

PROGRESS REPORT

**TECHNICAL ASSISTANCE IN
EXPANDING AND ENHANCING
CAISSE D'EPARGNE DE MADAGASCAR (CEM)
SERVICES**

Prepared for:

Democracy and Economic Growth Office
USAID/Madagascar
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USAID, Global Bureau, Office of Emerging Markets
USAID/G/EGAD/EM
SEGIR Financial Services Component

CONTRACT NO. OUT-PCE-I-801-99-00007-00
Task Order No. 806

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October 30, 2001

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1. SUMMARY

The USAID Task Order 806 based upon which a Work Plan was submitted by Chemonics and approved by USAID in June 2001, focuses on introducing new internet-based services and on helping the CEM to prepare for the full integration of its information management systems. In order to assure accomplishment of relevant technical tasks and the delivery of appropriate value to the CEM, Chemonics proposed, and USAID approved, certain contracting changes to increase Level of Effort (LOE) for the Expatriate Technical Adviser, Ali Rammal. As a result of the approved changes in LOE, the original Work Plan was amended and is appended hereto in Attachment 1 as the Revised Work Plan.

The nature of the Revised Work Plan is highly specific, a technical scope of work with specific outputs (or technical documents) to document each step, which is the nature of professional systems design work. The project therefore includes substantial technical documents that are accessible to the interested reader of this Report through USAID. A table summarizing these technical documents is appended hereto as Attachment 3.

In response to the RFP, the Chemonics team began work in May 2001 and fielded a team of two consultants in Madagascar in May and June (Warren Chase and Ali Rammal), and one consultant in August (Ali Rammal). Substantial additional work was performed offshore in France during this period by Ali Rammal to draft technical reports and to guide local team members in the preparation of input from them. Substantive and excellent effort and results were obtained from local team members Njara Radiamisata, and Eline Randriarijaona of Delta Deloitte & Touche, who worked collaboratively under the direction of Mr. Rammal and with a committee of managers established for the project by the CEM.

This Progress Report, as required under the terms of the RFP, sets forth the status of work and activities implemented as of August, 2001 in relation to the Work Plan; assistance provided, results obtained and next steps to complete the Work Plan; and a discussion of factors for enhancement of CEM's operations and information system.

The Progress Report includes as Attachments: 1) the Revised Work Plan showing the Status of activities, 2) project milestones with the status of each and a current implementation schedule; 3) a table summarizing technical documents that can be accessed upon request through USAID; and 4) a summary of USAID task order tasks and results, which are incorporated into the Revised Work Plan in Attachment 1.

2. STATUS OF WORK, SERVICES PROVIDED, RESULTS OBTAINED, AND NEXT STEPS, WORK PLAN TASK NO. 1

Task 1, which is to “specify requirements for an integrated software package suitable for a thrift institution to replace the system currently in use,” is the central task of the Revised Work Plan. The ultimate goal of this part of the work plan is to create a technical annex usable by the CEM as part of a potential RFP for vendors and financiers.

Work for Task 1 proceeded faster than initially planned, as it was front-loaded for project management reasons and because of its importance to the CEM. Current system functionality and business operations were assessed, new elements for the software system were evaluated, and future system functionality requirements were specified. Reference should be made to Attachment 1 “Revised Work Plan and Status” for further detail about Task 1. Assistance, which enabled accumulation of a substantial amount of data, was provided to the CEM by Ali Rammal and the local Chemonics team, Delta Deloitte & Touche and Njara Randriamisata. The work resulted in 146 pages of technical documents that are accessible to the reader upon request through USAID (see Attachment 3 hereto). A major problem to the implementation of a new system was identified, namely the need to cleanse CEM’s existing database. In the absence of this activity, conversion to any new system will not be feasible, indeed could cause the CEM significant difficulty. The project team addressed this important issue, and an additional sub-contract was executed with Delta Deloitte & Touche fully to evaluate the matter and to propose an action plan to deal with it by January 2002. This sub-contract will be at no additional cost to USAID, even though the work is not explicitly part of the Revised Work Plan.

Next steps for Task 1 are: 1) Distribution to software vendors, of the future system requirements, and feedback from them; 3) “gap” analysis to ensure compatibility of functional requirements with software products available in the marketplace; 3) using the results of the “gap” analysis, the creation of a technical annex for the new system specifications for a future RFP for use by the CEM with vendors and financiers; and 4) completion and acceptance of an action plan to cleanse the existing database. It is anticipated that the annex mentioned in 3) above will incorporate many elements set forth in technical documents already prepared by the team.

3. STATUS OF WORK, SERVICES PROVIDED, RESULTS OBTAINED, AND NEXT STEPS, WORK PLAN TASK NO. 2

Task 2, “design and implement a pilot project for real-time money transfer and transaction management for 2 agencies and the CEM head office,” would allow the CEM to offer state-of-the-art money transfer services within its network. Rather than 2 agencies, as required under the Revised Work Plan, it was agreed with the CEM to add a third agency as part of the project in order to obtain a more comprehensive test of the pilot.

During this reporting period for Task 2, an intra-CEM money transfer system was proposed and agreed, the status of money transfer systems --- intra-CEM, inter-bank, and international --- was evaluated, pilot agencies were selected, procurement specifications for commodities and equipment were recommended, and a new money transfer system was developed. See Attachment 1 “Revised Work Plan and Status” for further detail. As part of this work 107 pages of technical documents were created that are accessible upon request through USAID to the reader of this report (see Attachment 3). For project management reasons, the work under Task 2 was front-loaded, so that testing and acceptance of the system are possible well ahead of the February 28, 2002 date set forth in the Revised Work Plan. Next steps for Task 2 are testing of the system, to include an on-site demonstration, and commencement of its operation, with a minimum of 3,500 transactions to be processed through it.

4. STATUS OF WORK, SERVICES PROVIDED, RESULTS OBTAINED, AND NEXT STEPS, WORK PLAN TASK NO. 3

Task 3, “strengthen and design MIS (management information systems) capable of generating quarterly reports to assist business and strategic planning,” is closely related to work under Task 1 above, as the design of the new integrated software package will incorporate management reports that it would generate for use by the CEM. However, it is given status as a separate task in the Revised Work Plan (see Attachment 1), because it will be a critical element in the sound management of the CEM when it is transformed into a Société Anonyme.

During the reporting period, this task was given priority by the Chemonics team: A 40 page technical document with detailed tables was prepared with a complete status of existing MIS for all parts of the CEM. Issues were identified, and future needs were assessed and integrated into overall system design work in Task 1 above. These needs do not only encompass management reporting but also include the full range of all technical and management reports required by the institution. Task 3 has been completed.

5. STATUS OF WORK, SERVICES PROVIDED, RESULTS OBTAINED, AND NEXT STEPS, WORK PLAN TASK NO. 4

Task 4, training, was undertaken by the Chemonics team during the reporting period. Reference should be made to Attachment 1 for a summary of the training plan. Specifically, a 5-day training course was provided about the administration of the SQL Server, on-the-job training was begun in Visual Basic programming language for CEM staff, and CEM personnel were trained in CASE Tools. Remaining training to be provided consists of a study tour to France/Europe (Frankfurt) to acquaint CEM managers with hardware and software available in the marketplace, training in data communications (4 to 5 day course), and a 2-day course in software life cycle implementation and management. While the completion of the study tour and data communications is anticipated on schedule, the 2-day course on software package life cycle will be behind schedule, as it must await Ali Rammal’s final mission to Antananarivo, now expected to occur in January, 2002.

6. FACTORS FOR ENHANCEMENT OF CEM OPERATIONS AND SYSTEMS

- Acquisition and implementation of new enterprise software banking system. This requires CEM management’s continuous participation and readiness to change existing procedures to accommodate new services, new workflows, and new control procedures.
- Movement toward a real-time transaction processing system. This, in turn, requires:
 - The design of a centralized database, at the headquarters, based on the CEM enterprise system;
 - Cleansing of existing data to correct the present 5 to 10% erroneous records;
 - Further improvement to data communications infrastructure, computer power, and electronic security system;

- Design and development of more sound data entry verification and control system, and some central cross-checking and validation procedures;
 - Central data integration of agency data and information systems;
 - The conversion and migration of existing data;
 - The continuation of the decentralized processing at the CEM agency level.
- Completion of the development, testing, and deployment of a Funds Transfer System. This would encourage institutional funds transfer in the country by permitting the transfer of large sums of money in a more efficient and secure manner.
 - In parallel with the development of the new Funds Transfer System, creation of an enhanced systems department, and of a new funds transfer group at the CEM.
 - Integration of funds transfer fees from abroad, through the Western Union system, with the overall existing management and accounting system at the CEM. This requires the development of the proper interface from the existing MIS or the new banking package system to be linked to the Western Union System and to the Funds Transfer System, currently being developed.
 - Computerization of the operations executed on the passbook prior to 1990. Those transactions are not currently computerized and create operational and systems control issues for the CEM.
 - In parallel with its effort to modernize its information system:
 - Introduction of a more comprehensive data control and validation system. This would include a cross-checking of information, validation of data entry, and some enhanced automatic checking and control procedures.
 - Improvement in the automated audit trail and access control security system.
 - Improvement in the reliability and the extent of coverage of the MIS reporting system. The current reporting system does not meet all of the needs of CEM management and prospective regulatory requirements. In addition, many of the reports are currently prepared manually.
 - Improvement in the telecommunications environment within the CEM and in Madagascar.
 - Training of staff in systems and bank operations.
 - A security master plan for physical, computer, and Internet security.
 - Membership in the inter-bank clearinghouse or “chambre de compensation” (after transformation of the CEM from an EPIC to a Société Anonyme).

REVISED WORK PLAN & STATUS

Task 1: Specify requirements for an integrated banking software package suitable for a thrift institution to replace the system currently in use.

| <u>Result</u> | <u>Indicators</u> | <u>Time</u> | <u>Status</u> | <u>Who</u> | <u>Task</u> | <u>Result</u> |
|--|--|------------------|---------------|--------------------------|-------------|---------------|
| 1. Current system functionality and business operations assessed | System abstract report documenting current business operations, CEM organization and responsibilities, workflow, automated system functionality, issues and problems, and a high-level description of the required additional services, new system functionality, and reporting requirements | 6/6/01-8/10/01 | Done | AR, team | A, | 3 |
| 2. New elements for software system for CEM – SA evaluated | List of additional needs for functionality of new system | 6/15/01-7/10/01 | Done | AR, WSC, CEM 1 team, CEM | B | 3 |
| 3. Future system functionality requirements specified | Document of future system functional requirements specifications for use in an RFP or other procurement or contractual document | 6/15/01-10/31/01 | Done | DDT, AR | B | 1, 2, 3 |

| | | | | | | |
|--|---|-----------------|--|---------|------|-----|
| 4. Project document prepared and recommendations made for possible investors / vendors | Project document with a system specifications, assessment of banking software sourcing options, estimated cost, and financing recommendations | 11/1/01-1/31/02 | | AR,WSC | B | 3 |
| 5. Assurance that future needs are part of system recommendations | Adjustments to future functional system requirements specifications document. | 2/1/02-3/5/02 | | AR, WSC | B, D | 2 |
| 6. Future needs for new software package identified | Annex to future RFP of CEM needs and the required software package specifications | 3/5/02 | | AR | B, D | 2,3 |

Task 2: Design and implement a pilot project for real-time money transfer and transaction management for 2 agencies and the CEM head office.

| <u>Result</u> | <u>Indicators</u> | <u>Time</u> | <u>Status</u> | <u>Who</u> | <u>Task</u> | <u>Result</u> |
|--|--|-------------------|---------------|------------|-------------|---------------|
| 1- An intra-CEM money transfer system proposed and agreed upon. | High-level conceptual view of the pilot project funds transfer system | 6/13/01 | Done | AR | C, B | 1 |
| 2. Status of money transfer systems – intra-CEM, inter-bank, and international – evaluated | Report about status for USAID with recommendations for enhancements | 08/31/01 | Done | WSC | C, B | 1 |
| 3. Pilot agencies selected | Agreement with the CEM on 2 agencies and the Head Office | 6/13/01 | Done | AR, WSC | C | 1 |
| 4. Procurement specifications for commodities and equipment recommended | Hardware and Software requirements specifications for the pilot system | 6/22/01 | Done | AR | C | 1 |
| 5. A new money transfer system developed | Requirements specifications and design document(s) for the Money Transfer System | 6/13/01 – 8/21/01 | Done | DDT, CEM | C | 1 |
| 6. New system implemented and installed | Source code of the Money Transfer software applications | 12/31/01 | | DDT, CEM | C | 1 |

| | | | | | | |
|--|--|----------------|--|--------|---|------|
| 7. Acceptance test performed and the final system demonstrated | Acceptance test plan and test cases | 1/1/02-2/28/02 | | AR, NR | C | 1 |
| 8. Test pilot system | On-site demonstration | 2/28/02 | | AR, NR | C | 1, 2 |
| 9. Pilot system operational | A minimum of 3,500 transactions processed through the operational pilot system | 5/6/02 | | CEM | D | 1 |

Task 3: Strengthen and design MIS capable of generating quarterly reports to assist business and strategic planning

| <u>Results</u> | <u>Indicators</u> | <u>Time</u> | <u>Status</u> | <u>Who</u> | <u>Task</u> | <u>Result</u> |
|---|---|--------------------|---------------|------------|-------------|---------------|
| 1. Potential MIS for future system applications evaluated | Memorandum to USAID with summary of MIS available and status. | 7/1/01 – 8/31/01 | Done | WSC, AR | B, D | 2,3 |
| 2. Design features for central database capable of generating a new MIS and control reporting | Integration of MIS needs in functional requirement for new software system. | 7/1//01 – 12/30/01 | Done | AR, NJ | C | 1 |

Task 4: Training (shown as a training plan)

| <u>Results</u> | <u>Indicators</u> | <u>Time</u> | <u>Status</u> | <u>Who</u> | <u>Task</u> | <u>Result</u> |
|--|--|-------------------|----------------------------|------------------|-------------|---------------|
| 1. One CEM trainer is trained on the administration of SQL Server | 5 days training course in Tana on SQL | 7/15/01 – 8/15/01 | Done | Microsoft vendor | E | 1,2, 3 |
| 2. On-the-job training and support on Visual Basic provided to CEM staff. | CEM staff assigned to the development of the pilot project trained in Visual Basic | 8/1/01 – 11/30/01 | In Progress from Aug | NJ, DDT | E | 1,2,3 |
| 3. 2 CEM managers trained in Bank practices, software packages, and relative hardware technology | 2 CEM managers perform training mission to France/Europe | 7/1/01- 12/31/01 | Initial study tour defined | AR, CEM | E | 1,2, 3 |

| | | | | | | |
|---|--|------------------|------|---------|---|--------|
| 4. Appropriate CEM staff trained in CASE Tools | Delivery of 4 to 5-day training course | 8/6/01-8/31/01 | Done | DDT | E | 1,2,3 |
| 5. Appropriate CEM staff trained in data communications (Internet, Intranet, security, etc.) | Delivery of 4 to 5-day training course | 10/1/01-11/15/01 | | DDT, AR | E | 1,2, 3 |
| 6. Appropriate CEM staff trained in software package life cycle implementation and management | Delivery of 2-day training course | 10/1/01-11/15/01 | | AR | E | 1,2, 3 |

WSC = Warren Chase; AL = Ali Rammal; DDT = Dela Deloitte & Touche; NR = Njara Randriamisata

PROJECT MILESTONES -- Status

| <u>Milestone</u> | <u>Completion Date</u> | <u>Status</u> |
|--|------------------------|--|
| Completion, system abstract report documenting current operations and a future vision of the new system and functionality (Task 1, Activity 1) | August 10, 2001 | Completed |
| Document of future system functional requirements specifications (Task 1, Activity 3) | October 31, 2001 | Completed |
| Project document with system specifications and assessment of sourcing options (Task 1, Activity 5) | January 31, 2002 | Pending |
| On-site demonstration of pilot projects (Task 2, Activity 8) | February 28, 2002 | Prototype demonstration has already been completed and agreed to by the CEM. Development completion and deployment remain. |
| Annex for future RFP of CEM needs and required software package specifications (Task 1, Activity 7) | March 5, 2002 | Pending |

IMPLEMENTATION SCHEDULE

| <u>Missions for Expatriate Advisors</u> | <u>Personnel</u> | <u>Dates</u> |
|--|-----------------------------|-------------------------------|
| Initial assessment mission | Warren Chase, Ali Rammal | May 28 – June 16, 2001 |
| Follow-up mission (under CEM I --- Institutional Strengthening) | Ali Rammal | August 6 – 18, 2001 |
| Mission to complete tasks | Warren Chase, Ali Rammal | January 21 – January 31, 2002 |

TECHNICAL DOCUMENTS REFERENCE TABLE

| <u>Task</u> | <u>Results</u> | <u>Associated Completed Technical Deliverable(s)</u> | <u>Type/Language</u> | <u>Original Title in English/French</u> |
|-------------|----------------|---|---|--|
| 1 | 1 & 3 | Result 1-System abstract report Result 3- Future system functional requirements specifications | 133 page MS-Word document in French | Spécifications et Analyse des Opérations Actuelles et Besoins Futurs |
| 1 | 2 | List of additional needs for functionality of new system | 13 page MS-Word document in French | Besoins Supplémentaires Futurs de la CEM |
| 2 | 1 | High-level conceptual view of the pilot project funds transfer system | 24 page MS-Word document in French | Vue Conceptuelle du Système de Transfert de Fonds de la CEM - PROJET PILOTE |
| 2 | 2 | Report about status for USAID with recommendations for enhancements | 4 page MS-Word paper in English | Money Transfer Mechanisms and the CEM |
| 2 | 4 | Hardware and Software requirements specifications for the pilot system | 9 page MS-Word document in French 1 page MS-Word memorandum in English 2 page MS-Word document in English | Infrastructure Technologique et Architecture du Réseau de la CEM Mémorandum, date 30/6/2001 Project Funded Hardware Procurement Specifications |

| <u>Task</u> | <u>Results</u> | <u>Associated Completed Technical Deliverable(s)</u> | <u>Type</u> | <u>Original Title in English/French</u> |
|--------------------|-----------------------|--|---|--|
| 2 | 5 | Requirements specifications and design document(s) for the Money Transfer System | 69 page MS-Word document in French Prototype Applications programs in WinDev | Dossier d'Analyse et de Conception – Virement Interne de Fonds WinDev Source Code Computer Programs |
| 3 | 1 | Memorandum to USAID with summary of MIS available and status | 40 page MS-Word document in French | Analyse des Systèmes d'Information de la CEM |
| 3 | 2 | Report about pilot project capabilities | 13 page MS-Word document in French | Services en cours de Développement et Besoins Supplémentaires |

SUMMARY OF TASK ORDER TASKS AND RESULTS

Specific Tasks

Work collaboratively with the CEM in carrying out an audit of all CEM computer systems (using specialists from a reputable audit firm), resulting in appropriate recommendations for:

The procurement of commodities and services to enable real-time internet-based financial services and operations;

Measures needed to improve/strengthen the current information management system to improve internal controls and to enable the production of quarterly MIS reports for management; and

The implementation of an integrated systems software package suitable for a thrift institution.

Provide solid, specific recommendations about technical specifications and resource requirements for an appropriate integrated systems software package (suitable for a thrift institution) to replace the information management system currently in use.

Procure commodities and technical assistance services necessary for enabling the CEM to initiate internet-based, real-time currency transfer services (including direct deposits) and transaction management between headquarters and two pilot agencies. This would include commodity purchase, certified delivery, installation, testing, configuration and operational start-up. The procurement shall be carried out so that compatibility with the recommended integrated systems software package is ensured (e.g. via an appropriate application program interface).

Assist the CEM in operationalizing the internet-based service equipment and integrating it securely into the overall information management system. Such integration shall enable the CEM to produce accurate quarterly financial reports for management and shall not disrupt existing management control systems.

Provide specialized systems management training to the staff of CEM's "Direction Informatique" and user training to at least 40 CEM agents in effective, efficient use of the new internet-based operations.

Expected Results

The CEM commences reliable internet-based management of passbook savings account services as well as funds transfer transactions among selected pilot independent agencies. (See Annex 4 for a Schematic, originally drafted by the CEM, that illustrates estimated network requirements for internet-based local currency transfers between 2 pilot agencies and headquarters.)

The information management system is capable of generating timely, reliable, reconciled quarterly reports that present the CEM's "Capital Adequacy Ratio" as well as other key ratios appropriate for input into business and strategic planning.

The CEM is able to confidently specify to third parties the kind and estimated cost of an appropriate integrated systems software package (suitable for a thrift institution).