

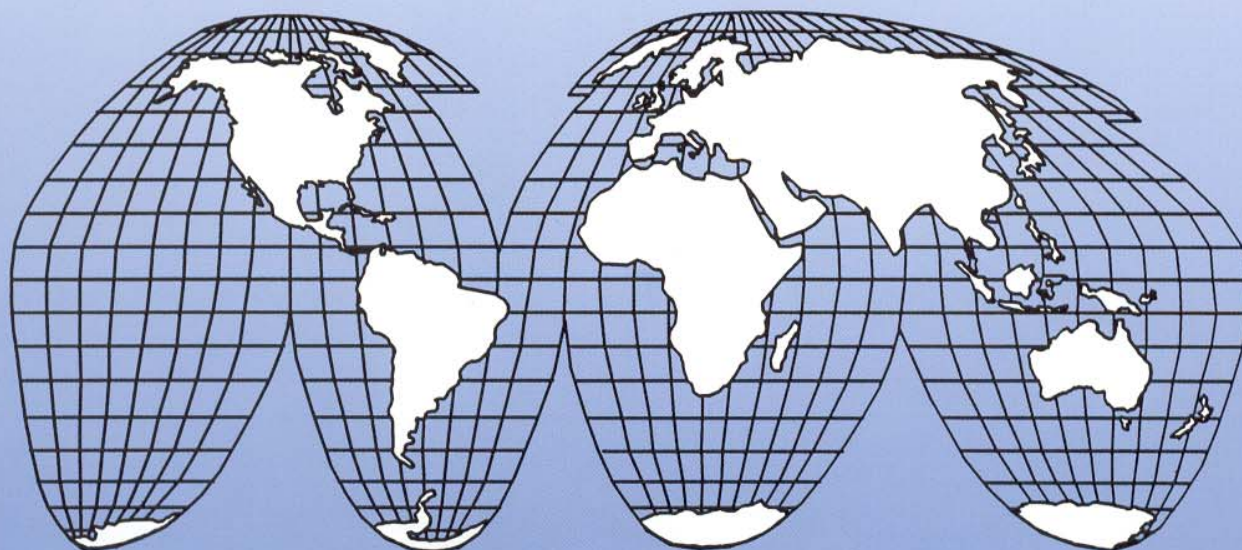
USAID

OFFICE OF INSPECTOR GENERAL

**Audit of USAID/Madagascar's Performance Monitoring of
Road and Rail Repair and Reconstruction for Southern Africa
Flood Relief Supplemental Appropriations**

Audit Report No. 4-687-04-006-P

April 15, 2004



PRETORIA, SOUTH AFRICA



April 15, 2004

MEMORANDUM

FOR: Acting Mission Director, USAID/Madagascar, Stephen M. Haykin

FROM: Regional Inspector General/Pretoria, Jay Rollins /s/

SUBJECT: Audit of USAID/Madagascar's Performance Monitoring of Road and Rail Repair and Reconstruction for the Southern Africa Flood Relief Supplemental Appropriations (Report No. 4-687-04-006-P)

This memorandum is our report on the subject audit. In finalizing this report, we considered management comments on the draft report and have included those comments, in their entirety, as Appendix II in this report.

There are no recommendations in this report; however, we issued a management memo to the Mission with suggestions on improving the quality of your performance monitoring on future projects.

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

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Summary of Results

In the year 2000, a series of tropical cyclones struck southern Africa and, as a result, the countries in this region experienced the worst flooding in a century. Madagascar experienced substantial wind, flood, and landslide damage affecting approximately 300,000 of the country's population and killing over 200 people. The national rail line and many rural tertiary roads and bridges were destroyed. The U.S. Congress responded to the needs of these countries by passing two emergency supplemental appropriations. A key priority of the funding was to rehabilitate the transport infrastructure (roads and railroads) to a standard that would mitigate against flood damage from future cyclones. USAID/Madagascar programmed \$5.4 million from the emergency supplemental appropriations for the repair of farm-to-market roads (including the rehabilitation of the Manakara Port facilities) and \$4.9 million for the repair and rehabilitation of the national rail line. (See pages 5-7.)

The objective of this audit was to determine whether USAID/Madagascar monitored performance related to the repair and rehabilitation of farm-to-market roads and the national rail line under the Southern Africa Flood Relief Supplemental Appropriations funding in accordance with USAID policies and procedures. (See page 7.)

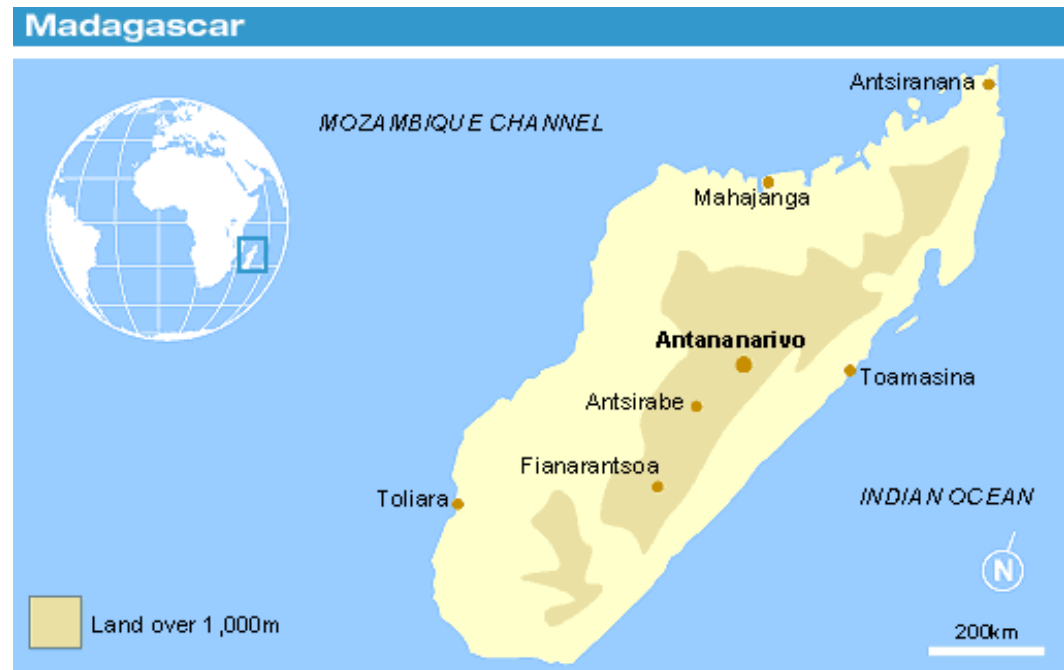
The audit showed that USAID/Madagascar monitored performance related to the repair and rehabilitation of farm-to-market roads and national rail line in accordance with USAID policies and procedures. For example, the Mission ensured that the contractor was performing in accordance with the contract terms, evaluated the contractor's performance, approved deliverables and performance reports, and maintained adequate documentation. As a result, the Mission was successful in rehabilitating and repairing: (1) 233 kilometers of tertiary and farm-to-market roads, (2) 163 kilometers of the national rail line, and (3) three warehouses and a wharf at the port in Manakara. (See page 7.)

USAID/Madagascar did not have any substantive comments on the draft report. Regarding the management memo, the Mission acknowledged our suggestions in improving the quality of their performance monitoring of on-going and future projects. (See page 13.)

Background

From February through May 2000, three cyclones struck southern Africa resulting in the worst flooding in this region in a century. Over 1,000 people were killed and more than two million people were affected. Hardest hit was Mozambique; however, Madagascar and other southern African countries suffered serious damage as well. In Madagascar, the cyclones caused substantial wind, flood and landslide damage, affecting approximately 300,000 of the population and killing over 200 people. One third of the entire country experienced extensive agricultural crop loss and economic infrastructure damage. The Fianarantsoa-Manakara Côte Est (FCE) rail line, the only source of reliable transportation for over 100,000 people, was severely damaged by mudslides, washouts and floods, which also destroyed many rural tertiary roads and bridges. The damaged roads and rail line cut off farmers and

consumers from market outlets. It was estimated that more than one million people would ultimately face long-term livelihood deterioration due to cyclone damage.



Map of Madagascar, a large island in the Indian Ocean off the eastern coast of southern Africa. Most of USAID cyclone rehabilitation activities took place in the province of Toamasina and in the southern part of the country in the Fianarantsoa Province.

(Map source: <http://www.travel.guardian.co.uk/country/popup/1,8958,Madagascar,00>)

To provide assistance for the southern African countries affected by the cyclones, the U.S. Congress appropriated emergency supplemental appropriations funding of \$25 million in fiscal year 2000 and an additional \$135 million in the following fiscal year. USAID/Madagascar received \$17 million from the emergency supplemental appropriations funding, enabling the Mission to carry out rehabilitation and mitigation activities. One of the key priorities for the funding was to rehabilitate transport infrastructure (roads and railroads) to a standard that would mitigate against flood damage from future cyclones. USAID/Madagascar identified 233 kilometers of roads in two provinces, structures at the Port of Manakara, and the severely damaged FCE railroad that needed to be rehabilitated. Of the emergency supplemental appropriations funding received, USAID/Madagascar programmed \$5.4 million for the repair of the roads and rehabilitation of the Manakara Port, and \$4.9 million for the repair and rehabilitation of the FCE rail line. The remaining funds were programmed for other rehabilitation and mitigation activities.

To implement these activities, USAID/Madagascar awarded two separate contracts—one for the roads and port, and another for the railroad—to a management firm to provide technical services to repair, rehabilitate and stabilize the damaged structures. Both contracts consisted of two components—engineering and construction. For the roads and port, the management firm subcontracted with a local engineering firm to provide the engineering services

and with approximately nine local construction firms to perform the physical rehabilitation work. A slightly different approach was used for the railroad rehabilitation work. The management firm provided the engineering services while subcontracting for the construction services.

Our audit covered the period of December 2000 through June 2003, during which the road, railroad and port repair and rehabilitation activities were completed.

Audit Objective

This audit was conducted by Regional Inspector General/Pretoria as part of a comprehensive plan to provide performance and financial audit coverage of activities funded by the Southern Africa Flood Relief Supplemental Appropriations. The audit was performed to answer the following question:

Did USAID/Madagascar monitor performance related to farm-to-market road repair and national rail line repair and rehabilitation under the Southern Africa Flood Relief Supplemental Appropriations funding in accordance with USAID policies and procedures?

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

Audit Finding

Did USAID/Madagascar monitor performance related to farm-to-market road repair and national rail line repair and rehabilitation under the Southern Africa Flood Relief Supplemental Appropriations funding in accordance with USAID policies and procedures?

USAID/Madagascar monitored performance related to farm-to-market road repair and national rail line repair and rehabilitation in accordance with USAID policies and procedures.

In accordance with USAID's Automated Directives System (ADS), Chapter 202, the Mission assessed the performance of the contractor to ensure that the contractor was performing in accordance with the terms contained in the contract. The Mission accomplished this by carrying out the following monitoring responsibilities as outlined in the ADS:

- reviewing and approving deliverables and performance reports
- maintaining a Cognizant Technical Officer's (CTO) workfile
- reporting variations, proposed substitutions and problems
- recommending modifications
- analyzing financial reports
- approving interim payments
- preparing annual Contractor Performance Reports

To monitor the repair and rehabilitation work on the roads and port, the Mission identified four indicators to measure the contractor's progress: the number of kilometers of road repaired, the number of road-user associations created, the percentage of wharf stabilized and the number of warehouse roofs repaired.



Photograph of a portion of Road RNT14, near the Village of Volohosy, with the railroad running beside it. This road and railroad were both damaged by cyclones. (Photo by contractor personnel, October 2001)



Photograph of the same portion of Road RNT14, with railroad, showing the repair and rehabilitation work conducted by the Mission. (Photo by contractor personnel, August 2002)

To monitor the railroad repair and rehabilitation work, the Mission identified seven indicators including measuring the length of track stabilized, the number of

locomotives functioning, and the number of drains or culverts rehabilitated and constructed. Using these indicators, the Mission reviewed deliverables from the contractor such as workplans and quarterly and annual progress reports. The progress reports summarized the contractor's progress in relation to agreed-upon milestones contained in the annual workplan, specified any problems encountered, and indicated resolutions or proposed corrective actions.



Photographs of the same portion of the railroad, at kilometer 90, taken before, during and after rehabilitation. The photo on the left, taken in March 2000, shows the damage to the railroad caused by the cyclones. The photo in the center, taken in March 2001, shows the beginning efforts of the repair and rehabilitation work. The photo on the right, taken in September 2002, shows the railroad after the repair and rehabilitation efforts. (Photos by contractor personnel)

The Mission also maintained a detailed CTO workfile that contained documents such as the contract and all amendments, workplans, quarterly progress reports, copies of subcontracts, environmental studies, plan designs, and correspondence with the contractors and the Government of Madagascar, as well as approvals that were granted by the Mission. In addition, the Mission evaluated the contractor's performance at the interim and final stages of the contract. Furthermore, the Mission held monthly meetings with the contractor and conducted periodic site visits to observe work progress.

As a result, USAID/Madagascar successfully accomplished one of the key priorities of the emergency supplemental appropriations funding—the rehabilitation of transport infrastructure in that country. Through its implementing partners, USAID/Madagascar rehabilitated and repaired: (1) 233 kilometers of tertiary and farm-to-market roads, (2) 163 kilometers of the national rail line,¹ and

¹ This included slope stabilization activities, improvements to drainage systems, interventions to secure the track platform, investments in rolling stock, and community activities to protect the railroad from erosion.

(3) three warehouses and a wharf at the port in Manakara, as well as, created 33 road-user associations².

The improved transport infrastructure in Madagascar has positively affected the economic environment in the two provinces where the repair and rehabilitation work took place. It has improved the communities' income (profits and revenues) and quality of life. However, despite the noted accomplishments, we identified some areas in USAID/Madagascar's monitoring performance that could be strengthened in future projects. Those areas were reported to the Mission in a separate management memo on March 8, 2004.

**Management
Comments
and Our
Evaluation**

USAID/Madagascar did not have any substantive comments on the subject draft audit report.

The Mission acknowledged the suggestions that were made in the management memo and stated that the suggestions would improve the quality of their performance monitoring and management of on-going and future projects.

The Mission also acknowledged the audit team for their professional conduct, objectivity, interest in the development activity, and their ability to provide advice to the Mission's technical staff.

² The road-user associations, composed of local farmers residing in the communities, were created and trained by the contractor to maintain the roads after completion to ensure a long-term beneficial impact.

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

The Regional Inspector General, Pretoria conducted this audit in accordance with generally accepted government auditing standards. The audit was performed at USAID/Madagascar in Antananarivo, Madagascar and at the offices of the engineering firm and contractors. The fieldwork was conducted between December 1 and December 19, 2003. Site visits to various points in southern Madagascar were also conducted to observe the roads, railroad and port that were repaired and rehabilitated.

The scope of this audit included an assessment of management controls associated with the systems used by the Mission to monitor the road and railroad rehabilitation activities. Specifically, we examined and assessed the following significant management controls: (1) developing a monitoring plan for tracking inputs and outputs; (2) establishing and maintaining a separate workfile for documents and correspondence related to the contracts and activities; (3) conducting site visits to evaluate progress; (4) documenting significant actions, meetings, or conversations with the contractors; (5) monitoring funds closely and on a regular basis; and (6) ensuring the accuracy of the reports submitted by the contractors. The audit also focused on examining and assessing management controls such as the Mission's evaluation of its rehabilitation activities in response to the Federal Managers' Financial Integrity Act for fiscal years 2001 through 2003, its accuracy in reporting results to USAID/Washington, and its controls over the payment process.

There were no prior audit findings affecting this area of review. At the time of our fieldwork, the activities under audit were complete. Our audit covered the period of December 2000 through June 2003, during which the roads, railroad and port repair and rehabilitation activities were completed. The scope of our audit included \$10.3 million of emergency supplemental appropriation funds which USAID/Madagascar had programmed to repair and rehabilitate the damaged infrastructure. Specifically, \$5.4 million was programmed for the repair of the roads and rehabilitation of the Manakara Port, and \$4.9 million for the repair and rehabilitation of the FCE rail line.

Methodology

In order to gain an understanding of USAID/Madagascar's monitoring process, we held discussions with officials from the Mission, the contractors, the engineering consulting firms, and members of the road-user associations. We also reviewed relevant project documentation.

To accomplish the audit objective, we developed an audit program and performed the following tasks:

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- Reviewed applicable laws, regulations, and USAID policy and guidance related to the audit objective.
 - Gained an understanding of USAID/Madagascar’s performance monitoring of road and rail repair and reconstruction by reviewing and analyzing applicable documentation such as, but not limited to, contracts, workplans, trip reports, quarterly progress reports, minutes of meetings, and financial reports.
 - Reviewed (on a judgemental basis) the financial data—specifically, vouchers submitted by the prime contractor—to determine whether USAID/Madagascar had reviewed them for accuracy and paid them in a timely manner.
 - Conducted site visits to the roads in the Fianarantsoa Province of Madagascar, the railroad and port to observe progress and interview contractor personnel regarding the projects.
 - Reviewed financial audit reports on the management firm that provided services for the road and railroad repair and rehabilitation activities.

We did not set a materiality threshold for this audit as the nature of the audit did not lend itself to the establishment of such a threshold. However, we designed our audit to address potential concerns such as:

- inadequate oversight over rehabilitation activities that could increase the likelihood of contracting irregularities occurring.
- inaccurate reporting on the status of contract activities.
- lack of awareness of existing problems at the construction sites.
- payments made for services not rendered.

**Management
Comments**



U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
USAID/MADAGASCAR
Antananarivo, Madagascar

MEMORANDUM

TO: Jay Rollins, Regional Inspector General/Pretoria

FROM: Stephen M. Haykin, Acting Mission Director, USAID/Madagascar /s/

SUBJECT: Mission's Response to the Draft Audit Report of USAID/Madagascar's Performance Monitoring of Road and Rail Repair and Reconstruction for the Southern Africa Flood Relief Supplemental Appropriations

DATE: April 1, 2004

REFERENCE: Draft Report

The USAID/Madagascar Mission has reviewed the subject draft audit report and has no substantive comments.

We acknowledge the four suggestions provided by the auditors during their audit and in their management memo dated March 8, 2004, including 1) developing and following monitoring plans; 2) ensuring that an adequate number of site visits are conducted during the projects' duration; 3) ensuring that all site visits and monthly meetings with the contractor are documented, and that such documentation is placed in the official project file; and 4) ensuring that adequate technical expertise is obtained to ensure the quality of the work performed. These audit suggestions will help us to improve the quality of our performance monitoring and management of on-going and future projects.

We appreciate the professional conduct of your staff in performing this audit, particularly their ability to provide advice to the Mission's technical staff, their objectivity, and their interest in the development activity.

Clearances: Claire J. Johnson, USAID Controller /s/
Lisa Gaylord, SO6 Team Leader /s/