OFFICE OF INSPECTOR GENERAL

AUDIT OF USAID/EGYPT'S AGRICULTURAL EXPORTS AND RURAL INCOMES PROJECT

AUDIT REPORT NO. 6-263-07-001-P
February 21, 2007

CAIRO, EGYPT

Office of Inspector General

February 21, 2007

MEMORANDUM

TO: USAID/Egypt Director, Kenneth C. Ellis

FROM: Regional Inspector General/Cairo, David H. Pritchard /s/

SUBJECT: Audit of USAID/Egypt's Agricultural Exports and Rural Incomes Project (Report No. 6-263-07-001-P)

This is our report on the subject audit. The report includes five recommendations to (1) redesign a section of the project, (2) enforce the requirement that project's grantees submit progress reports that address expected results, (3) analyze the quarterly reports, (4) test support for results reported by the grantees, and (5) correct the Performance Monitoring Plan.

In finalizing this report, we considered your comments to our draft report and have included them as Appendix II. Based on these comments, we concur that management decisions have been made on all five recommendations, and that final action on these recommendations is pending. Please coordinate final action with USAID's Audit, Performance and Compliance Division.

I appreciate the cooperation and courtesy extended to my staff during the audit.

U.S. Agency for International Development
Regional Inspector General/Cairo
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SUMMARY OF RESULTS

The Agricultural Exports and Rural Incomes Project was a 4-year, $57.3 million USAID project that began in the last quarter of 2003 as one of several activities within USAID/Egypt's strategic objective for strengthening the environment for trade and investment. The project's overall expected results were to increase on-farm and agribusiness jobs and rural incomes. The project expended $17.0 million through September 30, 2005. The objectives of the audit were to determine if the project has increased jobs and rural household incomes of project participants as planned. (See page 2.)

For the activities audited, the project has not increased jobs of its participants as planned, and the grantees were unable to support the income results they reported. In addition, USAID/Egypt needed to strengthen controls associated with monitoring and reporting on the project. (See pages 3, 6, 8, 10, and 12.)

This report includes five recommendations to the USAID/Egypt Director to (1) redesign a section of the project, (2) enforce the requirement that the project's grantees submit progress reports that address expected results, (3) analyze the quarterly reports, (4) test support for results reported by grantees, and (5) correct the Performance Monitoring Plan. (See pages 6, 8, 10, and 11.)

Appendix II contains management comments in their entirety. In its comments, USAID/Egypt generally agreed with the findings and reported that management decisions had been reached on all five audit recommendations. Among other things, for example, the Mission agreed that the project was not designed to increase jobs, and the Mission planned to drop the jobs indicators used for measuring project progress. We concur that management decisions have been reached. (See pages 19-23.)

BACKGROUND

The Agricultural Exports and Rural Incomes Project was a 4-year, $57.3 million USAID project that began in the last quarter of 2003 as one of several activities within USAID/Egypt's strategic objective for strengthening the environment for trade and investment. A significant purpose of this project was to strengthen the competitiveness of Egypt's agriculture, and the project's overall expected results were to increase on-farm and agribusiness jobs and rural incomes. The project expended $17.0 million through September 30, 2005, which represents its first 2 years.

USAID/Egypt awarded two contracts, one cooperative agreement, and two grants for five project components designed to provide technical assistance, training and commodities through: (1) grants to support infrastructure and equipment needs of small farmers; (2) support to Egyptian agricultural trade associations; (3) support to smallholders; (4) support for international linkages between Egyptian and American scientists; and (5) technical assistance for the design of a legacy program to ensure the sustainability of achievements attained under the project.

With respect to the component to support smallholders, which was the primary focus of this audit due to this component being the only component that had specific linkages to the expected project results of increasing on-farm and agribusiness jobs and rural incomes, USAID/Egypt signed a grant agreement with ACDI/VOCA on October 1, 2003, for $7.9 million to work with dairy and livestock farmers. The second grantee was CARE, with which USAID signed a grant agreement on September 21, 2003, for $10.9 million to work with horticulture farmers.

AUDIT OBJECTIVES

We conducted this audit as part of the Office of Inspector General's audit plan for fiscal year 2006 to answer the following questions:

- Has USAID/Egypt's investment in the Agricultural Exports and Rural Incomes Project increased the number of jobs for project participants as planned?

- Has USAID/Egypt's investment in the Agricultural Exports and Rural Incomes Project increased the rural household incomes of project participants as planned?

Appendix I contains a discussion of the audit's scope and methodology.

AUDIT FINDINGS

Has USAID/Egypt's investment in the Agricultural Exports and Rural Incomes Project increased the number of jobs for project participants as planned?

For the activities audited, USAID/Egypt's investment in the Agriculture Export and Rural Incomes Project has not increased the number of jobs as planned. Factors that impaired progress included:

- The grantees had not met the planned annual targets for increasing jobs.
- The grantees had not adequately reported their progress in meeting the annual targets for increasing jobs.
- The grantees could not provide support for all reported results.
- USAID/Egypt's Performance Monitoring Plan reported inaccurate information on the increases in the number of jobs.

As discussed in the following sections, USAID/Egypt needed to (1) establish better targets and methods for measuring project progress, (2) improve oversight of grantee reporting, (3) better verify reported results, and (4) correct its Performance Monitoring Plan.

USAID/Egypt Needed to Establish Better Targets and Methods for Measuring Project Progress

Summary: According to the grant agreements, ACDI/VOCA and CARE were to increase jobs by 5,787 and 12,667, respectively, over the first 2 years of the project. Neither grantee has met their annual planned targets. This occurred because of a problematic project design, a shift in the focus of the activities, and the grantees' use of unreliable methodologies to measure increases in jobs. As a result, the project as related to increasing jobs has not been effective.

ACDI/VOCA – The grant agreement indicated that ACDI/VOCA would generate 2,390 new jobs in the first year and 3,397 in the second year, for a 2-year total of 5,787 new on-farm jobs.

ACDI/VOCA did not meet either of these targets. Although ACDI/VOCA did not report on results for the first-year target, the Chief of Party said that ACDI/VOCA did not meet it. ACDI/VOCA did produce a performance report dated September 2005, which included results for the first 2 years of the project. This report said that ACDI/VOCA increased jobs by 4,594, or 79 percent of the 2-year target. However, as discussed later in this report, ACDI/VOCA used an unreliable methodology to calculate these increases, resulting in an overstatement of accomplishments. For example, ACDI/VOCA's methodology included the calculation of amounts based on indirect farmers, whereas USAID approved the project based on the intended results for direct beneficiaries. The amounts attributed to indirect farmers represented approximately 84 percent of the reported results.

Both a USAID/Egypt official and an ACDI/VOCA official stated that working with dairy and livestock farmers would not increase jobs as previously believed.

CARE – The grant agreement contained annual targets of increasing jobs by 6,000 in the first year and 6,667 in the second year, for a 2-year total of 12,667 new, on-farm jobs.

CARE did not meet these targets. According to performance reports provided by CARE, CARE increased jobs in the first 2 years by 6,412, or 50.6 percent of its target. However, as discussed later in this report, CARE used an unreliable methodology to calculate these increases, resulting in an overstatement of accomplishments.

CARE has submitted a request to USAID/Egypt to reduce its portion of the project's overall results from a 4-year total of 40,000 jobs to 13,333—one third of the original target. CARE said that the 40,000 target was "completely unrealistic".

ACDI/VOCA and CARE have not achieved the targets for increasing jobs because of (1) a problematic project design, (2) a shift in the focus of the activities, and (3) the grantees' use of unreliable methodologies to measure increases in jobs.

Project Design — According to economists within USAID/Egypt, measuring a project's impact on job creation involves the use of extensive surveys and/or complicated extrapolations using proxy indicators. As the approval documents went through adaptations for the project agreement, Request for Proposals/Applications, and grant stages, the creation of jobs was elevated to a primary indicator. This was particularly problematic because job creation occurs later in a project's life, sometimes years after a project concludes. In hindsight, Mission officials concluded that jobs creation should not have been elevated to an indicator. The Chiefs of Party for both grantees stated that the annual targets were "overly ambitious."

Shift in Focus — ACDI/VOCA and CARE shifted their focus. After USAID/Egypt signed respective grant agreements with ACDI/VOCA and CARE, USAID/Egypt changed one aspect of the overall project as a result of a visit from an Under Secretary for the Department of State. The Mission substituted a grant activity for the original policy activity. This grant activity was to supply small farmers' associations with needed equipment or facilities to improve the quality of products as well as to increase farming efficiency. This change affected both grantees because USAID/Egypt expected the grantees to facilitate the formation of these small farmers' associations and then get the associations ready to submit grant proposals. ACDI/VOCA and CARE stated that they spent most of their effort in institution building to prepare the farmers to accept the grants.

This additional work was not included in either grant agreement. USAID/Egypt amended the grant agreement with ACDI/VOCA on June 28, 2005, by increasing the award amount by approximately $380,000 to pay for additional work. However, USAID/Egypt did not amend the scope of work to specify the additional work or change any of the original jobs targets. USAID/Egypt did not amend CARE's grant agreement.

Methodologies to Measure Increases in Jobs — ACDI/VOCA and CARE used unreliable methodologies to calculate the increases in the number of jobs.

ACDI/VOCA based its results on a complex formula applied to data extracted from a survey, but the methodology was not fully accurate and valid. (See Appendix III for details.). Examples include the following:

- ACDI/VOCA was unable to provide documentation to support an assumption that every increase of 10 animals would create three jobs for dairy farmers. Additionally, as previously stated, a USAID official and an ACDI/VOCA official both stated that ACDI/VOCA's activities would not increase jobs (See Appendix III, page 24).

- ACDI/VOCA was unable to support the attribution of its activities to the animals that were born. When calculating the increase in animals, ACDI/VOCA included the female animals that were born to the baseline animals and that matured during the year. However, these animals were born prior to the project's commencement. Accordingly, ACDI/VOCA should not have added to the baseline those that were born and matured before the project started (See Appendix III, page 26).

- ACDI/VOCA's methodology included the calculation of amounts based on indirect farmers, whereas USAID approved the project based on the intended results for direct beneficiaries. The amounts attributed to indirect farmers represented approximately 84 percent of the reported results. Indirect farmers refer to those farmers who did not participate directly in the activities, but learned about the new technology through other direct farmers. According to several project documents, including the Activity Approval Document, the Request for Applications, and the Performance Monitoring Plan, ACDI/VOCA should have measured the jobs impact on direct beneficiaries—not on indirect ones. However, the grant agreement included ambiguous language regarding the inclusion of indirect farmers' results, causing confusion among USAID officials about what they should expect as results. According to one USAID official, USAID/Egypt should receive results for just the direct beneficiaries because it is very difficult to get an accurate and agreed-upon number for indirect results (See Appendix III, pages 24-25).

CARE's methodology for calculating results was also not fully supported or accurate (See Appendix III for details.). Examples include the following:

- CARE did not have support for an assumption that one new on-farm job was created for every feddan[1] that farmers switched from lower-value field crops (such as wheat or berseem) to high-value horticulture (such as green beans or cantaloupes). According to CARE's Chief of Party, this formula came from a previous USAID project called Agriculture-Led Export Businesses. However, as explained in a report of that project that discussed the "Input-Output Model," this formula was applicable to a new input—not a switch in inputs, which in this case is a switch in crops (See Appendix III, page 27).

- When calculating the new jobs, CARE did not take into account the jobs that existed on the land prior to switching to high-value crops. CARE stated that its farmers grew 2,972 feddans of high-value horticulture. Assuming one new job for every feddan of

[1] In Egypt, a feddan is a unit of land area equal to about 1.038 acres.

high-value horticulture, CARE reported that it created 2,972 jobs. However, CARE did not take into account that the land previously grew a different crop that required labor (See Appendix III, pages 27-28).

- When calculating the 2,972 feddans that produced high-value horticulture, CARE did not exclude the portion of these 2,972 feddans that was already producing high-value horticulture prior to CARE's activities. For example, an independent survey that CARE commissioned during the project stated that approximately 25 percent of farms in Upper Egypt already grew high-value horticulture (See Appendix III, page 27).

As a result of the problematic project design, the shift in the focus of the project's activities, and the use of unreliable methodologies to measure increases in jobs, the project as related to increasing jobs has not met established targets. In discussing this issue with USAID/Egypt officials, they mentioned that the project has provided many benefits that were beyond the scope of our audit, and they emphasized the project's importance to Egypt. They agreed that the creation of jobs was not a good indicator.

To address the design issue and the change in focus for some project activities, including the difficulty of trying to measure increases in jobs, we make the following recommendation:

Recommendation No. 1: We recommend that the USAID/Egypt Director redesign the jobs section of the Agricultural Exports and Rural Incomes Project to establish appropriate indicators and targets for measuring project progress.

USAID/Egypt Needed to Improve Oversight of Grantee Reporting

Summary: Both grant agreements required each grantee to submit quarterly reports to USAID/Egypt regarding the progress towards grantees' goals. However, the grantees had not adequately met the reporting requirements due to insufficient USAID/Egypt oversight. As a result, USAID/Egypt was not able to determine if the project was effective.

Both grant agreements included a reporting requirement that stated that the grantee will submit quarterly reports, due within 30 days after the reporting period, which "will contain: a comparison of actual accomplishments with the goals, objectives, and milestones established for the period; reasons why established goals were (or are not) being met; and other pertinent information." Also within their grant agreements, each of the grantees had established annual goals that USAID/Egypt expected them to meet.

ACDI/VOCA and CARE did not meet this reporting requirement. Although ACDI/VOCA submitted quarterly reports, the reports did not address results, including a comparison of actual accomplishments to the annual targets for jobs.

CARE also submitted quarterly reports to USAID/Egypt, but the quarterly report for the end of the first year did not report on whether or not CARE had met their targets for jobs. The table included in the report stated "N/A" as the result for jobs and stated that CARE was in the process of collecting information for year one. The first report that included results relating to jobs was the April 2005 quarterly report for the first 18 months of the project. CARE did not explain why it met or did not meet the target for the 18 months and 2 years of the project.

CARE also changed its targets in the quarterly reports and reported against these changed targets. As a result, CARE reported against targets that were significantly lower than targets established in the agreed-to grant agreement, as shown in Table 1.

Table 1: CARE's Reported Targets Versus Grant Agreement Targets for Jobs Created

	1st Year	2nd Year	3rd Year	4th Year	Total
Grant Agreement	6,000	6,667	12,666	14,667	40,000
Quarterly Reports	1,300	2,600	3,900	5,533	13,333

CARE officials said that they misunderstood the Request for Applications, which stated that one of the goals for the project was to increase jobs by 40,000. These officials thought USAID/Egypt had expected each grantee to reach the target of 40,000. However, according to CARE's November 2005 formal request to modify targets, this goal was "completely unrealistic." CARE stated that it discussed this with USAID/Egypt in late 2003 and that CARE and USAID/Egypt had agreed to change CARE's target.

Although the USAID Cognizant Technical Officer stated that he approved this change with the annual implementation plan, the annual implementation plan did not support any change in targets. Also, the USAID Activity Manager was unaware of any discussions or changes to the targets.

Consequently, the actual results that CARE reported in its quarterly reports looked better against lower targets. On November 28, 2005, CARE submitted a formal request to USAID/Egypt to change its targets because CARE considered them to be unrealistic.

USAID/Egypt was not fully analyzing the reports received from grantees to ensure that the grantees met reporting requirements. USAID's Automated Directives System 202.3.6, states that a major task of the Cognizant Technical Officer and Strategic Objective Team is to monitor the quality of outputs produced by the grantees. These outputs are critical to achieving results. Furthermore, Automated Directives System 303.3 states that the Cognizant Technical Officer is responsible for monitoring and evaluating the grantee's performance during the award in order to facilitate the attainment of project objectives. One method they can use is reviewing and analyzing all performance reports and ensuring compliance with the terms and conditions of the award.

As a result of insufficient analysis of the quarterly reports, officials within USAID/Egypt thought that the project was close to being on target, but they were not fully aware that the grantees were significantly under their annual targets for job creation.

To address the grantees' noncompliance with reporting requirements and the need for closer oversight of the reporting, we make the following recommendations:

> *Recommendation No. 2: We recommend that the USAID/Egypt Director enforce the requirement that grantees under the Agricultural Exports and Rural Incomes Project submit progress reports that address each of their expected results in their grant agreements, including reasons for meeting or not meeting the expected results.*

> *Recommendation No. 3: We recommend that the USAID/Egypt Director require the appropriate Mission personnel to analyze the quarterly reports under the Agricultural Exports and Rural Incomes Project, including comparing the reported results to planned results specified in documentation such as the grant agreements.*

USAID/Egypt Needed to Better Verify Reported Results

Summary: Contrary to the *Standards for Internal Control in the Federal Government,* the grantees did not maintain readily available documentation to support their reported results. USAID/Egypt's oversight of reported results was not sufficient to identify these internal control weaknesses. As a result, USAID/Egypt did not have sufficient assurance that information grantees reported was reliable.

The Government Accountability Office's *Standards for Internal Control in the Federal Government* states that internal controls and all transactions and other significant events need to be clearly documented and that such documentation should be readily available for examination.

Each grantee had a separate process for collecting, recording, summarizing, and reporting data, but those processes did not ensure the reliability of the reported data.

ACDI/VOCA – ACDI/VOCA employed the following process to collect, record, summarize, and report results to USAID/Egypt:

1. A monitoring and evaluation team from ACDI/VOCA headquarters in Cairo designed a two-page survey to give farmers to determine the impact of the project's activities.
2. The team determined sample size, locations to visit, and target groups to interview.
3. The team visited the sample of 179 beneficiary farmers in Upper Egypt to survey them on several points, such as how much milk the farmers' animals produced and for the price they sold the milk.
4. The team filled out the two-page survey forms based on the farmers' responses.
5. The team tabulated and summarized the survey responses in a spreadsheet grouped by governorate and village.
6. The team then entered the baseline data into the spreadsheet as a basis for comparison.
7. The team designed formulas within the spreadsheet using the farmers' responses and other information, such as baseline data, to calculate the results.

8. The team surveyed a sample of three indirect farmers on the impact of project activities on their production.
9. ACDI/VOCA wrote the "First Year Impact Report – September 2005" using summarized information from the spreadsheet.
10. ACDI/VOCA submitted the "First Year Impact Report" to USAID/Egypt.

ACDI/VOCA's process for collecting, recording, summarizing, and reporting data lacked reliability for several reasons. For instance, ACDI/VOCA based its reported results on surveys performed of 179 farmers in Upper Egypt, but Mission officials stated that the farmers were reluctant to share farming information. Moreover, according to Mission officials, the farmers may not have understood many of the survey questions. Therefore, it was difficult to determine the reliability of the results collected. In addition, ACDI/VOCA summarized the information from the surveys and used the results in many complex formulas, which were subject to error. (See Appendices III and IV for details.)

Also, ACDI/VOCA was unable to provide support for reported results due to weaknesses in control processes that affected the collection, recording, summarizing, and reporting of results to USAID/Egypt. ACDI/VOCA surveyed 179 of 1,973 beneficiary farmers to calculate their results. Based on our review of half of the farmers in one governorate of Egypt, we could not verify 24 of 24 sampled surveys. For instance, many of the amounts reported by the farmers on the survey (such as what price they sold milk for or how much milk they produced) were significantly different from the amounts they told us. In addition, ACDI/VOCA was unable to provide the formulas they used to tabulate and summarize the results as well as support the baseline data they used in the spreadsheet. As a result, we were unable to validate the results ACDI/VOCA reported to USAID/Egypt.

CARE – CARE employed the following process to collect, record, summarize, and report results to USAID/Egypt:

1. Each CARE field office's marketing specialist either visited or called the farmers' associations approximately every two weeks.
2. Marketing specialists filled out the data collection forms based on the farmers' associations' information.
3. A data input specialist in each field office inputed the information from the data collection forms into the computer database.
4. The regional office area manager in each field office reviewed the database information to ensure that there were no errors and that the information made sense.
5. A data input specialist then submitted the database information to the headquarters office in Cairo.
6. The Headquarters office combined each field office's information.
7. The Headquarters office prepared quarterly reports based on the summarized information in the database.
8. CARE's headquarters office sent USAID/Egypt quarterly reports based on this summarized database information.

CARE was unable to provide documentation to support the results that it reported to USAID/Egypt for both its 18-month results and its 2-year results. The reason was that the Chief of Party, prompted by the audit, had the CARE team review all data and reports for validity. The team found some issues with the data and was in the process of updating it. However, instead of using a copy of the original file, CARE had overridden the original file with new data and could not, therefore, provide the original supporting documentation. Furthermore, one of CARE's field offices in Upper Egypt was unable to provide supporting documentation for the results it had submitted to the CARE headquarters office. The field office relied on verbal information from the farmers' associations and therefore did not have supporting documentation. Because the farmers' associations did not maintain written documentation for the crops they sold, we were unable to validate the results CARE reported to USAID/Egypt.

USAID/Egypt's oversight of reported results was not sufficient to identify these internal control weaknesses. USAID's Automated Directives System 203.3.5.1 states that performance data:

> should reflect stable and consistent data collection processes and analysis methods over time. The key issue is whether analysts and managers would come to the same conclusions if the data collection and analysis process were repeated. Operating Units should be confident that progress toward performance targets reflects real changes rather than variations in data collection methods.

A lack of sufficient internal controls within each grantee caused them to be deficient in supplying documentation to support their results. As a consequence, USAID/Egypt lacks sufficient assurance over the reliability of information grantees have reported to the Mission.

To address this weakness, we make the following recommendation.

Recommendation No. 4: We recommend that the USAID/Egypt Director require appropriate Mission staff to test the support for results reported by grantees under the Agricultural Exports and Rural Incomes Project and to require the grantees to take corrective action where needed.

USAID/Egypt Needed to Correct Its Performance Monitoring Plan

Summary: Contrary to USAID's Automated Directives System 203.3.5.1, the information that USAID/Egypt reported in its Performance Monitoring Plan relating to the Agricultural Exports and Rural Incomes Project included inaccurate target and actual amounts. The Mission's Strategic Objective Team did not analyze the information provided by the grantees before including it in the report. This inaccurate reporting can cause decision makers to make improper conclusions and programmatic decisions.

USAID's Automated Directives System 203.3.5.1 states, "To be useful in managing for results and credible for reporting, Operating Units should ensure that the performance data in the Performance Monitoring Plan for each Strategic Objective meet five data quality standards"—validity, integrity, precision, reliability, and timeliness.

The USAID/Egypt Performance Monitoring Plan reported targets and results for both jobs and income in two categories, horticulture and livestock/dairy. The Performance Monitoring Plan included target and actual amounts that were inaccurate. For instance:

- Target amounts for "Horticulture" jobs for 2004 and 2005 were 1,300 and 3,900, respectively. The target amounts should have been 6,000 and 6,667, respectively.
- The target amount presented in the Performance Monitoring Plan for "Horticulture" income for 2006 was 6,412 Egyptian Pounds[2]. The amount should have been 12,824 Egyptian Pounds.
- The "Horticulture" income indicator was missing the 2007 target of 14,427 Egyptian Pounds.
- The Performance Monitoring Plan stated that the results indicator represents actual, direct beneficiaries, but the reported amounts included indirect beneficiaries. In the case of ACDI/VOCA, the difference was significant. Amounts attributed to indirect farmers represented approximately 84 percent of the reported results.

USAID/Egypt's Strategic Objective Team received its information from each of the grantees and reported it in the Performance Monitoring Plan. However, the Team did not analyze the data to ensure that it was accurate before including it in the Performance Monitoring Plan.

As a result, the Performance Monitoring Plan showed that the grantees were exceeding their targets when in fact the grantees were falling short of the actual targets. The reporting of inaccurate results and targets can cause decision makers to make improper conclusions and programmatic decisions.

Recommendation No. 5: We recommend that the USAID/Egypt Director correct the actual and target amounts in the Performance Monitoring Plan related to the Agricultural Exports and Rural Incomes Project.

[2] As of June 2006, $1 was equal to approximately 5.75 Egyptian Pounds.

Has USAID/Egypt's investment in the Agricultural Exports and Rural Incomes Project increased the rural household incomes of project participants as planned?

For the activities audited, we could not determine if USAID/Egypt's investment in the Agricultural Exports and Rural Incomes Project has increased rural household incomes for project participants as planned.

As discussed below, the two grantees audited lacked supporting documentation to verify the reported results.

Grantees Needed to Better Support Reported Results

Summary: According to the grant agreements, USAID/Egypt expected ACDI/VOCA to increase income of the project participants by the equivalent of $3,501,090 and CARE to increase income of project participants by 200 percent over the first 2 years of the project. However, the reported results were unreliable. Because each grantee lacked sufficient internal controls, the documentation supporting their results was deficient. As a result, we were unable to validate the results reported to USAID/Egypt.

ACDI/VOCA – The grant agreement contained annual targets for the increase in income that grants activities would generate. ACDI/VOCA stated it would increase annual income by the equivalent of $1,100,500 in the first year and $2,400,590 in the second year for a cumulative, 2-year total of $3,501,090.

ACDI/VOCA did not report on the first-year target. However, the Chief of Party stated that ACDI/VOCA did not meet it. ACDI/VOCA produced a report for the first 2 years of the project, which stated that ACDI/VOCA increased income by $4,023,333 or 115 percent of their 2-year target. Of this amount, more than 50 percent represents results attributed to indirect beneficiaries, which has caused confusion among USAID officials about what they should be expecting in terms of results. Nevertheless, even this number is unreliable because of the many issues of accuracy and support for the methodology as seen in Appendix IV.

CARE –The grant agreement contained annual targets for the increase in income of 100 percent in the first year and 200 percent in the second year.

According to CARE's performance reports, CARE increased income in the first 2 years by 164 percent or 82 percent of their 2-year target. However, the baseline CARE used in calculating the increase in income was imprecise and too low, causing the results to be higher than if CARE had used a higher but more precise number. CARE used an amount found in an independent study that it had commissioned. However, the baseline amount did not take into account the farmers that already grew high-value horticulture; if it had, the baseline would have been higher. In addition, as discussed previously, CARE was unable to provide documentation supporting its increased income figures.

Since each grantee lacked sufficient internal controls, the documentation they supplied to support their results was deficient. Maintaining the documentation that is the basis of their results is important because such documentation supports the credibility of the information reported to USAID/Egypt. Because of this deficiency, we were unable to validate the reported results provided to USAID/Egypt.

We are not making a recommendation on this finding because recommendation number four addresses the issues dealing with unsupported reported results.

EVALUATION OF MANAGEMENT COMMENTS

In responding to the report, USAID/Egypt emphasized that the Agricultural Exports and Rural Incomes Project was not designed to create jobs but, rather, to create the conditions and means for increasing smallholder farming productivity, which in turn would support rising incomes and higher rates of employment. In consequence, there was no discrete "jobs section" of the component activities reviewed by the audit that specifically addressed job creation. While job targets were cited within CARE and ACDI/VOCA's proposals, the Mission said that they were included in extensive lists of "tentative targets" and expected or "illustrative" project results, not as primary indicators.

USAID/Egypt went on to say that employment generation was never envisaged within the project design nor seen by USAID managers or implementing partners as a practical or early denominator of project progress quarter-by-quarter. The Mission said that the project managers believed the targets described in their organizations' original grant proposals were ambitious, but took the view that these served as useful "stretch" goals for their teams to attempt to reach over the long run. The Mission said that a significant distinction should be made between grantee progress reports midway through the life of the project and the anticipated results of the finally completed project.

With respect to the audit conclusion that data used in grantee reporting were unsupported, USAID/Egypt believed that there was miscommunication between the auditors and the grantees, or an absence of documentation. The Mission emphasized that the grantees believed that, in the rural environment where activities were carried out, illiteracy remained a significant constraint on record keeping. Where written records of transactions were kept, they frequently were not readily offered for outside inspection, and the details of family income were unlikely to be recalled with consistent certitude.

With respect to Recommendation No. 1, USAID/Egypt agreed that the jobs indicators were not appropriate for measuring project progress and planned to drop them from the project. The Mission said that documentation to effect these changes in the CARE and ACDI/VOCA grants had been prepared for Procurement Office action. Therefore, the Mission believed that a management decision had been made for Recommendation No. 1. Final action would be considered implemented upon issuance of fully executed grant modifications reflecting the requested changes.

With respect to Recommendation No. 2, USAID.Egypt agreed with the recommendation, and directed the program implementers to revisit their field reporting requirements. The Mission reported that CARE and ACDI/VOCA were revisiting their field reporting requirements and would institute improved and standardized data collection procedures. The Mission said that both grantees had redesigned their progress reports to make it easier to see the match up between results to date and targets for the reporting period. The Mission had received revised reports from CARE and ACDI/VOCA. Accordingly, the Mission believed that a management decision had been made. Final action would be considered implemented upon evidence presented that these reports are regularly submitted and accepted by USAID.

With respect to Recommendation No. 3, USAID/Egypt said that the technical office responsible for management of the project has established quarterly meetings that include the Program Office to specifically review and analyze each quarterly report to ensure that the report addresses the expected results in the agreement, including reasons for meeting or not meeting expected results. The findings of these reviews would be shared with the implementers. In addition, USAID/Egypt has hired a personal services contractor to provide additional staffing in the Agribusiness Office that will provide additional staff oversight. Accordingly, the Mission believed that a management decision had been made. Final action would be considered implemented upon evidence presented that quarterly meetings are taking place as scheduled and that corrective actions, as identified, are implemented in a timely fashion.

With respect to Recommendation No. 4, USAID/Egypt said that an increased number of monitoring visits to project field sites would be planned, particularly following employment of the additional technical staff advisor above. The Mission noted a 2004 Mission Order that required each team to "document site and field visits related to data review and verification". The Mission said that its staff would continue frequent consultations with grantees to review and advise on project issues. Accordingly, the Mission believed that a management decision had been made by following the existing Mission Order referred to above. Final action would be considered implemented upon submission of documentation for field visits related to data review and verification.

With respect to Recommendation No. 5, USAID/Egypt agreed with the recommendation and said that the Performance Monitoring Plan would be revised before submission of the next Annual Report to only report data relating to direct project beneficiaries. Therefore, the Mission believed that a management decision had been made. Final action would be considered implemented upon submission of the corrected Performance Monitoring Plan.

We agree that the project contained designed flaws, but (1) various documentation established jobs as an expected result, and (2) USAID reported on progress meeting that result. For example, the Project Grant Agreement between the Arab Republic of Egypt and United States of America said: “In order to assist in achieving the Strategic Objective, the Parties agree to work together to achieve the following result: increase in on-farm and agribusiness jobs and rural incomes.” Also, USAID/Egypt’s Performance Monitoring Plan reported targets and results for jobs.

With respect to the Mission’s concern about whether the finding of unsupported data may have been the result of miscommunication between the auditors and the grantees, or an absence of documentation, the audit included interviews with the grantees themselves as well as the review of documentation maintained by these grantees, and were not solely based on interviews with illiterate beneficiaries. While we understand the difficulties of record keeping in the development world, grantees are expected to keep reasonably reliable documentation of key transactions and events consistent with the Standards for Internal Control in the Federal Government as well as the provision of the grants.

We concur that a management decision has been made on all five recommendations.

SCOPE AND METHODOLOGY

Scope

The Regional Inspector General/Cairo conducted this audit in accordance with generally accepted government auditing standards. We performed fieldwork for this audit in Egypt from October 23, 2005, to May 4, 2006, at USAID/Egypt, CARE Egypt, ACDI/VOCA, various grantee regional offices (including Beni Suef and Fayoum), governmental offices (including the Ministry of Agriculture and Land Reclamation), and selected farmers' associations' villages throughout Beni Suef, Giza, and Fayoum.

As part of its fiscal year 2006 audit plan, the Regional Inspector General/Cairo performed this audit to answer the following questions: (1) Has USAID/Egypt's investment in the Agricultural Exports and Rural Incomes Project increased the number of jobs for project participants as planned? (2) Has USAID/Egypt's investment in the Agricultural Exports and Rural Incomes Project increased the rural household incomes of project participants as planned?

In planning and performing the audit, we reviewed and assessed the effectiveness of USAID/Egypt management controls related to the Agricultural Exports and Rural Incomes Project. The significant USAID/Egypt controls identified included:

- receiving and analyzing grantee performance reports to track progress, and to ensure that the grantee is achieving expected results and complying with grant agreement terms,
- conducting site visits to verify that the expected activities and outputs were performed,
- maintaining contact with the grantees for day-to-day feedback on activity implementation,
- preparing a performance monitoring plan that includes performance indicators relating to the project, and
- conducting a mid-term evaluation of the project, which provides a systematic way to gain insights and reach judgments about the effectiveness of the project.

Of the project's five activities, we focused our audit on (1) Smallholder Dairy and Livestock, implemented by ACDI/VOCA; and (2) Smallholder Horticulture, implemented by CARE because they had a direct impact on the goals of the project. We did not audit (a) Business Development Services, implemented by Chemonics, CARE and ACDI/VOCA; (b) Institutional Linkages, implemented by MUCIA; and (c) Support to Trade Associations and Other Groups, implemented by Chemonics and MUCIA. Accordingly, we have limited our conclusions to only the components audited.

In auditing the Smallholder Dairy and Livestock and Smallholder Horticulture components of the project, the audit covered the related results of two grantees, ACDI/VOCA and CARE, whose grant agreements contained annual target results relating to increasing rural household income and jobs. USAID/Egypt signed a grant agreement with ACDI/VOCA, dated October 1, 2003, for $7.9 million over 4 years for work with livestock and dairy farmers. USAID/Egypt also signed a grant agreement with CARE, dated September 21, 2003, for $10.9 million over 4 years for work with horticulture farmers. As of September 30, 2005, USAID/Egypt spent $2.4 million on ACDI/VOCA's agreement and $4.9 million on CARE's agreement. The audit covered the first 2 years of the project, from October 1, 2003, through September 30, 2005.

We had not previously audited the Agricultural Exports and Rural Incomes Project. However, the Regional Inspector General/Cairo issued a previous audit report[3] relating to the agriculture sector that resulted in one finding and one recommendation. The finding and recommendation were not relevant to this audit.

Methodology

To answer both questions described in the scope section, we reviewed the quarterly progress reports provided to USAID by the grantees and compared those to the grant agreements for each grantee to determine if they met their annual targets. We then reviewed the documentation the grantees provided to support their conclusions to determine if their methodologies and baselines were sound. In addition, we reviewed USAID/Egypt's Performance Monitoring Plan, and USAID/Egypt's 2006 Annual Report. We interviewed the Cognizant Technical Officer for one of the grantees, the Agricultural Exports and Rural Incomes project manager, the Chief of Party for each grantee, the Deputy Chief of Party for one grantee, and the monitoring and evaluation teams at each grantee.

We examined project documentation, including quarterly reports and survey forms for collecting data from the farmers. We reviewed prior USAID project final evaluation reports that ACDI/VOCA used to support its methodologies for determining its results. Additionally, we reviewed the spreadsheet that summarized data collected from individual farmers. ACDI/VOCA surveyed 179 farmers across three governorates—Fayoum, Minya, and Sohag—to calculate its results. ACDI/VOCA asked the farmers questions such as how many animals do they own, how much milk do their animals produce daily, how much do they sell milk for, and how much butter or cheese do they sell and for what price. To test the internal controls related to ACDI/VOCA's data collection methods, we selected one governorate, Fayoum, due to its proximity to Cairo, Egypt, and tested the data for 24 of 48 farmers surveyed by ACDI/VOCA. According to ACDI/VOCA, it performed the survey using the same interviewers, the same questionnaire, and the same methodology throughout Upper Egypt. Therefore, we were able to test one governorate to gain an understanding of the reliability of the system of internal controls that ACDI/VOCA used for collecting data from all of the governorates.

Regarding CARE, we conducted interviews with Mission officials, CARE officials, CARE employees, farmers' association directors, and beneficiary farmers. We examined project documentation, including third-party baseline reports, quarterly reports, and data input sheets for collecting data from the farmers' associations. We reviewed prior USAID project final evaluation reports that CARE used to support its methodologies for determining its baselines and results. Additionally, we reviewed the database, which summarized the data collected. For calculating results, CARE used all contracts, written or oral, in each of the governorates it worked in to determine how much of the various crops were sold and at

[3] Audit Report No. 6-263-02-004-P, "Audit of USAID-Financed Technical Assistance for Agricultural Activities in Egypt," September 9, 2002

what price. To test the internal controls related to CARE's data collection methods, we selected one governorate, Beni Suef, and tested half of the written and half of the oral contracts. According to CARE, it gathered the results using the same methodology and the same data input forms throughout Upper Egypt. Therefore, we were able to test one governorate to gain an understanding of the reliability of the system of internal controls that CARE used for collecting data from all of the governorates.

We established a series of materiality thresholds for testing the validity of the ACDI/VOCA' surveys and the CARE contracts. If an individual data point on the survey or contract varied by more than 20 percent and greater than one unit, we concluded the data point was not verifiable. If more than 20 percent of the data points were invalid, we concluded the entire survey or contract was not verifiable. If more than 25 percent of the surveys or contracts tested were invalid, we concluded the entire population was not verifiable.

MANAGEMENT COMMENTS

January 21, 2007

MEMORANDUM

TO: Regional Inspector General/Cairo, David H. Pritchard

FROM: USAID/Egypt Director, Kenneth C. Ellis /s/

SUBJECT: Draft Audit of USAID/Egypt's Agricultural Exports and Rural Incomes Project (Report No. 6-263-07-00x-P)

The Agricultural Exports and Rural Incomes (AERI) project is a large multi-component project aimed at increasing smallholder productivity and competitiveness. It represents a joint commitment by USAID/Cairo, its U.S. implementing partners, and counterpart Egyptian organizations within the public and private sectors to strengthen the environment for trade and investment in Egypt.

AERI has five project components designed to provide technical assistance, training and commodities through: (1) grants to support infrastructure and equipment needs of small farmers; (2) support to Egyptian agricultural trade associations; (3) support to smallholders; (4) support for international linkages between Egyptian and American scientists; and (5) technical assistance for the design of a legacy program to ensure the sustainability of achievements attained under the AERI project. This audit provides a detailed review of reporting methodologies for selected activities within the third project component, and largely limits its review to the achievement of employment increases sought by the two grantee organizations undertaking subsets of activities for support to smallholders.

A key issue in responding to the audit's findings, however, is that AERI was not designed to create jobs, but rather to create the conditions and means for increasing smallholder farming productivity, which in turn would support rising incomes and higher rates of employment. In consequence, there is no discrete "jobs section" of the component activities reviewed in the audit report that specifically addresses job creation. While job targets were cited within CARE and ACDI/VOCA's proposals, they were included in extensive lists of "tentative targets" and expected or "illustrative" project results, not as primary indicators.

In practical terms, employment generation was never envisaged within the AERI project design nor seen by USAID managers or implementing partners as a practical or early denominator of project progress quarter-by-quarter. The difficulty of using job data as a quarterly indicator of the success of technical assistance in agriculture is particularly evident in the case of horticultural production given its seasonal nature. CARE reports of lower than expected job numbers in the first 18-24 months of the project were not seen to signify failure of their project efforts. Similarly, ACDI/VOCA reported early on that they believed their initial targets for job creation on smallholder dairy farms were unrealistically high, but neither they nor USAID considered reduced projections for direct job creation in the livestock component a determinant of the activity's success. In both cases, the project managers believed the targets described in their organizations' original grant proposals were ambitious, but took the view that these served as useful "stretch" goals for their teams to attempt to reach over the long run. In summary, it can be argued that a significant distinction should be made between grantee progress reports midway through the life of the project and the anticipated results of the finally completed project.

Another area of difficulty in responding to the audit report is the assertion that the data used in grantee reporting are "unsupported". The Mission believes that this finding is based either on miscommunication between the auditors and the grantees, or an absence of documentation. In the latter case, the grantees have explained that in the rural environment where their activities are being carried out illiteracy remains a significant constraint on record keeping. Where written records of transactions are kept, they frequently are not readily offered for outside inspection, and the details of family income are unlikely to be recalled with consistent certitude. Faulting grantee reporting because "data lacked reliability" would appear to too lightly dismiss the environmental and cultural realities that attend such a development project. More problematically, the behavior of auditors in the field may appear threatening to villagers who are being interviewed and lack an understanding of the role of audit staff. Under such circumstances it is unlikely that the auditors will be provided with the same access to information provided earlier to project staff known by these villagers. It would seem reasonable to conclude that the auditors have highlighted the real difficulties of seeking developed world accounting exactitude for income and employment generation data in rural communities which frequently do not document specifics, and traditionally only reluctantly share such information when it is available.

The Mission is taking a number of actions in response to the audit recommendations:

Recommendation No. 1: **We recommend that the USAID/Egypt Director redesign the jobs section of the Agricultural Exports and Rural Incomes Project to establish appropriate indicators and targets for measuring project progress.**

Mission Response: As reported in the audit's text, the initial design of AERI did not include the increase in jobs as an indicator. Measurement of jobs was elevated to a primary indicator as the design went through the proposal preparation and award phases. Since measuring a project's impact on job creation involves the use of extensive surveys and/or complicated extrapolations using proxy indicators, the opportunity for disagreements on which proxy indicators and statistical methodologies should be used increases. The cost of such surveys makes them impractical for such a concentrated project, especially when the methodology to obtain the results may be debated. Moreover, job creation often occurs after the end of the project when the full effects of the intervention are realized. Given the difficulties in measuring a project's impact upon jobs, and that only ten months remain in the life of the project the Mission will drop the jobs indicator from the project. MAARDs to effect these changes in the CARE and ACDI/VOCA grants have been prepared for Procurement Office action. Therefore, the Mission believes that a management decision has been made for Recommendation No. 1. Final action will be considered implemented upon issuance of fully executed grant modifications reflecting the requested changes.

Recommendation No. 2: **We recommend that the USAID/Egypt Director enforce the requirement that grantees under the Agricultural Exports and Rural Incomes Project submit progress reports that address each of their expected results in their grant agreements, including reasons for meeting or not meeting the expected results.**

Mission Response: The Mission agrees to the report recommendation and has directed the program implementers CARE and ACDI/VOCA to revisit their field reporting requirements. CARE and ACDI/VOCA are currently revisiting their field reporting requirements, and will institute improved and standardized data collection procedures. Both have redesigned their progress reports to make it easier to see the match up between results to date and targets for the reporting period. As the project approaches its PACD in September 2007, these reports will provide even more critical management information to ensure that shortfalls in project achievements can be addressed in a timely manner.

The Mission has received revised reports from CARE and ACDI/VOCA (copies attached) and performed an analysis of the reports' contents. The Mission believes that a management decision has been made. Final action will be considered implemented upon evidence presented that these reports are regularly submitted and accepted by USAID.

Recommendation No. 3: **We recommend that the USAID/Egypt Director require the appropriate Mission personnel to analyze the quarterly reports, including comparing the reported results to planned results specified in documentation such as the grant agreements.**

Mission Response: The technical office responsible for management of the AERI project has established quarterly meetings that include the Program Office to specifically review and analyze each quarterly report to ensure that the report addresses the expected results in the agreement, including reasons for meeting or not meeting expected results. The findings of these reviews will be shared with the implementers. In addition, USAID/Egypt has hired a USPSC to provide additional staffing in the Agribusiness Office that will provide additional staff oversight. The organization of this analysis is a specific objective listed in the duties and responsibilities of the newly hired USPSC.

In view of the above, the Mission believes that management decision has been made. Final action will be considered implemented upon evidence presented that quarterly meetings are taking place as scheduled and that corrective action(s), as identified, are implemented in a timely fashion.

Recommendation No. 4: **We recommend that the USAID/Egypt Director require appropriate Mission staff to test the support for results reported by grantees and to require grantees to take corrective action where needed.**

Mission Response: Mission Order 203-1 dated February 8, 2004 requires each team to "document site and field visits related to data review and verification". Mission staff will continue frequent consultations with grantees to review and advise on project issues. An increased number of monitoring visits to project field sites will be planned, particularly following employment of the additional technical staff advisor noted above. In view of the above, the Mission believes that a management decision has been made by following the existing Mission Order referred to above. Final action will be considered implemented upon submission of documentation for field visits related to data review and verification.

Recommendation No. 5: **We recommend that the USAID/Egypt Director correct the actual and target amounts in the Performance Monitoring Plan related to the Agricultural Exports and Rural Incomes Project.**

Mission Response: The Mission agrees to the report recommendation No. 5. The Performance Monitoring Plan will be revised before submission of the next Annual Report to only report data relating to direct AERI beneficiaries. Therefore, we believe that a management decision has been made. Final action will be considered implemented upon submission of the corrected Performance Monitoring Plan.

The Mission appreciates the considerable time and effort devoted by staff of the Regional Inspector General to the preparation of this audit report. We believe the benefits of AERI for the people of Egypt will fully justify the investments made in this project by the Government of Egypt and that of the United States. A mid-term evaluation of AERI by an external group of agricultural specialists set the stage for such an expectation in concluding that: “It is very likely that no other Project in the current USAID Egypt portfolio has after two years of implementation doubled the income of its primary beneficiaries in a way that will be largely sustainable with little additional post PACD technical input to the current target population….The Project is clearly an outstanding use of US taxpayer’s money, creating as it does, lasting socio-economic (and hence, political) stability in a much neglected part of the country.”

TECHNICAL APPENDIX FOR JOBS CALCULATIONS

ACDI/VOCA JOBS METHODOLOGY AND CALCULATION[4]

FORMULA	EXPLANATION	FINDINGS
Overall Methodology: • 14,995 new milking animals divided by 10 multiplied by 3 equals 4,499 new on-farm jobs	• ACDI/VOCA determined that the increase in milking animals owned by both direct and indirect beneficiary farmers divided by 10, multiplied by 3, equals the number of new on-farm jobs they created. • This does not apply to the 122 reported jobs created at dairy processing clients.	Unsupported – ACDI/VOCA did not provide documentation to support this assumption. Inaccurate – USAID officials and the Acting Chief of Party for ACDI/VOCA stated that ACDI/VOCA's activities would not increase jobs.
Baseline: Step 1 - Determine Number of Animals: • 4,613 milking animals owned by direct beneficiary farmers plus 23,565 milking animals owned by indirect farmers equals 28,178 total milking animals Step 2 - Determine Number of Jobs: • 28,178 divided by 10 multiplied by 3 equals 8,454 jobs	• ACDI/VOCA calculated the baseline number of milking animals by surveying 179 of their 1,973 direct beneficiary farmers to determine how many animals they owned and applying the ratio of surveyed farmers to the rest of the farmers to determine the total number of milking animals owned by direct beneficiary farmers - 4,613 milking animals owned by direct farmers. • ACDI/VOCA used an average diffusion rate of 5.11, which came from the survey, to calculate the number of milking animals owned by indirect farmers – 4,613 animals multiplied by 5.11 equals 23,565 animals. The diffusion rate is the number of other farmers that each direct, beneficiary farmer (those that participated directly in ACDI/VOCA's activities) told about the techniques learned. • ACDI/VOCA applied their overall methodology to determine the baseline number of workers needed for the baseline number of animals.	Unsupported – The project started in the last quarter of 2003; however, the baseline numbers came from the same survey used to compute the results, which ACDI/VOCA performed in June/July 2005. The baseline number is not a baseline from the beginning of the project. Unsupported – ACDI/VOCA tested 3 indirect farmers out of 10,082 indirect farmers to ensure that they actually adopted the new technology from direct farmers. This is less than one-tenth of one percent. Such a small sample does not have statistical validity. Inaccurate – During the audit, the auditors raised questions in the formula used to compute the diffusion rate from the surveys. Subsequently, ACDI/VOCA decreased the diffusion rate, which subsequently lowers their computed results.

[4] Our review of the methodologies and calculations focused on farmers because 97 percent of ACDI/VOCA's reported results for jobs can be attributed to the farmers' activities. ACDI/VOCA attributed the remaining three percent to dairy processors.

<table>
<tr><th>FORMULA</th><th>EXPLANATION</th><th>FINDINGS</th></tr>
<tr><td></td><td></td><td><u>Inaccurate</u> – According to several project and USAID documents including the Activity Approval Document, the Request for Applications, and the Performance Monitoring Plan, the jobs impact should only include direct farmers and not include indirect farmers.</td></tr>
<tr><td><u>Computed Results:</u>
Determine Number of Animals:
Subtract 1,409 animals for mortality/culling
Add 1,417 new animals from increase in income
Add 14,089 new animals from heifers maturing
Add 3,170 new animals from the sale of calves
Subtract 2,272 animals for mortality/culling
For an ending total of 43,173 animals</td><td>ACDI/VOCA assumed that 5 percent of the baseline milking animals would be lost to mortality or culling (selling or killing) – 28,178 animals multiplied by 5 percent equals 1,409 animals.
ACDI/VOCA assumed that from the increase in income reported, the farmers would purchase additional animals. They assumed that 40 percent of the income increase would be reinvested into the livestock business with 75 percent of the re-investment going towards the purchase of additional milking animals. The total reported increase in income is 23,605,201 Egyptian Pounds multiplied by 40 percent, then multiplied again by 75 percent, which equals 7,081,656 Egyptian Pounds divided by 5,000 Egyptian Pounds (assumed average price of a milking animal), which equals 1,417 animals.
ACDI/VOCA assumed that each baseline animal would give birth to one animal each year with 50 percent being female (heifers) and 50 percent being male (calves). The female animals would mature into milking animals. These additional milking animals are included in the change in total milking</td><td><u>Unsupported</u> - The average increase in income per farmer using ACDI/VOCA's numbers equals 1,958 Egyptian Pounds. Per ACDI/VOCA, farmers do not pool their money together to purchase animals. Therefore, in order to purchase a new milking animal as suggested in their formula, the farmer would have to wait for over 2 years before being able to afford one. (23,605,201 Egyptian Pounds divided by 12,055 farmers – direct and indirect - equals 1,958 Egyptian Pounds per farmer.) ACDI/VOCA has not provided documentation to show that farmers actually acquire new animals because of the increase in income.
<u>Unsupported</u> – ACDI/VOCA was unable to provide support that 40 percent of the increased income would be reinvested into the livestock business and that 75 percent of a farmer's re-investment was used for purchasing new animals. They were also unable to support the average prices of calves (1,500 Egyptian Pounds) and milking</td></tr>
</table>

FORMULA	EXPLANATION	FINDINGS
	animals - 28,178 baseline animals multiplied by 50 percent equals 14,089 new milking animals. • ACDI/VOCA assumed that the male animals (calves) would be sold and the money received from the sale would be used to purchase additional milking animals. ACDI/VOCA assumed that calves would be sold for 1,500 Egyptian Pounds each, and 75 percent of the proceeds would be used to purchase milking animals – 14,089 animals multiplied by 1,500 Egyptian Pounds multiplied by 75 percent divided by 5,000 Egyptian Pounds equals 3,170 new milking animals. • ACDI/VOCA assumed that after all of these changes, the number of animals would decrease by an additional 5 percent due to mortality and culling – 45,445 animals multiplied by 5 percent equals 2,272 animals.	animals (5,000 Egyptian Pounds). <u>Inaccurate</u> – The female animals (heifers) that were born to the baseline animals (14,089) had nothing to do with ACDI/VOCA's activities. They were born prior to the project's commencement. The heifers that were born and matured should not be added to the baseline. ACDI/VOCA was unable to support the attribution of their activities to the animals that were born. <u>Inaccurate</u> – The male animals (calves) that were born to the baseline animals and subsequently sold with the proceeds used to purchase additional milking animals (3,170) had nothing to do with ACDI/VOCA's activities. They were born prior to the project's commencement. This amount should not be added to the baseline in the first year.
<u>Computed Results:</u> <u>Step 1</u> - Determine Number of Animals: • 28,178 animals minus 1,409 plus 1,417 plus 14,089 plus 3,170 minus 2,272 equals 43,173 <u>Step 2</u> - Determine Number of Jobs: • 43,173 animals divided by 10 multiplied by 3 equals 12,952 jobs • 12,925 jobs	• ACDI/VOCA used the total of the baseline plus the changes to the baseline to determine the ending number of milking animals. • ACDI/VOCA used their overall methodology of dividing the total number of milking animals by 10 and multiplying by 3 to get the number of jobs needed. • ACDI/VOCA took the ending number of jobs needed (it was computed as 12,952; however, in their report, they transposed numbers and used 12,925) and subtracted out the baseline number of jobs needed to get the number of new jobs created	<u>Inaccurate</u> – ACDI/VOCA transposed a number when calculating the number of new jobs created. The number of new jobs created should be 4,498 instead of 4,472. (12,952 minus 8,454 equal 4,498.)

FORMULA	EXPLANATION	FINDINGS
minus the baseline of 8,454 jobs equals 4,472 new on-farm jobs created	– 12,925 minus 8,454 equals 4,472.	

CARE JOBS METHODOLOGY AND CALCULATION

FORMULA	EXPLANATION	FINDINGS
2,972 feddans of high-value horticulture multiplied by 1 equals 2,972 new on-farm jobs	• CARE used a multiplier of one, based on a previous USAID project called ALEB, to calculate the number of on-farm jobs they created. The ALEB project used the multiplier to determine how many new jobs were created based on a given input. • CARE assumed that they created one new on-farm job for every added or converted feddan of high-value horticulture that was grown by the farmers. • CARE collected data from each of the farmers' associations bi-weekly to determine the number of feddans of high-value horticulture that they grew.	<u>Inaccurate</u> – CARE did not subtract out the feddans of high-value horticulture that the farmers were already cultivating. According to farmers that we interviewed, some were already cultivating high-value horticulture. To support this further, an independent survey that CARE commissioned during the project stated that approximately 25 percent of farmers in Upper Egypt already grow high-value horticulture. <u>Unsupported</u> – The multiplier CARE used was applied to known inputs in the previous project as opposed to changing values of existing inputs. CARE was unable to provide documentation to support the use of this multiplier. <u>Inaccurate</u> - CARE did not take into account the jobs that existed on the land prior to switching to high-value crops. CARE stated that its farmers grew 2,972 feddans of high-value horticulture. Assuming one new job for every feddan of high-value horticulture, CARE reported that they

FORMULA	EXPLANATION	FINDINGS
		created 2,972 jobs. However, CARE did not take into account that the land previously grew a different crop that required labor.

TECHNICAL APPENDIX FOR INCOME CALCULATIONS

ACDI/VOCA INCOME METHODOLOGY AND CALCULATION [5] [6]

FORMULA	EXPLANATION	FINDINGS
Increase in income of 417,131 Egyptian Pounds This amount is titled "Total Increase in Smallholder Income From Raw Milk Sale – [Agricultural Exports and Rural Incomes Project's] Clients."	• ACDI/VOCA calculated this increase by performing the following calculation for each village and then adding up the totals: (1) multiplying the average production of milk by a buffalo prior to the project by the average milking season for buffalos by the number of buffalos owned by direct farmers, (2) multiplying the average production of milk by a buffalo after the project activities by the average milking season for buffalos by the number of buffalos owned by direct farmers, (3) subtracting the before number from the after number, (4) multiplying this difference by 1.65 Egyptian Pounds (supposed to represent the average market price for a kilo of buffalo milk after the project activities), and (5) multiplying this amount by 29 percent. • ACDI/VOCA added this amount to the same calculation performed for cows—instead of 1.65 Egyptian Pounds, ACDI/VOCA used 1.25 Egyptian Pounds (supposed to represent the average market price for a kilo of cow milk after project activities).	Unsupported – ACDI/VOCA was unable to provide support for the average production of milk by a buffalo or a cow prior to the project. Unsupported – ACDI/VOCA was unable to provide the formula to support the average milking season number for buffalos or cows, which reportedly came from the survey performed on 179 farmers. Unsupported – ACDI/VOCA was unable to support the 1.65 Egyptian Pounds for buffalo. Unsupported – ACDI/VOCA was unable to support the 29 percent for cows or buffalo. Unsupported – ACDI/VOCA was unable to support the 1.25 Egyptian Pounds for cows.

[5] Our review of the methodologies and calculations focused on milk production and milk products because 99 percent of ACDI/VOCA's reported results for income can be attributed to these activities. ACDI/VOCA attributed the remaining one percent to beef sales, group purchase of feed, and dairy processors.

[6] On six separate occasions, we requested documentation to support the calculations and the formulas reported by ACDI/VOCA. We did not receive the information requested. Government Accountability Office's standards require that all transactions and other significant events need to be clearly documented, and that such documentation should be readily available for examination.

FORMULA	EXPLANATION	FINDINGS
Increase in income of 2,102,981 Egyptian Pounds This amount is titled "Total Increase in Smallholder Income From Raw Milk Sale – Indirect Clients."	• ACDI/VOCA calculated this increase by performing the following calculation for each village and then adding up the totals: (1) multiplying the average production of milk by a buffalo prior to the project by the average milking season for buffalos by the number of buffalos owned by direct farmers, (2) multiplying the average production of milk by a buffalo after the project activities by the average milking season for buffalos by the number of buffalos owned by direct farmers, (3) subtracting the before number from the after number, (4) multiplying this difference by the diffusion rate, (5) multiplying this amount by 29 percent, and (6) multiplying this amount by 1.65 Egyptian Pounds (supposed to represent the average market price for a kilo of buffalo milk after project activities). • ACDI/VOCA added this amount to the same calculation performed for cows—instead of 1.65 Egyptian Pounds, they used 1.20 Egyptian Pounds (supposed to represent the average market price for a kilo of cow milk after project activities).	<u>Unsupported</u> – ACDI/VOCA was unable to provide support for the average production of milk by a buffalo or a cow prior to the project. <u>Unsupported</u> – ACDI/VOCA was unable to provide the formula to support the average milking season number for buffalos or cows, which reportedly came from the survey performed on 179 farmers. <u>Unsupported</u> – ACDI/VOCA was unable to support the 1.65 Egyptian Pounds for buffalo. <u>Unsupported</u> – ACDI/VOCA was unable to support the 29 percent amount for cows or buffalo. <u>Unsupported</u> – ACDI/VOCA was unable to support the 1.20 Egyptian Pounds for cows, which is different from the amount used in the previous calculation. <u>Inaccurate</u> – ACDI/VOCA incorrectly calculated the diffusion rates for each village and has subsequently adjusted their results downward.
Increase in income of 2,012,790 Egyptian Pounds This amount is titled "Value of Increase Milk in Products Sale (40%) – Clients."	• ACDI/VOCA calculated this increase by performing the following calculation for each village and then adding up the totals: (1) multiplying the average production of milk by a buffalo prior to the project by the average milking season for buffalos by the number of buffalos owned by direct farmers, (2) multiplying the average production of milk by a cow prior to the project by the	<u>Unsupported</u> – ACDI/VOCA was unable to provide support for the average milk production by a cow or buffalo prior to the project. <u>Unsupported</u> – ACDI/VOCA was unable to provide the formula to support the average milking season number for buffalos or cows, which reportedly came from the survey performed on 179 farmers.

FORMULA	EXPLANATION	FINDINGS
	average milking season for cows by the number of cows owned by direct farmers, (3) adding these numbers together, (4) multiplying this number by 46 percent, (5) dividing this number by 4, and (6) multiplying this by 1.75 Egyptian Pounds, (7) subtracting this amount from an amount titled “Value of Cheese After.” • ACDI/VOCA added to this an amount calculated by performing the following calculation for each village and then adding up the totals: (1) multiplying the number of direct clients by 1.5205271160669, (2) multiplying this by 24 Egyptian Pounds, (3) subtracting this from an amount calculated by multiplying an amount titled “Volume of Ghee After” by 25 Egyptian Pounds. • ACDI/VOCA added to this an amount calculated by performing the following calculation for each village and then adding up the totals: (1) multiplying the number of direct clients by 10.7450582868728, (2) multiplying this amount by 15 Egyptian Pounds, (3) subtracting this from an amount calculated by multiplying an amount titled “Volume of Butter After” by 16 Egyptian Pounds. • ACDI/VOCA multiplied the total of these three amounts by 40 percent.	Unsupported – ACDI/VOCA was unable to provide support for the 46 percent. Unsupported – ACDI/VOCA was unable to provide support for dividing by 4. We were unable to determine what this number represented. Unsupported – ACDI/VOCA was unable to provide support for the 1.75 Egyptian Pounds. Unsupported – ACDI/VOCA was unable to provide support for the “Value of Cheese After” amount. Unsupported – ACDI/VOCA was unable to provide support for the amount of 1.5205271160669. We were unable to determine what this number represented. Unsupported – ACDI/VOCA was unable to provide support for the 24 or the 25 Egyptian Pounds. Unsupported – ACDI/VOCA was unable to provide support for the “Value of Ghee After” amount. Unsupported – ACDI/VOCA was unable to provide support for the amount of 10.7450582868728. We were unable to determine what this number represented. Unsupported – ACDI/VOCA was unable to provide support for the “Value of Butter After” amount. Unsupported – ACDI/VOCA was unable to provide support for the 15 or the 16 Egyptian Pounds. Unsupported – ACDI/VOCA was unable to provide support for the 40 percent.

FORMULA	EXPLANATION	FINDINGS
Increase in income of 11,302,976 Egyptian Pounds This amount is titled "Increase Milk Products Value – Indirect Clients."	ACDI/VOCA calculated this amount by multiplying the above amount by the diffusion rate for that village.	Unsupported – ACDI/VOCA was unable to provide documentation that stated that reported results should include indirect amounts as computed using a diffusion rate. Inaccurate – Assuming ACDI/VOCA could use a diffusion rate, they used the wrong rate. ACDI/VOCA calculated the diffusion rate in their spreadsheet incorrectly and subsequently adjusted downward.
Increase in income of 1,599,757 Egyptian Pounds This amount is titled "Increase in Smallholder Income Due to Raw Milk Sale Price Differences – Direct/Indirect Clients."	• ACDI/VOCA calculated this increase by performing the following calculations for 6 out of 19 villages and adding the amounts together: • For buffalo: (1) multiplied total number of buffalo for the project's clients in that village by the diffusion rate, (2) added to that the total number of buffalos for the Project's clients in that village, (3) subtracted this amount from the total number of buffalo in that village, (4) multiplied this by average milking season for buffalo, (5) multiplied by the average milk production for cows before the project activities, (6) multiplied this by either 40 percent (for 4 villages) or 80 percent (for 2 villages). • For cows: (1) subtracted the number of cows owned by the project's clients in that village from total number of cows in that village, (2) multiplied by the average milk production for cows before the project activities, (3) multiplied by the average milking season for cows, and (4) multiplied by 40 percent.	Unsupported – ACDI/VOCA was unable to support the reason for performing this calculation for 6 villages instead of all 19 villages. Inaccurate – In calculating the buffalo amount, ACDI/VOCA used average milk production of cows instead of buffalo in their calculation. Unsupported – ACDI/VOCA was unable to provide support for the reason for using one methodology to calculate an amount for buffalos and a different methodology to calculate the amount for cows. Unsupported – ACDI/VOCA was unable to support the reason for using 40 percent for 4 villages and 80 percent for 2 villages. Unsupported – ACDI/VOCA was unable to provide documentation that stated that reported results should include indirect amounts as computed using a diffusion rate. Unsupported – ACDI/VOCA was unable to provide the formula to support the

FORMULA	EXPLANATION	FINDINGS
		average milking season number for buffalos or cows, which reportedly came from the survey performed on 179 farmers. <u>Unsupported</u> – ACDI/VOCA was unable to provide support for the average production of milk by a buffalo or a cow prior to the project.
Increase in income of 38,316 Egyptian Pounds This amount is titled “Saving From Group Purchase for Feed – [Agricultural Exports and Rural Incomes Project’s] Clients.”	We did not request the information from ACDI/VOCA for how they calculated this amount. See footnote 8 for explanation.	
Increase in income of 5,409,743 Egyptian Pounds This amount is titled “Total Reduction in Veterinary Services Costs Due to Vet Campaigns.”	ACDI/VOCA calculated this increase by performing the following calculation for each of the 19 villages and then adding up the totals: Multiplied the total veterinary savings per animal per year (reportedly from the surveys) by the total number of animals in that village.	<u>Unsupported</u> – ACDI/VOCA was unable to support the calculation for total veterinary savings per animal per year.
Increase in income of 149,828 Egyptian Pounds This amount is titled “Total Increase in Smallholder Income From Beef – [Agricultural Exports and Rural Incomes Project’s] Clients.”	We did not request the information from ACDI/VOCA for how they calculated this amount. See footnote 8 for explanation.	
Increase in income of 47,450 Egyptian Pounds	We did not request the information from ACDI/VOCA for how they calculated this amount. See footnote 8 for explanation.	

FORMULA	EXPLANATION	FINDINGS
This amount is titled "Total Increase in Smallholder Income From Beef Sale – Indirect Clients."		
Increase in income of 53,190 Egyptian Pounds This amount is titled "Total Increase in Dairy Processors Income."	We did not request the information from ACDI/VOCA for how they calculated this amount. See footnote 8 for explanation.	
Total increase in income of 23,134,162 Egyptian Pounds	ACDI/VOCA added up all of the increases to get an overall total of the increase in income for the first 2 years of the project.	

CARE INCOME METHODOLOGY AND CALCULATION

FORMULA	EXPLANATION	FINDINGS
CARE did not provide the data used for the calculation of the formulas.	CARE explained that they calculated their results by multiplying the total tons of crop sold by the farmers by the price the farmers received per ton for the crop for each contract, whether written or oral, that the farmers had with the exporters or local market. In addition, the baseline income used in the calculation came from an independent survey CARE commissioned.	<u>Unsupported</u> – CARE was unable to provide support for this calculation. CARE provided several different reports listing each farmer association and their contracts, including tons sold and total price received; however, none of the reports agreed with the amount reported to USAID/Egypt. <u>Inaccurate</u> – The baseline for calculating the increase in income was imprecise and too low, causing the results to be higher than if they used a higher, but more precise number. CARE used an amount found in an independent study they commissioned. However, the baseline amount did not take into

FORMULA	EXPLANATION	FINDINGS
		account the farmers that already grew high-value horticulture, which would cause the baseline to be higher.

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