

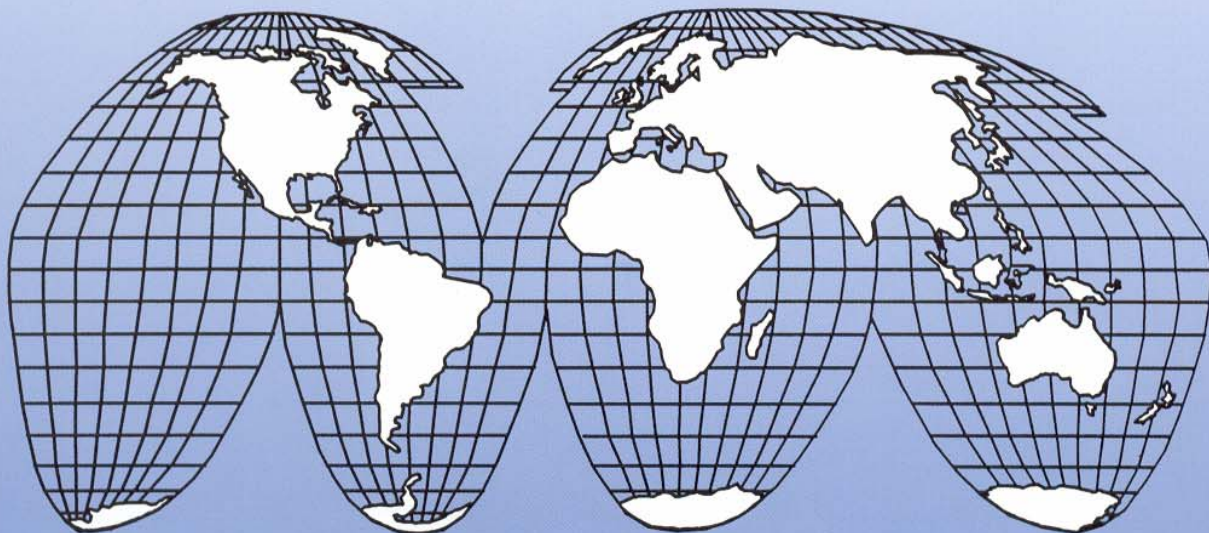
USAID

OFFICE OF INSPECTOR GENERAL

Audit of USAID/Ecuador's Northern Border Development Program

Audit Report No. 1-518-04-010-P

September 3, 2004



San Salvador, El Salvador



September 3, 2004

MEMORANDUM

FOR: USAID/Ecuador Director, Lars Klassen

FROM: RIG/San Salvador, Steven H. Bernstein “/s/”

SUBJECT: Audit of USAID/Ecuador’s Northern Border Development Program (Report No. 1-518-04-010-P)

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

The report includes one recommendation as follows: Establish procedures to ensure that beneficiaries are not double counted when reporting the overall number of beneficiaries of the Northern Border Development Program. Based on your comments and the documentation provided, final action has been taken, and the recommendation is closed upon issuance of this report.

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

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Summary of Results

As part of its fiscal year 2004 audit plan, the Regional Inspector General/San Salvador performed this audit to answer the following questions:

- How have USAID/Ecuador funds been spent under the Northern Border Development Program?
- Was USAID/Ecuador's Northern Border Development Program on schedule to achieve planned, sustainable results?
- Did USAID/Ecuador implement a monitoring system for its Northern Border Development Program in accordance with USAID policies? (Page 9)

As of March 31, 2004, approximately \$21.6 million was spent under the Northern Border Development Program, including \$9.1 million on water systems and sewer systems, \$4.3 million on roads and bridges, \$500,000 on irrigation canals and reservoirs, \$1 million on alternative development projects, and approximately \$1.7 million on land titling, drug education and prevention, strengthening government units, and assistance to Afro-Ecuadorian and indigenous communities. (Page 9)

As of December 31, 2003, eight of the ten activities of USAID/Ecuador's Northern Border Development Program were on schedule to achieve planned, sustainable results, having achieved 90 to 100 percent of the planned, sustainable results. The land titling and the drug education and prevention programs achieved less than 90 percent of their planned results. The land titling program achieved 89 percent of the planned results, and the drug education and prevention program achieved 79 percent of the planned results. (Page 13) Additionally, beneficiaries of two or more projects are double counted when USAID/Ecuador reports the total number of beneficiaries. (Page 19)

USAID/Ecuador implemented a monitoring system for its Northern Border Development Program in accordance with USAID policies. (Page 20)

We are making one recommendation that USAID/Ecuador establish procedures to ensure that beneficiaries are not double counted when reporting the overall number of beneficiaries of the program. (Page 20)

USAID/Ecuador concurred with the findings and the recommendation presented in this report, and took appropriate corrective action. Accordingly, final action has been taken, and the recommendation is closed upon issuance of this report. (Page 21)

Background

Ecuador faces a variety of development challenges. In 2003, unemployment was 9.8 percent, underemployment was an estimated 47 percent, and an estimated 65 percent of Ecuador's population lived in poverty. Confidence in democracy was dangerously low, and the coca/cocaine industry in Colombia was impinging upon Ecuador's northern border region.

USAID/Ecuador's Northern Border Development Program (NBDP) is intended to improve the lives of the population living along Ecuador's northern border. The program includes projects in the areas of community infrastructure, strengthening of civil society as a means of improving health conditions, and generally promoting economic development in the northern provinces. The NBDP also seeks to mitigate the potential negative impact of Plan Colombia¹ activities. The program was designed to help Ecuador show state presence and commitment in the north, and the program was closely coordinated with the Government of Ecuador's Northern Border Development Unit, a governmental unit that was created to coordinate all development efforts along the northern border. Specific projects include water, sewer, road, bridge, and land titling projects, micro-enterprise support, and protection of human rights.

¹ Recognizing the severity of illicit drug activities and the links between drug trafficking and illicit crop cultivation, and the violence affecting Colombia, the Government of Colombia announced a \$7.5 billion plan in October 1999, known as Plan Colombia. The plan, among other things, proposed to reduce the cultivation, processing, and distribution of illegal narcotics by 50 percent over six years. To assist the Government of Colombia, the United States substantially increased funding and material support to Colombia beginning in 2000.

In October 2000, USAID approved an \$8 million, 24-month Special Objective. The Special Objective was extended one year with an additional \$10 million in funding. The program was revised and expanded in FY 2003 in a new Strategic Objective designed to support the Andean Counterdrug Initiative and to support the Government of Ecuador's five-year Northern Border Development Plan. The Strategic Objective was approved in February 2003, and it extended the program through FY 2006 providing an additional \$60 million in funding. As of March 31, 2004, obligations under both the Special Objective and the Strategic Objective totaled approximately \$34 million, and total expenditures were approximately \$21.5 million.

In December 2000, USAID/Ecuador entered into a two-year cooperative agreement with the International Organization for Migration² (IOM) to implement its NBDP. This cooperative agreement has been extended three times, most recently through October 2006. In September 2003, USAID/Ecuador contracted with Associates in Rural Development, Inc. to design and implement the alternative development program that began in the fall of 2003 as part of the new Strategic Objective.

Audit Objectives

As part of its fiscal year 2004 audit plan, the Regional Inspector General/San Salvador performed this audit to answer the following questions:

- How have USAID/Ecuador funds been spent under the Northern Border Development Program?
- Was USAID/Ecuador's Northern Border Development Program on schedule to achieve planned, sustainable results?
- Did USAID/Ecuador implement a monitoring system for its Northern Border Development Program in accordance with USAID policies?

Audit Findings

How have USAID/Ecuador funds been spent under the Northern Border Development Program?

² The International Organization for Migration is an international inter-governmental organization headquartered in Geneva.

USAID/Ecuador funds were used to build and improve water and sewer systems, roads, bridges, and irrigation systems. Funds were also used for land titling, drug education and prevention, and alternative development programs as shown in Table 1 on the following page.

Table 1: USAID/Ecuador Northern Border Development Program Expenditures as of March 31, 2004

Program	Expenditure Amount
Potable water systems and sewer systems	\$ 9,103,804
Roads and bridges	4,252,011
Irrigation canals and reservoirs	521,171
Land titling	275,080
Alternative development	966,204
Strengthening government units	739,575
Training and assistance to Afro-Ecuadorian and indigenous communities	433,049
Training and assistance to enhance sustainability	371,478
Drug education and prevention	218,909
Assistance to displaced Colombians	72,512
Democratic values survey	30,000
Human rights training and assistance to public defender's office	20,570
Public diplomacy	6,450
International Organization for Migration (IOM) field offices	1,095,457
IOM administration charges	2,980,731
USAID program management	468,174
Total	\$21,555,175

Note: Amounts were not audited.

The following paragraphs discuss all programs in which more than \$100,000 was expended.

Potable water systems and sewer systems – USAID/Ecuador spent approximately \$9.1 million building and/or rehabilitating water and sewer systems, mainly in small, rural communities. As of December 31, 2003, 38 water systems and five sewer systems had been built or rehabilitated. One water system begun in 2003 was completed in early 2004. As of March 31, 2004, contracts had been issued for work on an additional nine water systems and one additional sewer system.

Roads and bridges – USAID/Ecuador spent approximately \$4.3 million building and rehabilitating roads and bridges in the northern provinces of Ecuador. Most of the road funds were spent rehabilitating a 52.2 mile unpaved road between Trufiño and Quinshull near the Colombian border in the Province of Carchi. Eight vehicular bridges and 13 pedestrian bridges were constructed through the end of 2003. As of March 31, 2004, contracts had been issued for work on an additional seven bridges.



Photograph of Chota River pedestrian bridge in the Province of Carchi taken in June 2004.

Irrigation canals and reservoirs – USAID/Ecuador spent approximately \$521,000 on irrigation canals and reservoirs in the northern provinces of Ecuador. Concrete irrigation canals were constructed to replace dirt canals. In addition to conserving water by eliminating the loss of water into earthen walls, the concrete canals also substantially reduce the annual maintenance requirements because plants do not grow in concrete, and concrete walls do not wash out the way earthen walls do.

Land titling – USAID/Ecuador spent approximately \$275,000 supporting land titling efforts that benefited 2,508 people. Since title to land is a major constraint to securing a key productive asset and is a strong felt need among the population, USAID/Ecuador provided technical assistance and direct support to farmers and indigenous communities to obtain titles to their properties. USAID/Ecuador was working with small holders over the short term while the Inter-American Development Bank was working with the Government of Ecuador to modernize and simplify land titling procedures.

The Mission worked with the Ecuadorian Fund for Popular Progress (an Ecuadorian non-governmental organization) to assist 15 indigenous communities in the Province of Sucumbíos to legalize community land holdings in a forest reserve. This included setting the borders of the land holdings and obtaining legal recognition for the communities that lacked legal status. USAID/Ecuador also assisted 54 families in Sucumbíos in obtaining title to their land.

Alternative development – USAID/Ecuador began its alternative development program in September 2003, when it contracted with Associates in Rural Development, Inc. (ARD) to design and implement the program. Approximately \$966,000 had been spent on this program. Cacao, coffee, potatoes, and broccoli farming have been identified as areas in which the program was concentrating this first year. ARD was working with farmers' associations to assist farmers in improving their cultivation techniques and in capturing more value for their product by improving quality and by selling directly to buyers and processors.

Strengthening government units – USAID/Ecuador spent approximately \$740,000 strengthening government units. These funds were spent helping to equip the Government of Ecuador's Northern Border Development Unit (known by its Spanish acronym UDENOR). Funds were spent to purchase vehicles and office equipment as well as to assist in the development of a computerized geographic-referenced mapping system of the northern provinces. The International Organization for Migration (IOM) also hired a local university to conduct surveys in the northern provinces regarding the effects of the Colombian conflict on northern Ecuador for use by UDENOR and IOM.

Training and assistance to Afro-Ecuadorian and indigenous communities – USAID/Ecuador spent approximately \$433,000 to provide training and assistance regarding conflict resolution, agro-forestry, forest management, the environment, community plant nurseries, production of marmalade, and the participation of women in the community. USAID/Ecuador also assisted the Cofán indigenous community in demarking its territorial limits, obtaining government approval of the Cofán territorial limits, and constructing guard houses.

Training and assistance to enhance sustainability – IOM provided \$371,000 of training to the water boards on how to administer, operate and maintain the water systems. Administrative training included basic accounting and management of the paperwork. Operational training included chlorination and installation of pipes. Operation and maintenance manuals were prepared and provided to the water boards.

Drug education and prevention – USAID/Ecuador spent approximately \$219,000 on drug education and abuse prevention training. IOM contracted with the Government of Ecuador’s Ministry of Education and Culture to provide this training, and approximately 25,000 students, teachers and parents participated in the training.

Was USAID/Ecuador’s Northern Border Development Program on schedule to achieve planned, sustainable results?

As of December 31, 2003, eight of the ten activities³ of USAID/Ecuador’s Northern Border Development Program (NBDP) were on schedule to achieve the planned, sustainable results, having achieved 90 percent to 100 percent of the planned, sustainable results. The land titling and the drug education and prevention programs achieved less than 90 percent of the planned results. The land titling program achieved 89 percent of the planned results, and the drug education and prevention program achieved 79 percent of the planned results.⁴ The results are summarized in Table 2 on the following page.

³ The alternative development program is not included in the list because it began in the fall of 2003, and it was too soon to begin measuring results.

⁴ Sustainability has two components, operational sustainability on a daily basis and long-term sustainability including capital investments to replace broken or worn out-capital assets. We determined that water, sewer and irrigation systems that achieved operational sustainability on a daily basis were sustainable for purposes of this audit.

Table 2: Results of USAID/Ecuador Northern Border Development Program

Indicator	Cumulative as of December 31, 2003		Percent
	Target	Actual	
Number of village potable water systems constructed, repaired, or expanded in target areas	36	38	106%
Number of sewer systems constructed, repaired, or expanded in target areas	4	5	125%
Number of water boards created, legalized, trained, and functioning, by category A and B (Graded A to E on basis of monthly operational review by IOM with A being the highest rating.)	22 (17 A and 5 B)	27 (18 A and 9 B)	123%
Number of water administration units in municipalities created or strengthened	5	5	100%
Number of miles of roads constructed or repaired	55.6	55.6	100%
Number of pedestrian and vehicular bridges constructed or repaired	22	21	95%
Number of irrigation systems repaired and number of hectares of land irrigated	6 systems 6,782 hectares	6 systems 6,782 hectares	100%
Number of persons receiving benefits from land titles	2,825	2,508	89%
Number of students, teachers, and parents participating in drug education and prevention program	32,000	25,148	79%
Number of beneficiaries in area whose lives are improved by access to social and productive infrastructure ⁵	271,001	253,633	94%

Note: Actual numbers were audited.

⁵ This was at the higher Special Objective level while the other activities are at the Intermediate Result level.

We randomly selected 55 water, sewer, road, bridge, irrigation, land titling, and alternative development projects to visit as discussed in the following paragraphs. We were unable, however, to visit the land titling projects because of security concerns, and we therefore replaced these projects with other projects.⁶ Our conclusion that eight of the ten activities of the NBDP were on schedule was based on the results of these site visits and our review of the documentation maintained by the Mission and by IOM.

Water and sewer systems – The water systems were sustainable on a daily basis. IOM provided training regarding the operation and maintenance of the water systems, administrative and financial aspects of operating water systems, and watershed conservation. IOM also provided technical assistance through consultants in order to regulate, improve and optimize operation of the systems. IOM visited each water board monthly to review its operational and administrative status, and additional assistance or training was provided as needed.

We visited 26 of 48 water systems and 4 of 6 sewer systems.⁷ We visually inspected parts of each water system that we visited, and they were in good physical condition.⁸ One water system was having problems with its intake valve when its river source was running low, and this system was not sustainable in its present condition. Since only one (3.8 percent) of the 26 water systems inspected was behind schedule, water projects were considered to be on schedule. Further, the actual number of water systems constructed as of December 31, 2003, exceeded the target. The four sewer systems that we visited were visually in good physical condition.

All the water boards and departments we visited acknowledged receiving training, and they all stated that the training was good. Almost all water boards were interested in receiving additional training to build upon and reinforce the training they have already received. IOM also assisted water boards in becoming legally organized and registered with the government, and IOM provided training on the Ecuadorian Law of Water Board Administration.

⁶ For a discussion of the random selection of projects visited, see the Methodology section in Appendix I.

⁷ The universe of projects for site visits was greater than the number of projects listed in Table 2 because 2004 projects for which contracts had been issued as of March 31 were included. Table 2 only includes projects completed by December 31, 2003.

⁸ See the Methodology section in Appendix I for a discussion of the visual inspection.

Each water board set its own water rates which ranged from as low as \$0.50 per month to a high of \$4.00 per month for the basic level of service. The water systems with the lowest rates had basic gravity flow systems that required little work or maintenance and were operated on a volunteer basis. The water boards with the highest rates had electric pumps and generators along with water towers and a paid employee.

While the monthly water fees were sufficient to pay for the on-going operation and maintenance of the water and sewer systems we observed, the fees were not adequate to build up a reserve sufficient to pay for major capital expenses. Three water boards had built up a cash balance in excess of \$1,000, but most of the other water boards had balances less than \$200. Even the least expensive water system we visited cost several thousand dollars, and it is therefore probable that most of the water boards will not be able to pay for major capital repairs or expansions. We are not making a recommendation because we believe that, for the purposes of the Northern Border Development Program, achieving operational sustainability was sufficient. The program's goal was for the water systems to be sustainable on an operational basis, and it met this goal.



Photograph of Cascales water aeration tower taken in June 2004.

Roads and bridges – We inspected five of the six road and paving projects. We also visited 12 of the 28 bridges. Based on our visual inspection,⁹ all the roads and bridges we inspected were in good condition. While we observed some potholes in one road and some vegetation growing in ditches, the instances of these problems were minor. The Ministry of Public Works of the Province of Carchi sent a letter to IOM accepting and agreeing to maintain the 52.2 mile dirt road re-built and improved by IOM. We observed several places along the road where the Ministry had cleared landslides and re-graded the road. IOM informed us that the small communities along the road also take some responsibility for maintaining the road such as by filling some potholes and cutting back the vegetation growing in part of the ditches. We observed some potholes that appeared to have been manually filled. This road was a sustainable project in that the provincial government has agreed to maintain it and has acted upon this agreement by clearing landslides.

The vehicular bridges we observed were either concrete bridges or metal bridges that were well-constructed, and IOM stated that the bridges need little, if any, maintenance. The pedestrian bridges that we observed ranged from a large suspension bridge over a wide riverbed, whose picture is on page 9, to a small suspension bridge. The suspension bridges have wooden planks, which the local communities will be able to replace as needed at little or no cost. The bridges were therefore also sustainable.

Irrigation systems – Out of the six irrigation systems improved under the NBDP in 2003, we visited two irrigation canals and one reservoir. All the beneficiaries that we met were pleased with the results. We walked along the two canals, and they were both well-maintained. Very little vegetation was hanging down in them, and they were in new condition. The farmers that were members of the irrigation associations stated that they maintain the canals. Given the farmers' commitment to maintain the irrigation canals, they were sustainable.

⁹ See the Methodology section in Appendix I for a description of the visual inspection.

Based on our visual inspection, the reservoir that we visited was in good condition. Just as with the irrigation canals, the farmers benefiting from the reservoir do the routine maintenance and operation work, such as opening and closing the valves and clearing vegetation or debris that might accumulate. They are operating on a sustainable basis, absent some natural disaster such as an earthquake. The dam constructed under the program, however, was constructed on top of an existing low dam, and water was seeping through the wall of the old dam. IOM informed us that water was not previously seeping through the wall of the old dam. The week after our site visit, IOM's regional coordinator sent a letter to the local government informing it of the seepage through the wall of the old dam and advising it that it needed to repair the old dam. Even if the dam is not repaired, IOM does not think that the dam is at risk.

Alternative development – Although it is not possible to answer the audit objective with regard to alternative development projects due to the early stage of implementation, we conducted site visits at three alternative development projects in order to review the status of implementation of the projects. Associates in Rural Development, Inc. (ARD) was working with farmer groups to identify ways in which they can improve cultivation, quality, and consistency in order to receive better prices for their products. ARD was also helping to establish direct contacts between the farmer groups and exporters and buyers in order that the farmers will receive higher prices instead of middlemen taking a cut.

ARD was working with second level cacao associations to improve and intensify the cultivation of cacao as well as to improve the quality and consistency of the fermentation and drying process in order to bring the farmers increased income through larger harvests and improved quality. ARD arranged for representatives of a cacao association to meet with cacao exporters in Guayaquil. ARD also contacted U.S. and European chocolate companies about the Ecuadorian “national” variety of cacao, and some of these companies expressed interest in buying Ecuadorian cacao, possibly directly from the farmers’ associations, if the farmers’ associations can consistently supply quality cacao in a sufficient quantity.

ARD has been meeting with coffee farmers, and it arranged a meeting for the coffee farmers with a buyer/processor. The Mission’s plan was to concentrate on improving cultivation techniques in order to increase productivity, thereby increasing production. There was a coffee processing plant in Ecuador that was interested in buying the increased production. The plant was importing coffee from Vietnam. Both the Mission and ARD stated that Ecuadorian coffee can compete with the imported Vietnamese coffee on price.

Activities Not on Schedule

Land titling – The program goal was that 2,825 persons would benefit from land titling projects, but only 2,508 persons benefited, 89 percent of the goal. This activity fell short of its goal because the land titling process took longer than anticipated. The Ecuadorian Fund for Popular Progress was continuing to work on pending land titles this year, but it was doing so without additional funds. Going forward, USAID/Ecuador planned to work with another organization that it believes will be more successful in legalizing land holdings in a shorter period of time. We are not making a recommendation because the Mission has decided to work through a different organization.

Drug education – The goal of the drug education program was to have 32,000 students, teachers, and parents participate in a drug education and prevention program. USAID/Ecuador was unsuccessful in meeting its goal in its drug education and prevention program. The Mission explained that the goal was set before IOM devised an implementation plan. IOM was unable to locate a suitable organization to carry out this program until it ascertained that the Government of Ecuador's Ministry of Education and Culture had a good program. IOM signed a contract with the Ministry of Education and Culture in October 2001, and it projected at that time that there would be 13,848 participants in 2002 as opposed to the 18,000 in the Mission's performance monitoring plan. IOM's goal of 13,848 was met as well as the goal of 11,000 in 2003. While this activity only achieved 79 percent of USAID's goal, it is noted that the drug education and prevention program accounted for less than 2 percent of funds expended under the NBDP through December 31, 2003. This is not an on-going program, and we therefore are not making a recommendation.

Double Counting of Beneficiaries

IOM and the Mission calculated the overall number of beneficiaries of the Northern Border Development Program without adjusting the numbers for persons that benefited from two or more projects. For example, a water project, a sewer project, and a bridge project were all executed in San Lorenzo. The beneficiaries for the water and sewer projects were the same, and they were counted twice in calculating the overall number of beneficiaries. Some of the beneficiaries of the bridge also benefited from the water and sewer projects, and these people were counted a third time. While each project benefited the people, not adjusting the overall number of beneficiaries to eliminate double counting misleads persons not familiar with the projects as to the overall number of beneficiaries. The percentage of the goal achieved was not affected, however, because the overall goal for number of beneficiaries was calculated in the same manner.

The Mission explained that this issue had arisen in 2003 in a mid-term evaluation of another program, and Development Associates, Inc., the entity conducting the evaluation for USAID, stated that it was acceptable to double count beneficiaries as long as it was consistent and disclosed the double counting. Section 203.3.5.1.c of USAID's Automated Directives System, however, states that data should be sufficiently precise to present a fair picture of performance and enable management decision-making at the appropriate levels. Double counting beneficiaries does not present a fair picture of performance. Accordingly, we make the following recommendation:

Recommendation No. 1: We recommend that USAID/Ecuador establish procedures to ensure that beneficiaries are not double counted when reporting the overall number of beneficiaries of the Northern Border Development Program.

Did USAID/Ecuador implement a monitoring system for its Northern Border Development Program in accordance with USAID policies?

USAID/Ecuador implemented a monitoring system for its Northern Border Development Program in accordance with USAID policies. In accordance with section 202.3.6 of USAID's Automated Directives System, USAID/Ecuador implemented a monitoring system that included the following general components:

- receiving and approving annual work plans,
- reviewing performance and financial reports,
- monitoring the quality and timeliness of key outputs, and
- monitoring positive or negative environmental impacts.

To perform day-to-day monitoring, USAID/Ecuador hired two personal service contractors who perform regular oversight of IOM and ARD, including site visits at least monthly, review of performance and financial reports, and regular interaction with IOM and ARD. The Northern Border Development Program team had been meeting twice a month to review the status of the program and to address any issues that arise.

The Mission complied with USAID's environmental policies. An Initial Environmental Evaluation was submitted and approved for the Special Objective in 2000 and for the Strategic Objective in 2003. USAID/Ecuador's environmental officer was a member of the Northern Border Development team, and she reviewed all projects in accordance with USAID's environmental regulations, found at Title 22 Code of Federal Regulations Part 216.

Due to security concerns, Mission personnel were not permitted to visit all the projects, but the Mission has a high level of confidence in IOM, and it therefore relied on IOM's reports containing numerous photographs. IOM worked closely with the Mission in implementing the projects, and IOM's personnel visit all sites.

**Evaluation of
Management
Comments**

USAID/Ecuador agreed with the recommendation to establish procedures to ensure that beneficiaries are not double counted when reporting the overall number of beneficiaries of the Northern Border Development Program.

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**Scope and
Methodology****Scope**

The Regional Inspector General/San Salvador conducted this audit in accordance with generally accepted government auditing standards. In planning and performing the audit, we assessed the effectiveness of management controls related to measuring progress of the Northern Border Development Program (NBDP) activities. The management controls identified included management's preparation of its Performance Monitoring Plans; the Mission's annual self-assessment of management controls through its annual Federal Managers Financial Integrity Act review; and performance and financial reports from the International Organization for Migration (IOM) and Associates in Rural Development, Inc. (ARD).

According to Mission records, as of March 31, 2004, approximately \$34 million had been obligated for NBDP activities, and expenditures totaled approximately \$21.6 million. The NBDP activities were implemented by IOM and ARD. We conducted the audit at the offices of USAID/Ecuador and IOM, with a cut-off date of March 31, 2004. We interviewed Mission, IOM, and ARD officials and reviewed documents such as the cooperative agreement with IOM, the contract with ARD, statements of work, annual work plans, and performance reports. Completed projects and projects for which a contract had been entered into as of the cut-off date were included in the universe of projects. We conducted site visits in the Provinces of Carchi, Imbabura, Esmeraldas, Sucumbíos, Napo, and Orellana.

The audit did not include a review of the construction projects by an independent engineer.

Audit fieldwork was conducted from May 25 through June 25, 2004.

Methodology

To determine how USAID/Ecuador funds have been spent under the Northern Border Development Program, we reviewed the Mission's financial reports and contacted IOM for details in each category. We met with Mission and IOM officials to review the breakdown of spending. We did not audit the figures.

To determine whether USAID/Ecuador's NBDP activities were on schedule to achieve planned, sustainable results, we reviewed the Mission's Performance Monitoring Plans and Annual Reports and IOM's performance and financial reports, we verified reported sustainable results as of December 31, 2003, and we visited 54 projects. To determine sustainability, we determined if they needed maintenance, and if so, if an organization would maintain the water systems, sewer systems, roads, bridges, and irrigation systems. We made a determination if the organization had the financial capacity to maintain the projects.

Our site visit strategy was based on a statistical sample that used an expected error rate of 5 percent and was designed to provide 95 percent confidence with plus/minus 4 percent precision. The resulting sample size was 54 projects, out of 152 projects. Because there were a large number of alternative development projects and only one was selected in the statistical sample, we added one alternative development project to the initial random sample for a total of 55 projects.

The statistical sample consisted of 28 water systems, 5 sewer systems, 5 roads and paving projects, 10 bridges, 3 land titling projects, 2 irrigation canals, 1 irrigation reservoir, and 1 alternative development project. As a result of security concerns, we were not able to visit 11 of the projects in the statistical sample. We replaced the items in the statistical sample with the next project in the randomly sorted list of projects, to the extent possible.

We visited 26 of the 48 water systems, 4 of the 6 sewer systems, all 6 road and paving projects, including 42 miles of a 52.2 mile road, 12 of the 28 bridges, 2 of the 4 irrigation canals, 1 of the 2 irrigation reservoirs, and 3 of the 46 alternative development projects. Because of security concerns, we did not visit any of the land titling projects, but we met with the Ecuadorian Fund for Popular Progress, the Ecuadorian non-governmental organization that was implementing the land titling projects under a subcontract with IOM.

All site visits to construction projects were conducted with an engineer from IOM, and the site visits to the alternative development projects were conducted with an official from ARD. A Mission official accompanied us on approximately one-half of the site visits. Any problems noted were discussed with the IOM engineer or ARD official and a Mission official.

We assessed whether there were obvious deficiencies in the construction projects. Our visual review of the projects was limited to tasks that could be carried out by lay persons, not professional engineers.

Water systems were evaluated based on a visual inspection of the physical plant; an interview with the water board regarding operations, maintenance, and training; and a review of the accounting records. Sewer systems were evaluated based on a visual inspection of the physical plant and an interview with the operators regarding operations, maintenance, and training. The visual inspections included examining walls and floors for cracks, examining pipes for leaks or corrosion, and determining if the water or sewer system was operating.

Roads were evaluated based on a visual inspection of the:

- existence of potholes,
- leveling of the surface camber (arched surface),
- presence of corrugations,
- existence of erosion channels on the roadway, shoulders or ditch slopes,
- adequacy of road drainage, and
- presence of vegetation in roads or ditches.

The bridges were evaluated based on a visual inspection of their condition.

An independent civil engineer hired by the Regional Inspector General/San Salvador agreed that the above criteria were appropriate to determine whether the roads and bridges were in adequate condition.

Irrigation systems were evaluated based on a visual inspection of the condition of the dam and the concrete irrigation canals looking for cracks, leaks, and obvious faults.

We reviewed and sampled the supporting documentation at IOM for determining the number of water administration units created or strengthened, the number of hectares of land irrigated, and the number of beneficiaries of projects.

To determine the significance of our findings, we considered the following as of December 31, 2003:

- If at least 90 percent of the activities¹⁰ had achieved at least 90 percent of their planned results, we would have answered the objective positively.

¹⁰ The activities are those listed in Table 2 on page 14.

-
- If 80 to 89 percent of the activities had achieved at least 90 percent of their planned results, we would have answered the objective positively but with a qualification.
 - If less than 80 percent of the activities had achieved at least 90 percent of their planned results, we would have answered the objective negatively.

To determine if USAID/Ecuador implemented a monitoring system for its Northern Border Development Program in accordance with USAID policies, we interviewed Mission personnel, and we reviewed Mission files including field trip reports, environmental reports, correspondence between the Mission and IOM and ARD, and reports filed by IOM and ARD.

**Management
Comments**

DATE: 9/8/04

REPLY TO

ATTN OF: USAID/Ecuador Director, Lars Klassen

SUBJECT: Audit of USAID/Ecuador's Northern Border Development Program
(Report No. 1-518-04-xxx-P)

TO: RIG/San Salvador, Steven H. Bernstein /s/

The Mission has the following comments on the subject draft audit report:

1. The Mission agrees with the recommendation presented in the report and has developed the attached policies/procedures to ensure that beneficiaries are not double-counted when reporting the overall number of beneficiaries of the Northern Border Development Program. The attached document will form part of the Performance Monitoring Plan (PMP) which has been modified to show the corrected numbers.
2. We found an inconsistency in the number of bridges mentioned in the report. For example, on page 8 the report refers to a total of 23 bridges constructed. On the other hand on page 12, the report states a target of 22 bridges of which 21 were completed. Finally on page 15 the text says RIG visited 12 of 28 bridges. We are researching this and will provide you with the correct number next Monday August 30.
3. It is hard to find a reference to the date of the audit. If this is not inserted in the Background or Summary Section of the Report, the Mission assumes it will be cited in the Cover Memo with the Final Report.

The Mission would like to thank all the RIG staff that participated in the audit, which has helped us improve the management of USG resources invested in the Northern Border Development Program.