OFFICE OF INSPECTOR GENERAL

AUDIT OF USAID/PHILIPPINES’ GROWTH WITH EQUITY IN MINDANAO (GEM-3) PROGRAM

AUDIT REPORT NO. 5-492-12-002-P
DECEMBER 1, 2011

MANILA, PHILIPPINES
December 1, 2011

MEMORANDUM

TO: USAID/Philippines Director, Gloria D. Steele

FROM: Regional Inspector General/Manila, William S. Murphy /s/

SUBJECT: Audit of USAID/Philippines’ Growth with Equity in Mindanao (GEM-3) Program (Report No. 5-492-12-002-P)

This memorandum transmits our final report on the subject audit. In finalizing the audit report, we considered your comments on the draft report and have included those comments in Appendix II of this report.

This report contains four recommendations to assist the mission in improving the overall efficiency and effectiveness of the GEM-3 program. On the basis of information provided by the mission in its response to the draft report, we determined that management decisions have been reached on Recommendations 1 and 2, while final action has been taken on Recommendations 3 and 4. Please provide the Audit Performance and Compliance Division of USAID’s Office of the Chief Financial Officer with evidence of final action to close Recommendations 1 and 2.

I want to thank you and your staff for the cooperation and courtesies extended to us during the course of this audit.
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Abbreviations

The following abbreviations appear in this report:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ARMM</td>
<td>Autonomous Region in Muslim Mindanao</td>
</tr>
<tr>
<td>BIP</td>
<td>Barangay-Level Infrastructure Project</td>
</tr>
<tr>
<td>GEM-3</td>
<td>Growth with Equity in Mindanao Program</td>
</tr>
<tr>
<td>MILF</td>
<td>Moro Islamic Liberation Front</td>
</tr>
<tr>
<td>MNLF</td>
<td>Moro National Liberation Front</td>
</tr>
<tr>
<td>RIP</td>
<td>Regional Impact Project</td>
</tr>
<tr>
<td>SAFE</td>
<td>Sustainable Aquaculture and Fisheries Effort</td>
</tr>
</tbody>
</table>
SUMMARY OF RESULTS

The southern Philippine island of Mindanao (shown below), including the Sulu Archipelago, is the country’s second largest island and home to almost 22 million people¹ or approximately a fifth of the total Philippine population. About 20 percent of Mindanao’s inhabitants are Muslim, many of whom live in a region known as the Autonomous Region in Muslim Mindanao (ARMM), which was created by the Philippine Government in 1989.

Since the 1970s, Mindanao has seen extensive armed conflict between the Philippine Government and Muslim separatist groups that have been struggling for independence or some form of autonomy. In 1996, a historic peace agreement was signed between the Philippine Government and the Moro National Liberation Front (MNLF), the largest Muslim separatist group. Although fighting still occasionally flares up between the armed government forces and small bands representing elements of some of the different groups, the peace agreement—now 15 years old—has for the most part held. Nevertheless, the years of violence and fears of violence have taken a toll, and have hindered economic growth and opportunities in Mindanao.

To help the Philippine Government expand economic opportunity and prevent violence from resurfacing, USAID has been implementing major assistance efforts, focusing on the conflict-affected areas of Mindanao, including the ARMM. Since 1996, the Growth with Equity in Mindanao (GEM) Program has been USAID/Philippines’ flagship activity in Mindanao. Conceived as a 5-year program, operating from 1996 to 2001, the program—the largest in the mission’s portfolio—has been continued and is currently in its 15th year. (The initial 5-year program became known as GEM-1, and was followed by GEM-2, which ran from 2002 to 2007.)

¹ The Philippines in Figures 2011, published by the Republic of the Philippines National Statistics Office
The current program (known as GEM-3) was initiated on January 1, 2008, and is scheduled to continue through December 31, 2012. The program is implemented by the Louis Berger Group Inc. under a cost-plus-fixed-fee contract valued at approximately $126 million\(^2\) and managed by USAID/Philippines' Office of Economic and Democratic Governance. GEM-3 expands on the work carried out under GEM-2 with the objectives of promoting peace in Mindanao (primarily through the provision of needed infrastructure) and accelerating economic growth. As of August 31, 2011, cumulative obligations under the program totaled approximately $83.1 million and disbursements totaled $63.9 million.

Like its predecessor, GEM-3 is an umbrella program and involves a wide range of activities carried out under the program’s four main components:

1. Infrastructure Development
2. Workforce Preparation
3. Business Growth
4. Governance Improvement

The Office of Inspector General (OIG) conducted this audit to determine whether the GEM-3 program was achieving its objectives of providing needed infrastructure and promoting economic opportunity in the conflict-affected areas of Mindanao.

The audit covered activities to date (from inception through August 31, 2011) for the four components, focusing on the largest component—Infrastructure Development—which was approximately 67 percent of the program budget. Under this component, the program funded the construction of a limited number of midscale infrastructure projects (rehabilitation of roads, bridges, and airport runways) and hundreds of small-scale projects (boat landings, solar crop dryers, footbridges, box culverts, and trading centers).

The audit determined that the GEM-3 program was generally achieving its objectives. Through its diverse activities, the program has benefited tens of thousands of people living in the conflict-affected areas of Mindanao. Among other things, the program’s efforts have resulted in improved infrastructure at the barangay (village) level, better access to local markets, higher incomes for farmers (including former MNLF combatants), increased domestic shipments and international exports of targeted aqua- and agricultural commodities, the provision of computers and Internet connectivity to a number of high schools, and improved English proficiency among college students preparing to enter a competitive labor market.

GEM-3 was not expected to achieve anywhere near the level of outputs originally envisioned in its contract for a number of its activities—partly because the program’s authorized funding level was reduced from approximately $126 million to $98.9 million, which prompted the mission and implementer to revise the program’s performance targets. Nevertheless, the program was making progress toward achieving most of its revised targets, and some of the targets had already been met at the time of the audit.

The following are some of the program’s notable achievements under its four components.

\(^2\) At the time of the audit, the contractor and USAID were negotiating a contract modification reducing the authorized funding level from $125,972,977 to $98,868,135.
Infrastructure Development

- **Regional Impact Projects (RIPs).** RIPs are midscale infrastructure projects with a cost of $50,000 and higher. As of May 31, 2011, the program had completed 7 of the 12 RIP projects expected under this activity (revised target), with the remaining 5 projects still under construction. Included in the seven completed RIPs were two that expanded runways at the airports on the Sulu Archipelago islands of Sulu (shown below) and Tawi-Tawi. Because of the improvements made under these projects, the runways at each location can now accommodate the principal aircraft used by the major Philippine and regional carriers, a factor that is expected to expand trade, business, and tourism in the province. One Philippine carrier recently announced plans to start daily service on a new route between Tawi-Tawi and the city of Zamboanga on Mindanao's mainland starting October 14, 2011, using an A319 aircraft (with a capacity of 156 passenger seats and more than 1 ton of cargo load).

![The Jolo Airport runway on the island of Sulu, expanded under GEM-3, now accommodates larger commercial aircraft.](image)

- **Barangay-Level Infrastructure Projects (BIPs).** BIPs are small-scale infrastructure projects at the barangay (village) level, generally costing between $5,000 and $50,000. Originally, it was anticipated that the program would complete 1,000 BIPs by its end date, but the reduced authorized funding levels lowered this target to “at least” 760 BIPs. As of May 31, 2011, 742 BIPs had been authorized, of which 397 had been completed.

Table 1 presents a breakdown of the approved BIPs (by type) as of May 31, 2011.
Although small in scale, BIPs have made a positive difference in the lives of many villagers throughout the conflict-affected areas by improving the local infrastructure, providing farmers with more efficient irrigation systems and the means to dry their grain effectively, and increasing accessibility to markets. The following are examples of project successes under this activity.

**Malamote irrigation canal upgrading.** This project, completed in 2009, upgraded a 1.16-kilometer concrete-lined irrigation canal to provide improved irrigation for local rice farmers. Following construction, farmers stated that they were able to irrigate their fields more efficiently, resulting in an increase in the number of harvests each year from two to three and in higher yields (an average of 30 additional sacks of rice per hectare valued at the local currency equivalent of about $664). With the increased income, farmers have purchased additional farm equipment to expand their operations.

**Datu Tumanggong road upgrading.** This project upgraded a 1.5-kilometer dirt road leading to a village. Before the project, the road was reportedly in such poor condition that no vehicles could pass, forcing farmers to rely on horse or buffalo-drawn carts to transport their produce to the local market 12 kilometers away. Thanks to the new road, villagers report that vehicles can now access the area, which has resulted in (1) reduced transportation costs for farmers (since trucks now come to pick up their harvests), (2) increased farm production, (3) increased incomes, and (4) more parents able to afford to send their children to high school.

**Kamanga footbridge.** This suspension footbridge (pictured on the next page) was built in 2010 over a river crossing in Sultan Kudurat Province for the benefit of residents of this rural farming community. Previously, residents had to ford the river on their own, posing a safety hazard, particularly for the children who had to cross the river to attend a nearby high school. In addition to providing a safer means of crossing, the new footbridge (which can also accommodate motorcycles) has resulted in reduced transport fees for some farmers who rely on hired motorcycles as the primary means of transporting their goods to a market in a nearby town. One farmer interviewed stated that his transport costs have decreased by about 40 percent since the construction of the footbridge.
The Kamanga suspension footbridge in Sultan Kudurat Province, at left, gives local villagers, including schoolchildren, a safe and convenient means of crossing a stream they previously had to cross via a dirt trail shown at right. (Photos by OIG, July 28, 2011)

- **Workforce Preparation**

  - **Job-Enabling English Proficiency Project.** This project was designed to augment English-language instruction programs at selected colleges and universities in Mindanao to help their graduates compete successfully for employment in industries requiring English-language proficiency. Starting with 10 colleges and universities, this activity has been significantly expanded and now works with 27 institutions and has reported 23,198 students enrolled in project courses since its inception.

  - **Computer Literacy and Internet Connection.** Under this activity, GEM provides computers and Internet connections to schools in target areas. As of May 31, 2011, the program reported supporting 253 schools, which received 1,188 computers.

- **Business Growth.** To promote business growth, GEM established the Targeted Commodity Expansion Project. The objective of this activity is to triple international exports and domestic shipments from Mindanao (volume and value) of targeted commodities, like fresh and processed fruit and vegetables, tuna, and high-value marine products such as abalone and grouper, through various production and supply-chain interventions. Key achievements to date under this activity include the following:

  - **Increased International Exports and Domestic Shipments.** Based on government data for fiscal year 2010, the total value of international exports and domestic shipments of targeted commodities was $53 million, a $22 million increase from the 2007 baseline figure (though only 43 percent of the $51 million increase targeted to be reached by the program's end). Since the start of the program in 2008, GEM has reportedly facilitated exports and domestic shipments of targeted fresh and processed fruit products, vegetables, and seafood commodities with a total value of approximately $57.7 million.
Trade Fairs. GEM has assisted Mindanao producers in participating in 18 foreign and 6 Manila-based international trade shows, resulting in $38.2 million in reported sales.

Conferences/Training. GEM conducted 349 commodity-related conferences and training activities to enhance the production of 19,410 small-hold growers, including a number of former MNLF combatants, and help them diversify into raising other types of fruits, vegetables, and aquaculture products.

Governance Improvement. GEM implemented the Congressional Internship Program for Young Mindanao Leaders to provide selected college graduates from underserved communities in the conflict-affected areas of Mindanao with a short-term internship at the Philippine House of Representatives in order to gain exposure to and hands-on experience in legislation and policy formulation. As of May 31, 2011, the fifth group of participants under GEM-3 had completed the activity, resulting in a cumulative total of 122 graduates.

However, the audit disclosed the following four findings:

- Regional Impact Projects did not fully meet prescribed criteria (page 7).
- Barangay-Level Infrastructure Projects behind schedule (page 10).
- Implementer double counted assistance to former combatants (page 13).
- Aquaculture producers hindered by supply problems (page 14).

The report recommends that USAID/Philippines:

1. Require the implementer to assess the condition of the Ladia-Raguisi-Pinaring Road, coordinate the appropriate repairs and maintenance needed, and explore options to protect the road from destructive usage (page 10).

2. Develop a plan of action outlining the measures it plans to take to ensure that quality standards are maintained on the program’s remaining Barangay-Level Infrastructure Projects (page 13).

3. Require the implementer to make appropriate adjustments to its performance results data to ensure that the postharvest facilities provided to former combatants under the program are credited toward the target for this activity only, to avoid double counting (page 14).

4. Require the implementer to develop and implement a plan of action for the program’s Sustainable Aquaculture and Fisheries Effort activity to resolve the problem of fish hatcheries not being able to produce sufficient quantities of fingerlings to satisfy the demand generated by program-assisted aquaculture cooperatives (page 16).

A detailed discussion of the audit findings appears in the following section. The scope and methodology are described in Appendix I. USAID/Philippines’ written comments on the draft are included in Appendix II. Our evaluation of these management comments is included in the report on page 17.
AUDIT FINDINGS

Regional Impact Projects Did Not Fully Meet Prescribed Criteria

Originally, the implementer was expected to construct 15 to 20 RIPs by the end of the program. This performance target was later reduced to 12 RIPs after the program’s authorized funding level was reduced by 21 percent. In classifying an infrastructure project as a RIP, the GEM-3 contract specified several criteria:

- **Dollar Threshold.** RIPs involve midscale infrastructure projects with construction costs of $50,000 and higher, with most under $1 million, but some as high as $4 million.

- **Number of Beneficiaries.** Unlike BIPs, whose principal beneficiaries are the people living in the specific barangays (villages), RIPs are expected to benefit a larger geographic area and therefore have a “substantially larger number of beneficiaries” and are subject to a higher visibility criteria.

- **Transformational Impact.** The contract also specified that efforts be made to ensure that RIPs include projects that will have a “transformational” effect on the provinces in which they are located. Specifically, projects are expected to demonstrate a potential to “catalyze the expansion of existing business and industry or even make possible the emergence of new business and industry.”

The audit, however, determined that a number of the RIPs approved by the mission did not fully meet the above criteria. Of the 12 RIPs constructed or in progress under GEM-3, the following 4 projects (33 percent) met the dollar threshold, but may not have satisfied the Transformational Impact criterion:

- **Bañas Bridge: Lantawan, Basilan (cost: $150,201).** This box culvert bridge, similar to the ones built and classified as BIPs, was constructed on the island of Basilan in the Sulu Archipelago in May 2010. The structure (shown on the next page) is on a section of the island’s circumferential highway, but is situated on what is essentially a country road in a remote rural area where the volume of traffic appeared to be relatively light. The audit team observed an average of only 1.5 vehicles per minute passing over the bridge.

- **Busay Bridge: Isabela City, Basilan (cost: $146,533).** This box culvert bridge was also constructed on the island of Basilan. Like Bañas Bridge, it is located on the island’s circumferential highway, but on the outskirts of the provincial capital, where the volume of traffic is heavier. According to residents, the new bridge is an improvement over the prior bridge since it includes a shoulder, allowing pedestrian traffic and alleviating a potential safety hazard, especially for the children who regularly crossed the bridge to attend a nearby elementary school. However, it was unclear how the construction of this bridge met the “Transformational Impact” criterion and how it was expected to catalyze the expansion of local business since the project merely replaced an existing bridge—a bridge that even some GEM staff acknowledged was structurally sound and required only minor repairs.
The Bañas Bridge, a box culvert bridge, is situated along a remote section of a rural highway on the island of Basilan. (Photo by OIG, July 16, 2011)

- **Ngan Spillway Overflow Structure: Ngan, Compostela Valley (cost: $66,300).** This bridge involved an overflow structure with culverts located on a provincial highway in Mindanao’s Compostela Valley region. According to GEM staff, this project was originally classified as a BIP, but was later reclassified as a RIP primarily because its costs exceeded the $50,000 threshold. The prime contract, however, states that BIPs will “generally” have construction costs of between $5,000 and $50,000, indicating that the $50,000 threshold should not be considered a hard-and-fast rule and that a BIP may on occasion exceed the $50,000 threshold.

- **Ladia-Raguisi-Pinaring Road Upgrading: Sultan Kudarat, Maguindanao (cost: $247,044).** This road project upgraded a 5.4-kilometer dirt road serving three rural farming communities in northern Maguindanao. The project was undertaken at the request of the U.S. Embassy, responding to an earlier request by a senior Moro Islamic Liberation Front (MILF) commander, to demonstrate the U.S. Government’s willingness to work with the MILF toward a peaceful resolution. The project was intended to provide the residents, many of whom were considered MILF supporters or sympathizers, with better access to the main highway and the markets in a nearby town along this highway. Although the cost of the project was well above the $50,000 threshold, its impact appeared to be limited given that the number of recorded beneficiaries (2,000) was comparable to that of a typical BIP. Also, interviews with residents revealed that many farmers, particularly those living in the more heavily populated area near the end of the road, continued to use an alternative access road to transport their goods to market because the alternate road provided a shorter, more direct route to the nearest town.
While driving along the length of the newly upgraded road, the audit team observed that the road was already developing ruts (pictured below) and showed other signs of accelerated deterioration in some sections even though it had been completed only 2 months earlier. According to a GEM construction engineer, illegal loggers using large trucks to haul heavy loads of lumber frequently travel along the road to bypass the checkpoints on the main highway; this illegal use damaged the road. Further damage was caused by some of the local farmers using heavily laden buffalo-drawn carts with narrow metal wheels that create additional ruts. The engineer also pointed out that during construction he observed some residents stealing gravel for their own residences, thereby reducing the quantity of gravel available for the road and possibly accounting for some of the extremely muddy sections observed during the audit team’s inspection.

Deep ruts are visible on the newly upgraded Ladia-Raguisi-Pinaring Road only 2 months after its completion in May 2011. (Photo by OIG, July 24, 2011)

The selection of relatively small-scale projects such as these four RIPs was largely attributed to funding constraints and efforts to meet the performance target with the available funds. Since its inception, the program’s annual incremental funding has been less than originally anticipated, reducing the amount of funds available for planned infrastructure projects. At the time of the audit, the mission and implementer were negotiating a modification to the contract that would formally reduce the authorized funding level from approximately $126 million to $98.9 million.
Available funding for infrastructure projects was further reduced because of the program’s higher-than-expected support costs. To illustrate, a financial analysis of expenditures under the program’s infrastructure component revealed that its support costs—originally expected to represent 18 percent of the component’s total costs—are projected to be nearly twice the amount planned. This increase in support costs, in turn, reduced the amount available and allocated for the program’s RIPv by roughly $10 million.

By including in its RIP portfolio projects like the ones cited, the program may meet its revised performance target of 12 RIPv but will end up with a set of projects whose collective impact will be far less than what was originally envisioned. The reduction in available funding for the RIPv not only caused them to be smaller but also diminished their sustainability. Six of the 12 RIPs included in the program’s portfolio involve road-upgrading projects. However, only one of the six involved the construction of an all-concrete road; the other five road projects, covering a total of approximately 41 kilometers, will be primarily gravel (87.4 percent gravel, 12.6 percent concrete). These roads will be cheaper to construct, but will require greater maintenance and deteriorate faster than concrete roads.

With a reduced target of only 12 RIPv—far fewer than were completed under GEM-2 (40) and less than what was originally anticipated under this program (15 to 20)—it is critical that the projects selected for construction meet required criteria so that the program can achieve the maximum impact from the few RIPv that are completed. It is also important that this selection process not be compromised merely to meet planned targets.

Because all 12 of the program’s RIPv have already been initiated, this audit makes no recommendation on the criteria issue, but suggests that the USAID mission take steps to ensure that proposals initiated under any future programs involving infrastructure activities meet all applicable criteria.

Regarding the deterioration observed on the Ladia-Raguisi-Pinaring Road, this audit makes the following recommendation.

**Recommendation 1.** We recommend that USAID/Philippines require the implementer for the Growth with Equity in Mindanao Program to assess the Ladia-Raguisi-Pinaring Road, coordinate the appropriate repairs and maintenance needed, and explore options to protect the road from further destructive usage.

**Barangay-Level Infrastructure Projects behind Schedule**

BIPv are small-scale infrastructure projects that generally have construction costs of between $5,000 and $50,000. They include solar grain dryers, boat landings, footbridges, roads, box culverts, trading centers, drainage canals, and water systems. Under the prime contract, the implementer was expected to construct 1,000 BIPv, mostly in the ARMM and other conflict-affected areas, by the end of the program. This target was later reduced to “at least 760” BIPv

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3 Support costs include (1) salaries for GEM staff, (2) overhead and fringe benefits, (3) travel, per diem, and allowances, and (4) other direct costs.

4 At the time of the audit in July 2011, this revised target was being used for operational purposes and was expected to be approved under a contract modification that the mission was negotiating.
following the reduction in the program’s authorized funding level from approximately $126 million to $98.9 million.

Since the program’s start in 2008, it has experienced chronic delays in the completion of many of its BIPs, which has prevented the implementer from being able to meet its annual targets. Table 2 shows that the gap has become wider each year.

Table 2. BIP Annual Completion Rate - Target vs. Actual (unaudited)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Annual Target</th>
<th>Actual BIPs Completed</th>
<th>Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>50</td>
<td>10</td>
<td>(40)</td>
</tr>
<tr>
<td>2009</td>
<td>281</td>
<td>188</td>
<td>(93)</td>
</tr>
<tr>
<td>2010</td>
<td>479</td>
<td>317</td>
<td>(162)</td>
</tr>
<tr>
<td>2011</td>
<td>664</td>
<td>413*</td>
<td>(251)</td>
</tr>
</tbody>
</table>

* Number of BIPs completed through June 30, 2011.

Although the length of the construction delays has varied, a large percentage of the construction projects were found to have been delayed in excess of 60 days. Table 3 shows that 175 of the 397 BIPs completed (44 percent) as of May 31, 2011, were completed in excess of 60 days beyond the original completion date. Thirty-eight of these BIPs were delayed over 6 months.

Table 3. Construction Delays on 397 Completed BIPs as of May 31, 2011 (unaudited)

<table>
<thead>
<tr>
<th>Length of Delay</th>
<th>Number of BIPs</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No delays or early</td>
<td>39</td>
<td>10%</td>
</tr>
<tr>
<td>Less than 30 days</td>
<td>103</td>
<td>26%</td>
</tr>
<tr>
<td>30 to 60 days</td>
<td>80</td>
<td>20%</td>
</tr>
<tr>
<td>60 to 90 days</td>
<td>62</td>
<td>16%</td>
</tr>
<tr>
<td>More than 90 days</td>
<td>113*</td>
<td>28%</td>
</tr>
</tbody>
</table>

* Includes 38 BIPs (10 percent) delayed more than 6 months.

The underlying reasons for the delays vary, but the primary causes according to GEM staff have been (1) bad weather (e.g., work stoppage due to heavy rainfall), (2) delays in the provision of agreed-upon counterpart contributions (construction materials such as gravel and embankment materials) by Local Government Units, and (3) deficient subcontractor performance (e.g., use of poorly maintained equipment, inadequate supervision).

Other factors contributing to the construction delays, as well as delays or curtailment in starting new construction projects in certain areas, include the following.

- **Security Issues.** Security has hampered construction efforts in certain areas and has reduced the number of prospective construction firms willing to bid on projects in those areas. The former GEM chief of party cited the following concerns:
  - The full-scale conflict between the Philippine armed forces and the MILF in 2008 and 2009 caused significant damage in many towns, heightened security risks, and directly hampered travel and implementation plans. Also, with government funds in the affected
municipalities often used for reconstruction, in the aftermath of this war, there were little or no funds left to cover the counterpart requirement on GEM infrastructure projects.

– The Maguindanao Massacre (of more than 50 political personalities, residents, and journalists) in 2009 had far-reaching implications. The massacre led to the imposition of martial law and emergency rule, which halted GEM operations and implementation in most of Maguindanao Province and neighboring municipalities for an extended period.

– Extortion attempts by both MILF and the New People’s Army on GEM contractors took significant time to resolve.

- **Elections.** The May 2010 elections and related political campaign expenditures led to a shortage of counterpart funds and difficulty in getting contractors to bid on GEM projects since other public contracts, awarded by municipalities and the Philippine Government, were more lucrative and required little oversight. Following the elections, there were often no municipal or provincial funds left for the new elected officials, leading to a lack of funds available for a local government counterpart.

Delays caused by these factors slowed the pace of construction, but generally did not increase the subcontract price. Data generated by the GEM central database showed that of the 397 BIPs completed as of May 31, 2011, only 33 (8 percent) required a variation order to raise the subcontract price, and the average increase was only about 4 percent.

Nevertheless, the delays have placed the program in the difficult position of having to accelerate construction significantly during its final 18 months in order to meet the revised target of at least 760 BIPs. As of June 30, 2011, the program had completed 413 of the 760 BIPs, leaving a balance of at least 347 BIPs still to be completed. With an average completion rate of about 11 BIPs per month since the start of FY 2011, we estimated that the pace of completion would need to more than double in order to complete the remaining BIPs in time while also allowing time for program phasedown before the program’s end date (December 31, 2012).

If the completion rate does not increase substantially, there is an increased risk of ending up with a large number of unfinished projects at the end of the program. Ideally, one would expect the number of ongoing projects to taper off midway into the program’s final year, allowing the program to wind down in an orderly fashion. However, this appears unlikely. Members of GEM’s infrastructure team acknowledged that they expect to have a number of projects ongoing during the summer of 2012.

However, GEM officials stated that they were confident that they could complete the remaining BIPs and achieve the revised target (at least 760 BIPs) by the end of the program. This assessment was based in part on the status of efforts to get the remaining projects through the procurement process and into the construction phase as well as on the length of time it has taken to complete each project. As of June 30, 2011, the program had acquired the necessary clearances to carry out 768 BIPs, of which 413 had been completed and 234 were under way. Other projects were at various stages in the procurement process.

Even if the program manages to complete the remaining BIPs before it ends, undertaking such a large volume of BIPs over a relatively short period increases the risk that the quality of work may be compromised during the construction process. GEM infrastructure staff acknowledged that subcontractor performance is often affected when the subcontractors operate beyond their capacity and are involved in too many subcontracts.
With the program’s wave of new construction start-ups, onsite monitoring and inspections become particularly critical. From interviews with GEM construction engineers, however, the audit team learned that these engineers were often assigned to monitor and inspect as many as five BIPs at a time. The mission’s infrastructure engineer stated that this number is far too many to be able to monitor activities effectively at each site. He explained that the GEM construction engineers need to be at the site when certain key tasks are being performed (e.g., pouring of the concrete) to ensure that this work is done properly. This becomes increasingly difficult when one is monitoring four to five construction sites concurrently. Although GEM earlier hired 20 additional construction engineers to address this staff shortage, construction engineers are still responsible for multiple projects as a result of the ramping up of new construction, which includes road-upgrading projects that require a construction engineer to be permanently onsite and dedicated to only one project.

In addition to the monitoring provided by the GEM construction engineers, the mission’s infrastructure engineer performs brief onsite inspections at the construction sites in different regions. These visits, however, typically focus on ongoing projects, as opposed to completed ones, in order to rectify any identified deficiencies while the project is still in progress.

To mitigate the risk of having a large number of completed projects that do not meet quality standards (certified and accepted despite having apparent quality issues) and to protect USAID’s investment in these infrastructure projects, the mission needs to take steps to increase its oversight of this area. For example, the mission’s infrastructure engineer needs to expand the scope of his inspections to include visits to all recently completed BIPs in each area visited. He must ensure that these projects are of acceptable quality and that any deficiencies identified are addressed within the subcontractor’s 1-year warranty period. The mission’s internal reporting procedures also need to be reviewed to ensure that deficiencies identified by the mission’s engineer are reported to the implementer in a timely manner so that corrective action can be taken. Consequently, the audit makes the following recommendation.

**Recommendation 2.** We recommend that USAID/Philippines develop a plan of action outlining the measures the mission intends to take to ensure that quality standards are maintained on the remaining Barangay-Level Infrastructure Projects to be completed under the mission’s Growth with Equity in Mindanao Program.

**Implementer Double Counted Assistance to Former Combatants**

To help ensure that former MNLF combatants continue to be able to make a reasonable living for themselves and their families so that they may become productive members of society, the contract required the implementer to identify 50 cooperatives or communities of former combatants and provide each with postharvest facilities needed to make their agricultural efforts more productive and profitable. As of May 31, 2011, the program had provided (or facilitated the construction of) 44 postharvest facilities, with 1 additional facility under construction and 5 others in the design phase.

However, the audit noted that 15 of the 44 completed postharvest facilities were also classified as BIPs because they were built under the supervision and management of GEM’s BIP infrastructure team. These outputs were therefore double counted and credited against two separate performance targets, one for the postharvest facilities and the other for the BIPs.
Accounting records showed that the cost associated with the construction of the 15 facilities ($307,561) had been allocated not to the infrastructure component but to the program component covering assistance to the former combatants. Consequently, the postharvest facilities should have been counted against the performance target for the latter activity only and not credited as completed infrastructure projects as well.

After raising this issue with GEM program staff, one infrastructure section official stated that it had never occurred to him that the postharvest facilities could be double counted as BIPs. Another staff member, assigned to the former combatant reintegration activity, disagreed with the assertion that there was any double counting. He claimed that the support provided to the former combatants by his staff, in the form of technical training on the use and maintenance of the postharvest facilities, should count as an output to be credited against the postharvest facility target. The problem with this assertion is that the contract calls for the implementer to provide postharvest facilities and not merely training or technical assistance.

In reviewing the language contained in the contract, it is clear that the construction of the BIPs and the postharvest facilities were to be funded from different sources and counted separately. Crediting the construction of the postharvest facilities against two separate performance targets (i.e., double counting) reduces the program’s total outputs. To address this issue, this audit makes the following recommendation.

**Recommendation 3.** We recommend that USAID/Philippines require the implementer for the Growth with Equity in Mindanao Program to make and document appropriate adjustments to its performance results data to ensure that the postharvest facilities provided under the program to former combatants are credited toward the target for this activity only, to avoid double counting.

**Aquaculture Producers**

**Hindered by Supply Problems**

Under the Sustainable Aquaculture and Fisheries Effort (SAFE), GEM provides assistance to Mindanao fisheries and aquaculture sectors to help them achieve sustainability and increase the production of selected high-value species (e.g., grouper and abalone), with the target of tripling exports and domestic shipments of these aquatic products. Among the beneficiaries that GEM works with under this activity are former MNLF combatants, whom the program assists as part of ongoing reintegration efforts by helping them produce and sell high-value aquaculture products in order to increase their incomes.

Unfortunately, not all former combatants participating in this activity were benefiting and achieving the sustainable increase in income that was intended. One example included an aquaculture cooperative located on the island of Basilan that was experiencing supply problems. The cooperative, established in 2008, had 35 active members—mostly former combatants—who were previously engaged in the buying and selling of various aquamarine products (lobster) before receiving assistance under GEM-3. In September 2008, GEM-3 provided the members with technical assistance and training to teach them how to raise groupers and abalone and later provided them with fingerlings to help them get started. The cooperative, located along the island’s shoreline, had eight large fish cages beside its dock, each capable of holding a maximum of 500 fish or a total of 4,000 fish.
At the time of the audit team’s visit, these cages (shown below) were virtually empty since the cooperative was still waiting for additional fingerlings (grouper) ordered from the fish hatchery located in Tawi-Tawi to replenish the previous stock that was harvested and sold. According to the cooperative chairman, the latest order of fingerlings was delayed several months, which he claimed was often the case with orders. He pointed out that in addition to the delays, the quantity received from the hatchery is generally less than what the cooperative needs and only enough to allow it to operate at about 25 percent of capacity. He stated that he knew of other cooperatives in the area that were experiencing similar supply problems.

At the Basilan Aquamarine Products Cooperative on Basilan Island, fish cages had been sitting empty for months while waiting to be restocked with additional fingerlings that were on order from the fish hatchery. (Photos by OIG, July 16, 2011)

GEM staff acknowledged that the limited supply of fingerlings produced by the hatchery in Tawi-Tawi had been a chronic problem. One staff member explained that the hatchery was the only one in the region, and it had been experiencing technical problems that were limiting the quantity of grouper fingerlings it could produce. Specifically, the hatchery was reportedly experiencing a high mortality rate among its fingerlings and had difficulty maintaining enough male groupers for mating purposes.

The GEM staff also agreed that there was a need for a second hatchery in the region to address the growing demand for fish (grouper) fingerlings. One staff member pointed out that even if the Tawi-Tawi hatchery manages to sort out its problems and is able to operate at capacity, the aquaculture cooperatives operating on that island alone could absorb at least 80 percent of the hatchery’s total fingerling production, leaving a limited quantity of fingerlings available for the rest of the region. Further discussion with the cooperative chairman revealed that the supply issue may not be confined to the Sulu Archipelago region alone; he mentioned that another aquaculture cooperative operating in the province of Lanao del Norte had experienced similar problems and is now reportedly importing its fingerlings from China.

Because of the delay in the replenishment of its stock, the Basilan cooperative had to halt its aquaculture operations temporarily, pending the receipt of additional fingerlings from the hatchery. In the interim it has not been generating income for its members. This delay has also extended the period required to turn over each batch of harvested fish, thereby reducing the number of harvests in a given year. The delay, coupled with the cooperative’s inability to obtain
the quantity of fingerlings it desires, has prevented this and possibly other cooperatives from operating at full capacity and being able to maximize their production and sales revenues.

Given the potential for growth in the aquaculture area, constraints such as this one need to be addressed to reduce the delays in the replenishment of fish stocks. Specifically, GEM needs to assess what improvements can be made to address the supply problem and provide a sustainable long-term solution. This may include expanding the production capacity of the existing hatchery or helping establish a second privately operated fish hatchery to supply fingerlings for the region. To ensure that the benefits derived from SAFE are sustainable well into the future, this problem needs to be addressed before the program ends. Therefore, this audit makes the following recommendation.

**Recommendation 4.** We recommend that USAID/Philippines require the implementer for the Growth with Equity in Mindanao Program to develop and implement a plan of action for the program’s Sustainable Aquaculture and Fisheries Effort to provide a sustainable, long-term solution that addresses the existing supply problem of fish hatcheries not being able to produce sufficient quantities of fingerlings to satisfy the demand generated by program-assisted aquaculture cooperatives.
OIG has reviewed the mission’s response to the draft report and determined that management decisions have been reached on Recommendations 1 and 2, while final action has been taken on Recommendations 3 and 4. Our evaluation of management comments follows.

In response to Recommendation 1, the mission agreed. At the request of the mission, the GEM-3 program implementer assessed the condition of the Ladia-Raguisi-Pinaring Road by performing sand cone, thickness, and other tests. Noting that the quality of the road showed a marked decline, particularly the second half of the road, the implementer determined that the field engineer on the project had erroneously recorded the volume of loose aggregates supplied instead of the volume of compacted aggregate, and thereby overstated the volume of aggregate materials used on the project. When the bill of quantities reflected that 100 percent of the aggregate material was placed, the project appeared complete. Because of the miscalculation of the volume of aggregate materials required, the implementer did not purchase and deliver enough materials. The implementer will undertake the remaining work on the road through direct administration and upon completion, the mission will participate in a final inspection of the road. The mission estimates the partner will complete the repair work in December 2011. Based on the proposed action, the mission reached a management decision.

In response to Recommendation 2, the mission agreed. With the assistance of a USAID/Regional Development Mission for Asia U.S. direct hire engineer, the mission will develop a plan that outlines the measures it intends to take to ensure that quality standards are maintained on the remaining BIPs. The mission anticipates submitting the plan by December 10, 2011. Based on the proposed action, the mission reached a management decision.

In response to Recommendation 3, the mission agreed. At the request of the mission, the GEM-3 program implementer made and documented adjustments to its performance results data to ensure that the postharvest facilities are counted under the appropriate results indicator. The GEM-3 program implementer removed the 15 postharvest facilities from the number of postharvest facilities provided under the former combatant reintigration activity and left the record under the BIPs. The adjustment did not change the reporting on BIPs and eliminated the duplication in recording of output. The mission has taken final action on this recommendation.

In response to Recommendation 4, the mission agreed. At the request of the mission, the GEM-3 program implementer has assessed SAFE and developed an action plan to increase fingerling production. The implementer is working with the Tawi-Tawi hatchery operator to increase larval stocking and survival rates of groupers by improving the rearing conditions such as optimizing initial stocking and rearing densities, water quality and temperature, feed quality, disease control, and multiple production cycles. The hatchery is on track to increase the monthly production from 14,000 to 60,000 fingerlings by June 2012, which the mission contends will satisfy the requirements of both the 40 aquaculture cooperatives as well as additional growers. The mission has taken final action on this recommendation.
SCOPE AND METHODOLOGY

Scope

We conducted this audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions in accordance with our audit objective. We believe that the evidence obtained provides that reasonable basis. The purpose of this audit was to determine whether the GEM-3 Program was achieving its overall objectives of developing needed infrastructure and promoting the expansion of economic opportunity in the conflict-affected areas of Mindanao.

To implement the program, USAID/Philippines signed a cost-plus-fixed-fee contract valued at approximately $126 million with the Louis Berger Group Inc., covering a 5-year period from January 1, 2008, to December 31, 2012. As of August 31, 2011, cumulative obligations under the program totaled approximately $83.1 million, and disbursements totaled $63.9 million.

The audit covered program activities from January 1, 2008, through August 31, 2011. The audit involved (1) assessing the status of the program in achieving key deliverables under its four main components by comparing actual results to date against the Life-of-Project performance targets specified in the contract; (2) validating the reliability of the results data reported for certain activities by checking selected data against supporting records; (3) performing various analyses using data maintained in the implementer's database on the program’s infrastructure activities; and (4) conducting field visits to selected activity sites to inspect a variety of completed infrastructure and non-infrastructure projects and interview local officials, residents, and other beneficiaries to solicit their feedback on the activities.

In planning and performing the audit, the audit team identified and assessed relevant controls used by the mission to manage the project and ensure that its implementer was providing adequate oversight of program activities. Key controls included receiving monthly infrastructure activity and expenditure reports and quarterly progress reports, holding quarterly meetings with the GEM staff to obtain an update on the status of program activities, and monitoring ongoing construction projects through site inspections performed by the mission’s construction engineer.

Additionally, the audit team examined the mission’s fiscal year 2010 annual self-assessment of management controls, which the mission is required to perform to comply with the Federal Managers’ Financial Integrity Act of 1982, to determine whether the assessment cited any relevant weaknesses. Similarly, the audit team reviewed the findings contained in a report of a prior USAID/OIG audit of the GEM-2 program to check for any issues pertinent to this audit.

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5 Government Auditing Standards, July 2007 Revision (GAO-07-731G)
6 At the time of the audit, the contractor and USAID/Philippines were negotiating a contract modification to reduce the program’s authorized funding level from $125,972,977 to $98,868,135.
8 Audit of USAID/Philippines’ Growth with Equity in Mindanao (GEM-2) Program (Report No. 5-492-08-008-P) dated July 31, 2008.
Audit fieldwork was performed from May 23, 2011, to September 23, 2011, at the USAID mission in Manila and at the implementer’s main program office in Davao City, Mindanao. Also, three field trips were made to separate regions in Mindanao; during these trips, the auditors conducted site visits to selected infrastructure and non-infrastructure activity sites to perform onsite inspections and interview local officials, partners, and residents. Together, these field trips covered 68 activity sites, including 46 infrastructure project sites, of which 6 related to RIPs (50 percent of the total to be completed) and 40 related to BIPs (10 percent of the total completed to date).

Methodology

To determine whether the program was achieving its overall objectives, the audit team initially examined the program’s quarterly progress reports to assess the status of program activities and the accomplishments and key deliverables achieved to date under these activities in the context of the life-of-project performance targets specified in the contract. This assessment was supplemented with information obtained through interviews with various mission and contractor staff, including the mission’s contracting officer technical representative and the implementer’s chief of party. Correspondence and other supporting records, including evidence of deliverables, were also examined to substantiate claims regarding GEM-3 activities.

Given the wide range of activities implemented under this umbrella program and the fact that most (approximately 67 percent) of the total funding was allocated to the infrastructure component, additional work to answer the audit objective focused on two areas: (1) assessing the reliability of reported results data for certain non-infrastructure activities by checking selected data against supporting records and (2) performing a series of analyses on the program’s infrastructure activities using programmatic data maintained in the implementer’s central database and financial data furnished by the implementer’s accounting department.

In validating the reliability of the reported results data, the auditors focused primarily on the non-infrastructure activities relating to the Business Growth and Workforce Preparation components. For each activity tested, the audit team selected a judgmental sample of reported results data and checked the data against supporting records to verify that the reported data was accurate. To assess the test results, the audit team established a materiality threshold of 10 percent. For example, if the total deficiencies identified during the testing of the reported results data for a particular activity involved at least 10 percent of the tested data, the auditors concluded that the reported data for the activity was not accurate or adequately supported. Because testing was based on judgmental samples, results and overall conclusions were limited to the items tested and could not be projected to the entire audit universe.

Auditors’ review of the program’s infrastructure activities included (1) assessing the extent of coverage provided by the BIPs, (2) analyzing patterns or trends in the distribution of the BIPs, (3) ascertaining the extent, impact, and causes of construction delays, (4) validating assertions concerning the limited number of bidders in certain geographic regions, (5) verifying that post-construction monitoring visits by the program’s Beneficial Use Monitoring teams were conducted within the prescribed time frame, and (6) determining whether onsite inspections were regularly performed and properly documented in the daily site log. Data on infrastructure projects was also substantiated through physical inspection during site visits to selected project sites. During these visits, auditors interviewed implementer and subcontractor staff concerning problems, if any, during construction and spoke to barangay officials and residents to solicit their feedback on the completed infrastructure projects.
MANAGEMENT COMMENTS

MEMORANDUM

TO : Bruce Boyer, Regional Inspector General
FROM : Reed Aeschliman, Acting Mission Director /s/
SUBJECT : Audit of USAID/Philippines’ Growth with Equity in Mindanao 3 (GEM-3) Program

USAID/Philippines wishes to thank the Regional Inspector General (RIG) for the professional and constructive manner in which the audit was conducted. The Mission agrees that the implementation of the audit recommendations will help improve the various aspects of the GEM-3 Program.

The actions taken and further actions planned by the Mission to address the audit recommendations are as follows:

Recommendation #1: We recommend that USAID/Philippines require the implementer of the GEM-3 Program to assess the Ladia-Raguisi-Pinarang road, coordinate the appropriate repairs and maintenance needed, and explore options to protect the road from further destructive usage.

Mission Response: USAID concurs with the recommendation. At the request of USAID, the GEM-3 Program implementer assessed the condition of the Ladia-Raguisi-Pinarang Road. The GEM Program Design Engineer performed sand cone, thickness, and other tests, and noted that the quality of the road showed a marked decline particularly for the second half of the road. Concurrent to the field review, GEM Program staff reviewed the project documentation and reports and concluded the following:

1) Scope of Work Completed Based on the Bill of Quantities: The project was constructed with a shortage of 1,025 cubic meters of aggregate wearing course materials due to recorded measurements based on loose volume instead of placed volume. When aggregate material is placed and compacted on a road, the volume shrinks. In general, one cubic meter of loose material is equivalent to approximately 0.70 cubic meters of placed, compacted material. The field engineer erroneously recorded volume of loose aggregates instead of placed, compacted aggregates, and thus over-credited
the volume of aggregate materials used on the project. The field engineer recorded all aggregate materials in the Bill of Quantities (BOQ) but erroneously recorded loose volumes for a portion of the aggregate surface course instead of placed volumes. When the BOQ reflected that 100% of the aggregate material was placed, the project appeared complete. Due to the miscalculation of the volume of aggregate materials required, the GEM-3 Program implementer did not purchase and deliver enough materials and did not charge USAID for them.

2) Fast deterioration of the road due to other significant factors: The GEM-3 Program implementer received multiple reports that nearby residents were “harvesting” the surface course materials for their private use. Furthermore, there have been reports of heavily-loaded, illegal logging trucks using the road during the evenings and early mornings. Local residents have also placed filling materials on the left side ditch at Station 1+000 for use as a basketball court, causing drainage to pond in the roadway. All these factors have increased the damage to the project which was implemented as a low-traffic, aggregate-surfaced gravel road.

USAID concurs with the following actions proposed by the GEM-3 Program implementer:

1) Adjustment in the sub-contract price: The error (loose vs. compacted volume) amounts to an overpayment of Php98,513 (US$2,300) and will be recouped from the sub-contractor’s final billings.

2) Complete and deliver the volume required: Initially, all aggregate surfacing material was a counterpart contribution valued at Php4.0 million. In total, Php1.6 million worth of aggregate materials was provided by the counterpart and Php1.25 million was provided by USAID, leaving Php1.15 million worth of aggregate material unfunded due to the inability of the counterpart organization to provide the remaining contribution. The estimated cost to complete the work is estimated at Php1.18 million (after recoupment) based on material costs (Php0.96 million) and equipment (Php0.32 million). The difference in costs (Php1.15 million vs. Php1.18 million) can be attributed to variations in material prices as well as remobilization costs. USAID will cover the costs of the remaining work. The GEM-3 Program implementer will undertake the remaining work through direct administration. The repair work will be completed in December 2011. Upon completion, the GEM-3 Program implementer will conduct a final inspection with the USAID/Philippines engineer and project stakeholders and provide an updated report to USAID 15 days after the final inspection. USAID/Philippines engineer will make a final determination on the quality of the repair work based on the final inspection report. USAID/Philippines proposes to close this recommendation if the quality of the repair work is satisfactory. If the quality of the repair work is not satisfactory, USAID will require the GEM-3 Program implementer to
cover the cost of additional repair work needed to achieve the acceptable quality.

Based on the actions identified above, USAID requests RIG/Manila concurrence that a management decision has been reached.

**Recommendation #2:** *We recommend that USAID/Philippines develop a plan of action which outlines the measures that mission intends to take to ensure the quality standards are maintained on the remaining Barangay-level Infrastructure Projects (BIPs) to be completed under the Mission’s GEM-3 Program.*

**Mission Response:** USAID concurs with the recommendation. USAID will develop a plan of action that outlines the measures that Mission intends to take to ensure the quality standards are maintained on the remaining BIPs to be completed. USAID will tap the services of USDH construction engineer from USAID/RDMA to provide technical advice and help develop the plan of action. USAID will submit the action plan 30 days from the date of this memorandum to comply with the recommendation.

Based on the actions identified above, USAID requests RIG/Manila concurrence that a management decision has been reached.

**Recommendation #3:** *We recommend that USAID/Philippines require the implementer of the GEM-3 Program to make and document appropriate adjustments to its performance results data to ensure that the post-harvest facilities provided under the program to former combatants are credited properly toward the target for this activity to avoid double counting.*

**Mission Response:** USAID concurs with the recommendation. At the request of USAID, the GEM-3 Program implementer made and documented adjustments to its performance results data to ensure that the post-harvest facilities are counted under the appropriate results indicator. The GEM-3 Program implementer removed the fifteen (15) post-harvest facilities from the number of post-harvest facilities provided under the Former Combatant Reintegration (FCR) and left the record under the barangay infrastructure projects (BIPs). The adjustment did not change the reporting on BIPs and eliminated the duplication in recording of output. The GEM-3 Program quarterly report for April-June 2011 reflected the reduction of 15 FCR projects. (See Attachment A for the documentation of the adjustments made on the indicators.)

Based on the actions taken, the Mission requests RIG/Manila’s concurrence that this recommendation has been addressed, and that this audit recommendation be closed.
Appendix II

Recommendation #4: We recommend that USAID/Philippines require the implementer of the GEM-3 Program to develop and implement a plan of action for the program’s Sustainable Aquaculture and Fisheries Effort (SAFE) activity to provide a sustainable, long-term solution that addresses the existing supply problem of fish hatcheries not being able to produce sufficient quantities of fingerlings to satisfy the demand generated by program-assisted aquaculture cooperatives.

Mission Response: USAID concurs with the recommendation. At the request of USAID, the GEM-3 Program implementer has assessed the Sustainable Aquaculture and Fisheries Effort (SAFE) activity. USAID concurs with the actions proposed by the GEM-3 Program implementer to provide a sustainable and long-term solution that addresses the existing supply problem of fish hatcheries.

The GEM-3 Program implementer recognizes the need to ensure a sustainable long-term supply of grouper fingerlings to service the needs of forty (40) aquaculture grow-out cooperatives. These cooperatives require approximately 15,000 fingerlings monthly. The GEM-3 Program implementer addresses this need at two stages in the production process: a) hatcheries that produce grouper fry; and b) nurseries that receive the fry from the hatcheries and rear them to fingerlings of a size that can be provided to grow-out cooperatives. The GEM-3 Program implementer is taking the following actions.

For the existing facility in Tawi-Tawi, which is both a hatchery and nursery, the GEM-3 Program implementer is working with the hatchery operator to increase larval stocking and survival rates of groupers in accordance with the recommendations of a consultant who studied the problem. The hatchery operator is currently improving the rearing conditions that involve optimizing initial stocking and rearing densities, water quality and temperature conditions, feed quality and regimes, disease control, and multiple production cycles. The hatchery currently produces 14,000 3-cm fingerlings every month. The Tawi-Tawi facility is on track in increasing the monthly production from 14,000 to 60,000 fingerlings by June 2012, which will satisfy the requirements of both the forty (40) aquaculture grow-out cooperatives as well as additional growers. The Tawi-Tawi facility is also targeting production of additional 60,000 grouper fry to supply other nurseries located in Kabasalan, Zamboanga Sibugay and Sibutu, Tawi-Tawi.

USAID will closely monitor the progress of the actions being implemented by the GEM-3 Program implementer.

Based on the actions taken, the Mission requests RIG/Manila’s concurrence that this recommendation has been addressed, and that this audit recommendation be closed.