</sup> and deputy mission environmental officer, both individuals had other significant responsibilities and thus spent only 10–15 percent of their time on environmental compliance duties. Partially as a result of these human resource constraints, the mission had fallen behind on documentation required for environmental compliance, and the mission environmental officer and deputy did not have time to serve on each program team or assist mission staff with environmental monitoring.

Although the mission environmental officer has the responsibility to serve all program teams, most of the environmental compliance responsibilities were funded by USAID/Kenya's Natural Resources Management Office. The office's funding may not be sufficient for a missionwide program. The mission environmental officer estimated that it would take one person dedicated full-time to environmental procedures about 6 months to bring the mission into full compliance. He suggested that compliance then could be maintained by a part-time mission environmental officer supported by designated individuals in the technical offices that consistently implement activities with potential for

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<sup>16</sup> ADS 204.2.b and ADS 204.3.5.

<sup>17</sup> See Appendix V for a summary of environmental staffing.

environmental impact, namely the Agriculture, Business and Environment Office and the Office of Population and Health.

As for environmental compliance training, the audit noted a gap in training for both mission staff and implementing partners. At the mission, the Office of Population and Health conducted environmental compliance training in November 2008 for mission staff and implementing partners involved in health projects. However, technical representatives for three of the six audited programs had never attended environmental compliance training. Although the mission environmental officer assists and advises, ADS 204<sup>18</sup> states that assistance objective teams, activity managers, and technical representatives are responsible for ensuring full compliance with 22 CFR 216. Nevertheless, in part because of a lack of emphasis on environmental responsibilities and a lack of training, technical representatives were not always enforcing requirements for environmental documentation (page 12) and were not conducting environmental site visits (page 14).

Among implementing partners, staff of four of the six audited programs have attended training related to USAID's environmental requirements, as follows: (1) three staff members on the civil society project attended training in 2004, (2) three staff members on the maize project attended training in 2009, (3) two staff members on the HIV/AIDS project attended training in 2008, and (4) the former chief of party for the previous malaria activity attended training. However, one staff member who attended training found the material to be extremely confusing and still did not understand his role or USAID's expectations regarding procedures for environmental compliance. Moreover, implementing partners for two audited programs have never attended environmental compliance training.

Mission staff attributed the gap in environmental compliance training to a lack of training opportunities. Missionwide training for staff and implementing partners has not been provided at USAID/Kenya in recent years. One of the regional environmental advisors, based in Nairobi said that the regional environmental staff had conducted training sessions in other countries in the region, but the last full training for implementing partners in Kenya was offered in 2004. He also stated that, although mission staff and implementing partners can try to attend training offered at other missions in the region, it is often difficult to find space because training slots fill quickly.

As a result of unfulfilled roles and responsibilities for compliance, USAID/Kenya is at risk that it will not properly mitigate significant environmental concerns. To minimize this risk, the audit makes the following recommendations.

***Recommendation 5.*** *We recommend that USAID/Kenya develop a mission order on environmental compliance that outlines roles, responsibilities, and expectations at the mission.*

***Recommendation 6.*** *We recommend that USAID/Kenya develop and implement a plan with milestones to increase time and resources available to the mission environmental officer function.*

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<sup>18</sup> ADS 204.2.c.

**Recommendation 7.** *We recommend that USAID/Kenya develop a plan with milestones for training mission staff and implementing partners in environmental requirements, procedures, and expectations.*

## **Environmental Guidance Not Implemented Adequately**

Environmental procedures, policies, and requirements are outlined in 22 CFR 216 and codified in ADS 204. Like other USAID missions, USAID/Kenya has adapted Agency guidance in creating country-specific environmental policies and procedures, reflected in its initial environmental examinations.

The audit found several instances in which USAID/Kenya had not adequately implemented existing Agency or mission environmental policies and procedures: (1) environmental assessment and expertise requirements were omitted from solicitations and awards, (2) environmental documentation was not completed or updated, and (3) environmental monitoring was not incorporated into site visits. These areas are discussed below.

**Environmental Assessment and Expertise Requirements Omitted From Solicitations and Awards** – ADS<sup>19</sup> and USAID/Kenya’s initial environmental examinations require that the environmental requirements outlined in the initial environmental examination and other related documents be incorporated into all solicitations and awards. ADS 204<sup>20</sup> further states that assistance objective teams and activity managers must consider program-relevant environmental findings and recommendations when designing and approving funding for a program or activity. Additionally, USAID/Kenya’s initial environmental examinations state that the mission will ensure that implementing partners have sufficient capacity to complete the environmental screening process and to implement monitoring and mitigation measures.

Contrary to guidance, USAID/Kenya did not always incorporate initial environmental examination requirements into solicitations and awards, or include expertise in environmental compliance as a requirement for partner selection. Although environmental compliance language appeared in solicitations for three of the five programs with solicitations,<sup>21</sup> only two program solicitations directly referenced the applicable initial environmental examination and specific Agency guidance. Three of the six programs omitted requirements to comply with USAID’s environmental regulations from the signed award. Moreover, capacity of the implementing partner to address environmental requirements was included in the evaluation criteria for only two of the six programs reviewed, although a third program awarded points for “innovative approaches and strategies to implement the program including gender, environmental concerns, farmer training, partnerships, etc.”

USAID/Kenya contracting officers attributed the omission of environmental requirements to the practice of using existing awards, which may not include all relevant environmental requirements, as templates for new procurement instruments.

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<sup>19</sup> ADS 204.3.4.a.(6) and 303.3.6.3.e.

<sup>20</sup> ADS 204.3.8.

<sup>21</sup> The HIV/AIDS audited program was developed in response to an unsolicited proposal.

Additionally, although Agency environmental staff developed a supplement to ADS 204<sup>22</sup> specifically to assist contracting and agreement officers with language on environmental compliance, the contracting officers interviewed stated that they use only the 300 series of ADS, and would not think to look in the 200 series for guidance. Moreover, technical representatives were not aware they needed to verify inclusion of environmental requirements in procurement instruments before issuance.

Because environmental assessment and expertise requirements were not included in solicitations and awards, implementing partners were not always aware of environmental requirements at the inception of the program. As a result, some implementing partners were not satisfying environmental requirements, such as completion of environmental screening forms and environmental mitigation and monitoring plans (discussed in the next section). Implementing partners that were interviewed also noted instances in which they had inadequately budgeted time, staff, or funds for environmental requirements. USAID/Kenya may be unable to enforce environmental requirements if they are not included in signed awards. To ensure that environmental assessment and expertise requirements are adequately addressed in the future for projects with potential environmental impact, this audit makes the following recommendation.

***Recommendation 8.*** *For activities with threshold decisions of Negative Determination with Conditions and Positive Determination,<sup>23</sup> we recommend that USAID/Kenya develop and implement a plan with steps to (1) incorporate environmental assessment and monitoring requirements into solicitations and signed awards and (2) incorporate environmental expertise into the selection criteria for implementing partners.*

**Environmental Documentation Not Completed or Updated** – USAID’s environmental guidance stipulates that specific environmental documentation be completed and appropriately updated. Specifically, missions are required to prepare initial environmental examinations, whereas implementing partners, either individually or in coordination with the mission, must develop pesticide evaluation reports and safer use action plans (PERSUAPs), environmental screening forms, and environmental mitigation and monitoring plans. The audit found that USAID/Kenya had not ensured that these required documents were completed and maintained.

- **Initial Environmental Examinations.** Agency best practices recommend updating initial environmental examinations every 5 years or as necessary to incorporate new activities. However, USAID/Kenya’s initial environmental examination for the natural resources management program had not been updated since it was developed for the fiscal year (FY) 2001–5 planning period. Similarly, the initial environmental examination for the health program had not been updated to incorporate the President’s Malaria Initiative,<sup>24</sup> which commenced in Kenya in FY 2008.

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<sup>22</sup> ADS 204, “Environmental Compliance: Language for Use in Solicitations and Awards – An Additional Help for ADS Chapter 204,” developed by USAID’s Office of Economic Growth and Trade, revised May 19, 2008.

<sup>23</sup> Threshold decisions assess a project’s potential environmental impact, as described in Appendix V.

<sup>24</sup> USAID/Kenya implements a significant portfolio under the President’s Malaria Initiative. Total funding budgeted for the mission’s malaria activities from the start of the initiative in-country in

Furthermore, at the time of audit fieldwork, the mission had not yet completed necessary steps to remove the deferral that had been recommended for a component of the malaria program in accordance with 22 CFR 216.<sup>25</sup> According to mission guidance, this activity component was not to have proceeded without appropriate resolution of the deferral.

- **Pesticide Evaluation Reports and Safer Use Action Plans (PERSUAPs).** USAID/Kenya's initial environmental examination for agriculture and business programs states that "the 'legacy' PERSUAPs in business development services, dairy, horticulture, and maize will be reviewed, amended and updated as required, within the calendar year 2009." The guidance further states that, given that the PERSUAPs are 5 or more years old, all PERSUAPs need to be revised and likely amended. Although the PERSUAP for dairy activities was updated in 2008 through the USAID Kenya Dairy Sector Competitiveness Program, the PERSUAPs for three other program areas—maize, dated 2003; horticulture, dated 2004; and business development services, dated 2003—have not been updated since they were drafted.
- **Environmental Screening Forms.** USAID/Kenya's initial environmental examinations, consistent with Agency guidance,<sup>26</sup> require that implementing partners complete an environmental screening form for projects that were not fully developed at the time the corresponding initial environmental examination was drafted. Screening forms contain specific details, conditions, and mitigation measures for the projects. The audit found that not all implementing partners had completed environmental screening forms as appropriate. Specifically, environmental screening forms for the maize, dairy, and water programs audited were completed or updated only following notification of the audit. In contrast, environmental screening forms had been completed in a timely manner for the civil society, HIV/AIDS, and malaria programs audited.
- **Environmental Mitigation and Monitoring Plans and Reports.** USAID/Kenya's initial environmental examinations require implementing partners to complete an environmental mitigation and monitoring plan for all activities and incorporate the plan into the annual work plan. These plans are important because they detail the actions necessary to mitigate potential environmental impact, assign responsibility for monitoring, and outline the frequency of environmental reporting. Although some environmental mitigation and monitoring plans were developed at the start of their respective activities, three problem areas were noted: (1) these documents were not completed for all projects with potential for environmental impact, (2) environmental mitigation and monitoring plans had not been incorporated into annual work plans, and (3) quarterly and annual reports from implementing partners did not consistently or clearly report on implementation of environmental mitigation and monitoring plans. As a result, environmental conditions were not always monitored by the mission or the implementing partner. Quarterly reports from one implementing partner mentioned a "risk of either people or livestock falling into the unprotected wells and drawing water from the unprotected, untested water" resulting from a delay in procuring construction supplies. Although the implementing partner indicated that

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FY 2008 through FY 2010, including FY 2007 jump-start funds, was approximately \$85.6 million.

<sup>25</sup> 22 CFR 216.3(a)(7)(iii).

<sup>26</sup> 22 CFR 216.3 (a)(7)(ii).

some wells were contaminated,<sup>27</sup> the technical representative did not recognize this as a potential environmental problem that might require mitigation.

Mission staff and implementing partners agreed that they had not completed and updated documents because of staffing constraints and competing priorities. Additionally, some implementing partners were not aware of the requirements to develop, update, or report on environmental documents. Although other implementing partners were aware of the reporting requirements, implementation of the requirements had been overlooked because mission staff had not enforced compliance. USAID/Kenya may fail to notice environmental impact if required assessments are not completed and associated documentation not kept up-to-date. To address these issues, this audit makes the following recommendations.

***Recommendation 9.*** *We recommend that USAID/Kenya update its natural resource management initial environmental examination.*

***Recommendation 10.*** *We recommend that USAID/Kenya amend its initial environmental examination for health to include the President's Malaria Initiative program and to remove the recommended deferral.*

***Recommendation 11.*** *We recommend that USAID/Kenya develop and implement a plan with steps to ensure that required environmental documentation, including initial environmental examinations, pesticide evaluation reports and safer use action plans, environmental screening forms, and environmental mitigation and monitoring plans, is completed, updated, and clearly reported on in quarterly and annual reports, as appropriate.*

**Environmental Monitoring Not Incorporated Into Site Visits** – Agency guidance<sup>28</sup> states that mission officials are responsible for ongoing monitoring and evaluation of activities to ensure they comply with USAID's environmental regulations and to identify and address any new or unforeseen environmental consequences arising during implementation. This guidance also states that adequate resources should be allocated from the activity's budget for effective environmental monitoring, and environmental impacts should be considered to the same extent as other aspects of the project. Furthermore, USAID/Kenya's initial environmental examinations require technical representatives to conduct field visits and consultations with implementing partners to assess the environmental impact of ongoing activities and the effectiveness of environmental mitigation and monitoring plans.

Contrary to guidance, the audit found that technical representatives were not looking specifically at environmental issues during site visits, and subsequently had not assessed the effectiveness of implementing partners' environmental mitigation and monitoring plans. Technical representatives stated that they generally did not know or remember to observe environmental conditions during site visits, and standard site visit checklists for activities with an environmental component were not being used. A

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<sup>27</sup> An increase in turbidity, or cloudiness of water, was cited as the main contamination issue. To address the issue, World Concern stated that it trained affected communities to use simple water filtration methods.

<sup>28</sup> ADS 204.3.4.b, ADS 204.2.c., and 22 CFR 216.3(a)(8).

contributory cause was that the environmental mitigation and monitoring plans had not been incorporated into implementing partners' annual work plans; several technical representatives interviewed said they based their site visits on the annual work plans provided by implementing partners. Lack of time and a heavy workload were cited as other reasons for inadequate and incomplete site visits by mission staff.

Despite the workload constraints and unfamiliarity with environmental regulations cited by mission staff, USAID has already invested significant resources to assist operating units with environmental monitoring. Specifically, ENCAP,<sup>29</sup> a program developed by the USAID Africa Bureau's Office of Sustainable Development, provides tools, resources, technical assistance, and capacity building to USAID's Africa missions and implementing partners to strengthen environmental management and compliance. ENCAP tools and guidance are freely available to mission staff and implementing partners on the ENCAP Web site.<sup>30</sup> Among the resources offered through ENCAP is a field guide series for quick, visual identification of serious environmental concerns. Separate field guides were developed for small-scale water supply, sanitation, and health-care activities, and were intended for use during field visits by USAID and implementing partner staff who are not environmental specialists.<sup>31</sup>

ENCAP was recognized as an excellent resource by mission environmental staff. However, those who would benefit most from ENCAP, namely the technical representatives responsible for environmental monitoring and compliance, were not aware of ENCAP. The technical representatives, especially those in charge of projects in the water, agriculture, and health-care program areas, could greatly benefit from ENCAP's field guides, environmental guidelines for small-scale activities, and other resources. That these existing and no-cost tools are not being utilized indicates a waste of Agency resources.

By not conducting complete site visits and not taking advantage of Agency resources, technical representatives put USAID/Kenya at risk of overlooking environmental impact. Had site visits incorporated environmental considerations, some of the issues discussed in this report, including disposal of health-care waste and water testing, may have been identified at an earlier stage. To ensure that technical representatives incorporate environmental monitoring into site visits and draw on Agency resources when needed, this audit includes the following recommendations.

***Recommendation 12.*** *We recommend that USAID/Kenya develop and implement a plan to ensure that agreement and contracting officer's technical representatives incorporate environmental monitoring into site visits.*

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<sup>29</sup> ENCAP stands for Environmentally Sound Design and Management Capacity Building for Partners and Programs in Africa.

<sup>30</sup> The URL is [www.encapafrica.org](http://www.encapafrica.org).

<sup>31</sup> Other ENCAP services include (1) assistance in conducting environmental compliance best practice reviews, (2) assistance in incorporating responsibilities for environmental compliance into procurement instruments, (3) design and evaluation of environmental mitigation and monitoring plans, and (4) development and review of documentation showing compliance with 22 CFR 216, including initial environmental examinations and pesticide reports. These services are available to missions both on a subsidized basis through a cost-share or in-kind contribution, or independently through a task order buy-in or a direct contract.

**Recommendation 13.** *We recommend that USAID/Kenya notify mission personnel and implementing partners in writing about the free resources to aid environmental monitoring that are available on the Environmentally Sound Design and Management Capacity Building for Partners and Programs in Africa Web site.*

# EVALUATION OF MANAGEMENT COMMENTS

In its response to our draft report, USAID/Kenya agreed with all the recommendations and provided support for actions taken to address the recommendations. Management decisions have been reached on Recommendations 1–7 and 9–13, and final action has been taken on Recommendation 10. The mission's comments are included in their entirety in Appendix II (without attachments), and our evaluation of those comments is summarized below.

For Recommendation 1, the mission agreed to determine the extent of its responsibilities in relation to health-care waste generated by its HIV/AIDS service providers. The mission stated that it is working with USAID, Kenyan, and other U.S. Government officials to determine the roles and responsibilities of each partner and the extent of USAID's responsibility. In addition, the mission noted that the initial environmental examination for the Office of Population and Health will be updated as necessary to emphasize the extent of USAID's responsibilities. The mission set a target date of August 30, 2011. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 2, the mission agreed to develop a plan with milestones to implement its responsibilities in relation to health-care waste generated by its HIV/AIDS service providers. Specifically, USAID/Kenya agreed to develop a plan that: (1) ensures safe management of medical waste generated by activities that are directly under the control of USAID implementing partners, (2) promotes the safe management of medical waste that is generated by activities to which USAID is contributing, but which are not directly under USAID's control, and (3) monitors and evaluates the state of medical waste management within the geographic scope of the USAID intervention, providing actionable information appropriate to the management relationship of USAID to the medical-waste-generating activity. The mission set a target date of August 30, 2011, for completing the plan. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 3, the mission agreed to immediately require, in writing, that implementing partners conduct necessary water tests at all completed water points constructed or refurbished for human consumption, take any corrective actions necessary, and require written reports detailing test results and the actions taken. On August 17, 2010, USAID/Kenya sent an e-mail to implementing partners reminding them to conduct necessary water tests. According to the mission, all implementing partners have completed chemical and bacteria water tests, and half of the implementing partners have completed arsenic tests. The mission set a target date of December 2010 for completing water tests. Of the 15 water test results attached to the mission's comments, only 2 tests indicated that the water was suitable for domestic use. Results of the other 13 water tests, which were conducted at various water points, stated that the water required treatment before it would be suitable for such use. Specifically, the water tests noted that the water was highly mineralized, contained high amounts of iron and fluoride. In a subsequent communication, USAID/Kenya described mitigation procedures to

address water points that were found to have high mineral content, high fluoride content, or the presence of hard water. In addition, the implementing partners have sent samples for retesting at other laboratories to confirm the results. According to the mission, the sites are to remain closed pending satisfactory results. USAID/Kenya also noted that implementing partners would undertake periodic testing on qualified sites because ongoing testing is the only way to determine whether the water supply is or has been contaminated. USAID/Kenya stated that if the water is found to be unfit for human consumption, water avoidance advisories will be applied. The mission set a target date of December 15, 2010, to complete retesting of water sites and compile comprehensive reports for the water sites. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 4, the mission agreed to develop and implement a plan to ensure that all implementing partners conduct required water tests at all future water points constructed or refurbished for human consumption. USAID/Kenya stated its staff had developed a water quality assurance plan that describes monitoring criteria, frequency, and measures for ensuring the safe provision of water to recipients. USAID/Kenya provided a template of the water quality assurance plan, which is going through internal review and should be cleared for dissemination and use by January 2011. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 5, the mission agreed to develop a mission order on environmental compliance that outlines roles, responsibilities, and expectations at the mission. USAID/Kenya has begun drafting that mission order, for issuance by December 31, 2010. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 6, the mission agreed to develop and implement a plan with milestones to increase time and resources available to the mission environmental officer function. Specifically, the mission has assigned additional staff to assist with this role. In addition, technical officers will review their work objectives to ensure that monitoring environmental compliance is incorporated into their annual performance objectives by October 29, 2010. Finally, the mission noted that technical representatives will be required to incorporate environmental compliance monitoring objectives in their regular project visits. A mission order on environmental compliance that will be issued by December 31, 2010, will reinforce the environmental compliance process. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 7, the mission agreed to develop a plan with milestones for training mission staff and implementing partners in environmental requirements, procedures, and expectations. USAID/Kenya plans to organize training on environmental requirements, procedures, and expectations in Nairobi on or about January 31, 2011. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 8, the mission agreed that, for activities with threshold decisions of Negative Determination with Conditions and Positive Determination, it would implement a plan with steps to incorporate environmental assessment and monitoring requirements into solicitations and signed awards. Specifically, USAID/Kenya stated it had begun drafting a mission order to ensure that each environmental compliance document will be accompanied by an environmental mitigation and monitoring plan template. Additionally,

the mission will incorporate environmental compliance language in every new agreement and contract and amend existing ones to ensure that partners are committed to implementing the initial environmental examination conditions. However, the comments did not detail how the mission would comply with the second part of the recommendation, to incorporate environmental expertise into award selection criteria. As a result, a management decision has not been reached on this recommendation.

For Recommendation 9, the mission agreed to update its natural resource management initial environmental examination. The mission stated that a natural resource management initial environmental examination will be completed by November 30, 2010. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 10, the mission has amended its initial environmental examination to remove the deferral for integrated vector management. In subsequent communication, USAID/Kenya noted that with the removal of the deferral, the initial environmental examination for health includes the breadth of activities for the President's Malaria Initiative. Based on the mission's comments and the supporting documentation provided, a management decision has been reached, and final action has been taken on this recommendation.

For Recommendation 11, the mission agreed to develop and implement a plan with steps to ensure that required environmental documentation is completed, updated, and clearly reported on in quarterly and annual reports, as appropriate. Specifically, the mission is drafting a mission order, to be issued by December 31, 2010, that will require agreement officer's technical representatives and contracting officer's technical representatives (technical representatives) to incorporate environmental compliance monitoring objectives in their regular project visits and use a monitoring template for reporting. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 12, the mission agreed to develop and implement a plan to ensure that technical representatives incorporate environmental monitoring into site visits. Specifically the mission will train technical representatives to implement their responsibilities with regard to environmental monitoring during site visits. The training is to be held on or about January 30, 2011. Additionally, USAID/Kenya stated that the environmental mitigation and monitoring plan for monitoring visits will be prepared or updated by November 30, 2010. Accordingly, a management decision has been reached on this recommendation.

For Recommendation 13, the mission agreed to notify mission personnel and implementing partners in writing about the free resources to aid environmental monitoring, available on the Environmentally Sound Design and Management Capacity Building for Partners and Programs in Africa (ENCAP) Web site. USAID/Kenya has drafted a memorandum to technical representatives and implementing partners to inform them of the ENCAP resources. In addition, information on and links to resources from the ENCAP Web site will be provided in a mission order to be issued by December 31, 2010. Accordingly, a management decision has been reached on this recommendation.

# SCOPE AND METHODOLOGY

## Scope

RIG/Pretoria conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions in accordance with our audit objectives. We believe that the evidence obtained provides that reasonable basis.

The objective of this audit was to determine whether USAID/Kenya is achieving its goal to mitigate environmental impact in its project portfolio. Audit fieldwork was conducted at USAID/Kenya from March 9 to March 26, 2010, and continued at USAID/Pretoria until the exit conference on April 14, 2010. The audit covered the period October 1, 2008, to March 31, 2010; however, we considered it appropriate to incorporate information pertaining to original contracts and original environmental documentation for some projects that began before the period under audit.

In planning and performing the audit, we assessed USAID/Kenya's internal controls regarding its efforts to mitigate environmental impact. Specifically, we obtained an understanding of and evaluated (1) environmental documentation, including initial environmental examinations, pesticide evaluation report and safer use action plans, environmental screening forms and review reports, and environmental mitigation and monitoring plans; (2) contract and agreement documents; (3) program documents, such as work plans and quarterly reports; (4) best management practices; and (5) the monitoring of and interaction with implementing partners by agreement and contracting officer's technical representatives. We interviewed key USAID/Kenya environmental staff, USAID/Kenya mission personnel, and implementing partners. We completed fieldwork at USAID/Kenya in Nairobi and visited several project sites in surrounding areas, including sites in or around the cities of Narok, Eldoret, Naivasha, Nanyuki, and Lamu.

The audit team focused primarily on five projects to answer the audit objective. A sixth project was included for document review and interviews only. The total amounts awarded and obligated for the six projects reviewed were approximately \$104,162,369 and \$69,512,563, respectively, as of March 31, 2010 (Appendix III).

## Methodology

To answer our audit objective, we first completed a desk review of USAID/Kenya's project portfolio. We judgmentally selected five activities from the portfolio to narrow the focus of the audit. These activities were selected based on (1) start and end dates, (2) funding levels, and (3) estimated inherent risk of environmental impact. These five activities represent the mission's diverse project portfolio and capture consideration of environmental concerns in a variety of program areas, including water, agriculture, and health. Because we judgmentally selected activities, results of the sample tested cannot be projected to the population.

An additional project focused on malaria was also incorporated into the audit, though to a lesser extent. USAID/Kenya was in the midst of the procurement process for a new indoor residual spraying program, and there were no current spraying activities at the time of the audit. However, we determined that, as a program with significant potential for environmental impact, this component should be included in the scope of the audit. We reviewed environmental documentation for the activity and interviewed mission staff and the implementing partner, but conducted no site visits.

We reviewed applicable laws, best practices, and guidelines pertaining to USAID/Kenya's environmental regulations, specifically Title 22 of the Code of Federal Regulations, Part 216—Environmental Procedures (22 CFR 216) and Automated Directives System 204 to identify criteria for the audit. Initial environmental examinations, the fundamental environmental documents required by 22 CFR 216 for all USAID-funded projects, were also used to obtain project-specific criteria and conditions for implementation.

At USAID/Kenya, we met with key mission environmental personnel and agreement and contracting officer's technical representatives for the projects selected. We interviewed mission staff to assess the mission's processes, knowledge, and awareness for mitigating environmental impact. We reviewed documentation provided by USAID/Kenya, such as contract and agreement documents, environmental documentation, and work plans, to determine to what extent environmental procedures and environmental best practices were being implemented. Testimonial evidence was evaluated in conjunction with other interviews, available documentation, and site visits.

We conducted additional interviews with implementing partners at the partners' central offices in Nairobi and in the field. We assessed implementing partners' capacity, knowledge, and awareness of USAID's environmental procedures through interviews and document review. Through interviews with officials of these organizations and by reviewing work plans, quarterly reports, and other project documents, we also determined the implementing partners' ability to monitor environmental impact, as well as the level of monitoring of implementing partners provided by agreement and contracting officer's technical representatives and USAID environmental staff.

The audit team visited multiple activity sites for each of the projects included in this review. The audit team used the field guides developed by the Africa Bureau's Environmentally Sound Design and Management Capacity Building for Partners and Programs in Africa (ENCAP)<sup>32</sup> program to visually assess impact at health-care facilities and water project sites. In addition to conducting visual inspections, the audit team observed water quality tests at shallow well sites, and soil pH tests at some sites visited for the maize program. In addition, water tests were conducted at sites not visited during the audit.

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<sup>32</sup> ENCAP, a program developed by the USAID Africa Bureau's Office of Sustainable Development, provides tools, resources, technical assistance, and capacity building to USAID's Africa missions and implementing partners to strengthen environmental management and environmental compliance.

# MANAGEMENT COMMENTS



**Date:** September 3, 2010

**To:** Likza Iglesias, Acting Regional Inspector General/Pretoria

**From:** Erna Kerst, USAID/Kenya Mission Director /s/

**Subject:** **Audit of USAID/Kenya's Efforts to Mitigate Environmental Impact in its Project Portfolio (Report No. 4-615-10-00X-P)**

This memorandum transmits USAID/Kenya's management responses for the 13 recommendations resulting from the subject audit performed by your staff from March 9-26, 2010 (report No. 4-615-10-00X-P) at USAID/Kenya and continued at USAID/RIG Pretoria until April 14, 2010.

The Mission appreciates the overall finding that: "USAID/Kenya is generally achieving its goal to mitigate environmental impact in its project portfolio" (pg 1), including the specific findings that:

- "... environmentally sound design and management of USAID/Kenya's activities, adherence to the Government of Kenya's environmental regulations and requirements and implementing partners' awareness of good environmental practices all contributed to impact mitigation" (pg 2); and
- "... the audit found no evidence of adverse impact to the environment resulting from USAID/Kenya's activities, and in some cases found that USAID/Kenya's activities had benefited the environment." (pg 4)

This memorandum: (1) describes a plan of action to strengthen environmental impact mitigation; and (2) identifies corrective actions the Mission has already taken to address some of the recommendations.

***Recommendation 1:*** We recommend that USAID/Kenya determine the extent of its responsibilities in relation to health-care waste generated by its HIV/AIDS service providers.

***Management Response:*** USAID/Kenya agrees with this recommendation. The Mission has consulted with the Bureau Environmental Officer and is working with the Kenya Ministry of Health's technical working group on waste management and the Centers for Disease Control and Prevention (CDC) to determine the roles and responsibilities for each partner and the extent of USAID's responsibility. To the extent necessary, the Initial Environmental Examination (IEE) for the Office of Population and Health (OPH) will be updated to emphasize the extent of USAID's responsibilities by August 30, 2011.

***Recommendation 2:*** We recommend that USAID/Kenya develop a plan with milestones to implement its responsibilities in relation to health-care waste generated by its HIV/AIDS service providers, including the revision of all relevant program documents and agreements.

***Management Response:*** USAID/Kenya agrees with this recommendation. The OPH IEE outlines specific conditions, procedures and responsibilities for generation, storage and disposal of health-care waste by USAID-supported HIV/AIDS service providers. The same IEE specifies requirements for including these conditions in solicitations and awards in compliance with ADS 204. It also requires USAID partners to complete environmental screening forms (ESFs), environmental review reports (ERRs), environmental mitigation and monitoring plans (EMMPs), and comply with applicable Government of Kenya (GoK) environmental laws and site visit recommendations made by USAID staff.

The IEE will be updated to clarify the extent of the Mission's responsibility for assuring or promoting sound medical waste management under different scenarios of USAID control over the waste-generating activities. USAID/Kenya OPH will also develop a plan with milestones that:

- i) Ensures safe management of medical waste generated by activities that are directly under the control of USAID implementing partners;
- ii) Promotes the safe management of medical waste that is generated by activities to which USAID is contributing, but which are not directly under USAID's control; and
- iii) Monitors and evaluates the state of medical waste management within the geographic scope of the USAID intervention, providing actionable information appropriate to the management relationship of USAID to the medical waste generating activity.

The IEE update and the plan will be completed by August 30, 2011. Award agreements will be modified as necessary.

***Recommendation 3:*** *We recommend that USAID/Kenya immediately require, in writing, that implementing partners conduct necessary water tests at all completed water points constructed or refurbished for human consumption, take any corrective action necessary, and require written reports detailing test results and the actions taken.*

***Management Response:*** USAID/Kenya agrees with this recommendation. All implementing partners supporting construction or refurbishment of water supplies for human consumption have been reminded in writing (**Attachment 1**) to conduct the necessary water tests for all completed water points per Reg. 216 requirements. These requirements are outlined in Section 4.1.4 of the Economic Growth IEE, section 5 of the EMMP and also in all award documents for water activities. (Refer to “Recommendation 4” below for more information.)

To date, all implementing partners have completed chemical and bacteria tests for all completed water points per Reg. 216 requirements (**Attachment 2**). Previously, implementing partners have had limited capacity to undertake arsenic testing in Kenya. However, there are a number of laboratories that can now process the arsenic tests. Presently, 50% of implementing partners have completed arsenic water tests with negative results for all tested sites. Copies of reports of the tests are attached (**Attachment 3**). The Mission will follow-up on submission of the test reports by the remaining partners as soon the infrastructure gets completed but before commencing use of the water. All partners are expected to have completed the tests by December 2010.

***Recommendation 4:*** *We recommend that USAID/Kenya develop and implement a plan to ensure that all implementing partners conduct required water tests at all future water points constructed or refurbished for human consumption.*

***Management Response:*** USAID/Kenya agrees with this recommendation. USAID/Kenya has developed a Water Quality Assurance Plan that describes monitoring criteria, frequency, and measures for ensuring the safe provision of water to recipients. The plan includes WHO and GoK water quality standards and monitoring requirements, measures to ensure partners continue to meet the above water quality standards and criteria. The other components include:

1. Frequency of testing and monitoring;
2. Responsible parties for testing and monitoring;
3. Location of laboratory to be used;
4. Measures for host country and USAID reporting;
5. Measures to correct any water quality issue that is found out of compliance; and
6. Notification measures (to USAID, host-country, and school/community) that will be taken if the water quality at a borehole is found to be out of compliance.

The Water Quality Assurance Plan also includes an equipment inspection and maintenance plan that consists of equipment maintenance requirements and schedule, responsible parties and reporting requirements. The plan has a summary of standard recommendations that should be followed to minimize potential impacts of inadequate water quality.

**Recommendation 5:** *We recommend that USAID/Kenya develop a mission order on environmental compliance that outlines roles, responsibilities, and expectations at the mission.*

**Management Response:** USAID/Kenya agrees with this recommendation. The Mission has started drafting the Mission Order, which will be issued by December 31, 2010.

**Recommendation 6:** *We recommend that USAID/Kenya develop and implement a plan with milestones to increase time and resources available to the mission environmental officer function.*

**Management Response:** USAID/Kenya agrees with this recommendation. To ensure compliance with environmental regulations, the Mission has assigned four program-funded technical staff in the Economic Growth program to assist with this role. A letter appointing a Deputy Mission Environment Officer is attached (**Attachment 4**). Under the direction of the Mission Environmental Officer (MEO), the technical officers will review their individual work objectives to ensure that the environmental compliance monitoring element is adequately incorporated into their annual performance objectives by October 29, 2010. These officers will be assisted by the Regional Environmental Officer (REO) and the Regional Environmental Procedures and Policy Specialist in USAID/East Africa. In addition, the respective AOTRs and COTRs for each project will provide closer and more regular monitoring to ensure adequate compliance. Mission AOTRs and COTRs will be required to incorporate environmental compliance monitoring objectives in their regular project visits. They will be provided with and required to sign an EMMP template with a checklist of environmental issues relevant to the specific program as part of regular reporting. This process will be reinforced in a Mission Order on Environmental Compliance which will be issued by December 31, 2010.

**Recommendation 7:** *We recommend that USAID/Kenya develop a plan with milestones for training mission staff and implementing partners in environmental requirements, procedures, and expectations.*

**Management Response:** USAID/Kenya agrees with this recommendation. The USAID/Kenya MEOs and the REO plan to organize training on environmental requirements, procedures, and expectations to be held in Nairobi on or about Jan 30, 2011 for all AOTRs, COTRs and implementing partners. Environmental compliance briefings will also be emphasized in all post-award meetings and in

the future trainings will be held for new implementing partner and Mission staff at least once every two years, as appropriate.

**Recommendation 8:** *For activities with threshold decisions of Negative Determination with Conditions and Positive Determination, we recommend that USAID/Kenya develop and implement a plan with steps to incorporate environmental assessment and monitoring requirements into solicitations and signed awards and environmental expertise in the selection criteria for implementing partners.*

**Management Response:** USAID/Kenya agrees with this recommendation. The Mission has started drafting the Mission Order, which will be issued by December 31, 2010. The Mission will ensure that each environmental compliance document (i.e., IEEs, ESFs and EAs) will be accompanied by an EMMP template developed by the Mission that includes:

- A screening page (environmental verification form) summarizing the conditions of a particular IEE where the implementing partner will check against the applicable conditions;
- A mitigation plan that shows how the implementing partner will mitigate against the identified potential negative impact as per IEE condition;
- A monitoring plan that shows how mitigation measures will be monitored and by whom and,
- A signature page for the implementing partner and the Mission.

The Mission will incorporate Environmental Compliance Language (ECL) in every new agreement and contract and amend existing ones to ensure that partners are committed to implementing the IEE conditions. The implementing partners will be required to report back every quarter using the EMMP.

**Recommendation 9:** *We recommend that USAID/Kenya update its natural resource management initial environmental examination.*

**Management Response:** USAID/Kenya agrees with this recommendation. An update of the USAID/Kenya natural resource management initial environmental examination will be completed by November 30, 2010.

**Recommendation 10:** *We recommend that USAID/Kenya amend its initial environmental examination for health to include the President's Malaria Initiative program and to remove the deferral for integrated vector management.*

**Management Response:** USAID/Kenya agrees with this recommendation. An amendment of the USAID/Kenya OPH IEE has been completed and approved by the Mission and the Bureau Environmental Officer (approval dated 04/29/2010). The amendment includes the President's Malaria Initiative program and the indoor residual spraying component. It also removes the deferral for integrated vector management. A copy is attached to this Memorandum (**Attachment 5**).

**Recommendation 11:** *We recommend that USAID/Kenya develop and implement a plan with steps to ensure that required environmental documentation, including initial environmental examinations, pesticide evaluation reports and safer use action plans, environmental screening forms, and environmental mitigation and monitoring plans, is completed, updated, and clearly reported on in quarterly and annual reports, as appropriate.*

**Management Response:** USAID/Kenya agrees with this recommendation. The Mission is drafting a Mission Order, which will be issued by December 31, 2010. Through the application of the Mission Order, EMMPs for each program and the use of Environmental Compliance Language (ECL) in all the instruments, the Mission will require AOTRs and COTRs to incorporate environmental compliance monitoring objectives in their regular project visits. To achieve this, they will be required to sign on the EMMP template as part of regular reporting. The EMMP will have a checklist of environmental issues relevant to a particular program.

**Recommendation 12:** *We recommend that USAID/Kenya develop and implement a plan to ensure that agreement and contracting officer's technical representatives incorporate environmental monitoring into site visits.*

**Management Response:** USAID/Kenya agrees with this recommendation. All USAID/Kenya IEEs require AOTRs and COTRs to "undertake field visits and consultations with implementing partners to jointly assess the environmental impacts of ongoing activities, and the effectiveness of associated mitigation and monitoring plans." The Mission will ensure that AOTRs and COTRs are adequately trained to implement their responsibilities with regard to environmental monitoring during site visits. The training is scheduled to be held on or about Jan 30, 2011 as indicated in Recommendation 7 above.

The respective EMMPs for monitoring visits will be prepared and/or updated by November 30, 2010.

**Recommendation 13:** *We recommend that USAID/Kenya notify mission personnel and implementing partners in writing about the free resources to aid environmental monitoring that are available on the Environmentally Sound Design and Management Capacity Building for Partners and Programs in Africa Web site.*

**Management Response:** USAID/Kenya agrees with this recommendation. All USAID/Kenya IEEs provide references to the free resources available on the Environmentally Sound Design and Management Capacity Building for Partners and Programs in Africa (ENCAP) website. These resources are discussed and referenced in post-award meetings. The resources will be shared with partners during the review of environmental assessment and mitigation reports as well as environmental compliance training.

To reinforce the awareness of these resources, the Mission shall notify staff and implementing partners about the ENCAP website (**Attachment 6**). Information on and links to resources from the ENCAP website will also be provided in various sections of USAID/Kenya's impending Environmental Compliance Mission Order which will be issued by December 31, 2010. The Mission Environment Officer (MEO), through AOTRs and COTRs will communicate to Chief of Parties (COP) of each program about the resources available to aid environmental compliance.

**Funding Levels for Programs Reviewed**  
(as of March 31, 2010)

<b>Program Name</b>	<b>Implementing Partner</b> Type of Implementing Instrument	<b>Amount Awarded (\$)</b>	<b>Obligated Amount (\$)</b>
Kenya Maize Development Program	ACDI/VOCA Cooperative Agreement	11,274,845	11,274,845
Kenyan Civil Society Strengthening Program	Pact Associate Award	7,865,225	5,765,225
Kenya Water and Sanitation Program	World Concern Cooperative Agreement	2,499,806	1,200,000
Kenya Dairy Sector Competitiveness Program	Land O'Lakes Contract	9,000,000	5,000,000
USAID-AMPATH Partnership	Indiana University Cooperative Agreement	65,000,000	37,750,000
Indoor Residual Spraying (Malaria)*	RTI International Contract	8,522,493	8,522,493
<b>Total</b>		<b>104,162,369</b>	<b>69,512,563</b>

\* No site visits were conducted for the malaria indoor residual spraying activity. The follow-on program was undergoing competitive bidding at the time of audit planning and has only recently been reawarded to RTI. This funding reflects the contract that terminated at the end of calendar year 2009, prior to the audit.

## Selected Water Quality Test Results From a USAID-Sponsored Shallow Well

Test	Results	Acceptable Levels*	Significance
pH	10.62 pH units	6.5 – 8.5 pH units	World Health Organization (WHO) guidelines state that, although pH generally has no direct effect on consumers, levels greater than 9.2 markedly affect the potability of water.
Suspended Solids	8.0 milligrams per liter (mg/l)	Nil	8.0 mg/l above the acceptable level of zero.
Total Dissolved Solids (TDS)	3,735 mg/l	1,000 mg/l maximum	Over 3.7 times the maximum recommended level. WHO guidelines state that water becomes significantly and increasingly unpalatable at TDS levels greater than 1,000 mg/l.
Chloride	2,046 mg/l	250 mg/l	Over 8 times the recommended level. WHO guidelines state that levels greater than 600 mg/l would markedly affect the potability of water, and a detectable taste arises at levels greater than 250 mg/l.
Fluoride	4.16 mg/l	1.5 mg/l	Almost 3 times the recommended level. WHO guidelines state that concentrations above 1.5 mg/l carry an increasing risk of dental fluorosis. Environmental Protection Agency (EPA) standards add that ingesting water with fluoride levels above 4.0 mg/l can cause bone disease.
Nitrite	8.87 mg/l	3.0 mg/l (short-term exposure) 0.2 mg/l (long-term exposure)	Over 44 times WHO's recommended level for long-term exposure. EPA guidance states that infants under the age of 6 months who drink water containing nitrite in excess of the maximum recommended level <sup>†</sup> could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
Sodium	1,262 mg/l	200 mg/l	Over 6 times the recommended level. WHO guidelines state that sodium concentrations in excess of 200 mg/l may give rise to unacceptable taste.
Potassium	82.6 mg/l	50 mg/l	1.65 times the recommended level.

\* Levels are as specified by WHO and EPA, except for suspended solids and potassium (for which neither WHO nor EPA has guidance); for them, maximum levels are those accepted by the lab that did the tests.

† Maximum recommended level of nitrite according to EPA is 1 mg/l; 3.0 mg/l and 0.2 mg/l are WHO standards.

## Summary of USAID/Kenya's Environmental Staffing and Procedures

<b>Environmental Staffing</b>	
<b>Mission Staff</b>	<ul style="list-style-type: none"> <li>The assistance objective team leader, technical representatives, and activity managers share the primary responsibility for meeting environmental requirements and monitoring activities.</li> </ul>
<b>Mission Environmental Officer</b>	<ul style="list-style-type: none"> <li>Appointed by the mission director.</li> <li>Assists and advises mission staff and implementing partners in preparing analyses for new activities and monitoring compliance on ongoing activities in accordance with 22 CFR 216.</li> </ul>
<b>Regional Environmental Advisors</b>	<ul style="list-style-type: none"> <li>Typically based in selected missions and supports all field offices in the geographic region.</li> <li>Provides supplementary professional support, training, and regional coordination on 22 CFR 216 matters to mission staff.</li> </ul>
<b>Bureau Environmental Officer</b>	<ul style="list-style-type: none"> <li>Based in Washington, DC, oversees and monitors compliance with 22 CFR 216 across all operating units in the bureau.</li> <li>Approves all analyses and documentation required by 22 CFR 216 and ensures that all personnel in their bureaus are aware of and trained in 22 CFR 216 procedures.</li> </ul>
<b>Environmental Procedures</b>	
<b>Initial Environmental Examination</b>	<ul style="list-style-type: none"> <li>The first step of the environmental assessment process.</li> <li>Developed by USAID/Kenya for each assistance objective.</li> <li>Evaluates the potential environmental impact of program activities and establishes mitigation actions, including monitoring and evaluation required throughout the project lifecycle.</li> <li>Determines the threshold decision.</li> </ul>
<b>Threshold Decision</b>	<ul style="list-style-type: none"> <li>Formal Agency judgment that determines whether a proposed action will significantly affect the environment. The five types of threshold decisions are: <ul style="list-style-type: none"> <li>Categorical Exclusion (no risk of environmental impact)</li> <li>Negative Determination without Conditions (no impact)</li> <li>Negative Determination with Conditions (some risk of environmental impact)</li> <li>Positive Determination (significant risk of environmental impact)</li> <li>Deferral (activity is not developed enough to make a determination)</li> </ul> </li> </ul>
<b>Environmental Mitigation and Monitoring Plan</b>	<ul style="list-style-type: none"> <li>Prepared by implementing partners to detail criteria, staff responsibility, and monitoring and reporting timeline for planned mitigation measures.</li> <li>To be incorporated into annual work plans.</li> </ul>
<b>Environmental Screening Form</b>	<ul style="list-style-type: none"> <li>Completed by implementing partners to account for specific details, conditions, and mitigation measures for projects that were not fully developed at the time the corresponding initial environmental examination was drafted.</li> </ul>
<b>Pesticide Evaluation Report and Safer Use Action Plan</b>	<ul style="list-style-type: none"> <li>Developed by implementing partners in coordination with the mission to detail the 12 information points outlined in 22 CFR 216.3 and put the conclusions into a plan of action, including assignment of responsibility to appropriate parties connected with the pesticide program.</li> </ul>

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