



June 2013

HAITI RECONSTRUCTION

USAID Infrastructure Projects Have Had Mixed Results and Face Sustainability Challenges

GAO Highlights

Highlights of [GAO-13-558](#), a report to congressional requesters

Why GAO Did This Study

On January 12, 2010, an earthquake in Haiti caused about 230,000 deaths, resulted in 300,000 injuries, and displaced about 2 million persons. Following immediate relief efforts, Congress provided \$1.14 billion for reconstruction in the Supplemental Appropriations Act, 2010. USAID is responsible for implementing \$651 million of this amount, and it has allocated about \$268 million of this and other funding to construct a power plant and port to support the CIP in northern Haiti and permanent housing in several locations. The Act required State to report periodically to Congress on funding obligated and disbursed and program outputs and outcomes. GAO was asked to review USAID's efforts in Haiti. This report examines USAID's (1) funding obligations and disbursements and State's reports to Congress on funding and progress; (2) USAID's progress in two CIP-related activities—a power plant and port; and (3) USAID's progress in constructing permanent housing. GAO reviewed documents and interviewed U.S. officials in Washington, D.C., and Haiti, and visited planned and active sites.

What GAO Recommends

Congress should consider requiring State to provide it with periodic reports on reconstruction progress, funding, and schedules until most funding for each program sector has been disbursed. Also, GAO is recommending USAID (1) hire a port engineer to oversee port planning and construction and (2) provide timely community support mechanisms for each new settlement to help ensure sustainability of its permanent housing program. USAID agreed with GAO's recommendations.

View [GAO-13-558](#). For more information, contact David Gootnick at (202) 512-3149 or gootnickd@gao.gov.

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What GAO Found

As of March 31, 2013, the U.S. Agency for International Development (USAID) had obligated \$293 million (45 percent) and disbursed \$204 million (31 percent) of \$651 million in funding for Haiti from the Supplemental Appropriations Act, 2010 (the Act). The Department of State (State) submitted four of five periodic reports to Congress, as required by the Act. The reports included information on funding obligated and disbursed and anecdotal information on outputs and outcomes of some activities, as the Act required. The Senate Appropriations Committee, in its Committee Report accompanying the Act, had also directed State to report more detailed information on funding and sector activities in Haiti, which State did not include in the reports. Although most funds have not been disbursed, State's reporting requirement ended in September 2012. As a result, Congress lacks information on the amounts of funds obligated and disbursed and program-by-program progress of U.S. reconstruction activities.

USAID has allocated \$170.3 million to construct a power plant and port to support the newly developed Caracol Industrial Park (CIP), with mixed results. According to USAID documents and external studies, the sustainability of the CIP, power plant, and port are interdependent; each must be completed and remain viable for the others to succeed. USAID completed the power plant's first phase with less funding than allocated and in time to supply power to the first CIP tenant. Port construction will not begin until at least 2 years later than originally planned due in part to a lack of USAID expertise in port planning in Haiti. In January 2011, the mission made an unsuccessful attempt to solicit a person to fill a vacant port engineer position but made no additional attempts prior to May 2013 and this position currently remains unfilled. As a result, planning has been hindered by (1) unrealistic initial timeframes, (2) delays in awarding the contract for a feasibility study, and (3) incomplete information in the feasibility study. According to initial estimates of port construction costs, USAID funding will be insufficient to cover a majority of projected costs. The estimated gap of \$117 million to \$189 million is larger than initially estimated, and it is unclear whether the Haitian government will be able to find a private sector company willing to finance the remainder of the project.

USAID has reduced its permanent housing construction targets in Haiti. USAID initially underestimated the funding needed for its New Settlements housing program. As a result, the agency increased the amount allocated by 65 percent, from \$59 million to \$97 million, and decreased the projected number of houses to be built by over 80 percent, from 15,000 to 2,649. The estimated number of beneficiaries was reduced from 75,000 to 90,000 to its current estimates of approximately 13,200 to 15,900. Cost increases resulted from inaccurate original estimates that used inappropriate cost comparisons and from the Haitian government's request for larger houses with improvements such as flush toilets. USAID currently estimates construction will be completed almost 2 years later than initially scheduled. Delays occurred due to the difficulties of securing land titles and coordination issues with partner donors. USAID is attempting to mitigate potential sustainability risks, such as the possible lack of economic opportunities, affordability of housing and services, and community cohesion, but gaps in the support of community development mechanisms may increase these risks.

Contents

Letter		1
	Background	3
	Most of USAID’s 2010 Supplemental Funds Have Not Been Obligated or Disbursed, and State’s Reports to Congress Generally Met Requirements but Were Incomplete and Not Timely	8
	USAID Completed the Power Plant for Less Than Allocated but the Port Was Delayed; Their Sustainability Depends on the CIP’s Success	11
	USAID’s Development of New Housing Settlements in Haiti Has Been More Costly and Slower Than Expected; Sustainability Challenges Remain	25
	Conclusions	37
	Matter for Congressional Consideration	39
	Recommendations for Executive Action	39
	Agency Comments and Our Evaluation	39
Appendix I	Scope and Methodology	41
Appendix II	Comments from the U.S. Agency for International Development	46
Appendix III	GAO Contact and Staff Acknowledgments	49
Tables		
	Table 1: Fiscal Year 2010 Supplemental Funding for Post-Earthquake Reconstruction in Haiti, as of March 31, 2013	4
	Table 2: USAID Sector Activities and Amounts of Supplemental Funding Allocated, Obligated, and Disbursed, as of March 31, 2013	9
	Table 3: Total USAID Funding Allocated, Obligated, and Disbursed for Components of the CIP Power Plant, as of March 31, 2013	15

Table 4: Total USAID Funding Allocated, Obligated, and Disbursed for Components of a New Northern Port in Haiti, as of March 31, 2013	19
Table 5: Total USAID Funding Allocated, Obligated, and Disbursed for Permanent Housing Activities, as of March 31, 2013	29

Figures

Figure 1: Development Corridors and Selected Sites Targeted by the U.S. Post-Earthquake Assistance	6
Figure 2: Caracol Industrial Park under Construction, Haiti, January 2013	14
Figure 3: USAID-Funded Power Plant at the Caracol Industrial Park, Haiti, December 2012	16
Figure 4: Map of Ports in Haiti and Dominican Republic for Potential Use by CIP Tenants	23
Figure 5: USAID Cost Estimates for Preparation of One Plot and Construction of One House in Haiti	26
Figure 6: Permanent Houses to Be Constructed on USAID Plots in Haiti, 2011 and 2013 Projections, as of April 2013	30
Figure 7: Number of Houses and New Settlement Locations Planned in Haiti, as of April 2013	31
Figure 8: Unoccupied Permanent Houses, Water Distribution Towers, and Sewage System Trenches in Caracol-EKAM, Haiti, December 2012	32

Abbreviations

the Act	Supplemental Appropriations Act, 2010
AAD	Activity Approval Document
CIP	Caracol Industrial Park
DLA	Government of Haiti Decreed Land Area
EPA	U.S. Environmental Protection Agency
IDB	Inter-American Development Bank
the mission	U.S. Agency for International Development mission in Haiti
NGO	nongovernmental organization
NOAA	National Oceanic and Atmospheric Administration
Red Cross	American Red Cross
Sae-A	Sae-A Trading Co. Ltd.
State	Department of State
UN	United Nations
USACE	U.S. Army Corps of Engineers
USAID	U.S. Agency for International Development

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June 18, 2013

The Honorable Eliot Engel
Ranking Member
Committee on Foreign Affairs
House of Representatives

The Honorable Ileana Ros-Lehtinen
House of Representatives

On January 12, 2010, an earthquake centered near Port-au-Prince, Haiti, caused physical, social, and economic devastation to the poorest country in the Western hemisphere. The earthquake is estimated to have caused approximately 230,000 deaths, resulted in 300,000 injuries, and displaced approximately 2 million people from their homes. According to the United Nations (UN), the earthquake killed more than 16,000 of Haiti's civil service employees and destroyed almost all ministry buildings. The World Bank reported that the earthquake caused \$7.8 billion in damage (about 120 percent of Haiti's 2009 gross domestic product). Following the earthquake, the country received unprecedented pledges of support from around the globe. The UN Office of the Special Envoy for Haiti reported in December 2012 that, to help Haiti recover from the earthquake, bilateral and multilateral donors, including the United States, have allocated \$13.3 billion and so far disbursed \$6.4 billion. Individuals, private firms, and others gave an additional \$3.1 billion in private donations.

In July 2010, the U.S. Congress passed the Supplemental Appropriations Act, 2010 (the Act),¹ which provided more than \$1.14 billion in reconstruction funds for Haiti, \$651 million of which was provided to the U.S. Agency for International Development (USAID) for bilateral

¹Supplemental Appropriations Act, 2010, Pub. L. No. 111-212, 124 Stat. 2302, 2323 (July 29, 2010). In the Act, Congress also made funds available to GAO to monitor U.S. post-earthquake assistance to Haiti. In response, in May 2011, we issued a report ([GAO-11-415](#)) that described planning efforts and oversight structures. In November 2011, we issued a report ([GAO-12-68](#)) that addressed USAID's progress, staffing, continued planning, and sustainability challenges facing its activities. See GAO, *Haiti Reconstruction: U.S. Efforts Have Begun, Expanded Oversight Still to Be Implemented*, [GAO-11-415](#) (Washington, D.C.: May 19, 2011); and *Haiti Reconstruction: Factors Contributing to Delays in USAID Infrastructure Construction*, [GAO-12-68](#) (Washington, D.C.: Nov. 16, 2011).

reconstruction activities. The Act required the Department of State (State) to provide periodic reports to Congress on funding obligated and disbursed and program outputs and outcomes. USAID has allocated approximately 40 percent of its supplemental funding,² as well as other funds, to support the construction of (1) a power plant that will provide electricity for the new Caracol Industrial Park (CIP) in northern Haiti near Cap-Haïtien; (2) a new port along Haiti's northern coast near the CIP; and (3) permanent housing in new settlements in the Port-au-Prince, St-Marc, and Cap-Haïtien areas.

You asked us³ to examine U.S. reconstruction efforts in Haiti. This report addresses (1) USAID's progress in obligating and disbursing program allocations and State's periodic reporting to Congress on the status of the U.S. reconstruction efforts; (2) USAID's progress in planning and constructing the CIP-related power plant and port; and (3) USAID's progress in planning and constructing permanent housing.

To address these objectives, we reviewed reports, documents, and funding data and interviewed officials from USAID and State in Washington, D.C., and Haiti. To assess the reliability of funding data, we examined USAID and State data sources and conducted interviews with cognizant officials from USAID and State.⁴ We determined that the data we used were sufficiently reliable for our purpose of reviewing U.S. funding provided for Haiti reconstruction. In Haiti, we visited sites under construction or planned for construction for the power plant, port, and permanent housing, and visited the CIP. To address the sustainability of these projects, we used the Organisation for Economic Co-operation and Development's definition of sustainability—"the continuation of benefits from a development intervention after major development assistance has been completed." We operationalized this definition by specifying that sustainability is the ability of the Haitian government and individuals to

²The source of the Act's funding allocated to USAID is the Economic Support Fund account.

³We performed this review in response to a June 2012 request from Representative Ileana Ros-Lehtinen and Representative Howard Berman, Chairman and Ranking Member of the House Foreign Affairs Committee for the 112th Congress. In February 2013, the committee's Ranking Member for the 113th Congress, Representative Eliot Engel, signed on as a co-requester.

⁴See appendix I for more information about how we assessed data reliability and our overall scope and methodology.

operate and maintain the new infrastructure in such a condition as to produce the projected benefits.

We conducted this performance audit from August 2012 through June 2013 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 based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

More than 75 percent of Haiti's population lives on less than \$2 a day, and Haiti's unemployment rate is estimated at 60 to 70 percent. These conditions were exacerbated when a large earthquake devastated parts of the country, including the capital, on January 12, 2010. Since the earthquake, Haiti has suffered from a cholera epidemic that, as of March 2013, had affected almost 650,000 persons and caused over 8,000 deaths. In March 2013, the International Organization for Migration estimated that, of the original 2 million persons affected, about 320,000 individuals remained displaced in camps from the earthquake.

In response to the earthquake, Congress provided more than \$1.14 billion in reconstruction funds for Haiti in the Fiscal Year 2010 Supplemental Appropriations Act. Of this amount, USAID received \$651 million through the Economic Support Fund for its bilateral reconstruction activities, as shown in table 1.

Table 1: Fiscal Year 2010 Supplemental Funding for Post-Earthquake Reconstruction in Haiti, as of March 31, 2013

Dollars in millions	
Recipient	Reconstruction amount
State and USAID	\$917.7
State	144.7
USAID	773.0
Bilateral Reconstruction Activities	651.0
Transferred to Haiti Reconstruction Fund ^a	120.0
Transferred to Smithsonian Institution	2.0
Treasury	219.8
USAID Inspector General	4.5
Total	\$1,142.0

Source: USAID and the 2010 Supplemental Appropriations Act (Pub. L. No. 111-212).

Notes: In November 2011, we reported that USAID and State were allocated \$917.7 in supplemental funding, including \$770 million to USAID and \$147.7 million to State (see [GAO-12-68](#)). State's current amount of \$144.7 million is \$3 million less and USAID's current amount is \$3 million more because State transferred \$3 million to USAID for bilateral reconstruction activities.

^aThe Haiti Reconstruction Fund is a multidonor trust fund organized to help finance high-priority post-earthquake reconstruction projects.

The Act required State to provide periodic reports to Congress on the program. Specifically, the Act required State to submit five reports to the Senate Committee on Appropriations, beginning in October 2010 and every 180 days thereafter until September 2012, on funding obligations and disbursements and program outputs and outcomes. In addition, the Senate Committee on Appropriations, in its Committee Report accompanying the Act,⁵ directed that State's reports include, among other things, (1) a detailed program-by-program description of USAID's activities; (2) a description, by goal and objective, and an assessment of the progress of U.S. programs; and (3) amounts of funding obligated and expended on the programs during the preceding 6 months.

In our November 2011 report on Haiti reconstruction,⁶ we reported that USAID had difficulties securing staff—particularly technical staff such as

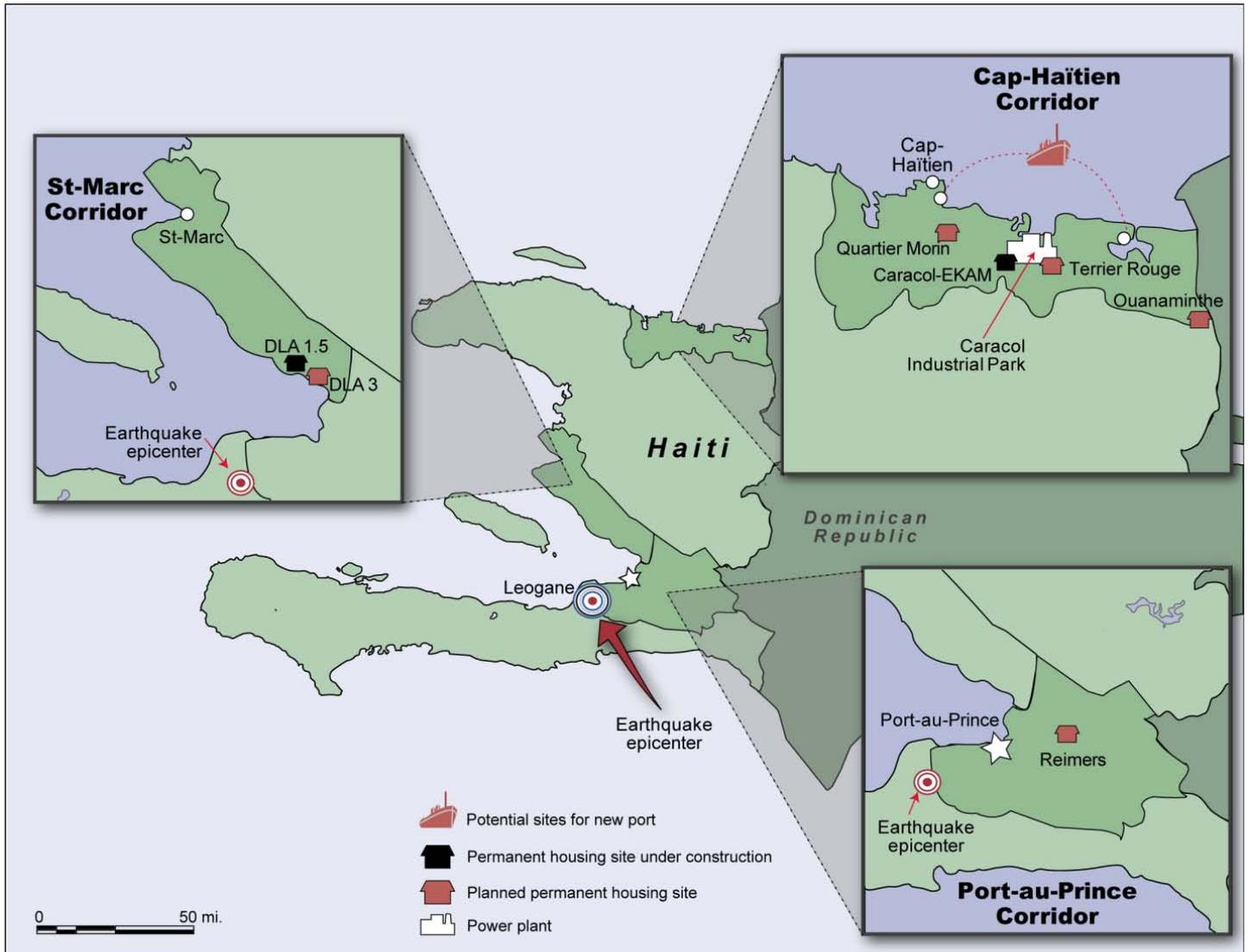
⁵See S. Rep. 111-188, Senate Committee on Appropriations, *Making Emergency Supplemental Appropriations for Disaster Relief and Summer Jobs for the Fiscal Year ending September 30, 2010, and for Other Purposes*, May 14, 2010.

⁶[GAO-12-68](#).

contracting officers and engineers—who were willing to live and work in the country after the earthquake and who could bring the expertise necessary to plan and execute large, complex infrastructure projects. We also reported that such difficulties had contributed to delays in U.S. efforts. As of December 2012, the USAID mission in Haiti (the mission) had increased its direct-hire staff positions filled from 7 of 17 (41 percent) soon after the earthquake to 29 of 36 (81 percent) positions filled.

The overall 5-year U.S. reconstruction strategy for Haiti, known as the Post-Earthquake USG Haiti Strategy: Toward Renewal and Economic Opportunity, is consistent with the government of Haiti's development priorities in that it seeks, among other goals, to encourage reconstruction and long-term economic development in several regions of the country. These areas, known as "development corridors," include the Cap-Haïtien region on Haiti's northern coast and the St-Marc region on Haiti's western coast; these areas were not close to the earthquake epicenter but were where some people from Port-au-Prince were displaced after the earthquake. The strategy notes that 65 percent of Haiti's economic activity was located in greater Port-au-Prince and that the U.S. government's intent is to support new economic opportunities in other development corridors, in addition to assisting with reconstruction in the Port-au-Prince corridor, which suffered the most damage from the earthquake (see fig. 1).

Figure 1: Development Corridors and Selected Sites Targeted by the U.S. Post-Earthquake Assistance



Source: Multiple U.S. government agencies, *Post-Earthquake USG Haiti Strategy: Toward Renewal and Economic Opportunity* (Washington, D.C., January 2011); USAID planning documents; Map Resources (map).

Note: The selected sites in this map include the three USAID bilateral activities we focus on in this report: CIP power plant, port, and permanent housing.

On January 11, 2011, the U.S. government, the government of Haiti, the Inter-American Development Bank (IDB), and a private South Korean garment manufacturer, Sae-A Trading Co. Ltd. (Sae-A), signed an

agreement to support development of the CIP that included the following commitments:

- the IDB committed to provide funding to the Haitian government to build the CIP and some associated facilities;
- the U.S. government committed to build a power plant, contribute toward the building of a nearby port, and support the construction of 5,000 nearby housing units with associated site infrastructure; and
- Sae-A committed to be the anchor tenant and hire 20,000 local employees at the CIP.

In concert with its economic growth efforts, USAID, in coordination with State's Office of the Haiti Special Coordinator in Washington, D.C., developed the New Settlements program to address the severe post-earthquake permanent housing shortage in Haiti. USAID's goal was to construct up to 15,000 new permanent houses on previously undeveloped sites in three designated development corridors—10,000 in Port-au-Prince and St-Marc, and 5,000 in Cap-Haïtien. In part, USAID's program aimed to support the Haitian government's goal of decentralizing economic growth outside Port-au-Prince by increasing the housing stock in communities near the industrial park planned for northern Haiti. USAID planned to provide funding for the preparation of all the settlement sites, to include activities such as grading the land and providing proper drainage, access roads, pedestrian pathways, and infrastructure for delivery of utility services. Each new settlement site would include a certain number of plots on which USAID or a partner nongovernmental organization (NGO) would then construct a house. Of the 15,000 plots it planned to develop, USAID planned to build 4,000 houses, while NGOs and other donor partners would build 11,000 houses. USAID estimated that, when completed, about 75,000 to 90,000 people would benefit.

Most of USAID’s 2010 Supplemental Funds Have Not Been Obligated or Disbursed, and State’s Reports to Congress Generally Met Requirements but Were Incomplete and Not Timely

As of March 31, 2013, the majority of supplemental funding for USAID’s program sector activities had not been obligated⁷ or disbursed.⁸ The Department of State submitted four of five reports to Congress, as required in the Supplemental Appropriations Act of 2010, but did not submit them in a timely manner. State did not include some information that the Senate Committee on Appropriations had directed State to include in the report on funding, program sector activities, and progress toward achieving the goals and objectives of the program. All reporting requirements have now ended.

The Majority of Supplemental Funding Has Not Been Obligated and Disbursed

As of March 31, 2013, 31 percent of the supplemental funding provided for Haiti reconstruction efforts had been disbursed. Of the \$651 million in funding from the 2010 Supplemental Appropriations Act that USAID has allocated for bilateral earthquake reconstruction activities, USAID had obligated about \$293 million (45 percent) and disbursed about \$204 million (31 percent). The amount of funds obligated and disbursed varies among activities in the six sectors of activities to which supplemental funds were allocated. For example, the majority of funding obligated to date has been obligated in just two sectors (shelter and governance and rule of law), as shown in table 2.

⁷An obligation is a definite commitment that creates a legal liability of the U.S. government for the payment of goods and services ordered or received. See GAO, *A Glossary of Terms Used in the Federal Budget Process*, [GAO-05-734SP](#) (Washington, D.C.: September 2005). This report defines obligations as the total amount of orders placed, contracts awarded, services received, and similar transactions during a given period that will require payments during the same or future period. USAID labels these actions “subobligations.” In State’s reports to Congress on Haiti funding, for USAID-managed accounts, funds listed as “total obligations” or “obligated” refer to these subobligations. Nonetheless, consistent with 31 U.S.C. §1501, which defines when an agency can record an obligation, USAID generally treats as an obligation the bilateral agreements it makes with other countries to deliver assistance.

⁸According to USAID, supplemental funds provided for Haiti post-earthquake recovery were scheduled to be disbursed over the course of the 5-year period beginning with the January 3, 2011, issuance of the *Post-Earthquake USG Haiti Strategy*.

Table 2: USAID Sector Activities and Amounts of Supplemental Funding Allocated, Obligated, and Disbursed, as of March 31, 2013

Dollars in millions

Sector of USAID Activity	Allocated	Total obligations ^a	Percentage obligated	Disbursements	Percentage disbursed
Shelter ^b	\$83.1	\$47.4	57	\$30.6	37
Energy ^b	135.1	41.1	30	32.8	24
Ports and transportation ^b	84.2	4.3	5	3.9	5
Food security	82.5	29.6	36	24.7	30
Health and disabilities	99.4	38.1	38	17.7	18
Governance and rule of law	120.4	95.4	79	64.8	54
Operating and other expenses ^c	46.2	37.2	81	29.4	64
Total	\$651.0^d	\$293.0^d	45	\$204.0^d	31

Source: USAID.

^aAn obligation is a definite commitment that creates a legal liability of the U.S. government for the payment of goods and services ordered or received. See GAO, A Glossary of Terms Used in the Federal Budget Process, [GAO-05-734SP](#) (Washington, D.C.: September 2005). This report defines obligations as the total amount of orders placed, contracts awarded, services received, and similar transactions during a given period that will require payments during the same or a future period. USAID labels these actions “subobligations.” In States reports to Congress on Haiti funding, for USAID-managed accounts, funds listed as “total obligations” or “obligated” refer to these subobligations. Nonetheless, consistent with 31 U.S.C. § 1501 defining when an agency can record an obligation, USAID generally treats as an obligation the bilateral agreements it makes with other countries to deliver assistance.

^bAmounts of funding for the shelter, energy, and ports and transportation sectors include all fiscal year 2010 supplemental funding for those sectors. Amounts of funding for the New Settlements Program, the CIP power plant, and a new port, which we discuss later in this report, are subsets of the funding amounts in each of these sectors.

^cOperating and other expenses apply to all sectors; they are not a specific sector of USAID activity.

^dAmounts of sector activities do not add to the total amounts allocated, obligated, and disbursed due to rounding.

State’s Reports Generally Met the Requirements of the Act but Did Not Include Detailed Information as Directed by the Senate Committee on Appropriations

In its periodic reports to Congress, State reported on the general amounts of supplemental funding obligated and disbursed, as required in the Act. State also included some anecdotal information on program outputs and outcomes, which the Act also required. For example, the report submitted by State in January 2013 noted that work had begun to rehabilitate damaged irrigation systems and that reconstruction of earthquake-damaged health infrastructure was underway. However, State’s reports did not include, among other things, (1) a detailed program-by-program description of USAID’s activities; (2) a description, by goal and objective, and an assessment of the progress of U.S. programs; and (3) amounts of funding obligated and disbursed on the programs during the preceding 6 months, as directed by the Senate Committee on Appropriations in its

report accompanying the Act.⁹ For example, none of State's reports included a program-by-program description of USAID's sector activities, such as shelter and energy, or an assessment of sector progress. In particular, State's final report, submitted to Congress in January 2013, did not mention that USAID had substantially reduced the number of permanent shelters it had planned to construct. Further, State's January 2013 report did not mention that USAID had not generated any outputs or outcomes for the port construction project, even though the report did mention that USAID had experienced significant delays in planning the project, including a feasibility study that was initially scheduled to be completed 7 months earlier in May 2012. Finally, while State's reports included overall cumulative amounts of funding obligated and disbursed, they did not provide such information for specific programs during the preceding 6 months. State's inclusion of such information, as well as sector-specific funding information directed by the Senate committee, could have been useful in informing Congress of USAID's progress.

State Prepared Four of Five Required Reports to Congress but Did Not Submit Them in a Timely Manner

State submitted four of the five required reports to Congress on the status of U.S. efforts in Haiti, but none of the submitted reports was delivered in a timely manner. The Act required State to submit the five periodic reports beginning in October 2010 and approximately every 6 months thereafter until September 2012. State did not submit the first report, required in October 2010, because, according to State officials, the supplemental funds had just been received, there was little to no activity to report, and the Post-Earthquake USG Haiti Strategy had not yet been approved.¹⁰ State submitted its initial report in July 2011—more than 2 months after its April 29, 2011, due date for the second required report—included funding and activities through March 31, 2011. The three subsequent reports were submitted in January 2012, June 2012, and January 2013. The submission dates for all four reports ranged from more than 1 month to nearly 4 months late. In addition to the late submission of the reports, the “as of” date of funding data presented in the reports was not timely. For example, the report submitted in January 2013 included funding data as of September 30, 2012—nearly 4 months earlier than the date the

⁹S. Rep. 111-188, Senate Committee on Appropriations, *Making Emergency Supplemental Appropriations for Disaster Relief and Summer Jobs for the Fiscal Year ending September 30, 2010, and for Other Purposes*, May 14, 2010.

¹⁰The strategy was approved on January 3, 2011.

report was submitted. All reporting requirements under the Act have ended.

We discussed the reports with State officials, who noted that State and USAID routinely provide funding and progress information to Congress through other reporting mechanisms. For example, State and USAID arrange oral briefings and periodic conference calls with congressional staff about every 2 months, and other meetings as requested by members of Congress. State officials emphasized that they considered the reports to Congress to be only one tool in its range of reporting mechanisms.

USAID Completed the Power Plant for Less Than Allocated but the Port Was Delayed; Their Sustainability Depends on the CIP's Success

USAID has committed \$170.3 million to construct a power plant and port to support the newly developed CIP, with mixed results to date. In June 2012, the USAID mission completed the first phase of the CIP power plant for \$17.0 million, 11 percent less than the \$19.1 million allocated, and in time to supply the first CIP tenant with power. Planning for the port is behind schedule and will result in port construction beginning at least 2 years later than initially planned. The mission has had a vacant port engineer position for more than 2 years, having made one unsuccessful attempt to fill this position prior to May 2013 when it issued a second solicitation to fill the position. As of June 2013, this position remains unfilled. The lack of port expertise at the mission has contributed to (1) unrealistic initial time frames, (2) delays in awarding the contract for a feasibility study, and (3) incomplete information in the feasibility study. According to initial estimates of port construction costs, USAID funding will be insufficient to cover approximately \$117 million to \$189 million of projected costs, and it is unclear whether the Haitian government will be able to find a private sector company willing to finance the remainder of the project. Sustainability of the port and power plant depend on the viability of the industrial park, which will generate a substantial portion of the revenue for both facilities, as well as other factors such as the government of Haiti's capacity to manage or oversee these investments.

U.S. Government Supports Power Plant and Port on the Basis of Some Analysis of CIP's Impact

The U.S. government supports a public-private partnership to develop the CIP in northern Haiti with \$170.3 million in funding allocations to projects related to a nearby power plant (\$97.9 million) and port (\$72.4 million).¹¹ According to State officials, the U.S. government's decision to provide funding for the power plant and port was bolstered by review of an economic impact study of the CIP commissioned by the IDB and State's own calculations.¹² State officials acknowledge that the limited availability of credible data for Haiti can introduce significant margins of error into assessments of the CIP's impact on the region's net employment or income. Therefore, such estimates are subject to considerable uncertainty. The findings from the IDB study and State's calculations included the following:

- The IDB-commissioned study estimated that the CIP would increase total employment by about 75,000 jobs, including 37,000 permanent jobs at the CIP, and generate \$360 million in annual income, including approximately \$150 million to CIP employees, most of whom are projected to receive the minimum wage.¹³
- State officials calculated that the CIP will create up to 65,000 jobs on site by using an estimate of the average number of square meters per factory worker observed in light manufacturing facilities worldwide.¹⁴ This simple calculation assumes that all available factory space in the CIP would be filled and that the tenants would be from those same types of industries.

¹¹Public-private partnerships are contractual arrangements between public entities from any level of government with private companies. Establishing public-private partnerships is one of the goals of *USAID Forward*, USAID's current reform agenda. USAID uses these partnerships to leverage the resources and expertise of the private sector.

¹²The IDB commissioned additional economic impact, environmental, and social assessments of the CIP after signing the framework agreement, including both before and after construction of the CIP began. According to State officials, it was more cost effective for the IDB to commission intensive studies of the CIP after due diligence was performed on the anchor tenant and an agreement was signed, to avoid the possibility of investing larger amounts of funding in a project that would not move forward without private sector interest.

¹³See KOIOS Associates, *Development of the Industrial Park Model to Improve Trade Opportunities for Haiti* (Acton, MA: Sep. 20, 2010).

¹⁴State used this calculation to develop its projection that the CIP would create "up to 65,000 direct jobs," which it has used in its public announcements about the U.S. government's support of the CIP. State officials have noted that they also expect additional jobs to be created in the area surrounding the CIP that are not included in this projection, such as jobs selling food and wares to CIP employees.

However, these estimates may overstate the impact on total employment and income in Haiti because they do not account for the possibility that people employed in CIP-related jobs might otherwise be employed in the formal or informal sector in absence of the CIP.¹⁵

The IDB's progress in building the CIP and filling it with tenants is still ongoing (see fig. 2). Sae-A moved in to the first CIP building in March 2012. By December 2012, it had shipped its first container of clothes to the United States and, by January 2013, was employing approximately 1,300 Haitian employees from the surrounding communities. Two other companies, a paint manufacturer and a textile manufacturer, have also moved into the CIP. According to the State Senior Advisor for the CIP, these three tenants project they will together create approximately 21,000 jobs in the CIP by 2016. As of May 2013, according to State officials, the government of Haiti was progressing in talks with four other potential tenants.

¹⁵According to the International Labour Organization, the informal sector comprises small-scale, self-employment activities by households for which no complete sets of accounts (including balance sheets of assets and liabilities) are available, making it difficult for statisticians and policymakers to track jobs in this sector.

Figure 2: Caracol Industrial Park under Construction, Haiti, January 2013



Source: IDB promotional video of CIP.

Note: The CIP land area is 252 hectares; one million square meters of factory space are planned to be built in this area.

USAID Mission Completed the First Phase of the Power Plant for Less Than Allocated, with Environmental Studies Completed and Plans for Expansion

The USAID mission completed the first phase of the CIP power plant, with a designed capacity of 10 megawatts,¹⁶ for \$17.0 million, 11 percent less than the \$19.1 million allocated (see table 3). The power plant project benefited from the mission having a Senior Energy Advisor on staff from April 2011 through February 2013 who used his background in electrical engineering to oversee and manage the project.¹⁷

¹⁶Although the power plant has a designed capacity of 10 megawatts, it currently produces 1.7 megawatts based on the current needs of CIP tenants. Megawatt is the standard term of measurement for bulk electricity that is generally used to describe the output of power plants. One megawatt is equal to 1 million watts, enough for 16,666 60-watt light bulbs.

¹⁷In addition, according to USAID mission officials, USAID was able to achieve these lower costs through its competitive bidding process. The winning contractor for construction of the plant was able to supply key equipment at a reduced price.

Table 3: Total USAID Funding Allocated, Obligated, and Disbursed for Components of the CIP Power Plant, as of March 31, 2013

Dollars in millions

CIP power plant components	Allocated	Total obligations ^a	Percentage obligated	Disbursements	Percentage disbursed
Completion of a 10-megawatt power plant (Phase I) ^c	\$19.1	\$18.6	97	\$17.0	89
Installation of electrical power distribution systems to residential customers	10.9	2.4	22	1.1	10
Operations and maintenance of the power plant for 3 years	— ^b	0.0	0	0.0	0
Design and construction of at least 13 megawatts of additional power generation (Phase II)	—	0.0	0	0.0	0
Design and construction of a 2- megawatt solar energy farm at CIP	—	0.0	0	0.0	0
Other CIP power plant-related projects ^d	1.7	0.0	0	0.0	0
Total for CIP power plant	\$97.9	\$21.0	21	\$18.1	18^e

Source: GAO analysis of USAID data.

Notes: The funding allocations to the CIP power plant are from fiscal year 2010 supplemental funding, as well as funding from the fiscal year 2010, 2011, and 2012 appropriations for the Economic Support Fund. The funding allocations from the 2010 supplemental funding to the CIP power plant are a subset of all funding allocations to the energy sector shown in table 2.

^aAn obligation is a definite commitment that creates a legal liability of the U.S. government for the payment of goods and services ordered or received. See GAO, A Glossary of Terms Used in the Federal Budget Process, [GAO-05-734SP](#) (Washington, D.C.: September 2005). This report defines obligations as the total amount of orders placed, contracts awarded, services received, and similar transactions during a given period that will require payments during the same or a future period. USAID labels these actions “subobligations.” In State’s reports to Congress on Haiti funding, for USAID-managed accounts, funds listed as “total obligations” or “obligated” refer to these subobligations. Nonetheless, consistent with 31 U.S.C. § 1501 defining when an agency can record an obligation, USAID generally treats as an obligation the bilateral agreements it makes with other countries to deliver assistance.

^bFor the three activities to which no funds have been obligated, individual amounts allocated are procurement-sensitive and therefore not shown in the allocations column. However, USAID documents indicate that together these three activities are allocated \$66.2 million, which is included in the total.

^cFunding for Phase 1 of the power plant went to two contracts for (1) design and supervision of construction and (2) construction and short-term management.

^dThe funding allocation to “other CIP power plant-related projects” is reserved for any unspecified need during the CIP power plant’s development. For example, it could be used if a negotiated contract were to be priced higher than the contract’s budgeted amount.

^eTotal disbursements for all components of the CIP power plant are 18 percent of the amount allocated because Phase I of the power plant was completed for less than expected and most other activities have not begun, in accordance with USAID’s phased approach to building the plant.

The power plant was commissioned in June 2012, 5 months later than initially planned, but in time to provide power to the CIP as needed (see fig. 3).¹⁸

Figure 3: USAID-Funded Power Plant at the Caracol Industrial Park, Haiti, December 2012



Source: GAO.

A contractor completed a required environmental assessment of the power plant project in June 2011, prior to the award of the construction

¹⁸In April 2011, USAID projected that construction of Phase I of the power plant would be completed by January 2012. However, the procurement period for the construction contract took longer than expected in part due to questions from prospective offerors that led to multiple amendments to the solicitation. In addition, construction of the CIP was a few months behind schedule, so the first CIP tenant did not need power from the plant until after June 2012.

contract for Phase I.¹⁹ The assessment produced more than 200 suggested mitigation measures to reduce the plant's potential socioeconomic and environmental impacts, all of which USAID has or plans to have implemented.²⁰ The contractor that performed the design and oversight of construction for Phase I oversaw the implementation of mitigation measures relevant to the construction phase. According to USAID officials, relevant mitigation measures are also incorporated into the operations and maintenance contract for the first 3 years of the plant's operations, making this contractor responsible for any measures needed to mitigate the impact of the plant on the surrounding environment during that time.

Future plans for the plant include:

- Distribution of electricity outside the CIP: USAID plans to distribute electricity to as many households, local businesses, and public buildings in local communities as feasible over the next 2 years, with an interim goal of connecting 1,800 residences by May 2013. The first several residences were connected in October 2012, and 243 residences and businesses were connected by February 2013.
- Plan for future expansion: To accommodate the CIP's future energy needs once it has expanded and the needs of local communities once more of them are connected, USAID has plans (1) to build an adjacent solar energy farm with 2-megawatts capacity and (2) to expand the power plant to at least 25-megawatts capacity, including power from any renewable sources. The time frame for these expansions is dependent on the pace of development of the CIP and its energy needs.
- Transfer of operations to Haitian government: After the first 3 years, the Haitian government will take over plant operations and therefore

¹⁹Federal regulations require that USAID ensure that environmental and socioeconomic factors and values are integrated into decision making for new development projects. (22 C.F.R § 216.1). This environmental assessment of the CIP power plant was prepared in accordance with required regulatory procedures, and also to comply with the environmental requirements set forth by the Haitian government and the USAID Bureau for Latin America and the Caribbean Region (22 C.F.R. § 216.6).

²⁰For example, for water quality, proposed measures included installing drip pans to prevent oil leakage and storing potential pollutants on sealed surfaces to prevent soil contamination. For air quality, proposed measures included designing generators and smokestacks with available emissions control devices and controlling dust during the construction phase. For the health and safety of workers at the plant, proposed measures included installing a fire detection system and providing adequate ventilation.

will be responsible for implementing any mitigation measures, including those needed to mitigate additional emissions from the plant's future expansion.

**Lack of USAID Mission
Technical Expertise
Contributed to Port
Planning Delays**

USAID has allocated \$72.4 million to plan and contribute toward building a new port in northern Haiti; however, only \$4.3 million (6 percent) was obligated as of March 2013 due to planning delays (see table 4). In an August 2011 draft Activity Approval Document (AAD) for the port sector,²¹ USAID planned for a feasibility study to be completed by the second quarter of fiscal year 2012, with construction to begin in spring 2013 by a private company that would supplement USAID's funding contribution for construction and then operate the port once it is completed in fall 2015.²² However, the feasibility study was not completed until February 2013, and the mission has no current projection for when construction of the port may begin or how long it will take because more studies are needed before the port site can be selected and the port designed. Nevertheless, as a result of these planning delays, port construction will not begin until at least two years after initially planned. In addition, USAID officials had initially estimated that port construction would take 2.5 years; however, USAID officials have since learned that port construction may take up to 10 years, depending on the complexity of the port designed.

²¹According to USAID policy, AADs are detailed planning documents that include, at a minimum, a description of the project or activity, including its intended results, implementation methods, and financing plans. The AAD also demonstrates that all pre-obligation requirements have been met; clarifies management responsibilities; and summarizes environmental review requirements and gender issues. The AAD for the port sector was first drafted in August 2011 and has not yet been approved.

²²This plan will allow USAID to leverage funds and expertise from the private sector through a public-private partnership in the form of a build-operate-transfer concession. Under this type of concession, a private company would contribute to the construction of the port and then operate and retain revenues from the port for the term of the concession contract. During operations, Haitian operators and officials would be trained by the private operators so that the Haitian government would be able to manage the port at the end of the concession contract.

Table 4: Total USAID Funding Allocated, Obligated, and Disbursed for Components of a New Northern Port in Haiti, as of March 31, 2013

Dollars in millions

Port components	Allocated	Total obligations ^a	Percentage obligated	Disbursements	Percentage disbursed
Feasibility study	\$4.3	\$4.3	100	\$3.9	91
Any further studies, design, and U.S. contribution to construction of port	68.1	0.0	0	0.0	0
Total for a new northern port	\$72.4	\$4.3	6	\$3.9	5

Source: GAO analysis of USAID data.

Notes: The funding allocations to a new northern port shown here are a subset of all 2010 supplemental funding allocations to the port sector shown in table 2.

^aAn obligation is a definite commitment that creates a legal liability of the U.S. government for the payment of goods and services ordered or received. See GAO, A Glossary of Terms Used in the Federal Budget Process, [GAO-05-734SP](#) (Washington, D.C.: September 2005). This report defines obligations as the total amount of orders placed, contracts awarded, services received, and similar transactions during a given period that will require payments during the same or a future period. USAID labels these actions “subobligations.” In State’s reports to Congress on Haiti funding, for USAID-managed accounts, funds listed as “total obligations” or “obligated” refer to these subobligations. Nonetheless, consistent with 31 U.S.C. § 1501 defining when an agency can record an obligation, USAID generally treats as an obligation the bilateral agreements it makes with other countries to deliver assistance.

The USAID mission in Haiti lacks staff with technical expertise in planning, construction, and oversight of a port, as there is a vacant position for a port engineer on staff. According to USAID officials, USAID has not constructed a port anywhere in the world since the 1970s, and USAID does not have a port engineer or port project manager among its direct-hire staff. In January 2011, the mission in Haiti put out a solicitation to fill the vacant port engineer position. This solicitation produced two applicants, one of which was offered the position but declined it in May 2011. Since then, no attempts were made to fill the position until another solicitation was sent out in May 2013 to which interested parties were to respond by June 7, 2013. As a result, as of June 18, 2013, the position remains unfilled. According to mission officials, it is difficult to find someone with the right skill set who is willing to work in Haiti, although USAID officials have also commented that, in hindsight, more effort should have been put into ensuring that the mission had port expertise earlier in the port planning process.

This lack of a USAID mission staff person with port expertise has contributed to the port project being behind schedule. Delays in the port feasibility study were caused by:

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- **Unrealistic initial time frames:** Without port expertise, USAID initially estimated that the planning and design process for the port, including the port feasibility study, would take a little over 1 year to complete. Since then, USAID officials have learned from the U.S. Army Corps of Engineers (USACE), which has extensive port expertise, that they expect the port planning and design process to take 2.5 to 5 years. According to USAID officials, this estimate is consistent with the time frames used by the Millennium Challenge Corporation, which has rehabilitated ports in developing countries.
 - **Delays in awarding the feasibility study:** The contract for the feasibility study was awarded 3 months later than initially planned because at the time, according to USAID officials, mission staff were focused on the CIP power plant. None of these staff had primary responsibility for the port, so the port project did not move forward simultaneously. In addition, USAID needed to clarify the technical requirements and revise the statement of work for the port feasibility study four times, thereby lengthening the time before companies could submit proposals.
 - **Incomplete information in the feasibility study:** Without a port engineer or project manager to contribute to the statement of work for the feasibility study, USAID did not require the contractor to obtain all the information necessary to help select a port site.²³ According to USAID officials, when the study was completed as planned in May 2012, the contractor had met the requirements in its statement of work. However, the Mission Environmental Officer determined that multiple environmental issues not adequately addressed in the initial study needed additional examination. Subsequently, the contract for the feasibility study was amended six times and extended by 9 months to obtain more information. USAID officials stated that, in retrospect, they realized it would have been helpful to involve other U.S. agencies with port expertise when writing the original statement of work to have avoided the need for so many revisions. In November 2012, the contractor submitted another draft of the study that USAID

²³The statement of work was initially focused on evaluating construction of a new port in Fort-Liberté Bay in addition to the option of expanding the existing Cap-Haïtien port. Fort-Liberté Bay had been chosen as a preferred location along the northern coast for a port by two 2011 studies of the Haitian port sector conducted by the International Finance Corporation and the U.S. Trade and Development Agency. For the purpose of the preliminary environmental assessment in USAID's port feasibility study, a baseline of a "no action" alternative was also assessed in which the proposed port expansion improvements in northern Haiti would not occur. In September 2012, the statement of work was amended so that the contractor would also assess four alternative sites.

environmental staff determined to have some gaps. USAID then met with officials from USACE, the U.S. Environmental Protection Agency (EPA), and the National Oceanic and Atmospheric Administration (NOAA) in December 2012 to identify the additional economic, environmental, technical, and other information needed to select a site. Further information was added to the study before it was finalized in February 2013. However, other studies strongly recommended by USACE, EPA, and NOAA, such as building oceanographic navigation models and completing marine mitigation work to protect endangered species in the area, still need to be performed.²⁴

Port construction costs remain uncertain because the port site, design, and needed mitigation measures have not been determined. However, rough estimates in the February 2013 feasibility study project that the cost of port construction at the two locations still under consideration ranges from \$185 million to \$257 million. In addition to funding for the port feasibility study, USAID has \$68.1 million allocated toward port planning and construction. USAID does not know what portion of this funding is needed for the additional studies and design; however, it is clear that the amount remaining for construction will be a significantly smaller portion than USAID had initially planned to contribute to the project's total construction cost.²⁵ As a result, USAID officials recognize that there is a risk that no private company interested in operating the port would be willing to cover the entire remaining costs of construction, particularly given the political risks of operating in Haiti. Therefore, the Haitian government may need to secure additional donor funding to increase the public sector contribution to building the port.

²⁴USAID is currently designing the scope of work for a site-specific environmental assessment that will look in more depth at a site in Fort-Liberté Bay, as well as another site from the feasibility study to be studied as an alternative. USAID also plans to have officials from other agencies or contractors perform the additional studies needed. According to USAID officials, in the absence of port expertise within the mission, they are uncertain how long each assessment will take without consulting further with other agencies. However, consultations with USACE indicate that the studies will take at a minimum 1 year to complete.

²⁵In the draft AAD, USAID initially estimated that construction would cost \$103 million, approximately \$40 million of which would be paid for by a private sector partner.

Sustainability of the CIP,
Power Plant, and Port Are
Interdependent and
Depend on Haitian
Government Capacity

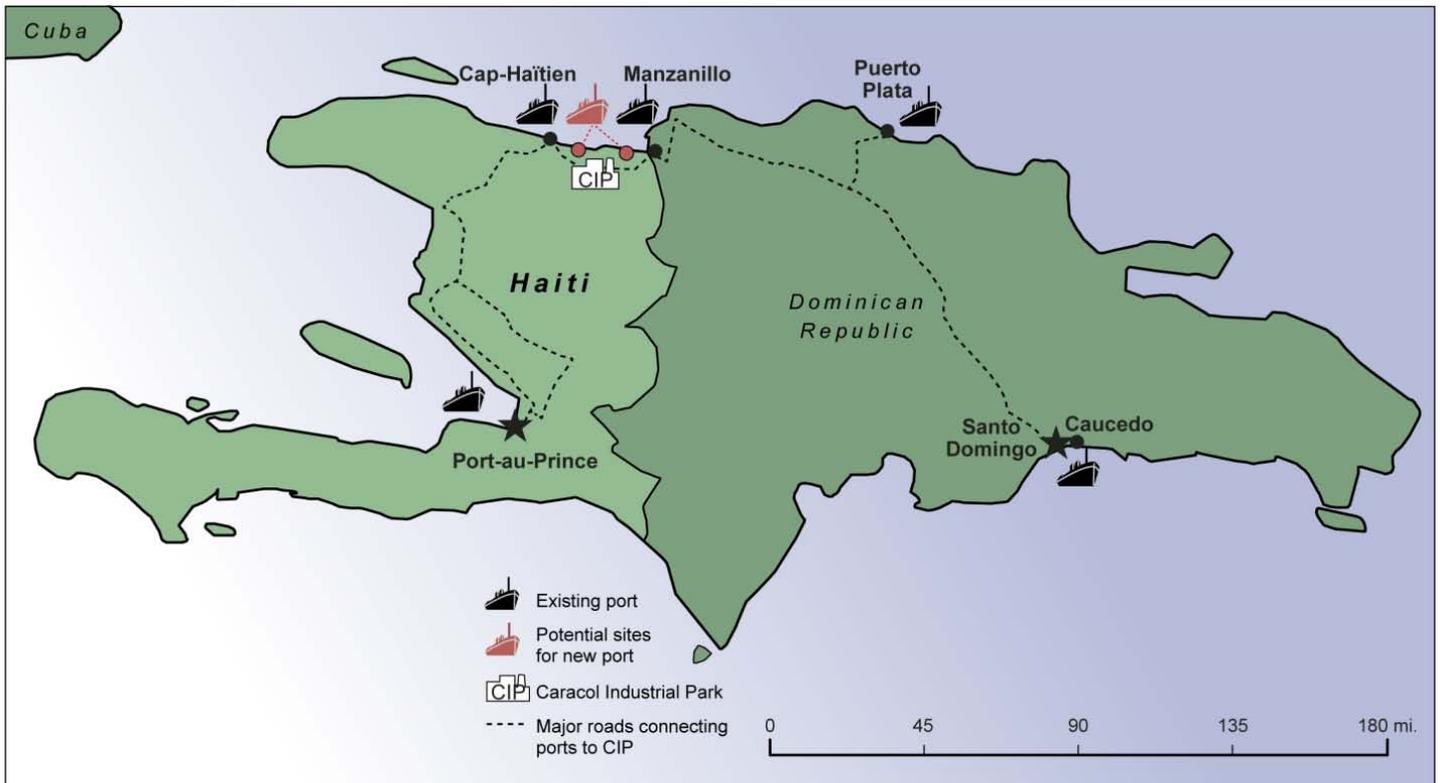
Sustainability of the CIP, port, and power plant are interdependent. We identified a number of key issues to the sustainability of each of these projects.

- The CIP depends on a functioning power plant and port access: Before USAID began its CIP-related investments, northern Haiti did not have reliable energy infrastructure or sufficient port capacity to support a completed industrial park. Other power plants in the region produce intermittent power.²⁶ The existing ports in Haiti have high port costs and those in the Dominican Republic that currently accommodate cargo traffic are distant from the CIP, raising the cost of doing business at the CIP (see fig. 4). In addition, according to the port feasibility study, the Cap-Haïtien port, the closest current port to the CIP, has limited capacity. The study concluded that the CIP will only succeed if expanded, efficient port facilities are developed nearby.²⁷

²⁶According to a March 2012 study of Haiti's energy sector, only about 15 percent of businesses have access to electrical service. The study noted that many businesses prefer to generate their own power to ensure its reliability.

²⁷Further, the State Senior Advisor for the CIP stated that additional port capacity would be needed by 2015 to accommodate projected freight traffic to and from the CIP and the increasing demand for oil to operate the power plant.

Figure 4: Map of Ports in Haiti and Dominican Republic for Potential Use by CIP Tenants



Characteristics of existing ports	Port-au-Prince port	Cap-Haïtien port	Caucedo port	Manzanillo port ^a	Puerto Plata port
Estimated port fees per container, 2012	\$508	\$600	\$150	n/a ^a	\$150
Estimated truck costs to CIP per container, 2012 ^b	\$1,280	\$278	\$1,611	\$397	\$1,003
Currently used by CIP tenants	no	1 tenant uses for imports	1 tenant uses for imports	no	1 tenant uses for exports

Sources: For map, GAO based on USAID data; Map Resources (map); Nova Development (clip art). For table, USAID data.

^aThe Manzanillo port is currently only used by two banana exporters, but plans are under way for its expansion to accommodate greater cargo traffic. Current projections indicate fees at this port, once developed, will be approximately \$150 per container.

^bEstimated truck costs to the CIP demonstrate a combination of the distance to the CIP and the condition of connecting roads, as truck costs are higher on roads that are more difficult to travel.

- **The port and power plant depend on revenues from the CIP:** CIP tenants will generate a substantial portion of the revenue for the power plant and port, so the sustainability of these projects will depend on the Haitian government finding additional tenants and

maintaining the park. Potential tenants may be wary of moving to the CIP because of Haiti's history of instability and corruption or the lack of Haitian government capacity, although as noted earlier, according to State officials, there were four additional potential tenants for the CIP as of May 2013.

- **All three projects depend on Haitian government capacity:** The Haitian government will be responsible for maintaining and managing the CIP and power plant and for overseeing the private company that will operate the new port. Studies of the CIP have cited concerns about the relevant Haitian government ministry's ability to manage and maintain the infrastructure in and around the CIP given their limited staff and technical resources. Aware of such concerns, the CIP has contracted a professional industrial facility management firm to operate and maintain the park. According to the September 2011 AAD for the energy sector, the sustainability of investments in the Haitian energy sector depends on legal, regulatory, and management reforms to improve the commercial viability of Haiti's electrical system and provide resources for its maintenance and operations. To address this for its first 3 years, USAID will pay for a contractor to operate and maintain the power plant, and to prepare the Haitian electricity department to take over these functions after the 3 years. According to USAID documents, Haiti will need institutional and regulatory reforms to ensure efficient customs operations and competitive port charges, to curtail monopolistic practices, and to facilitate private investment in the port sector.
- **Obtaining revenue for the power plant from electricity distribution outside the CIP:** As of February 2013, the few customers connected to the power plant outside the CIP had largely paid their initial bills on time.²⁸ However, according to a 2010 report on the Haitian energy sector, 64 percent of Haitians do not pay their electricity bills in a timely manner and 33 percent do not pay at all. In addition, USAID officials have recognized that it is common throughout Haiti to tap into lines without paying, and this practice is unlikely to have repercussions. As a result, the USAID operations and maintenance contractor plans to provide training to local communities on the use and value of electricity.
- **Attracting a private company to construct and operate the port:** The government of Haiti has considered charging \$260 for each

²⁸As of February 2013, 98 percent of the 243 residences and businesses then connected to the CIP power plant had paid their initial bills on time, according to USAID officials.

container coming into the northern port to use the revenues generated for social programs. However, the port feasibility study concluded that such a government surcharge would make the project financially infeasible. State officials have communicated this information to the Haitian government to encourage them to lower the surcharge to allow the port to be successful. Given this and other risks associated with the port listed above, it is unclear whether the Haitian government will be able to find a private company interested in investing in port construction and operations. This uncertainty will remain until USAID and the Haitian government begin work on the solicitation for a private company after all port studies are completed, the site is selected, and the port design is completed.

USAID's Development of New Housing Settlements in Haiti Has Been More Costly and Slower Than Expected; Sustainability Challenges Remain

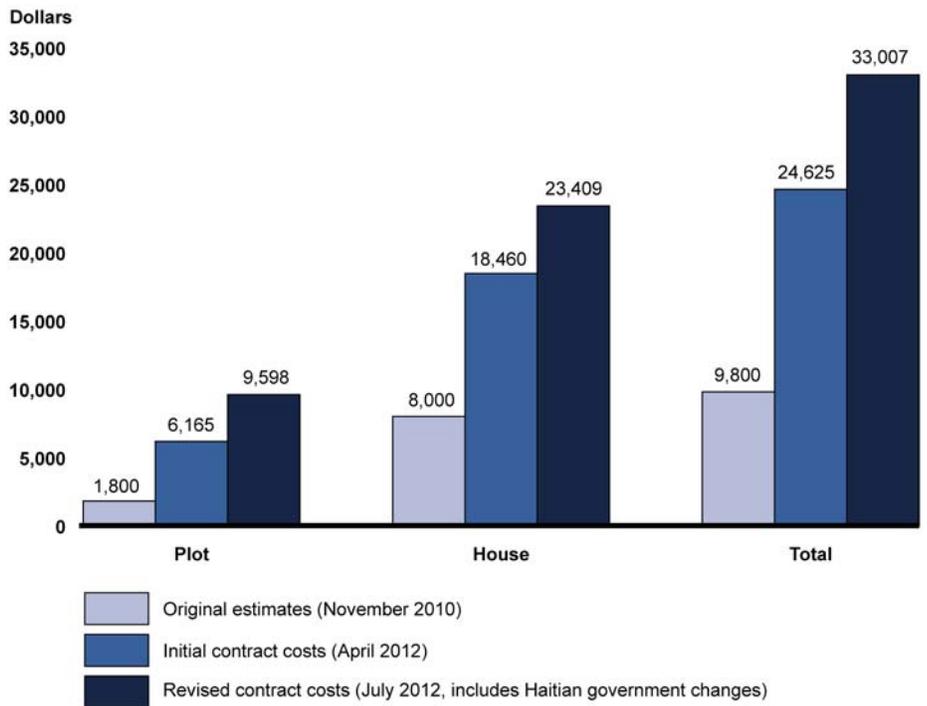
Since its initial planning and cost estimating began in 2010, USAID's funding for the New Settlements program has significantly increased, while the number of permanent houses USAID projects will be completed has been reduced by over 80 percent. USAID underestimated construction costs at the time the New Settlements program was developed, and construction costs further increased after the Haitian government requested design changes that included larger houses with features such as flush toilets. USAID experienced problems securing clear land title for the new housing sites and in coordinating with NGOs and other partner donors. These issues have resulted in delays, with the program currently expected to be completed nearly 2 years later than initially scheduled. Moreover, the sustainability of these new settlements will depend heavily on the capacity of the Haitian government to provide key services and the ability of residents to maintain their homes. In addition, there is a potential gap in service to support the community management mechanisms that USAID officials consider crucial to the sustainability of each new settlement. If such support is reduced or delayed for some settlements, sustainability risks may increase.

USAID's Cost Estimates Increased Sharply

USAID underestimated the construction cost of its New Settlements program. These costs are comprised of two main categories: (1) cost of site preparation per plot and (2) cost of construction per house. In its planning documents, USAID originally estimated costs at \$1,800 per plot and \$8,000 per house. As of April 2013, average costs based on awarded contracts have increased to \$9,598 per plot and \$23,409 per house. Overall, the cost for USAID to prepare a plot and build a house increased from original estimates of \$9,800 to average costs of \$33,007. These cost differences stem primarily from the inaccuracy of USAID's original

estimates, and secondarily from Haitian government requests for design changes. Figure 5 compares the original estimates, initial contract costs, and revised contract costs.

Figure 5: USAID Cost Estimates for Preparation of One Plot and Construction of One House in Haiti



Source: GAO analysis of USAID data.

Note: Cost estimates are the weighted average costs of site preparation and house construction for two active settlement sites designated by USAID as Caracol-EKAM and Government of Haiti Decreed Land Area (DLA) 1.5. The costs are different at the two sites and may vary at future sites.

More details on the reasons for cost differences in this program are outlined below.

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- **Original estimates:** By November 2010, USAID had developed its original cost estimates for the New Settlements program.²⁹ Prior to the earthquake, the mission had no housing programs in Haiti, and as a result did not have its own historical data on construction costs and few existing relationships with potential shelter sector partners. The mission hired a Senior Shelter Advisor and staffed a shelter team to develop the original cost estimates, layouts, and design concepts for what would become the New Settlements program. According to USAID officials, these estimates were not adequately supported; they did not document the sources of data or the methodologies used to derive these estimates. Rather, the original estimates were based in part on the USAID shelter team's calculations and costs reported by the World Bank and an NGO that was building houses in northern Haiti. USAID mission officials noted that these original cost estimates were used to develop the budget and projected goals of the New Settlements program. However, to meet certain technical and financial planning requirements,³⁰ the shelter team prepared independent government cost estimates prior to issuing solicitations for bids for each site preparation and each housing construction project. The first independent government cost estimates for site preparation and housing construction were conducted in September and November 2011, respectively. Those efforts provided the shelter team with more detailed and accurate information to guide them through the procurement process.³¹
 - **Initial contract costs:** By April 2012, USAID awarded multiple contracts for construction projects at two settlement sites, where costs exceeded the original estimates. In particular, site preparation per plot increased from \$1,800 to \$6,165, a 242-percent increase. The inaccuracy of the site preparation estimates had a more substantial impact on USAID's program budget and goals than the inaccurate estimates of housing construction costs because USAID planned to

²⁹Original cost estimates were included in draft versions of the Shelter AAD as early as November 2010 and were finalized in August 2011. According to USAID officials, AADs for all sectors of Haiti's Relief and Reconstruction efforts went through a more extensive and rigorous review process than usual.

³⁰See 22 U.S.C. § 2361(a) for grants requiring technical or financial planning.

³¹An independent government cost estimate is conducted to check the reasonableness of a contractor's cost proposal and to make sure that the offered prices are within the budget range for a particular program. In these two instances, USAID developed independent government cost estimates of \$4,929 per plot and \$14,931 per house.

finance all site preparation costs, while NGOs and other partner donors would finance and build the majority of houses. According to USAID officials, original estimates did not adequately consider the stringent international building codes and disaster resistance standards planned for New Settlement houses and did not take into account the extent or complexity of service infrastructure USAID intended to provide. Furthermore, USAID officials noted that, as multiple reconstruction efforts have progressed, the demand and cost for construction materials has increased.

- **Revised contract costs:** By July 2012, USAID signed a revised contract to accommodate design changes requested by the Haitian government, which also increased costs. Specifically, the design changes called for an increase in the size of housing units, from about 275 square feet to about 450 square feet, and the inclusion of flush toilets, rather than a more traditional dry toilet system. USAID agreed to these changes and revised the initial contracts to include these modifications and allow for the increased costs. The Haitian government's design changes drove total cost increases up from the initial contract costs by 34 percent, from \$24,625 to \$33,007. Officials noted that providing housing with higher earthquake and hurricane resistance standards and with electricity, plumbing, and flush toilets, takes longer to construct and costs more than options provided by other donors.

Program Funding Has Significantly Increased

Based on original estimates, the New Settlements program was allocated approximately \$59 million under USAID's Shelter AAD³². However, USAID increased the program budget after receiving multiple bids from private sector contractors for both site preparation and housing construction. USAID also dedicated additional funds to institutional strengthening to support local organizations' beneficiary selection, and added a community development component. All together USAID increased program funding to approximately \$97 million, about a 65-percent increase. As of March 31, 2013, USAID had obligated about \$48 million and had disbursed about \$32 million for New Settlements permanent housing activities (see table 5).

³²This amount includes \$3.5 million to fund technical assistance to strengthen the capacity of national, local, and community institutions to improve urban management.

Table 5: Total USAID Funding Allocated, Obligated, and Disbursed for Permanent Housing Activities, as of March 31, 2013

Dollars in millions

New Settlements program components	Allocated	Total obligated ^a	Percentage obligated	Disbursements	Percentage disbursed
Construction-related activities	\$79.4	\$36.8	46	\$21.8	27
Project management-related activities	8.0	6.5	81	4.9	61
Institutional strengthening (including beneficiary selection and community outreach activities) ^b	4.8	4.8	100	4.8	100
Community development	5.0	0.0	0	0.0	0
Total for New Settlements program	\$97.2	\$48.1	49	\$31.5	32

Source: GAO analysis of USAID data.

Notes: The total funding allocations for the New Settlements Program include \$83.1 million from fiscal year 2010 supplemental funding (as shown in table 2 above) and about \$14 million in annual allocations from annual allocations from fiscal years 2009, 2010, and 2012.

^aAn obligation is a definite commitment that creates a legal liability of the U.S. government for the payment of goods and services ordered or received. See GAO, A Glossary of Terms Used in the Federal Budget Process, [GAO-05-734SP](#) (Washington, D.C.: September 2005). This report defines obligations as the total amount of orders placed, contracts awarded, services received, and similar transactions during a given period that will require payments during the same or a future period. USAID labels these actions “subobligations.” In State’s reports to Congress on Haiti funding, for USAID-managed accounts, funds listed as “total obligations” or “obligated” refer to these subobligations. Nonetheless, consistent with 31 U.S.C. § 1501 defining when an agency can record an obligation, USAID generally treats as an obligation the bilateral agreements it makes with other countries to deliver assistance.

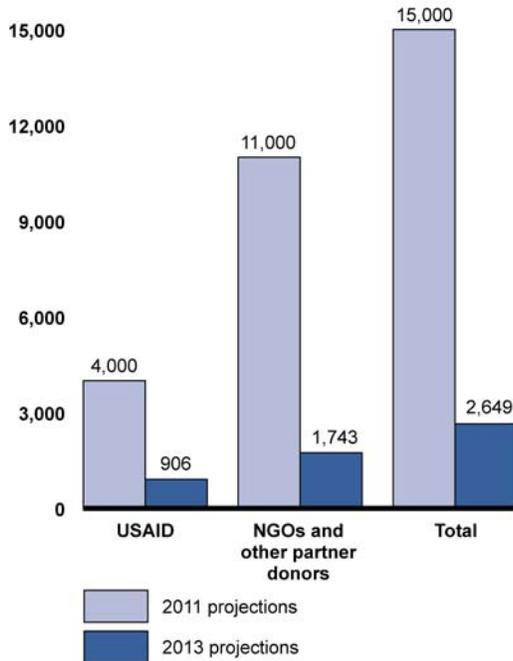
^bThese funds went to support USAID’s Emergency Capacity Assistance Program which, in addition to other responsibilities, was directed to support the development of the beneficiary selection process and community management committees.

USAID Reduced Projected Numbers of Houses and Beneficiaries and Shifted Their Distribution

USAID has reduced its program targets a number of times. As of April 2013, it had reduced the number of houses it expects USAID and its partners to complete, and therefore the number of beneficiaries, by over 80 percent. Of the 15,000 houses originally planned,³³ only 2,649 are expected to be completed, with USAID building 906 houses and NGOs and other partner donors estimated to build 1,743 (see fig. 6). USAID officials noted that USAID would commit no further funds to housing construction and will only commit funds for site preparation if USAID has written agreements with partner donors. Therefore, the estimated number of houses and completion dates may vary from current projections.

³³USAID planned to develop 15,000 plots, on which USAID planned to build up to 4,000 houses, while NGOs and other donor partners would build 11,000 houses.

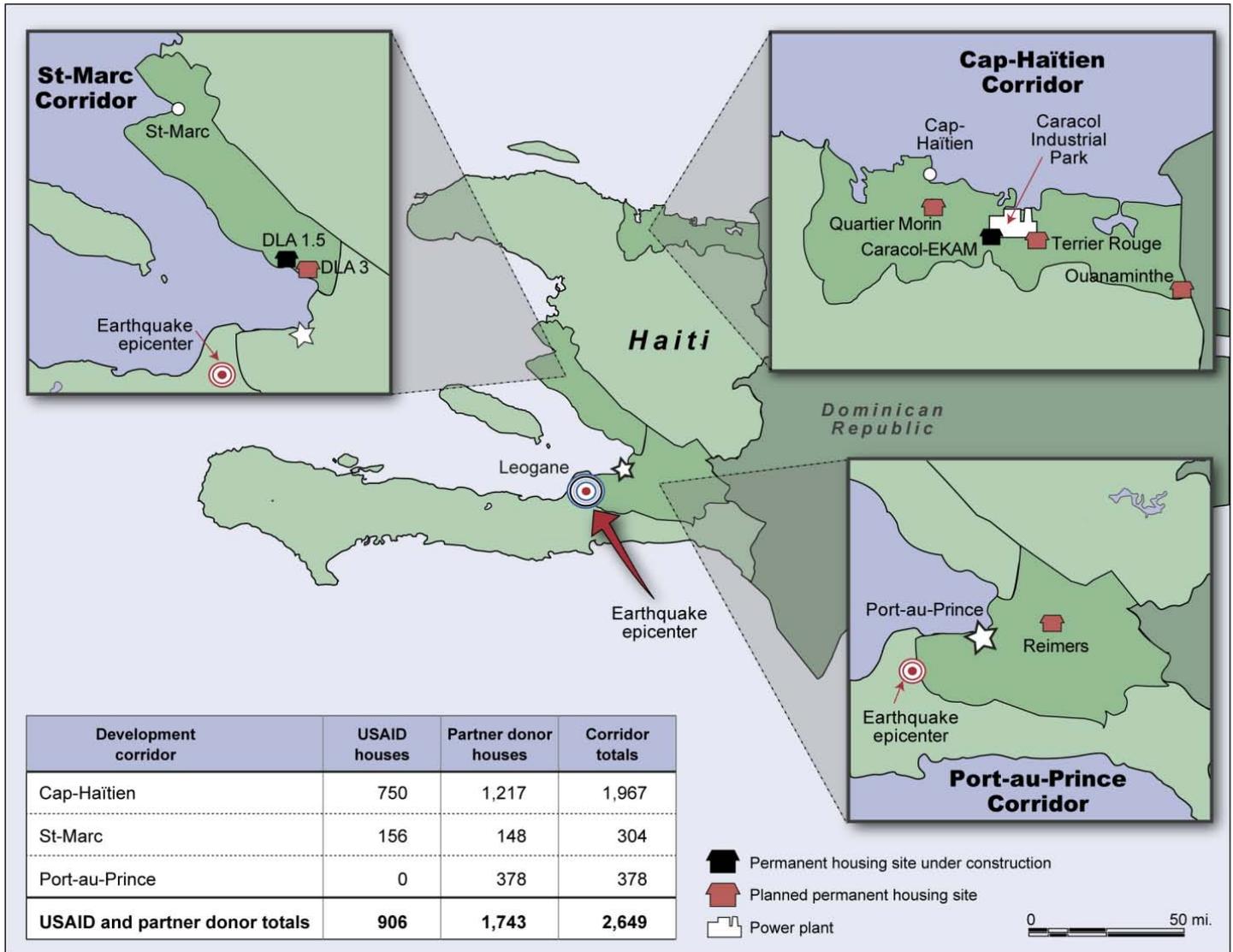
Figure 6: Permanent Houses to Be Constructed on USAID Plots in Haiti, 2011 and 2013 Projections, as of April 2013



Source: GAO analysis of USAID data.

USAID also reduced the total number of projected beneficiaries from an original estimate of 75,000 to 90,000 to its current estimate of approximately 13,200 to 15,900. USAID originally planned for new settlements to be distributed geographically with 5,000 houses to be built in the northern Cap-Haïtien corridor and 10,000 houses to be built in the Port-au-Prince and St-Marc corridors, closer to where the earthquake’s epicenter occurred. In addition to the overall decline in housing numbers, the distribution of these houses between the north and south also shifted. Current projections are for the Cap-Haïtien corridor to have 1,967 houses, or 74 percent of the total. A combined 682 or 26 percent of the total are to be built in the Port-au-Prince and St-Marc corridors. Of those houses in the Cap-Haïtien corridor, over 90-percent are planned to be within a 13-mile radius of the CIP (see fig. 7).

Figure 7: Number of Houses and New Settlement Locations Planned in Haiti, as of April 2013



Source: Multiple U.S. government agencies, *Post-Earthquake USG Haiti Strategy: Toward Renewal and Economic Opportunity* (Washington, D.C., January 2011); USAID planning documents; Map Resources (map).

Note: At least one additional site is planned in the Cap-Haïtien corridor, but its precise location has not yet been finalized.

USAID is nearing completion of two settlement sites, Caracol-EKAM in the Cap-Haïtien corridor and DLA 1.5 in the St-Marc corridor. The Caracol-EKAM settlement is projected to provide permanent houses to approximately 3,750 to 4,500 residents,³⁴ and the DLA 1.5 settlement is projected to provide permanent houses to approximately 780 to 936 residents. Beneficiaries will begin to occupy houses once all construction is complete. The planned move-in date for beneficiaries at both settlements is July 2013 (see fig. 8).

Figure 8: Unoccupied Permanent Houses, Water Distribution Towers, and Sewage System Trenches in Caracol-EKAM, Haiti, December 2012



Source: GAO.

USAID's Program Plans Have Been Delayed by Land Title Issues and Reduced Partner Donor Participation

The U.S. government's January 2011 strategy projected that all USAID permanent housing construction and site preparation under the New Settlements program would be completed by July 2012, but the current estimated completion date for planned sites is March 2014, nearly 2 years later. Housing construction began at Caracol-EKAM and at DLA 1.5 in April 2012. NGO and other partner donor financed housing construction on USAID prepared sites is planned but has not yet begun.

³⁴At Caracol-EKAM, USAID is trying to develop public-private partnerships to facilitate construction of additional houses, according to USAID officials. However, as of April 2013, there were no formal commitments.

Land Titling Issues Created
Delays

According to State and USAID officials, USAID faced difficulties trying to secure proper land title for permanent housing, which resulted in delays. These delays affected the implementation of the program and availability of NGO and other partner donor financing. For example, according to USAID officials, USAID spent a substantial amount of time trying to secure clear title to private and government-owned land but was able to acquire only one site through private owners because of difficulties in confirming legitimate ownership. USAID discontinued attempts to partner with private owners in August 2011. Additionally, land titling issues arose with government-owned land. For example, although USAID officials reported that the agency had conducted due diligence and approved 15 potential housing sites in November 2010, USAID later found that the secure land titles for some of these sites could not be confirmed due to unclear or disputed ownership, and thus reduced the number of site options and further delayed site selection.

NGO and Other Partner Donors
Will Build Fewer Houses Than
USAID Anticipated

Partnering with NGOs and other donors on the planning and construction of permanent houses was more complicated and time consuming than USAID originally expected.³⁵ According to USAID officials, NGOs and other partner donors have their own processes, procedures, and goals that often differ from those of USAID. According to USAID officials, the mission shelter team was involved in negotiations with several key donor partners as early as November 2010. In January 2011, the President of the American Red Cross (Red Cross) announced its intention to partner with USAID and provide \$30 million to build homes on at least two sites. Later, in June 2011, USAID signed a memorandum of understanding with the Red Cross to build more than 3,000 houses; however, according to USAID officials, that partnership did not materialize because of difficulties and delays in securing land title from privately owned sites near Port-au-Prince. In addition, according to USAID officials, the partnership was further delayed because of turnover in various Red Cross leadership positions, resulting in shifting approaches to the development of housing settlements.³⁶ According to officials, USAID also had plans to partner with

³⁵Examples of other donor partners that are not NGOs include the Qatar Haiti Fund, the Inter-American Development Bank, and the Fund for Economic and Social Assistance, a Haitian government entity,

³⁶USAID officials stated that discussions with the Red Cross did not cease after the July 2011 memorandum of understanding failed to progress. In October 2012, USAID and the Red Cross signed a letter of intent to create a partnership to build houses at a USAID site and have been in ongoing negotiations to finalize an agreement, although with a much reduced scope.

Food for the Poor, an NGO with experience building houses in Haiti, to build 750 of the houses at Caracol-EKAM. However, this discussion ended in part because that NGO decided it did not want to assist in building communities that large.³⁷

The success of USAID's New Settlements program relied heavily on partner NGOs. The USAID mission was confident that the program would attract partners because one of the primary challenges NGOs faced in the first year after the earthquake was finding suitable land with clear title. According to one of USAID's implementing partners, NGOs providing housing assistance hesitate to invest in land for new housing if legal proof of ownership cannot be secured. By securing land title, the program would help partners avoid the complex land tenure issues that were already seriously impeding many of their shelter programs. However, lengthy delays in resolving land title issues contributed to difficulties in solidifying partnerships because the delays allowed time for potential NGO partners to change their shelter strategies or commit their funds to other reconstruction activities.

New Housing Settlements Have Numerous Sustainability Challenges

According to USAID, the sustainability of the new housing settlements will depend on broad factors such as the capacity of the Haitian government and regional economic opportunities. USAID is attempting to ensure the viability of settlements by locating them in areas with employment, healthcare, education, and transportation. In the Cap-Haïtien corridor, the United States and other international donors are making multiple investments in new infrastructure, such as the CIP and potential port, to create an economic growth pole in the region. If those efforts do not successfully provide adequate economic opportunities, beneficiaries may not be able to afford the fees and services connected with their new homes, or may have to relocate altogether. USAID is also working with the Haitian government in areas where capacity issues exist, such as energy sector management.

In addition, more site-specific factors will affect sustainability. USAID has made some limited mitigation efforts, but notes that further support for community development is necessary to maintain the settlements over

³⁷USAID currently has a memorandum of understanding signed with Food for the Poor and the Fund for Economic and Social Assistance to build houses at various USAID sites in the Cap-Haïtien corridor.

time. Local governments and community members need to provide ongoing support, maintenance, and management of the new settlements to ensure their sustainability. Specifically, beneficiaries will face site-specific issues related to affordability, community management, and the possibility of informal expansion or sprawl of shantytowns.

- **Affordability:** According to USAID officials, the Haitian government has indicated that beneficiaries must make some number of monthly payments, in an amount to be determined, before title to the house is conferred. Beneficiaries will also face charges for utilities and services, such as electricity and sewage.
 - **Housing payments:** According to USAID officials, although beneficiaries are scheduled to move into the Caracol-EKAM and DLA 1.5 settlements as early as July 2013, a beneficiary agreement has not yet been finalized, and the exact amount and structure of the monthly payments remain uncertain. USAID officials have said that a contract, or occupancy agreement, will be signed before beneficiaries move in. Fees for utilities and services may or may not be rolled into, collected, and paid through these monthly housing payments. The monthly housing payment structure may be flat or tiered, meaning amounts may be set at a flat rate for every household or may be progressive depending on income level.
 - **Electricity:** USAID plans to install electricity, with individual meters, in each new house. USAID officials acknowledged that non-payment for electricity is a fairly common practice in parts of Haiti where electrical grids exist. Therefore, it remains to be seen whether the practice of non-payment may also be a challenge at the new settlement locations.
 - **Sewage:** Prior to the January 2010 earthquake, there were no wastewater treatment plants in Haiti. A temporary facility has been constructed at the CIP and there are plans to build a permanent facility there as well. In addition, a treatment plant was opened in May 2012 near the Port-au-Prince metro area. These facilities may be able to serve some settlements, but it is unclear if they will be able to serve all of the facilities and at what cost to beneficiary households. One senior USAID official acknowledged that if septic tanks are not emptied regularly, there is a potential for a public health risk.
- **Community management:** The New Settlements program currently plans to create eight new “communities,” of between 148 to 1,283 households, each with beneficiaries from various locations in Haiti and with varied income levels. USAID officials acknowledged concerns

about issues that might arise among the beneficiaries themselves and between the settlement and surrounding communities.

- **Shantytowns:** There is a risk that informal dwellings, or shantytowns, may be built around the new settlements to take advantage of the economic opportunities or services available near those locations. If employment opportunities at the CIP draw a large number of people, the current housing stock may be too low to accommodate them.

To mitigate these types of site-specific sustainability concerns, USAID obligated \$4.8 million for development of the Emergency Capacity Assistance Program to establish community management committees, self-governing bodies made up of selected beneficiaries, and to create other mechanisms intended to support community development. To address issues related to affordability, USAID, through this assistance program, worked to ensure that the household income and employment status were criteria addressed in the beneficiary selection process.³⁸ To address other issues, USAID planned for the community management committees to promote social cohesion, to serve as a decision-making body, and to act as the residents' representatives with government counterparts. At the Caracol-EKAM settlement, a provisional community management committee was formed and will be trained to engage with local and national authorities to help ensure that community services such as grounds keeping, infrastructure maintenance, and solid waste collection are undertaken.³⁹ However, funding for ECAP only allowed for some of these initial activities to take place at the Caracol-EKAM settlement, and, according to officials, the program ended in April 2013.

USAID allocated \$5 million to support community development efforts at the new settlements. In April 2013, USAID issued a request for applications to find an implementing partner for a community development program for Caracol-EKAM, at an estimated cost of \$1.3 to \$1.5 million. This partner would provide support for the phased occupation and management of the settlement and engage in an array of

³⁸At Caracol-EKAM, 74 percent of selected beneficiary households have monthly incomes over 4,000 gourds. The remaining 26 percent with lower monthly incomes are considered to be economically vulnerable households. Although not finalized, USAID has stated that monthly housing payments will be designed to be affordable for all households, including those that are economically vulnerable.

³⁹This provisional committee was formed from an initial pool of beneficiaries, but a permanent committee will be formed once all beneficiary households have moved in.

activities designed to help ensure its long-term sustainability. Although still in the planning stage, USAID's current budget indicates over half of the community development funds will go toward assisting just three sites, including Caracol-EKAM. The remaining five or more settlement sites face the possibility of delayed or reduced support. To address that gap, USAID plans to foster partnerships with other organizations to assist and contribute to these activities. USAID has entered into such a partnership with the International Federation of the Red Cross to provide community development support at DLA 1.5. Additionally, in a memorandum of understanding between USAID and partner donors, it is noted that partner donor funds are to be provided for community development activities at those settlements; however that understanding does not fully secure such a financial commitment. Similarly, according to USAID officials, the agreement USAID is attempting to finalize with the Red Cross will budget for community development activities to be covered with Red Cross funds. However, there is the possibility that such partnerships will not be available to support all the settlements. USAID officials responsible for key parts of the New Settlements program have stated that it is crucial to have these support mechanisms in place to ensure a smooth transition when beneficiaries move in, to set the tone for interaction among beneficiaries moving forward, and to ensure that community management needs are understood and acted upon. Furthermore, USAID documents state that it is critical to initiate the beneficiary organization process as soon as beneficiaries occupy their homes because it may be difficult to work with beneficiaries before they arrive. Failure to find an implementing partner to provide and create these support mechanisms for each settlement may further increase the sustainability risks inherent in large-scale housing reconstruction projects, thus endangering the significant investments already committed to these efforts.

Conclusions

Following the January 2010 earthquake in Haiti, the U.S. government made a strong commitment to Haiti's reconstruction and economic development. As of March 2013, more than 3 years after the earthquake, USAID had obligated only 45 percent and disbursed only 31 percent of the \$651 million in supplemental funding it was provided. State's most recent report to Congress on program funding and progress—its final mandated report—was submitted in January 2013. However, the majority of reconstruction funding has not been disbursed, and a substantial amount of progress on project activities remains to be completed. Without complete and accurate reporting from State, Congress lacks the critical

information on program funding and progress it needs to fully oversee the use of the Haiti reconstruction supplemental funding.

USAID's progress in supporting the CIP-related investments of the power plant and port have had mixed results. The power plant was completed in time to provide electricity for the CIP's first tenant, in part because the USAID mission in Haiti had on staff a senior energy advisor to help plan and oversee the project. However, the mission has not filled an equivalent position to oversee the port project and has experienced delays and challenges associated with this significant project. The USAID mission continues to lack technical port expertise to oversee this project to which more than \$72 million in U.S. funding has been allocated, is at least 2 years behind schedule, and has been found to be more complex than initially envisioned. Further, USAID's contribution to port construction was not intended to fund the entire port, and it is unclear whether the Haitian government will be able to find a private sector company willing to contribute the large amount of remaining funding through a public-private partnership. This uncertainty puts at risk USAID's investments in port planning and design, as well as the sustainability of the CIP and power plant due to the three projects' interdependence.

USAID developed the budget and projected targets of the New Settlements program using faulty and inaccurate cost estimates, which has led to a significantly reduced number of USAID-funded houses for the Haitian people. USAID agreed to the Haitian government's request to enlarge and upgrade the houses, further reducing the number of houses it would build. As a result, USAID currently has plans to provide less than a quarter of the houses it originally projected it would build, and at a much greater cost. Difficulties in securing land title and challenges in establishing partnerships with NGOs also delayed and further reduced USAID's targets. Furthermore, the sustainability of USAID's New Settlement program is uncertain. The agency has dedicated some funding to help ensure sustainability through the development of community support mechanisms; however, it is unclear if funding for these support mechanisms will be available for each new settlement. In addition, USAID has taken steps to secure commitments for partner donor funding to assist in these efforts, but has not yet secured such commitments for all planned settlements and it is uncertain whether the partner organizations will be able to fulfill their commitments. These community support mechanisms are essential to helping ensure that the settlements become viable, cohesive communities and that beneficiaries maintain them once they move in. Without this support in place,

sustainability issues may be exacerbated and USAID's housing efforts placed at risk of deterioration.

Matter for Congressional Consideration

To ensure that Congress has current information on the status of Haiti earthquake reconstruction activities and is able to provide appropriate oversight at a time when most funding remains to be disbursed, Congress should consider requiring State to reinstitute the requirement to provide it with periodic reports until most of the funds in each sector are disbursed. In these reports, Congress should consider requiring State to provide information such as progress in U.S. program sectors; amounts of funding obligated and disbursed in each specific sector; sector and project cost increases; changes in project schedules; and existing difficulties and challenges to successful project completion.

Recommendations for Executive Action

To strengthen USAID's ability to complete its projects in Haiti and to maintain their sustainability, we recommend that the USAID Administrator take the following two actions.

- To ensure proper oversight over the continued planning for and construction of a new port in northern Haiti and to enable the project to move forward in a well planned and timely manner, USAID should fill the vacant port engineer position at its Haiti mission within time frames that avoid future project delays.
- To promote the sustainability of the New Settlements permanent housing program, and to protect the significant investments already made, the USAID Administrator should direct the USAID Haiti mission to ensure that each new settlement has community support mechanisms in place prior to beneficiary occupation. As part of that process, the mission should consider making additional funds available, as needed, to help ensure this support.

Agency Comments and Our Evaluation

We provided a draft of this report to USAID and State for review and comment. USAID provided written comments on a draft of this report, which are reprinted in appendix II. State did not provide written comments. USAID agreed with both of our recommendations.

USAID agreed with our recommendation that it fill the vacant port engineer position at the Haiti mission within time frames that avoid future project delays. In its letter responding to our draft report, USAID noted that, in May 2013, it issued a solicitation for a ports advisor, recognizing the need to fill the position to move its program forward. In June 2013,

USAID noted that it expected to fill the position soon; however, as of June 18, 2013, the position was vacant.

USAID also agreed with our recommendation that each new permanent housing settlement have community support mechanisms in place before the beneficiaries occupy the houses. As noted in our report, USAID stated that \$5 million has been set aside to finance community development activities. In its comments on this report, USAID added that the mission is prepared to provide additional resources, if required. USAID also elaborated on the ongoing and planned activities intended to facilitate community development and sustainability at the first two settlement sites. We acknowledge USAID's efforts to provide community development support at these two sites and support the agency's intentions to implement our recommendation at future settlement locations.

State and USAID both provided technical comments. We incorporated those comments, along with information contained in USAID's written response, into the report where appropriate

As agreed with your offices, unless you publicly announce the contents of the report earlier, we are planning no further distribution until 30 days after the report date. At that time, we will send copies to interested congressional committees, the Secretary of State, and the USAID Administrator. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or any of your staffs have any questions about this report, please contact me at (202) 512-3149 or gootnickd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.



David Gootnick
Director, International Affairs and Trade

Appendix I: Scope and Methodology

We reviewed infrastructure-related post-earthquake reconstruction efforts in Haiti undertaken by the U.S. Agency for International Development (USAID).¹ This report addresses (1) USAID's progress in obligating and disbursing program allocations and the Department of State's (State) periodic reporting to Congress on the status of the U.S. reconstruction efforts; (2) USAID's progress in planning and constructing two activities related to the Caracol Industrial Park (CIP)—a power plant and port; and (3) USAID's progress in planning and constructing permanent housing.

In response to a congressional request to examine the Supplemental Appropriations Act, 2010 (the Act), we focused our review on three sectors of USAID reconstruction activities: power plant, port, and permanent shelter. These three activities comprise about \$268 million of the overall \$651 million in supplemental and other funds allocated to USAID for bilateral reconstruction activities. We also included lesser amounts of regular fiscal year appropriations allocated to the three activities within our scope.

To obtain information on the appropriations, allocations, and planned and ongoing uses of U.S. reconstruction funding for Haiti,² we reviewed the Act, enacted by Congress in July 2010; State and USAID FY 2010 Supplemental Appropriations Spending Plan, issued by State in September 2010; and the interagency Post-Earthquake USG Haiti Strategy: Toward Renewal and Economic Opportunity, issued by State in January 2011. We also reviewed the Action Plan for National Recovery

¹Supplemental Appropriations Act, 2010, Pub. L. No. 111-212, 124 Stat. 2302, 2323 (July 29, 2010). The law mandated that funds previously available to GAO pursuant to Title I, Chapter 4 of Pub. L. No. 106-31 (to monitor provision of assistance to address the effects of hurricanes in Central America and the Caribbean) also be available to GAO to monitor post-earthquake expenses related to Haiti, including relief, rehabilitation, and reconstruction aid. In May 2011, we issued a report that described the planned uses for U.S. reconstruction assistance, USAID's internal controls for overseeing U.S. reconstruction funds, and Interim Haiti Recovery Commission governance and oversight structures. In November 2011, we issued a report that described planned and ongoing uses for U.S. reconstruction assistance and identified factors contributing to delays in USAID infrastructure construction. See GAO, *Haiti Reconstruction: U.S. Efforts Have Begun, Expanded Oversight Still to Be Implemented*, [GAO-11-415](#) (Washington, D.C.: May 19, 2011); and Haiti Reconstruction: Factors Contributing to Delays in USAID Infrastructure Construction, [GAO-12-68](#) (Washington, D.C.: Nov. 16, 2011).

²USAID and State have changed amounts allocated for infrastructure construction activities as plans have developed. We are reporting amounts allocated based on the most current information we received.

and Development of Haiti, issued by the government of Haiti in March 2010. In addition, we reviewed the Haiti Reconstruction Grant Agreement, signed by the U.S. and Haitian governments in May 2011. We met in Washington, D.C., and in Port-au-Prince, Haiti, with officials from USAID and State. USAID defines allocation as the identification and setting aside of resources for a specific program action.

To determine the amounts of funding obligated and disbursed from USAID's supplemental funding, as well as funding from other sources for reconstruction activities, we analyzed data reported by USAID as of March 31, 2013. These data include information on obligations and disbursements of supplemental appropriation funding overall, as well as amounts provided for particular activities within our scope.

To assess the reliability of the data on planned allocations, obligations, and disbursement, we conducted follow-up correspondence and interviews with cognizant officials from USAID and State. We asked them standard data reliability questions—including questions about the purposes for which funding data were collected, the use of the data, how the data were collected and generated, and how the agencies ensured that the data were complete and accurate. We determined the data to be sufficiently reliable for the purposes of this report.

To describe State's decision for the U.S. government to support the CIP, we interviewed State officials to determine the rationale for the decision and reviewed portions of the framework agreement laying out the terms of the public-private partnership to be followed by the Haitian government, the Inter-American Development Bank (IDB), and the anchor tenant, a private Korean garment manufacturer, Sae-A Trading Co. Ltd. (Sae-A). We reviewed studies and reports on the Haitian economy and the potential economic impact of the CIP that State officials had reviewed before making this determination. We also reviewed any types of calculations that State officials had conducted about the effect of the CIP on job and economic growth in Haiti. When reviewing these studies, reports, and calculations, we noted the methodologies used and any potential limitations those methodologies may have had on their findings. To ascertain the IDB's progress in building the CIP, we performed a site visit at the CIP in December 2012, interviewed the CIP's construction manager, and received a tour of the Sae-A facility. In addition, we received copies of more recent photos and videos of the CIP that were taken by IDB staff in January 2013. To determine the Haitian government's progress in filling the CIP with tenants, we met with State's Senior Advisor for Industrial Development in Haiti who works with the

Haitian government to recruit companies to the CIP to learn about the recruitment process and its progress. From this State official, we also received documents containing summaries of information about new and potential tenants to the CIP.

To describe USAID's progress with the CIP power plant, we reviewed plans for the power plant as outlined in the September 2011 Activity Approval Document (AAD) for the Haitian energy sector and compared these plans with the time frames, costs, and descriptions of the power plant project in award documents and amendments, as well as progress reports from the construction contractor. We also interviewed USAID and State officials in Washington, D.C., and Haiti to determine the reasons for any differences between planned and actual costs and time frames. To describe how USAID assessed the power plant project for its environmental and social impact, we reviewed the June 2011 environmental assessment of the CIP that a USAID contractor had performed. To determine how USAID followed up on mitigation measures suggested in this environmental assessment, we interviewed USAID officials and reviewed contracts for building, overseeing the construction of, and operating and maintaining the power plant, as well as progress reports from the construction and oversight contractors that included updates on the mitigation measures being taken. To determine the planning and progress made regarding electricity distribution from the CIP power plant to residences and businesses outside the CIP, we interviewed USAID officials and reviewed USAID planning documents, the cooperative agreement for initial power distribution outside the CIP, and progress reports from the nongovernmental organization (NGO) responsible for this distribution.

To describe USAID's progress with a new port for the Cap-Haïtien corridor, we reviewed plans for the port such as those articulated in the most recent draft of the AAD for the Haitian port sector dated August 2011, in procurement documents for the port feasibility study, and in interviews with USAID and State officials. We then reviewed the port feasibility study and interviewed USAID officials on the process and results of that study to determine USAID's progress against its initial plans.

To describe USAID's progress constructing permanent houses under its New Settlements program, we reviewed plans as outlined in the August 2011 AAD and compared these plans with the time frames, costs, and descriptions of the New Settlements program in design packages, award documents and amendments, and progress reports from various site

preparation and construction contractors. We also interviewed USAID and State officials in Washington, D.C., and Haiti to determine the reasons for any differences between planned and actual costs, time frames, and expected results. We calculated the weighted average cost of construction per plot and per house by (1) calculating the total cost of plot and house construction for the two sites that had awarded contracts, (2) calculating the total number of plots and houses at both sites, and (3) dividing the first number by the second. For the initial average cost per plot, we used data on costs and numbers of plots and houses at each site obtained from initial contracts. For the revised average cost per plot, we used data on costs and numbers of plots and houses at each site obtained from modifications to the initial contract. To discuss the role of NGOs and other partner donors in the New Settlements program, we reviewed various documents related to partners who had planned or committed to building houses on USAID-developed sites. We interviewed a partner organization housed with the Haitian government and funded by the IDB; however, we were unable to interview other potential partner NGOs because negotiations over the terms of agreements were ongoing. In addition, we interviewed the implementers responsible for a cooperative agreement with USAID related to community development and beneficiary selection efforts for the New Settlements program and reviewed the beneficiary selection data they had gathered for the Caracol-EKAM site.

To determine the sustainability of the power plant, port, and new settlements, the definition of sustainability we use is based on the Organisation for Economic Co-operation and Development definition, which defines “sustainability” as “the continuation of benefits from a development intervention (such as assets, skills, facilities, or improved services) after major development assistance has been completed.” We operationalized this definition by specifying that sustainability is the ability of the Haitian government to operate and maintain the USAID-funded power plant, port, and new settlements in such a condition as is required to produce the projected benefits. To determine issues that may affect the sustainability of these three projects, we reviewed reports commissioned by agencies and organizations, such as USAID, State, the International Finance Corporation, the World Bank, and the U.S. Trade and Development Agency, on the Haitian energy, port, and shelter sectors. We reviewed procurement documents, assessments, and progress reports related to these specific projects. We also interviewed USAID officials to understand their key sustainability concerns for these projects.

We traveled to Haiti in December 2012 and met with U.S. officials from USAID and State, and representatives from some of USAID's partners involved in implementing the projects in our review—including the IDB, Sae-A, and construction firms and partner donors involved in the New Settlements program. In the Cap-Haïtien corridor, we visited the CIP, the CIP power plant, one of the sites for the proposed port, and all New Settlement sites under construction or planned for future construction. In the Port-au-Prince corridor, we visited the New Settlement sites under construction and planned for future consideration, sites where temporary shelters were built, and sites damaged by the earthquake.

We conducted this performance audit from August 2012 through June 2013 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 based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from the U.S. Agency for International Development

GAO received USAID's letter on June 3, 2013.



David Gootnick
Director, International Affairs and Trade
U.S. Government Accountability Office
Washington, DC 20548

Dear Mr. Gootnick:

I am pleased to provide USAID's formal response to the Government Accountability Office (GAO) draft report entitled "Haiti Reconstruction: USAID Infrastructure Projects Have Had Mixed Results and Face Sustainability Challenges" (GAO-13-558) (Engagement Code 320937).

This letter, together with the enclosed USAID comments, are provided for incorporation as an appendix to the final report.

Thank you for the opportunity to respond to the GAO draft report and for the courtesies extended by your staff in the conduct of this audit review.

Sincerely,

A handwritten signature in black ink, appearing to read "Angelique M. Crumbly". The signature is written in a cursive style and is positioned above the typed name and title.

Angelique M. Crumbly
Acting Assistant to the Administrator
Bureau for Management
U.S. Agency for International Development

Enclosure: a/s

USAID COMMENTS ON GAO DRAFT REPORT - "Haiti Reconstruction: USAID Infrastructure Projects Have Had Mixed Results and Face Sustainability Challenges"
(GAO-13-558) (Engagement Code 320937)

Recommendation 1: We recommend that the USAID Administrator take the following action: To ensure proper oversight over the continued planning for and construction of a new port in northern Haiti and to enable the project to move forward in a well planned and timely manner, USAID should fill the vacant port engineer position at the Haiti mission within timeframes that avoid future project delays.

USAID Response: We agree with the recommendation.

As noted in the GAO report, in January 2011, the month that the USG Haiti Reconstruction Strategy was approved, USAID/Haiti issued a public solicitation for a Ports Engineer, signaling the Mission's recognition that additional in-house technical expertise was required in order to undertake a large-scale, specialized activity such as port construction. However, we were unable at that time to find a qualified candidate available to accept the position. To avoid further delays, the Mission proceeded to contract for a feasibility study to be conducted by a global engineering firm with ports expertise. At this juncture, the prospect of moving forward with additional port planning and construction-related activities requires that this internal position be filled urgently. Accordingly, the Mission issued a public solicitation in May 2013 for a Ports Advisor, which will encompass the responsibilities of a Ports Engineer, together with a broader advisory role for ports, with a solicitation closing date of early June 2013 and the expectation that the position will be filled shortly thereafter.

Recommendation 2: We recommend that the USAID Administrator take the following action: To promote the sustainability of the New Settlements permanent housing program, and to protect the significant investments already made, the USAID Administrator should direct the USAID Haiti mission to ensure that each new settlement has community support mechanisms in place prior to beneficiary occupation. As part of that process, the mission should consider making additional funds available, as needed, to help ensure this support.

USAID Response: We agree with the recommendation.

As noted in the report, the Mission has already set aside \$5.0 million to finance community development activities for the new settlements. As the situation is fluid, if unplanned requirements surface, the Mission is prepared to provide additional resources to meet this need.

Sustainability and community support were at the forefront of USAID's decision in the aftermath of the 2010 earthquake to replenish up to 4,000 housing units and to provide long-term options for families that lost shelter, through a variety of shelter support programs (rental vouchers, host-family kits, repair of damaged houses and temporary and transitional shelter). In addition to financing the development of up to 4,000 housing units, USAID's New Settlements activity includes: (1) a community development support structure, which begins with the early engagement of local stakeholders to help advise on beneficiary residence criteria, and the types of housing and associated infrastructure that will sustain family life and livelihoods, and (2) the

**Appendix II: Comments from the U.S. Agency
for International Development**

establishment of community management committees comprised of active residents at each new settlement.

USAID continues to take steps to ensure that community support mechanisms are in place for its first two settlement sites – Caracol-EKAM and DLA 1.5.

- As mentioned in the GAO report, in April 2013 USAID released a \$1.5M Request for Applications (RFA) that seeks an organization to provide community development support at the Caracol-EKAM settlement for two years. USAID plans to have awarded this new cooperative agreement at least one month before beneficiaries are ready to move in to the site. The selected grantee will build on the work already begun by the USAID-funded Emergency Capacity Assistance Program (ECAP), which provided capacity support to the municipal beneficiary selection committee and for the establishment of a provisional community management committee.
- To ensure the sustainability of USAID investments at DLA 1.5, USAID is investing \$500,000 of its own community development funds in order to leverage significant additional community development investments from two partner organizations: the International Federation of the Red Cross (IFRC) and the United Methodist Committee on Relief (UMCOR). IFRC, using its own funds, is engaged in an 18-month program with five full-time staff to: (1) identify and assist in the relocation of 156 families to DLA 1.5 and (2) to provide subsequent community integration and development services to this population. IFRC's approach is based on the "Integrated Neighborhood Approach," which they have successfully implemented in several other Port-au-Prince neighborhoods since the earthquake. Beginning in December 2012, IFRC has been involved in identifying and vetting potential beneficiaries, as well as conducting financial literacy and community savings trainings with the selected households. Through a \$2.1M Global Development Alliance with UMCOR, USAID will contribute \$500,000 of its community development funds to link with the aforementioned IFRC program and extend community development activities to the broader community around the DLA 1.5 area through the provision of education, water and sanitation training (WASH), and livelihoods activities to other vulnerable households in the rapidly growing zone.

In addition, as USAID continues to pursue public and private resource partnerships, including with mortgage finance institutions, toward the realization of significantly more housing units, community development will continue to be at the center of these proposed partnership developments. Many of these groups have worked in Haiti for a number of years and USAID intends to leverage its own expertise, together with the experience of these partners, to continue to ensure that each new settlement has community support mechanisms in place prior to beneficiary occupation.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

In addition to the contact named above, Leslie Holen (Assistant Director), Lynn Cothorn, Heather Latta, George Taylor, and Brian Tremblay made key contributions to this report. Ashley Alley, Etana Finkler, Justin Fisher, Courtney LaFountain, and Mary Moutsos provided technical assistance.

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