Office of Inspector General

August 29, 2012

MEMORANDUM

TO: USAID/Caucasus Mission Director, Stephen Haykin

FROM: IG/A/PA, Director, Steven Ramonas /s/

SUBJECT: Review of USAID/Caucasus's Public Hospital Infrastructure Project (Report No. 2-114-12-006-S)

This memorandum transmits our final report on the subject review, which is a supplement to Report No. 2-114-12-005-S, "Review of Selected USAID/Caucasus's School Rehabilitation Activities," issued on April 20, 2012. In finalizing the report, we considered your comments and included your response in Appendix II.

Although not an audit, this report contains two recommendations to help improve management of infrastructure projects. Management decisions have been reached on both recommendations. Please provide the Audit Performance and Compliance Division of USAID's Office of the Chief Financial Officer with evidence of final action to close the recommendations.

I want to thank you and your staff for the cooperation and courtesies extended to us during this review.

U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523
www.usiad.gov/oig

SUMMARY

The United States pledged $1 billion to Georgia after its war with Russia in 2008. Of this sum, $574 million was programmed through USAID, including a $250 million direct cash transfer to the Government of Georgia. This pledge was made to encourage democratic reform while rebuilding Georgia's infrastructure and economy, restoring investor confidence, and improving health services to vulnerable groups, including ethnic minorities and internally displaced people.

As part of the improved health services component, USAID/Caucasus rehabilitated three public hospitals under the Public Hospital Infrastructure Project. They were the Akhaltsikhe, Ninotsminda, and Akhalkalaki hospitals. All are located in Samtskhe-Javakheti, a region in southern Georgia shown in the map.

Source: U.N. Cartographic Section, Department of Field Support.

USAID/Caucasus selected these hospitals because they were in very bad shape and were excluded from the Georgian Government's privatization scheme, which transferred ownership of hospitals to the private sector in exchange for rehabilitating or replacing them. Since these hospitals served an economically undeveloped region, the project would provide short-term employment opportunities and improve access to health services in this region.

USAID entered into an interagency agreement with the U.S. Army Corps of Engineers to rehabilitate the hospitals from March 30, 2010, through September 30, 2011. The project's completion date was extended to February 29, 2012. USAID/Caucasus initially invested $1.6 million in the project; its final cost was nearly $3.2 million.

The Office of Inspector General (OIG), Inspections and Evaluations Division[1] conducted this review to determine whether USAID/Caucasus implemented the hospital project in a fiscally responsible way. In response to the 2008 war, the mission's annual program budget surged from about $50 million to more than $350 million in 2010. The mission faced great challenges in managing this massive increase in programming. It considered every mechanism available to increase procurement, engineering, and oversight capacity. Using an interagency agreement with the Army Corps was a means of mitigating the mission's challenges in a post-war surge environment. The mission took steps to implement the hospital project in a fiscally responsible way, but the review identified the following issues:

- Mission's monitoring of infrastructure projects needs improvement (page 3). The mission did not have comprehensive internal policies, procedures, checklists, and reporting mechanisms to help technical staff monitor infrastructure projects.

- Infection control measures in health-care facilities can be strengthened (page 4). Some critical rehabilitation features in the departments in Akhaltsikhe and Ninotsminda did not meet recommended safety guidelines established by the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO).

This report contains two recommendations.

1. Implement comprehensive internal policies, procedures, checklists, and reporting mechanisms that technical staff must use when overseeing infrastructure projects (page 4).

2. Consult with USAID's Bureau for Global Health and CDC in writing to verify whether the rehabilitation work performed in the infectious diseases departments met guidelines and take appropriate actions if not done according to guidelines (page 5).

Detailed findings follow. Our evaluation of management comments is on page 6. Appendix I presents the review's scope and methodology, and Appendix II contains the mission's written comments on the draft report in their entirety, without attachments. Appendix III contains two tables we refer to in the report.

[1] On May 7, 2012, OIG's Inspections and Evaluations Division merged into the Performance Audits Division.

REVIEW RESULTS

Monitoring of Infrastructure Projects Needs Improvement

USAID's Automated Directives System (ADS) 306.2.e.(2)(a)[2] says that for interagency agreements under the Foreign Assistance Act (FAA), Section 632(b):

> The Cognizant Technical Officer is responsible for overseeing all technical matters with the Participating Agency, monitoring, in a manner appropriate to the nature of the interagency agreement, the performance and effectiveness of services being provided, and keeping the Agreement Officer advised of any problems or need for changes. For example, under a Participating Agency Program Agreement, the Cognizant Technical Officer would monitor the program and receive and evaluate reports to ensure that the Participating Agency makes appropriate progress.

ADS 306.3.2.21 also added that "USAID is accountable for the funds it obligates under FAA section 632(b) and must provide the necessary oversight and coordination for the services or programs it finances."

The interagency agreement specified:

> The Army Corps and USAID will cooperate to assure that the purpose of this agreement will be accomplished. To this end, Army Corps and USAID, at the request of either, will exchange views on the progress of the program, the performance of obligations under the agreement, and the performance of any consultants, contractors, or suppliers engaged in the program, and other matters relating to the program.

Absent of USAID policy or guidance specific to infrastructure projects at the time, the mission made its Health and Social Development Office (HSD) responsible for coordinating and monitoring the hospital project. HSD's office director consulted and collaborated with the Army Corps throughout the project. This included regular telephone calls, e-mail exchanges, and meetings with Army Corps officials. Progress reports submitted by the Army Corps were monitored by the project's assistance officer's representative (AOR), alternate AOR, and HSD's office director on a regular basis.

Despite the mission's monitoring efforts, project delays occurred. The mission was aware of the delays from the start of the project in 2010 and had ongoing concerns regarding contractor performance, quality of work, estimates, and cost for some items, as shown in the tables in Appendix III. Yet mission officials said they made a studied decision to continue to push the Army Corps and the contractor to finish the project properly and on schedule.

[2] ADS 306 was revised on January 31, 2012. The new version changed the term "cognizant technical officer" to "contracting officer's representative" or "assistance officer's representative." The citations in this report refer to the version of ADS that was in effect at the time of the audit.

The absence of agency-wide policies and guidance for infrastructure projects, as well as the mission's lack of comprehensive internal policies, procedures, checklists, and reporting mechanisms hampered its ability to react to delays. To help the mission monitor its infrastructure projects better, we make the following recommendation.

> ***Recommendation 1.*** *We recommend that USAID/Caucasus implement comprehensive internal policies, procedures, checklists, and reporting mechanisms that technical staff must use when monitoring infrastructure projects.*

Infection Control Measures in Facilities Need Strengthening

Both CDC and WHO have published guidelines for infection control in health-care facilities. CDC's "Guidelines for Environmental Infection Control in Health-Care Facilities" and WHO's "Practical Guidelines for Infection Control in Health Care Facilities" specify recommended requirements for ventilation systems and special air handling to prevent infectious diseases and organisms from spreading beyond departments designed to contain them.

WHO notes that infectious diseases—such as severe acute respiratory syndrome, plague, and tuberculosis—highlight "the need for efficient infection control programmes in all health care settings." For example, WHO recommends that the air-handling systems change the air 6 to 12 times per hour by discharging it outside through a filtration mechanism. However, the Army Corps' statements of work did not specify that the air should be changed this frequently; instead the statements specified that mechanical ventilation was to be provided for air changes not less than twice per hour, and this applied to all hospital departments.

CDC's guidelines state that "to minimize the growth and persistence of gram-negative waterborne bacteria cold water in health-care facilities should be stored and distributed at temperatures below 68°F (20°C); hot water should be stored above 140°F (60°C) and circulated with a minimum return temperature of 124°F (51°C) or the highest temperature specified in state regulations and building codes." However, the Army Corps' statement of works did not include a minimum cold water temperature for the infectious diseases departments and actually specified that "All faucets and showers shall limit water temperature to 50 degrees C."

According to CDC's guidelines, "Construction, renovation, repair, and demolition activities in health-care facilities require substantial planning and coordination to minimize the risk for airborne infection both during projects and after their completion." The audit team did not find any evidence that such planning and coordination occurred. During field work, we discovered that the Army Corps' contractor did not take any precautions to protect its workers from exposure while rehabilitating the departments.

Officials from USAID/Caucasus and the Army Corps said they were not aware of guidelines for infectious diseases facilities. According to the Army Corps, it did not receive specific instructions from mission officials on standards unique to infectious diseases facilities.

According to the mission, hospital licensing in Georgia is governed by Decree 385, dated December 17, 2010. This decree defines basic requirements for hospitals with infectious disease departments, as well as specifications for ventilation systems for various departments, but they do not necessarily correspond with CDC and WHO guidelines described above.

If the infectious diseases departments' rehabilitations need to be redone, the subsequent cost could be very high. Therefore, we make the following recommendation.

> ***Recommendation 2.*** *We recommend that USAID/Caucasus consult with USAID's Bureau for Global Health and the Centers for Disease Control and Prevention in writing to verify whether the rehabilitation work performed in the infectious diseases departments meets guidelines and take appropriate actions if not done according to guidelines.*

EVALUATION OF MANAGEMENT COMMENTS

USAID/Caucasus agreed with the two recommendations, but disagreed with some aspects contained in the draft report. In finalizing this report, we carefully considered and incorporated the mission's suggested edits, comments, and informal communications.

On the basis of the information in the mission's response to the draft report, we determined that management decisions have been made on both recommendations.

Recommendation 1. In the absence of USAID policy or guidance, USAID/Caucasus has developed and issued "Guidance on Conducting Monitoring Inspections of Construction and Rehabilitation" and a corresponding checklist tool to all CORs and AORs. The mission also drafted a mission order specific to infrastructure projects that should be approved by September 30, 2012. Accordingly, a management decision has been reached.

Recommendation 2. USAID/Caucasus consulted with experts from USAID's Bureau for Global Health and CDC to verify whether the rehabilitation work performed in the infectious diseases departments met guidelines. In April 2012 these experts visited hospitals throughout Georgia that were built or renovated recently to gain an understanding of the infection control standards routinely used in medical facilities. Based on those site visits, a report with recommendations was generated on May 14, 2012, which is guiding changes to infection control policies and procedures throughout Georgia.

USAID/Caucasus will continue to provide technical assistance to all hospitals throughout Georgia to improve infection control measures. The mission's target completion date is September 30, 2012. Accordingly, a management decision has been reached.

The Audit Performance and Compliance Division of USAID's Office of the Chief Financial Officer will make a determination of final action when the mission completes planned corrective actions on the recommendations.

SCOPE AND METHODOLOGY

Scope

OIG's Inspections and Evaluations Division conducted this review of USAID/Caucasus's Public Hospital Infrastructure Project in accordance with generally accepted government auditing standards. This review was conducted in accordance with the July 2007 revision of Government Auditing Standards—specifically, with the general standards in Chapter 3, the documentation standards in Sections 7.72 through 7.79, the evidence standard in Section 7.55, and the standards for developing elements of a finding in Sections 7.72 through 7.76. These standards require that we plan and perform the review to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions in accordance with the review objective. We believe that the evidence obtained provides that reasonable basis.

The purpose of this review was to determine whether the project was implemented in a fiscally responsible way. We performed this review from July 25 through November 29, 2011. Fieldwork was conducted at USAID/Caucasus and the Army Corps office in the U.S. Embassy in Georgia, and in OIG's office in Washington, D.C. The review contained four components: (1) an inspection, (2) a programmatic review, (3) a regulatory compliance review, and (4) a cost analysis.

Methodology

To answer the review objective, we inspected the three hospitals. We then analyzed USAID/Caucasus's memoranda for project approval, fiscal years (FY) 2008-2010 operational plans, mitigation and monitoring plans, the interagency agreement, and all its modifications. After that, we studied the Army Corps' requests for proposal, hospitals' statements of work, task orders, independent government estimates, and activity summaries. Last, we examined USAID ADS, the FAR, the Army Corps' manuals and directives, and best practices issued by GAO, CDC, and WHO. The document reviews were augmented by interviews with USAID/Caucasus, the Army Corps, and contractor staff.

The site visits covered the overall rehabilitation of the project's hospitals, heating facilities, and the installation of new doors, windows, floors, ceilings and other aesthetic work, including the bathrooms. We prepared detailed observations with photographs on the quality of materials and design decisions used to determine whether the overall goals of the program were being met. We analyzed the Army Corps' statements of work for each hospital and compared activities being performed with the specifications laid out in those statements. We also analyzed the Army Corps' monitoring reports and e-mail exchanges between USAID/Caucasus and the Army Corps pertaining to the project's progress prepared over the course of the rehabilitation activities, and we compared the actual site conditions with those reports to confirm whether they were really completed or were ongoing. We met with responsible USAID/Caucasus personnel, the Army Corps, hospital staff and officials, and the contractor. During site visits, we relied on USAID/Caucasus and the Army Corps staff as translators to conduct interviews in Georgian with certain local officials, beneficiaries, and the contractor.

For the programmatic review, we analyzed the FY 2008-2010 operational plans for Georgia, the interagency agreement, and its modifications. These documents provided us with important information pertaining to the scope of the project, the activities that could be executed, approved and prohibited activities, the funds obligated, and the duration.

We conducted the regulatory compliance review by assessing different aspects of the bidding process, and compared them with the FAR, GAO guidance, the Army Corps manuals and directives, CDC and WHO specifications for infectious diseases departments, and Georgia's FY 2008-2010 operational plans. The FAR and GAO informed us whether USAID/Caucasus and the Army Corps missed ways to reduce the final price of the project. CDC's and WHO's guidance for infectious diseases departments informed us about minimum standards for the construction, rehabilitation, and renovation of infectious diseases departments.

For the cost analysis, we analyzed independent government estimates submitted by USAID/Caucasus and the Army Corps, the Army Corps' task orders, activity summaries, floor plans prepared by the contractor, and information on the change order for Akhaltsikhe.

We broke down the Army Corps' May and June independent government estimates into individual components to identify how the Army Corps arrived at the June 2010 estimate. We sorted estimated prices for different groups of activities and compared them for different hospitals; the sorted lists also helped us find variations among estimates within each hospital. We extracted prices the contractor quoted for demolition and some construction, and then extracted data about the areas involved from the hospital plans to arrive at unit prices for different areas in the hospitals. We then compared these prices to identify whether they were similar or divergent. We performed similar analyses to determine whether floor-ceiling price ratios differed, by how much if they did, how much USAID/Caucasus paid for doors and their difference, and to determine unit prices for rehabilitations.

MANAGEMENT COMMENTS

USAID | CAUCASUS
FROM THE AMERICAN PEOPLE

August 20, 2012

MEMORANDUM

TO: Steven Ramonas, Director
IG/A/PA

FROM: Stephen M. Haykin, Mission Director
USAID/Caucasus

SUBJECT: Mission Comments on Review of USAID/Caucasus's Public Hospital Infrastructure Project (Report No. 2-114-12-00X-S)

USAID/Caucasus has reviewed the draft Review of USAID/Caucasus's Public Hospital Infrastructure Project (Report No. 2-114-12-00X-S) and related recommendations. The Mission disagrees with a number of the characterizations contained in the report, but agrees with the recommendations. Please see the attached draft report with suggested edits and comments. The specific recommendations and related Mission comments are provided below.

Recommendation 1. *We recommend that USAID/Caucasus develop and implement comprehensive internal policies, procedures, checklists, and reporting mechanisms that technical staff must use when monitoring infrastructure projects.*

Mission Comments: USAID/Caucasus agrees with this recommendation.

However, the Mission would like to point out that USAID/Caucasus complied with the requirements of all applicable Agency policies and guidelines and the new USAID Construction Policy, which has not yet been adopted. This included assigning a USAID engineer as liaison to USACE (there is no AOR when responsibility for a project is transferred to another agency) to

11 George Balanchine Street
Tbilisi 0131, Georgia
Tel: (995 32) 254 4000
Fax: (995 32) 254 4145
georgia.usaid.gov

provide technical guidance, including monitoring and oversight services, for design and performance of the award. In accordance with Mission Order 203, which requires AORs to visit project sites at least once per quarter, USAID's engineer visited the hospital sites a total of 13 times from 1/2010 to 2/29/2012. USAID engineer monitoring visits occurred on 1/14/10; 5/7/10; 8/9/10; 1/12/11; 6/7/11; 7/14/11; 9/28/11; 10/12/11; 10/24/11; 11/28/11; 12/2/11; 2/2/12; 2/29/12. In addition, the USAID engineer held regular meetings with USACE representatives and was in regular contact with the hospital directors and the Ministry of Labor, Health, and Social Affairs (MOLHSA) regarding project implementation and progress. Finally, many of the delays were caused by the financial insolvency of USACE's contractor, and could not have been resolved by additional monitoring.

Actions Taken/Planned: In the absence of USAID policy or guidance, the Mission has developed and issued to all CORs and AORs "Guidance on Conducting Monitoring Inspections of Construction and Rehabilitation" with a corresponding checklist tool. (Attached). Additionally, a Mission Order specific to infrastructure projects has been drafted and will be approved by September 30, 2012. This Mission Order will reflect the principles in USAID's "Basic Engineering and Construction Management: A Primer" (December 2010) and the new USAID Construction Policy. The Mission Order will provide the structure and processes to assure that the agency's requirements are met, and assure quality of infrastructure projects. The Mission Order will facilitate Quality Assurance Management by providing a simplified and structured system for tracking project progress, documentation and performing inspections.

Target Completion Date: September 30, 2012.

Recommendation 2. *We recommend that USAID/Caucasus consult with USAID's Bureau for Global Health and the Centers for Disease Control and Prevention in writing to verify whether the rehabilitation work performed in the infectious diseases departments meets guidelines and take appropriate actions.*

Mission Comments: USAID/Caucasus agrees with this recommendation.

However, the Mission would like to clarify that, while providing valuable insight, the guidelines issued by the Center for Disease Control (CDC) are not the mandatory standard for this activity. Hospital licensing in Georgia is governed by the Government of Georgia Decree #385 which defines requirements for hospitals with infectious disease departments, as well as specifications for ventilation systems for various departments. USAID provided USACE with the applicable Georgian guidelines on March 11, 2011, prior to the works. In addition, USAID connected USACE with the Ministry's engineering team to review the planned technical specifications for ventilation/sewage requirements and validate their conformity with Government of Georgia standards. The decision to place the infectious diseases department in the main building of the hospitals was compliant with the Government of Georgia's overall strategy of concentrating medical facilities (including infectious disease departments) under one roof. Further, USAID

transferred funds to USACE and USACE was the cognizant federal agency responsible for designing, contracting and managing the hospital renovation following international standards for infectious disease facilities.

ACTIONS TAKEN/PLANNED: USAID/Caucasus contacted Cheri Vincent in USAID's Bureau for Global Health. Ms. Vincent facilitated a technical assistance visit to Georgia by Paul Jensen of CDC and Sevim Ahmedov, USAID. Mr. Jensen is an expert in infection control and has worked in the Europe and Eurasia region for many years. Mr. Ahmedov is USAID's expert on tuberculosis and infection control. The visit took place the week of April 23, 2012. At the time of their visit, the three hospitals renovated by USACE were undergoing changes in ownership, therefore, a visit was not possible. However, the experts met with USACE and reviewed detailed drawings of the buildings to assess the situation. The experts also visited other recently built and renovated hospitals throughout the country to gain understanding of the infection control standards routinely used in medical facilities in Georgia. Based on these visits, a report with recommendations was generated on May 14, 2012 which is guiding changes to infection control policies and procedures throughout Georgia. Through TB Prevention and Control Project, implemented by URC, USAID/Caucasus will continue to provide technical assistance to all hospitals throughout Georgia to improve infection control measures in facilities.

TARGET COMPLETION DATE: September 30, 2012

Table 1. Comparison of Some Activities Prices in the Army Corps' June 2010 Independent Government Estimate

Activity	Unit	Price per Hospital ($)			Difference (%)
		Akhaltsikhe	Ninotsminda	Akhalkalaki	
Windows	each	179	203	203	113
Demolish wall tiles	square meter	6	12	6	200
Demolish loose screed	square meter	4	24	4	600
Dismantle radiators	each	24	12	6	400
Dismantle piping	meter	5	1	1	500
Demolish electric panels	each	60	36	36	167
Demolish lighting	each	6	2	2	300
10-meter-high funnel	meter	1,074	5,997	1,074	558
Pressure meters	each	60	60	119	200
Heating controls	lump sum	3,580	2,387	2,387	150

Table 2. Difference Between Contractor's Quoted Prices and Independent Government Estimates ($)

Activity	Contractor's Price	Estimated Prices		
		Army Corps (May 2010)	Army Corps (June 2010)	USAID
Ninotsminda				
New windows	74,100	80,228	32,863	30,000
Roof	28,400	25,968	11,903	10,500
Infectious diseases department	88,200	78,029	63,465	40,485
Clinic	67,000	74,174	61,146	40,485
Children's department	138,000	99,908	72,762	14,850
Admin/lab area	103,000	90,813	70,060	165,990
Total	**498,700**	**449,120**	**312,199**	**302,310**
Akhaltsikhe				
Infectious diseases department	370,000	340,405	249,427	225,962
Road paving	186,000	11,564	11,146	120,000
Total	**556,000**	**351,969**	**260,573**	**345,962**
Akhalkalaki				
First floor	238,600	349,490	280,197	187,200
Lab area	137,000	30,353	58,171	18,750
Maternity ward/surgery	215,000	214,071	185,462	187,200
New generator	58,000	55,714	17,900	10,500
Total	**648,600**	**649,628**	**541,730**	**403,650**
Grand Total	**1,703,300**	**1,450,717**	**1,114,502**	**1,051,922**