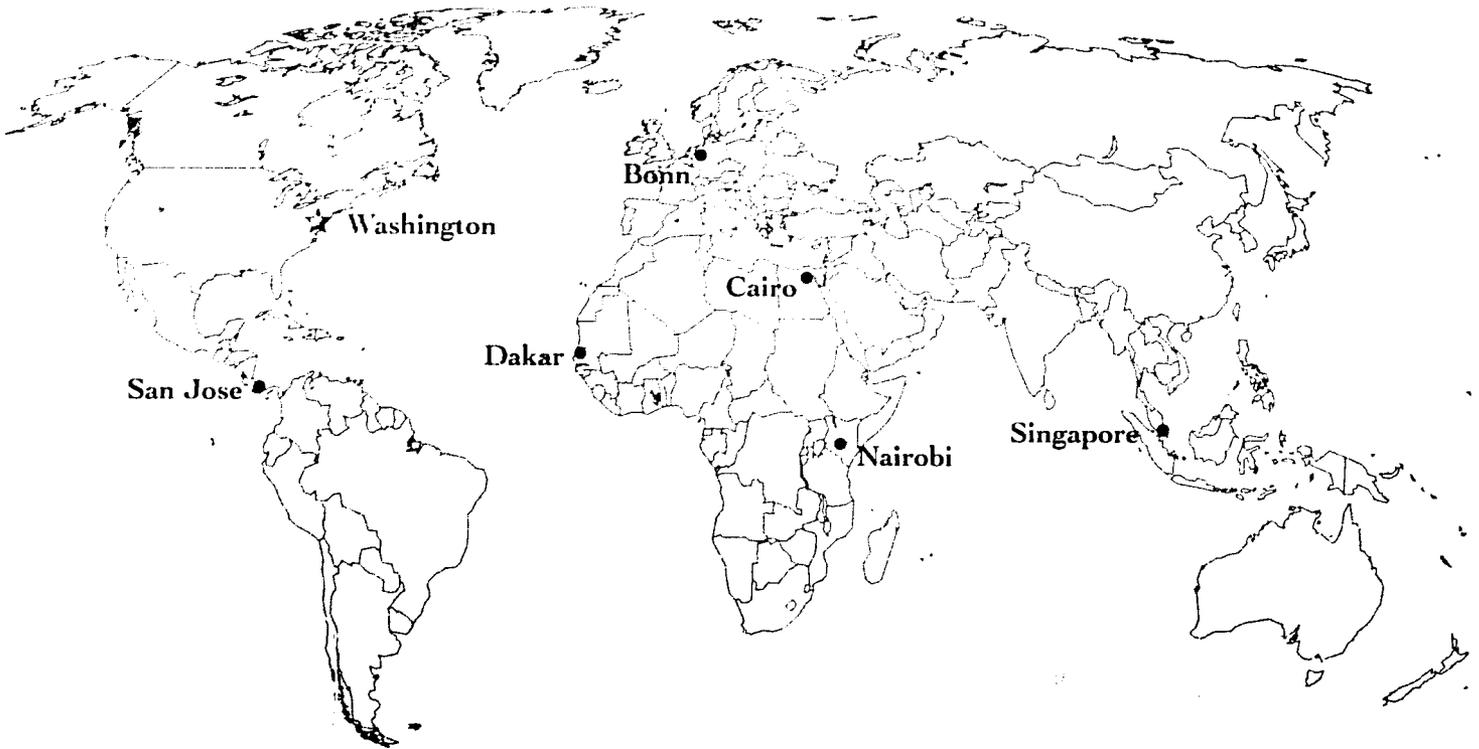


**Regional Inspector General for Audit
Singapore**

**Audit of the
Quality of MACS Data
At
USAID/Bangladesh**

**Audit Report No. 5-388-95-013
July 28, 1995**





U.S. AGENCY FOR
INTERNATIONAL
DEVELOPMENT

July 28, 1995

MEMORANDUM FOR DIRECTOR USAID/Bangladesh, Richard M. Brown

FROM: Richard C. Thabet, RIG/A/Singapore

SUBJECT: Audit of the Quality of MACS Data at USAID/Bangladesh
(Audit Report No. 5-388-95-013)

This memorandum is our report on the audit of the quality of Mission Accounting and Control System (MACS) data at USAID/Bangladesh. We considered your comments on the draft report and included them as an appendix to this report (see Appendix II). Based on your comments and aggressive corrective actions taken during the audit, we consider all the recommendations closed upon the issuance of this report.

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

Introduction

Realizing that USAID must operate with increasingly scarce funds, the Agency is undertaking a new and aggressive effort to change the way data and information are managed. Such an effort is critical to our future. In the modern workplace, be it business or government, a high-quality, reliable information system is no longer a luxury—it is a necessity.

To ensure that the data in the entire USAID system is of high quality (and therefore useful to managers concerned about project status and pipelines reports) the Office of Information Resources Management is undertaking a major initiative. It is centralizing data collection and improving the management of information. One of the first information improvements made by the Agency is the Project Information and Pipeline Evaluation initiative. This initiative is a joint Office of Information Resources Management and Financial Management project that will combine MACS data from the missions and financial data from USAID/Washington, allowing all Agency managers timely and comprehensive information on USAID projects worldwide.

For this system to succeed, the MACS data from all missions must be of the highest quality. Therefore, in support of the Office of Information Resources Management's work, the Inspector General's Office of Audit is conducting a series of audits to evaluate the quality of data (in the MACS files) which is central to the Agency's work. An important part of the effort is this audit of USAID/Bangladesh data.

Audit Objective

The audit was designed to answer the following question:

- Is the data in USAID/Bangladesh Mission Accounting and Control System (MACS) accurate?

Audit Findings

USAID/Bangladesh MACS data was accurate in 36 of the 39 data elements reviewed; only three data elements contained substantial errors. The errors resulted from data not being maintained properly.

| RESULTS OF OUR REVIEW | | | |
|------------------------------------|-------------------------------|---|--|
| MACS Files | Data Elements Reviewed | Elements With Substantial Errors | Elements With No Substantial Errors * |
| Budget Allowance Transaction | 3 | 0 | 3 |
| Reservation/Obligation Transaction | 4 | 0 | 4 |
| Commitment Transaction | 7 | 0 | 7 |
| Disbursement Transaction | 10 | 1 | 9 |
| Advance Transaction | 8 | 0 | 8 |
| Project Information Master | 7 | 2 | 5 |
| Total | 39 | 3 | 36 |

(* Error rates of less than 5 percent were considered accurate for reporting purposes. Error rates for each of these elements can be found in Appendix III.)

Since USAID managers worldwide will rely on information in the Agency's new system for making decisions on where and how to allocate scarce resources, it is critical that the data coming from each mission's MACS be accurate and complete. Therefore, the efforts of USAID/Bangladesh to ensure the integrity of data in MACS will contribute to the Agency's overall goal of providing accurate and timely information on all project activity worldwide in USAID.

An analysis of the problems and recommendations to correct the problems are discussed in detail below.

1. Project Information
File Not Updated

The Project Information File in USAID/Bangladesh MACS was correct except that a few items had not been updated. Most but not all information was entered and maintained according to procedures established by MACS User's Guide (Release 20).

MACS User's Guide procedures detail the need to:

- verify 17 data elements, including the Project Number, Agreement Date, Life of Project, Project Assistance Completion Date, and Terminal Disbursement Date when entering information into the system; and
- review periodically the data elements and adjust them as required.

We reviewed all 56 of the Mission's Project Information Master records. These records are cumulative for project transactions. Therefore, transactions containing erroneous data result in erroneous data in these records. Since documents used to enter the initial project information into MACS do not always contain complete data, some revisions or corrections may be necessary. If the project status changes, revisions and updates are required.

Three of 56 Agreement Dates and 14 of 56 Life of Project (in Years) amounts had not been updated. All information in the Project Information Master file was not adequately reviewed for accuracy as prescribed by the MACS User's Guide. Although the Mission did perform periodic reviews, the errors noted above had not been corrected prior to our review.

Without accurate and complete information, USAID managers worldwide may rely on inaccurate information in the Agency's data warehouse when making decisions on where and how to allocate resources.

Recommendation No. 1: We recommend that the Director, USAID/Bangladesh:

- 1.1 Correct the Project Information Master file to ensure that the information is accurate; and**
- 1.2 Review the data in the Project Information Master file at least annually to ensure that the data is correct.**

2. Data Not Correctly Entered In Federal Outlay Code Data Element

For six of the 81 records examined, the data in the Federal Outlay Code data element were inaccurate because the information was not entered and maintained according to procedures established by MACS User's Guide (Release 20). According to the Guide, the Federal Outlay Code should be "1" for disbursements made to the General Services Administration, "2" for disbursements made to another U.S. Government Agency, "3" for recipients in the U.S., and "4" for recipients in foreign countries.

The Controller's Office did not always enter this information into the MACS accurately. All six errors were made in coding disbursements. Instead of using "3", the code for recipients in the U.S., "4", the code for recipients in foreign countries, was used.

Discussions with accounting personnel indicated that at one time "4" was used as the Federal Outlay code for all disbursements. In 1993, this procedure was discovered by the Controller who provided training on the proper codes to be used. The errors found in our sample had posting dates prior to June 1993. Therefore, we conclude that these errors were made because accounting personnel did not understand the correct use of the codes prior to receiving the training.

During the audit, the Mission provided additional training to reinforce the proper codes to be used. Based on the Mission's response to the draft report we are deleting Recommendation No. 2 from this report.

MANAGEMENT COMMENTS AND OUR EVALUATION

USAID/Bangladesh officials concurred with the report's findings and recommendations. For Recommendation No. 1, the Mission has made appropriate corrections to the Project Information Master file and will conduct reviews of that file to ensure the data is correct. Based on this action, Recommendation No. 1 is considered resolved and closed upon issuance of this report.

We note the rounding convention used by the Mission appears to be the cause of five of the 14 errors in the Life of Project (In Years) data field. We believe our method was more conservative.

The Mission response to the draft report is included in its entirety in Appendix II of this report, except for Attachments B and C.

SCOPE AND METHODOLOGY

Scope

The Regional Inspector General for Audit/Singapore audited the quality of data maintained in MACS files of USAID/Bangladesh, in accordance with generally accepted government auditing standards. From January 9, 1995, through January 30, 1995, we audited six files and 39 data elements from a universe of 28 MACS Transaction/Master files and 757 data elements (21.4 and 5.0 percent respectively). If the error rate was significant on any of the data elements, we also evaluated the cause and made the appropriate recommendations.

Methodology

After consulting with financial management officials in Washington, D.C., we identified the MACS files and key data elements that we would review for each file. We reviewed the Mission's implementation of the provisions of the MACS User's Guide. We analyzed fiscal years 1992, 1993 and 1994 data from the following six MACS Transaction/Master files¹:

- Budget Allowance Transaction
- Reservation/Obligation Transaction
- Commitment Transaction
- Disbursement Transaction
- Advance Transaction
- Project Information Master

We selected a statistical sample for five of the data files that would provide a confidence level of 90 percent, with a precision level of plus or minus 4 percent, and an expected rate of occurrence of not over 5 percent. We reviewed 100 percent of the records in the Project Information Master file. For each data element reviewed (dollar amounts, dates, document numbers, etc.), we determined whether the data in MACS was supported by information from a source

¹ A complete listing of MACS Transaction/Master files appears in Appendix IV.

document(s). Based on the results of these determinations, we calculated the standard mean error rates for each data element and assessed whether each error rate was significant. A standard mean error rate of 5 percent or greater was considered significant. Data elements with a rate of less than 5 percent were considered accurate for reporting purposes. Using the standard mean error rate, we statistically projected the number of errors in the MACS file. These projections indicate the total number of errors estimated for each data element based on the errors found in the statistical sample.

In addition, USAID/Bangladesh provided written representations which we considered essential for answering our audit objective and for assessing internal controls and compliance.



UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
Dhaka, Bangladesh

04 MAY 1995

MEMORANDUM

TO: Mr. Richard C. Thabet, RIG/A/Singapore

FROM: Richard M. Brown, Mission Director/USAID/Bangladesh 

SUBJECT: Draft Report of the Audit of the Quality of MACS Data at USAID/Bangladesh

We have reviewed the subject draft report and this memorandum transmits our comments for your consideration and use in preparing the final audit report. Also, please find attached (Attachment A) to this memorandum the representation letter for this audit. Overall, we view this audit as helpful in fine-tuning our procedures for periodic review of our MACS data base. We also believe that the very limited types and number of errors identified during the audit confirm that our MACS data base and the related Mission system of internal controls provide the necessary financial management safeguards to support program implementation and sound financial management. Finally, my staff has completed the actions necessary to both correct all identified errors and implement improved procedures in response to the audit's recommendations. The draft audit's recommendations and related completed actions are outlined below.

Recommendation N^o 1: We recommend that the Director, USAID/Bangladesh:

- 1.1 correct the Project Information Master file to ensure that the information is accurate; and
- 1.2 periodically review the data in the Project Information Master file to ensure that the data is correct.

Mission Response:

- 1.1 We have corrected all the errors in the Project Information Master (PIM) file cited in the draft audit report. Please see Attachment B, which shows the corrected PIM file.
- 1.2 Please see Attachment C, which is the operating procedure we issued on November 27, 1994 to help ensure that the data contained in the PIM file is accurate. The operating procedure that we issued will strengthen our procedures for reviewing the PIM file. We would also like to point out that we have been conducting regular reviews of the PIM file since last September. In September of 1994, the Chief Accountant led the accounting staff in a review of the PIM file. In addition, an IDI,

who was performing a rotation in the Controller's Office worked with the accounting staff in a thorough review of the PIM file during December of 1994.

In view of our prior reviews of the PIM file, we suggest that the language used on page 4 be modified to reflect that we did review the PIM file for accuracy.

Recommendation N° 2: We recommend that the Director, USAID/Bangladesh, provide additional training to Controller personnel to ensure that they use the correct procedures for determining the values to be placed in the Federal Outlay Code data element.

Mission Response:

2. As stated in the draft report, all the errors related to the Federal Outlay Code were made prior to 1993. In July of 1993, the Mission became aware of its improper use of the Federal Outlay Code and provided proper training to the staff on the correct codes to use. In order to reinforce this earlier training on the proper use of the Federal Outlay Code, we held another training session with the staff which was attended by the auditors conducting the audit.

Other Comments:

Appendix III of the draft audit report, which reports on the PIM file, shows a material error rate only in the Life of Project (In Years) field. The chart on Appendix III shows that there were 14 errors in a universe of 56, thus a 25% error rate. Upon closer inspection, we find that 5 of the "errors" were caused by the Mission following a different rounding convention than used by the auditors. The auditors rounded up when the number of months in a partial year equalled six or more. The Mission, on the other hand, always rounded down. Although we are now following the rounding convention used by the auditors, we believe that our prior practice of rounding down was not erroneous since existing guidance on the use of this field does not address how to deal with fractional years. Accordingly, we believe that the number of errors in this field should be listed as 9 instead of 14. Despite any errors noted in this field, please be assured that PACD is enforced as to month, day as well as year.



UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
Dhaka, Bangladesh
May 2, 1995

Mr. Richard C. Thabet
Regional Inspector General/Audit/Singapore
Office of Inspector General

Dear Mr. Thabet:

In connection with your audit of the Mission Accounting and Control System (MACS) data files, I confirm, to the best of my knowledge and belief, the following representations made to you during the audit:

1. I am responsible for the internal control system, compliance with applicable laws and regulations, and the fairness and accuracy of our reporting to the MACS.
2. We have made available to you all of the information and documentation related to the transactions and files under review.
3. I am not aware of any: (1) irregularities involving management or employees who have roles in the internal control structure; (2) any irregularities involving any other organization that could effect the MACS; and communications from organizations outside USAID concerning deficiencies in the MACS.
4. Except as discussed in the draft audit report, I am not aware of any material instances where financial or management information has not been properly or accurately recorded and reported.
5. I am not aware of any violations or possible violations of laws, regulations or legally binding requirements.
6. To the best of my knowledge and belief, no events have occurred subsequent to the period under audit that would affect the above representations.
7. To the best of my knowledge and belief, there are no other matters that the auditors should be made aware of regarding the MACS.
3. To the best of my knowledge and belief, the files provided contain all the MXDATA from USAID/Dhaka databases as of December 30, 1994.

Sincerely,

Thomas J. Walsh
Controller
USAID/Bangladesh

USAID/Bangladesh
MACS FILES AND ELEMENTS REVIEWED

| <u>MACS FILES/ELEMENT</u> | <u>UNIVERSE</u> | <u>NUMBER IN SAMPLE</u> | <u>ERRORS IN SAMPLE</u> | <u>UNIVERSE ERROR RATE</u> | <u>PRECISION LEVEL</u> | <u>PROJECTED ERRORS IN UNIVERSE</u> |
|--|-----------------|---------------------------------|---------------------------------|------------------------------------|----------------------------|---|
| BUDGET ALLOWANCE TRANSACTION | | | | | | |
| Budget Plan Code | 380 | 67 | 0 | < 3.12% | | None |
| Transaction Amount | 380 | 67 | 0 | < 3.12% | | None |
| Project Number | 380 | 67 | 0 | < 3.12% | | None |
| RESERVATION/OBLIGATION TRANSACTION FILE | | | | | | |
| Obligation Number | 4,088 | 79 | 0 | < 2.88% | | None |
| Reservation Control Number | 4,088 | 79 | 0 | < 2.88% | | None |
| Budget Plan Code | 4,088 | 79 | 0 | < 2.88% | | None |
| Transaction Amount | 4,088 | 79 | 0 | < 2.88% | | None |
| COMMITMENT TRANSACTION FILE | | | | | | |
| Commitment Document Number | 2,303 | 78 | 0 | < 2.90% | | None |
| Earmark Control Number | 2,303 | 78 | 0 | < 2.90% | | None |
| Call Forward Date | 2,303 | 78 | 1 | 1.28% | +/-2.06% | * |
| Transaction Amount (AID/W) | 2,303 | 78 | 0 | < 2.90% | | None |
| Transaction Amount (Mission) | 2,303 | 78 | 1 | 1.28% | +/-2.06% | * |
| Commitment End Date | 2,303 | 78 | 2 | 2.56% | +/-2.89% | * |
| Budget Plan Code | 2,303 | 78 | 0 | < 2.90% | | None |
| DISBURSEMENT TRANSACTION FILE | | | | | | |
| Obligation Document Number | 20,190 | 81 | 0 | < 2.83% | | None |
| Reservation Control Number | 20,190 | 81 | 0 | < 2.83% | | None |
| Commitment Document Number | 20,190 | 81 | 0 | < 2.83% | | None |
| Earmark Control Number | 20,190 | 81 | 0 | < 2.83% | | None |
| Budget Plan Code | 20,190 | 81 | 1 | 1.23% | +/-2.01% | * |
| Disbursing Office Code | 20,190 | 81 | 0 | < 2.83% | | None |
| Federal Outlay Code | 20,190 | 81 | 6 | 7.41% | +/-4.78% | 1,496 |
| Budget Allowance Amount | 20,190 | 81 | 0 | < 2.83% | | None |
| Transaction Type Code | 20,190 | 81 | 0 | < 2.83% | | None |
| Actual Disbursed Amount | 20,190 | 81 | 3 | 3.70% | +/-3.44% | * |
| ADVANCE TRANSACTION FILE | | | | | | |
| Advance Number | 3,016 | 79 | 0 | < 2.87% | | None |
| Obligation Document Number | 3,016 | 79 | 0 | < 2.87% | | None |
| Commitment Document Number | 3,016 | 79 | 0 | < 2.87% | | None |
| Project Number | 3,016 | 79 | 0 | < 2.87% | | None |
| Advance Type | 3,016 | 79 | 0 | < 2.87% | | None |
| Accountability Date | 3,016 | 79 | 0 | < 2.87% | | None |
| Advance Transaction Amount | 3,016 | 79 | 0 | < 2.87% | | None |
| Local Currency Amount | 3,016 | 79 | 1 | 1.27% | +/-2.04% | * |

* Error rates of less than 5% were considered accurate for reporting purposes

USAID/Bangladesh
MACS FILES AND ELEMENTS REVIEWED

| <u>MACS FILES/ELEMENT</u> | <u>UNIVERSE</u> | <u>NUMBER IN SAMPLE</u> | <u>ERRORS IN SAMPLE</u> | <u>ERROR RATE</u> | <u>ERRORS IN UNIVERSE</u> |
|--|-----------------|---------------------------------|---------------------------------|-----------------------|-------------------------------|
| PROJECT INFORMATION MASTER FILE | | | | | |
| PACD | 56 | 56 | 2 | 3.57% | 2 |
| Authorized Amount | 56 | 56 | 2 | 3.57% | 2 |
| Agreement Date | 56 | 56 | 3 | 5.35% | 3 |
| Terminal Disbursement Date | 56 | 56 | 2 | 3.57% | 2 |
| Host Country Contribution | 56 | 56 | 2 | 3.57% | 2 |
| Project Number | 56 | 56 | 0 | 0.00% | 0 |
| Life of Project (In Years) | 56 | 56 | 14 | 25.00% | 14 |

* Error rates of less than 5% were considered accurate for reporting purposes

| MACS TRANSACTION AND MASTER FILES NUMBER OF DATA ELEMENTS | |
|--|-------------------------------------|
| MACS FILE NAME | # OF ELEMENTS PER RECORD |
| Operating Expense Budget Master | 10 |
| Operating Expense Budget Transaction | 12 |
| Budget Allowance Master File | 13 |
| Budget Allowance Transaction File | 12 |
| Reservation Master File | 17 |
| Obligation Master File | 37 |
| Reservation/Obligation Transaction File | 20 |
| Project Information Master File | 115 |
| Project Information Transaction File | 25 |
| Condition Precedent Transaction File | 96 |
| Project Element Master File | 13 |
| Project Element Transaction File | 12 |
| Direct Reimbursement Authorization (DRA) Master File | 16 |
| Direct Reimbursement Authorization (DRA) Transaction File | 17 |
| Earmark Master File | 20 |
| Earmark Transaction File | 19 |
| Commitment Master File | 41 |
| Commitment Transaction File | 25 |
| Advance Master File | 22 |
| Advance Transaction File | 30 |
| Planned Expenditures Master File | 13 |
| Planned Expenditures Transaction File | 15 |
| Accrual Transaction File | 18 |
| Prepayment Amortization Transaction File | 23 |
| Disbursement Transaction File | 28 |
| Interface Disbursement/Advance File | 36 |
| Interface Disbursement/Advance Reject File | 35 |
| Prepayment Amortization File | 17 |
| Totals 28 MACS FILES | 757 |