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Review of Sudanese Government Accounting Practices

FINAL REPORT
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I. Executive Summary

I.A. Overview

The governmental accounting system of the Government of Sudan (GOS) includes not only the operating components within the ministries (i.e., the accountants, clerks, bookkeepers and auditors) but also the educational components that supply and maintain the operating units. The commercial secondary schools under the Ministry of Education (MOE) and the University of Cairo (Khartoum Branch) and other local Khartoum institutions supply the operating units of the ministries with the majority of accounting personnel. The Institute of Accounting Studies (IAS) within the Ministry of Finance and Economic Planning (MOFEP) provides additional training. As an overall statement, the "system" is working as well as can be expected under the circumstances. The central government has a sound, manual system which unfortunately suffers from inefficiencies because of a shortage of trained staff. The commercial schools, the University of Cairo (Khartoum Branch) and the IAS have an acute lack of funding necessary for materials and staff which results in an insufficient number of trained graduates. This report presents an account of our activities in investigating the governmental accounting system in the Sudan and our suggestions for action by USAID, the Government of Sudan and other donors.

I.B. Summary of Findings

The purpose of this project was to investigate and evaluate the governmental accounting system in the Sudan for the purpose of identifying areas where USAID can provide assistance. The
primary focus of this assistance is on the training of accounting personnel to improve the recordkeeping and auditing aspects of the governmental accounting system. We first examined the operations of the system to determine its strengths and weaknesses and to what extent training assistance would be beneficial. Our recommendations were to cover the nature and the extent of assistance efforts.

More specifically, the goals of this project were to:

(1) assess the training needs in accounting, auditing, bookkeeping, and recordkeeping in the Central Ministry of Finance and Economic Planning,

(2) work with the Institute of Accounting Studies (IAS) and other training institutions to determine the extent to which existing training programs are satisfying the current training needs, and assist the IAS with the design of course materials and certification procedures,

(3) advise USAID on the future assistance required to help the Sudanese improve their accounting system and training institutions, and

(4) advise USAID and the Government of the Sudan (GOS) on the potential for computerization of central and regional records.

In order to get an overall picture of the central government accounting system, we investigated it on several levels. At the Inter-ministry level we observed the Ministry of Finance and Economic Planning (MOFEP), the Ministry of Health (MOH), the
Ministry of Education (MOE), and the Ministry of Communication and Transportation (MOCT). Also at this level were the key units with MOFEP of the Centralization section and the Institute of Accounting Studies (IAS). Both are central to the operational and training problems of the Government of Sudan (GOS) and to our recommendations. Within the ministries we examined the Commercial Secondary Schools (CSS), the Central Medical Stores (CMS) and the Department of Mechanical Transport (DOMT). Finally, we visited the Kordofan and Central Regions.

The governmental accounting system of GOS is an essentially sound, manual system although there are few controls. The most significant problem facing the GOS is the lack of qualified staff. There are not enough well-trained bookkeepers and accountants produced by the educational system and, those few who do graduate, cannot be retained in the Sudan. Thus, there is a tremendous need for continuous training at all levels.

The IAS was founded to provide professional training for bookkeepers and accountants. Although it has been improved over the last few years, it is still operated in deplorable conditions. It is under-staffed, under-funded and forced to operate in sub-standard facilities.

Computerization is minimal in the Sudan for obvious physical and personnel reasons. The future does not look bright for large scale computerization. There are possibilities for analysis on an individual basis, for example, in the Centralization Section.

Below the ministerial level the quality of the accounting system becomes very uneven. The Department of Mechanical Transport system is very well run and well controlled. The
Ministry of Health and the Central Medical Stores, however, are operated under less than acceptable conditions; there are many delays and inefficiencies. The control of inventory and the recording process at the CMS is chaotic and completely uncontrolled. Those in charge are aware of the problem and are trying to combat the problem. But the lack of qualified staff, lack of training, and bureaucratic channels hamper progress.

The governmental accounting systems in the regions (Kordofan and Central) have the same design as the system of the central government. The shortage of staff is even more severe in the regions. There are several ministries at the regional level that have not closed their books for up to 8 years. Facilities for training and trainers are in very short supply or non-existent. There are ministries that are well run and are up-to-date, but these are the exceptions rather than the rule. Both regions expressed a desire to have their training performed locally as opposed to in Khartoum.

I.C. Summary of Recommendations

In order to attack the short-term operational problems and the long-term educational needs of accounting found in the Sudan we make the following recommendations. A summary of the budget is found at the end of this section.

(1) Modification of the Civil Service regulations to allow for promotion based on merit and technical qualifications (in concurrence with World Bank recommendation).
(2) With respect to the IAS:
   (a) Acquisition of technical and reference books for the IAS library and the renovation of the library itself.
   (b) Funding of short-term and long-term advisors to the IAS for course development and guidance in establishing a Sudanese professional accounting body.
   (c) Funding of a Sudanese auditing specialist.
   (d) Funding for an English language typist because most IAS courses are taught in English.
   (e) Funding of short-term study visits for IAS staff members on governmental auditing and on establishing a professional accounting body.

(3) Establishment of a Systems Analysis Section within MOFEP to provide continuous analytic support for all central government units.

(4) Funding of a pilot computerization project for the Centralization Section.

(5) Development of a special bookkeeping training course for CMS staff.

(6) With respect to the Commercial Secondary School:
   (a) Funding for a complete set of equipment for one commercial secondary school.
   (b) Funding for the development of a refresher course for CSS accounting teachers.

(7) Funding of regional accounting training programs in Kordofan and Central Regions.
### SUMMARY OF COST ESTIMATES

<table>
<thead>
<tr>
<th>Description</th>
<th>US$</th>
<th>LS</th>
</tr>
</thead>
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<tr>
<td>Books and Equipment</td>
<td>27,000</td>
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<tr>
<td>Renovation of Facilities</td>
<td>300,000</td>
<td>192,000</td>
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<td>Expatriate Advisors (2½ man years)</td>
<td>300,000</td>
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<td>Sudanese Auditing Specialist</td>
<td>12,000</td>
<td>12,000</td>
</tr>
<tr>
<td>English Language Secretary</td>
<td>6,000</td>
<td>6,000</td>
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<td>Short-Term Study of Government Auditing</td>
<td>6,000</td>
<td>6,000</td>
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<td>Short-Term Study of U.S. Accountancy Profession</td>
<td>6,000</td>
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<td>Central Medical Stores Bookkeeper Training Program</td>
<td>173,000</td>
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<td>Systems Analysis Section</td>
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<td>Computerization Pilot Study</td>
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<td>Equipment for Commercial Secondary Schools</td>
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<td>Short-Term Visit to the U.S. to Study Commercial Education in U.S. High Schools</td>
<td>6,000</td>
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<td>Refresher Course for Commercial Secondary School Teachers</td>
<td>41,000</td>
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<td>Kordofan Region Government Bookkeeper Training Project</td>
<td>3,300</td>
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<td>Central Region Government Bookkeeper Training Project</td>
<td>13,100</td>
<td>8,000</td>
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<tr>
<td><strong>Total</strong></td>
<td>443,400</td>
<td>834,300</td>
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II. Introduction
II.A. Scope of Work

The purpose of this project was to investigate and evaluate the governmental accounting system in the Sudan for the purpose of identifying areas where USAID can provide assistance. The primary focus of this assistance is on the training of accounting personnel to improve the recordkeeping and auditing aspects of the governmental accounting system. We first examined the operations of the system to determine its strengths and weaknesses and to what extent training assistance would be beneficial. Our recommendations were to cover the nature and the extent of assistance efforts.

More specifically, the goals of this project were to:

1. assess the training needs in accounting, auditing, bookkeeping and recordkeeping in the Central Ministry of Finance and Economic Planning,

2. work with the Institute of Accounting Studies (IAS) and other training institutions to determine the extent to which existing training programs are satisfying the current training needs, and assist the IAS with the design of course materials and certification procedures,

3. advise USAID on the future assistance required to help the Sudanese improve their accounting system and training institutions, and

4. advise USAID and the Government of the Sudan (GOS) on the potential for computerization of central and regional records.
II.B. Extent of Investigation

In order to get an overall picture of the central government accounting system we investigated it on several levels (Figure 1). At the highest level, the Intra-ministry level, the key unit is the Ministry of Finance and Economic Planning (MOFEP). Here we gathered data on how the government system was designed and how it operated at the highest levels. We visited other ministries to observe the system from their perspective and the flow of accounting information to the MOFEP. Within the MOFEP there are two crucial units. Operationally, the Centralization Section has the responsibility for collecting and consolidating all financial reports from all governmental units and for closing the government accounts annually. From a training perspective, the IAS was formed for the purpose of being the internal training organ of the MOFEP. Thus, both of these units received a significant amount of attention in our investigation.

The next level we examined was within the ministries. We wanted to see the state of the accounting system below the level of inter-ministerial transactions, on a more daily basis. To that end we visited two units that have high-volume and high-value workload, the Central Medical Stores (CMS) and the Department of Mechanical Transport (DOMT). With respect to training at this level, we interviewed the director of the Commercial Secondary Schools (CSS), which is a prime supplier of low-level accounting personnel.

The final level of investigation concerned the regional
FIGURE 1: Administrative Units Investigated
accounting systems. We reviewed their operations, their interface with the central accounting system and the extent of their training needs. We visited the Kordofan and the Central regions.

II.C. Integrated Nature of the Problems and Solutions

As will become evident, most of the Sudan's accounting problems (and solutions) are not isolated. One component of the accounting system affects other components. Therefore, a problem in one component will create problems in others. Likewise, changing one component, even for the purpose of improvement, may adversely affect another component. This relationship is best shown by looking at three critical units in the governmental accounting system: the Centralization Section, the Commercial Secondary Schools and the IAS.

All ministries and other accounting units report to the Centralization Section within MOFEP on a monthly basis. This Section also prepares the annual financial statements. Any operational problem in this unit affects the entire government. Similarly, however, any problem in the ministries, such as delays in reporting, will affect operations in the Centralization Section.

The fundamental pool of accounting personnel is supplied by the CSS and the universities in the Khartoum area (Figure 2). These graduates, as accounting clerks and bookkeepers, fill positions in all the ministries, the Centralization Section, accounting units within ministries, and the regional accounting units. Thus, a decrease in the quality or quantity of graduates
FIGURE 2: Flow of Basic Accounting Personnel, Role of CSS
from this pool will drastically affect the governmental accounting system.

And finally, with respect to government accounting training itself, the IAS is the focal point (Figure 3). Accounting personnel from all governmental units can attend the IAS courses and return to their respective units with increased training and knowledge.

III. Presentation of Activities and Findings
   III.A. Overview of Approach

   This report will take a top-down approach to the presentation of our findings. It essentially follows the chronology of our interviews. It will show how the governmental accounting system is designed at the highest levels and how it is operated throughout the hierarchy. In all of our discussions we will keep in mind the high degree of interdependence mentioned in the previous section.

III. B Central Government: Inter-Ministerial Level
      III.B.1.a. Governmental Accounting System in the Sudan

   We had numerous discussions and interviews with officials in the Ministry of Finance and Economic Planning and other ministries concerning the structure and operation of the accounting system. We also talked to a number of accountants and bookkeepers and observed them in the process of recording and summarizing transactions. We also followed the information flow from the ministries and other accounting units to MOFEP where the
"entr1_ Lzati = current ministerial accounting personnel
advanced trained personnel
teachers of CSS students taking refresher courses

FIGURE 3: Flow of Continuing Accounting Education, Role of IAS
information is consolidated. The system -- with the exception of some payroll processing -- is completely manual. It is a soundly conceived cash-based system that, on paper, provides for (1) adequate financial and accounting controls and (2) reasonably prompt reporting of accounting information to MOFEP. Monthly reports are submitted to the Ministry of Finance and Economic Planning by the ministries and governmental units.

The Ministry of Finance and Economic Planning (specifically the Centralization Section) consolidates this information by posting it manually to two principal ledgers. There are some delays in submitting monthly reports to the MOFEP. There is a special unit of accountants in the Centralization Section who go out to the ministries when there are excessive delays to assist in the collection and preparation of the required information. Although delays are fairly common, they are never serious enough to endanger the basic integrity of the system.

At the end of each fiscal year (6/30) the MOFEP begins the process of closing the accounts. Theoretically this process should be concluded six (6) months after the end of the fiscal year, when the accounts are supposed to be submitted to the Auditor General for review and submission to the President. This 12/31 deadline is usually not met and delays of one to three months seem to be common. There are only a few mechanical devices or accounting machines employed. The ones we saw are old, mechanical, hand-operated calculators.

The biggest problem in governmental accounting is the retention of qualified staff. Accountants continue to be lured away by the private sector and other countries. Reportedly even
III.B.1.b. Centralization Section Within MOFEP

The basic function of the Centralization Section within MOFEP is to post information from the monthly reports of all accounting units (ministries, departments, etc.) to two (huge) ledgers by budget line item. This includes actual expenditures and revenues. Payments over budgeted amounts are immediately flagged. The corresponding unit is informed and must obtain special authorization to justify the level of expenditures. The first ledger (Figure 4) contains a separate page or pages for each governmental unit. There is a column for each expenditure and revenue code and a row for each month. In the second ledger (Figure 4) columns are again budget codes and now rows are
Figure 4. Design of Ledgers in Centralization Section
governmental units, with each page being a summary of all financial data for the month. As Figure 4 shows, data from each monthly report from a government unit is entered twice, once in each ledger.

There are actually six (6) ledgers in that the Centralization Section has three (3) internal departments, each of which is responsible for a particular portion of accounts. The Budget Department posts data for Chapter 1, Chapter 2 and development Accounts. They are also responsible for identifying overpayments and surpluses. The Current Accounts Department is responsible for posting data to the ministerial current accounts (i.e., transfers among ministries) and for reconciling their balance. The Deposit and Suspense Accounts Department is responsible for posting data to these accounts. A fourth internal department, the Follow-up Department, is responsible for expediting information flows, i.e., assisting ministries and departments who have problems in submitting accounts on time. The integration of these four departments into the normal data flow is shown in Figure 5.

III.B.2. The Institute of Accounting Studies (IAS)

III.B.2.a. Overview and Curricula

The Institute of Accounting Studies (IAS) was established in 1958 within the MOFEP for the purpose of training professional accountants for both the private and public sector. Since its inception, its training activities have concentrated mainly on courses for governmental accountants and auditors. Some efforts were made to prepare students for British
### Figure 5. Operation of Centralization Section

<table>
<thead>
<tr>
<th>Ministry Accounting Unit</th>
<th>Budget</th>
<th>Current</th>
<th>Deposit &amp; Suspense</th>
<th>Followup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare Monthly Reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>monthly Report</td>
<td>Verify</td>
<td>Distribute</td>
<td>Post to Books</td>
<td>Post to</td>
</tr>
<tr>
<td></td>
<td>Cover</td>
<td>Parts of</td>
<td>Books</td>
<td>Books</td>
</tr>
<tr>
<td></td>
<td>Sheet</td>
<td>Report to</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>to</td>
<td>Appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support</td>
<td>Departments</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sheets</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Prepare Monthly Reports
- Verify Cover Sheet to Support Sheets
- Distribute Parts of Report to Appropriate Departments
- Post to Books
- Post to Books
- Post to Books
- Investigate
professional qualifications. Under a 1982 agreement with the World Bank, the IAS is to be given financial assistance through an IDA loan and it is planned that the IAS will significantly increase the scope of its activities. The IAS has recently moved to better, but still inadequate, facilities. Dr. Abdel Latif Imam, a Sudanese national, was recently appointed Director. The Institute's training activities have since been greatly expanded, specialized courses have been added to the program and additional courses are planned. See Annex IV for the details of the courses given and planned. The qualifications of the part-time staff seem satisfactory, although expatriate assistance is needed to develop professional level and specialized industry courses.

III.B.2.b. Staff

Currently the Institute's permanent staff is as follows:

1 Director (paid from IDA loan)
1 Registrar
2 Accounting Clerks
1 Librarian
2 Clerk Typist
1 File Clerk
6 Janitors

All paid by MOFEP

Presently, all teaching staff is part-time. According to the Director it would be possible to attract qualified permanent staff, provided the terms of employment are equivalent to those of the University of Khartoum. No permanent teaching appointments are possible at the present time because the legal status and the by-laws of the IAS have not yet been passed by the
Central Government. The current part-time teaching staff for all courses dealing with governmental accounting and auditing consists mainly of senior accountants from the MOFEP, senior staff from the Auditor General's office and retired staff from both units. University of Khartoum lecturers and staff of other institutions of higher learning teach the courses preparing students for professional and technician qualifications, and specialized industry courses. Practicing professional accountants are also employed as lecturers.

The Institute does not have an English Language secretary. This represents a serious handicap because many programs are conducted in English. All English typing must be done outside.

The IAS presently has only a very limited capability for carrying out continuing education programs in the area of management accounting, systems and auditing. The main reason is lack of available specialists in these areas. It is especially in these areas that assistance through expatriate advisors is badly needed. The IAS presently effectively trains governmental bookkeepers and cashiers at its Khartoum premises.

The new director has an excellent academic background and seems to have all other requisite qualifications to move the Institute in the right direction.
III.B.2.c. Evaluation of Current IAS Physical Facilities

Available facilities consist of:

6 classrooms
1 library
3 offices

The available classrooms are too small -- the maximum class size under cramped conditions is 35 students. Furniture and fixtures (especially lighting and blackboards) are not suited for the study of accounting (student desks are too small). The room available for the library is much too small; it accommodates a maximum of 15 students. There is no room for the envisaged installation of minicomputers. There are no offices for the permanent and part-time teaching staff. The IAS currently cannot offer any programs using the case method of instruction because there is not enough space... Thus, a teaching method that has been applied with great success in continuing education in such areas as management accounting, auditing and financial management is not available to the IAS. The condition of the building is such that the equipment that is currently procured under an IDA loan (video recorder and player, projectors, film projectors, etc.) will rapidly deteriorate because of dust, lack of air-conditioning, absence of proper storage facilities and inadequate wiring.

A better facility is urgently needed if the IAS is to effectively fulfill its mission. As a first step one might consider the complete renovation and modernization (rewiring) of the present facility. Once renovated, premises should be kept clean and maintained in good condition. If the IAS is to enjoy
the prestige of a truly professional institution a new facility should be constructed as soon as possible.

The IAS's library, at present, is inadequate. It is our understanding that 200 volumes are being ordered from the U.K. Presently there are no standard reference manuals and handbooks. There are no textbooks for the planned continuing education courses in management accounting and auditing. The library lacks appropriate shelves, a dust-free environment, reading tables and air conditioning. Some additional teaching aids such as overhead projectors and screens, transparency makers and calculators are needed.

III.B.2.d. Sudanese Professional Accounting Association

Under the agreement with IDA, the Sudanese government is to give high priority to the establishment of a Sudanese accountancy profession. A high level Steering Committee was appointed to initiate and supervise the necessary steps. Three (3) subcommittees are envisaged:

(1) The Accounting Association Committee: Its charge will be to propose by-laws, a code of ethics, an organizational structure, and membership criteria for the Sudanese Accounting Association. This committee has not yet been appointed.

(2) The Institute of Accounting Studies Working Committee: Its charge will be to develop training material and examinations for professional and technician examinations. The committee has not yet been appointed.
The Accounting Laws Working Committee: It is charged with developing proposals for appropriate accountancy laws. The committee has been appointed and is active. Two of its members are currently in the U.K. to study relevant laws such as the Companies Act, Partnership Act, and Banker's Act. Some time after their return, they are expected to submit proposals.

III.B.3. Current State of Computerization

Almost all of the normal processing within the government accounting system is done manually. This includes all initial paperwork, posting at the department and ministry levels, and consolidation at the MOFEP level. As stated before, this manual-based system is sound and works well given the shortages of staff that plague all accounting units. The only evidence of computer usage on a normal basis is with payroll. This, however, is not the usual implementation of a computer-based payroll system, i.e., the personnel records are not kept in a computer-based form and updated via software. We believe that merely the check-writing and summarization function are automated; the input documents are still prepared manually and the historical records are also kept manually.

There are some computers in Khartoum at the Bank of Sudan, the University of Khartoum, and the National Electric Company. The MOFEP, itself, has a new, small, mainframe system, housed in the Department of Statistics. It is currently being installed and is presently not operational. It was acquired for the
The purpose of compiling data and statistics for the 1983 census.
The configuration is as follows:

ICL CPU with one megabyte of central memory

2 Disk Drives with 120MB of removable storage and 240MB of permanent storage (MB=million bytes)

2 Tape Drives

2 Line printers: one in English and one in English/Arabic

1 Arabic terminal (hard-wired)

4 English terminals for the systems programmers (hard-wired)

28 other terminals for users (hard-wired)

The room within which the computer is resident (built by ICL) is air-conditioned, has raised flooring, and is relatively dust-free. An Uninterruptable Power System (UPS) is being acquired to isolate the system from the unstable electricity of Khartoum. Currently, a gasoline generator provides back-up power. It has a top priority for fuel, but, in the event that there is no fuel, the system may have to be shut down.

The director of the computer center was trained in the U.K. on ICL equipment. He said he has a staff of seven programmer/analysts who were trained by the government in Khartoum. At present they are designing and implementing the census system on the ICL. No application software is operational at present. There are also 35 experienced data entry personnel. The director complained that his staff are paid like average civil servants, without any regard for their technical abilities. Thus, he loses staff quickly to the private sector companies which pay five times as much.
Because of the poor state of the electricity supply and the telephone system in Khartoum, all terminals are currently hard-wired. There are no dial-up terminals. We can foresee no change in this condition. Terminals in other ministry offices would have to be hard-wired or be stand-alone systems that could produce their own disks, tapes or diskettes of data that could be then transported to the ICL. Reportedly the ICL machine will be relocated in a new building for the Department of Statistics which is to be erected in South Khartoum.

The direct use of computers, either as stand-alone or via terminals, by ordinary accounting personnel within the MOFEP is questionable. Their technical capabilities may not be sufficient to operate such an interface. There is widespread use of calculators, when they work, but this is a far cry from computerization.

III.C. Intra-Ministerial Level

III.C.1. Ministry of Health (MOH) and Central Medical Stores (CMS)

This unit employs 5,078 people and its accounting office employs 200 cashiers, bookkeepers, and accountants. MOH administers all the hospitals located in the capital. Each hospital has an accountant and a cashier. Most payments are controlled by an imprest account that is replenished monthly by the central government. Each hospital accounting unit submits to the MOH, after the end of each month, a summary statement on all transactions, together with supporting documents.

MOH is also responsible for the purchase and distribution
(mostly imports) of all medical supplies for the Sudan. The central warehouse is located in Khartoum. Some serious problems of accounting and control exist. Accounts are reportedly submitted on time and there have been no delays with the monthly statement to the Ministry of Finance and Economic Planning.

We interviewed Abdel Rahman El Rasheed, General Manager of the General Administration of Medical Supplies. Mr. El Rasheed stated immediately that accounting is one of his most difficult problems. Available accounting and bookkeeping personnel are not equipped to handle the job. There are no job descriptions and functions are not defined. He says he has to issue medicine to hospitals even though there is no assurance that a given hospital has budgeted funds to pay for the medicine.

Delays in procurement result from the requirement that all requests for payment go through the Ministry of Health (MOH) to the Ministry of Finance and Economic Planning and back again via the same route. According to Mr. El Rasheed, the Ministry of Health simply passes on the requests and the approvals; nevertheless this causes deliveries from the airport and Port Sudan to be seriously delayed and often causes losses due to spoilage. He estimates that fifty percent (50%) of his problems could be eliminated if he could deal directly with the MOFEP instead of having to go through the Ministry of Health. He also hopes to revise procedures to give him direct access to the Bank of Sudan. He would like someone to do a systems study with a view to a complete reorganization of the system.

The pending regionalization of the medical distribution
system will exacerbate an already critical situation. The system is not functioning well on a centralized basis, and decentralization at this point may result in a chaotic situation. The chaotic conditions in regional warehouses are described in a report by H. G. Minor 1/1983 "A Needs Assessment Study of the Logistics Systems of Northern Sudan's Primary Health Care Program." Accounting with regard to the regional warehouses is completely out of control. Mr. El Rasheed estimates that the regions owe him LS26 million and no payments seem to be forthcoming.

Mr. El Rasheed claims that there is no internal control. A fairly large internal audit section was reduced to two (2) auditors. He hopes to be able to increase that number. There is no effective inventory control system, no reorder points, and orders are usually placed only after stockouts occur. Inventory records for individual drugs and medicines are from several months to a year behind schedule. In part this is blamed on the use of totally obsolete accounting machines. They are either beyond repair or when still operating experience frequent breakdowns. Available personnel lack training and motivation. The magnitude of the problem is demonstrated by the fact that annual purchases amount to LS42,000,000. Additionally, drugs of almost equal value are received from various donors (UN, USAID, etc.).

Storage facilities for drugs in the various hospitals are inadequate. Since hospitals cannot store drugs, they must procure them frequently, often on a daily basis. This means an increase in the number of transactions to be processed by the warehouse and this puts a further strain on the system.
There are two expatriate logistics specialists to help Mr. El Rasheed. He would like to see a thorough systems analysis and study. The objectives would be (1) to strengthen the current system by assuring at least a minimum level of controls and (2) to plan the eventual computerization. For detailed discussion of these problems see W. A. den Besten and Mr. Victor C. W. Evans, WHO consultants: Report on Central Medical Store, Sudan, September/October 1981.

We interviewed Mr. Wisniewski, USAID logistics advisor. He says that Mr. El Rasheed has organized a Daily Drug Report, which is based on daily readings of the tally cards in the warehouse. The report shows daily issues and balances for each item. The pilot inventory control system for cold storage items, designed by Mr. Wisniewski, is not yet operational. As he pointed out, there is no central inventory control. He agreed that a training program for stores bookkeepers would be very helpful.

III.C.2. Department of Mechanical Transport (DOMT)

The department (within the Ministry of Communication and Transport) employs between 6,000-7,000 people. It owns and operates 14,000 vehicles (600 new ones were procured in 1982/83). The financial controller employs 114 people (only one cashier, because most payments are made by check). Employees are paid two times a month. The total budget is LS63,000,000. The department has receipts of about LS13,000,000 (LS2,000,000 in cash), mainly for car/truck rentals from other ministries and departments. The department administers a large inventory of spare parts and,
as far as we could ascertain, the accounting unit functions very well. Expenditure controls seem adequate and effective.

III.C.3. Commercial Secondary Schools

There are 33 commercial secondary schools whose primary purpose is to train bookkeepers for the government, parastatal companies and the private sector. The curriculum for the four year course seems soundly conceived (see Figure 6), but there are serious problems in its implementation. The total number of students enrolled is about 14,500 with about 3700 currently graduating each year. There are only 140 teachers of accounting. The average class size is almost 70 students. There is a serious shortage of teaching materials. There are no books; students must learn from their notes and occasional mimeographed handouts. The qualifications of the teachers are inadequate. Most teachers are accounting graduates of the University of Cairo, Khartoum Branch. They usually have no practical experience and there seems to be a definite need to upgrade their qualifications.

The schools desperately need typewriters, calculators and all kinds of teaching aids. Reportedly, there are schools where typing courses are taught without typewriters. Teaching is, therefore, said to be theoretical and lacks practical relevance. The bulk of the graduates find employment with the government and parastatal companies. There are complaints by their employers that their training does not prepare them adequately for their first job. There are plans to conduct refresher courses for commercial secondary school teachers at the IAS during the summer months.
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<td>Government Accounting &amp; Taxation</td>
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<td>Economics &amp; Commerce</td>
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<td>Financial Mathematics</td>
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<td>Cooperative Societies</td>
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<td>Typing &amp; Office Management</td>
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<td>History</td>
<td>2</td>
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*Figure 6. Curricula of Commercial Secondary Schools*
III.D. Regional Level

III.D.1. Kordofan Region

In our 1 1/2 day visit to the regional capital of El Obeid, we visited many levels of the government to study the accounting system. We interviewed government accountants at the ministerial, regional and district levels. We also investigated training facilities for government and cooperative students.

Ministry of Finance:

We discussed the training situation with the Assistant Director of Accounts. We inspected the available training facilities and found the condition of the classroom, supposedly for 35 students, to be deplorable. It is a converted area of an existing administrative building. Lighting, furniture and equipment are totally inadequate. In spite of these poor conditions they have already given 3 courses of 4 weeks each for junior bookkeepers. However, the intensity of instruction is low, reportedly 2-3 hours per day.

The ministry would like to expand and improve the training program in El Obeid. They requested help in terms of equipment, furniture, a better classroom, teaching materials and, possibly, some teaching staff. We asked about the number of students they would like to train per year and they gave the following response:

- 3 classes for bookkeepers p.a.; i.e., a total of 90 students
- 2 classes for cashiers p.a.; i.e., a total of 60 students

They will send 11 cashiers to the IAS for the cashiers program for six months. The regional MOF pays for their expenses.

The timeliness of the submission of monthly reports by the
regional ministries varies. Some ministries are on time while others are years behind. One ministry has just submitted the accounts for September 1981. The same goes for the district councils, although some do better than some ministries.

We visited the regional Centralization Section and found that the regional accounting system in Kordofan uses the same forms, records and consolidation ledgers as does the Central government in Khartoum. The senior accounting staff are all from the central government, either on temporary secondment or on permanent transfer.

We also visited the Central Government's Decentralization Team in Kordofan. (They are also called a liquidation team.) They have liquidated fiscal year 1974-1975 and are currently working on 1975-1976. They concentrate on the Suspense accounts (essentially receivables and payables) for those years. The team works under difficult conditions; they have only one operational calculator.

Ministry of Housing:

The newly appointed Inspector of Accounts seems to have things under control. He manages to do this by working many of his employees overtime. He is very short of senior accounting staff and wants more senior staff assigned to him on a permanent basis. The accounting section is exceptionally well managed (one of the few). He could send about 5 people to training courses without impairing operations. His central staff consists of one inspector of accounts, one head accountant; 7 bookkeepers and 4 junior bookkeepers.
Ministry of Education, Social, Health and Religious Affairs:

They are seriously behind in closing their accounts, mainly because of a shortage of trained staff. The ministry’s Inspector of Accounts claims that he needs at least 8 additional accountants. They are trying hard and work overtime but still cannot catch up.

District Council of El Obeid:

We talked with the Chairman of the Council and the Senior Executive Administrator. The Council’s functions include:

1. primary and intermediate education,
2. basic health care units (dispensaries),
3. road maintenance,
4. distribution of gasoline and flour,
5. distribution of land for 3rd class housing,
6. supervision of markets including the crop market, and
7. collecting the ushur, the tax on crops.

The staff of their accounting section includes:

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<tr>
<th>Position</th>
<th>Approved in Budget</th>
<th>Actual</th>
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</thead>
<tbody>
<tr>
<td>Inspector of Accounts</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Financial Controller</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Inspectors</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Class E &amp; F</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Class H (Sr. Bookkeepers)</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Class J (Jr. Bookkeepers)</td>
<td>17</td>
<td>7</td>
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The main cause of the delay in closing their books is the deficiency in Class H staff, whose responsibilities include
They also have an internal auditor and one assistant. His function is to audit all supporting documents before disbursements are made and to co-sign all checks. They are about 6 months behind in their accounting work. They claim to have a work plan which will enable them to be up-to-date by the end of this year.

Director of Revenue:

We had a brief discussion about Professor Due's report of last December. There will be a significant increase in the animal tax. Expected total revenue for 1983-1984 is well in excess of ten million LS. Some changes have been introduced in the system of revenue collection. Taxpayers are now formally informed by means of uniform circulars as to the taxes imposed and the tax rates, which are now uniform for all taxpayers (for the ushur and gibana). A new revenue supervision units has also been established. A new tax on fruit trees, has been introduced and is expected to yield LS1,000,000 introduced. Revenue collection is still largely based on on-the-spot physical count or measure. A collection system based on accounting records does not seem to be feasible in the foreseeable future.

Cooperative Training Center:

The cooperative movement is fairly strong. In the Kordofan region, it comprises 800 elementary cooperatives (e.g., consumer goods, flour, equipment, and credit cooperatives). These are organized into 9 local unions (5 in the south and 4 in the north) which in turn report to the provincial headquarters (one in North
Kordofan and one in South Kordofan). There is the regional headquarters in El Obeid and the National Union of Cooperatives in Khartoum.

The Regional Cooperative Training Center in El Obeid has excellent facilities: one classroom for 41 students with excellent furniture, a good library, and dormitory space for students. Equipment such as overhead projectors and movie projectors was provided by a grant from the International Labor Organization (ILO). Permanent staff consists of a Director and Deputy Director. Courses cover all aspects of managing a cooperative, including finance and accounting. The Center started in early 1983 and so far they have trained 220 students and plan to train 320 during the next fiscal year. The Center is financed by the Regional government for salaries and services (Chapters 1 and 2). Each cooperative pays a small percentage of profits into a fund to cover travel and subsistence costs for participating students.

III.D.2. Central Region (Gezira)

During our visit to the Gezira, we interviewed the region's governor and minister of finance. The region's 1983-84 global budget is as follows:

| Chapter I & II (salaries/services) | 91,000,000 |
| Capital Exp. | 6,500,000 |
| Development Budget | 9,300,000 |
| **Total** | **LS106,700,000** |

The regional government's sources of revenue are as follows:

1. 1% gross receipts tax on all agricultural schemes. This
produces about 3,000,000 LS.

2. 10% tax on gross profit on cotton seeds and cotton oils. Yields = about 6,000,000 LS per year.

3. As of 7/1/1983 the following taxes have been delegated to the region by the central government.
   a. income tax
   b. business profit tax
   c. sales tax

4. Tax on sugar of LS .3 per lb.; it yields about LS 7.5 million. This will be used exclusively for the development of water supplies, education and health. It is to finance a 10-year plan requiring about 72 million LS.

These taxes will be collected by the region and will produce 24 million LS. This amount will be deducted from the central government's allocation to the region. If more than the budgeted amount is collected the regions can retain 60% of the excess. This is an incentive for an efficient collection system to be administered by the regions. The other 40% will be remitted to Khartoum. There are 9 collection officers in all of the main towns of the region. A large number of central government tax collection officers have been seconded to the regions.

Regional Governmental Accounts

For fiscal 1981/82 the accounts are only 50% closed. There are arrears of up to five to six years and liquidation teams are currently working on these accounts.
A training program is badly needed and the regional government has included in the current budget LS 100,000 for the construction of a new building on an available site. This will include a large classroom and two offices. The budget does not provide for any equipment. They request that USAID finance the following equipment:

- 20 typewriters English keyboard
- 20 typewriters Arabic keyboard
- 20 calculators
- 1 overhead projector
- 1 water cooler
- 1 air conditioner
- 1 mini bus
- and textbooks

The building would be used mainly for training government accountants. Courses will also be held for accountants of parastatal organizations and agricultural schemes. The proposed site for the training center was inspected. It is very suitable. The new building would adjoin an existing training center for government typists.

The Ministry of Finance, Director of Accounts presented detailed information on status accounts. There are the following accounting units within the regional government:
The minister stated that he would have to at least double the number of accountants if the system is to operate efficiently. The biggest shortage is in the senior bookkeeper level (this was also observed in the Kordofan region). The Minister of Finance hopes that all 1981/1982 accounts can be closed by December 1983. Even though accounts are not closed, actual expenditures are known. All senior accountants are seconded by the central government. The system, procedures and forms are identical with those of the central government. The Governor claims that his region is badly in need of accounting training. It is the richest and most populous region and their need for trained accountants is greater than that of the other regions.

An interview with the Minister of Finance Director of Accounts confirmed the urgent need for elementary accounting and

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<tr>
<th>Ministry of Finance</th>
<th>Accountants Approved</th>
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<tr>
<td>Ministry of Finance</td>
<td>20</td>
<td>81/82</td>
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<td>Ministry of Health</td>
<td>29</td>
<td>81/82</td>
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<td>Ministry of Construction</td>
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<td>June 1982</td>
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<td>Ministry of Agriculture</td>
<td>5</td>
<td>Nothing closed</td>
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<td>Ministry of Local Government</td>
<td>4</td>
<td>81/82</td>
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<tr>
<td>Ministry of People Assembly</td>
<td>30</td>
<td>81/82</td>
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<td>Ministry of Education</td>
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<td>81/82</td>
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<th>Local Governments:</th>
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<td>81/82</td>
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<td>Blue Nile</td>
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<td>White Nile</td>
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An interview with the Minister of Finance Director of Accounts confirmed the urgent need for elementary accounting and
financial controls. The following disbursement procedures are used currently: Each ministry, provincial and district government unit currently receives one twelfth of its annual budget each month by check! The procedures are similar to those for imprest funds. The government will use this money for line items, paying cash. Theoretically they are supposed to submit vouchers for all disbursements to the Ministry of Finance. It is in accounting for disbursements that most government units are far behind. There are a number of suspense items that are not accounted for at all.

Revenues are presently deducted from the budget allocation and governmental units do not submit any accounting for actual collections. There is presently not much of an incentive for them to do so, especially when collections exceed budgeted revenue, because it would automatically reduce their monthly expenditure checks.

III.E. Activities After Return to U.S.

After returning to the U.S. procured and sent to the IAS reference books, technical material and course outlines as listed in AnnexIX. We also contacted and conferred with various organizations such as The American Institute of Certified Public Accountants, The International Federation of Accountants, The General Accounting Office, and The Interagency Auditing Training Program of the U.S. Department of Agriculture. Several high schools with business education programs were surveyed with regard to the existence of model programs.
IV. Recommendations

IV.A. Central Government Level

IV.A.1. MOFEP: Modification of Civil Service Rules for Accounting Staff

In a recent memo by a World Bank mission it was recommended that some system of incentives should be introduced into the civil service system, especially for accounting personnel. Requiring participation in continuing education programs and/or the passing of comprehensive examinations would certainly increase the proficiency of accountants in the civil service and should, in turn, reward the participants. We fully concur with these recommendations and urge their early implementation. (See World Bank memo.)

IV.A.2. Institute of Accounting Studies

The following recommendations are intended to enable the IAS to more effectively fulfill its mission with the GOS, the emerging accountancy profession and the private and parastatal sectors of the economy.

IV.A.2.a. Library Acquisitions and Renovation of Facilities

The project should provide the library with an adequate supply of American textbooks at the professional level and a package of standard reference books and handbooks. The latter are indispensable tools for the IAS's work in course development and advising the GOS and Sudanese companies on problems of systems organization and analysis. We also recommend that local

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1See Annex V for cost estimates for all recommendations.
funds be made available to upgrade the physical facilities of the IAS. This should include some air conditioners, new desks, carpentry work on doors and windows, and new student desks. (For details on funding see Annex V, pg. 1-2.)

IV.A.2.b. Advisors to the IAS

In addition, we recommend that about three years of expatriate advisory services be made available to the IAS. The advisors would assist the IAS in the development of courses and provide guidance and council in the formation of a Sudanese accountancy profession. Specifically, they should include the following:

1. Assistance in developing review courses for Sudanese technician and professional examinations, and continuing education courses in auditing.

2. Assistance in developing continuing education programs in managerial accounting in specialized industries.

3. Development of materials for courses in systems analysis and assistance in the training of systems analysts.

Ideally, these advisors should be made available for tours of duty of one to two years, although tours of 3 months to one year should be considered for carefully defined tasks within the given terms of reference. (For suggested terms of reference, see Annex VI.)
IV.A.2.c. Funding of Sudanese Auditing Specialist

We also recommend that a highly qualified Sudanese National be funded as a full-time staff member of the IAS, for a period of about four years. He should be a specialist in public and private sector auditing. The present director of the IAS claims that qualified Sudanese accountants would be available if the compensation level were internationally competitive, (approximately the equivalent of $45000 p.a.) For suggested terms of reference see Annex VII.

IV.A.2.d. Funding English Language Secretary

To assist the IAS staff in the preparation of English language teaching materials we recommend that USAID fund the salary of an English language secretary for a period of two years.

IV.A.2.e. Funding of Short-term Study Visits to U.S.

IV.A.2.e.1 For an IAS Staff Member in Charge of Training Courses for Government Auditors

The audits presently carried out by Auditor General staff have only two objectives: (1) establish the legality of transactions and (2) verify the proper documentation for transactions. The audit staff does not analyze and evaluate existing internal controls, nor do they analyze the effectiveness and efficiency of the system and of governmental operations. These latter two audit objectives probably constitute the most important purposes of auditing in developed and many developing countries. The present Auditor General staff members are not qualified to perform these important audit
functions because their training either neglects or omits such topics.

A qualified IAS staff member should visit the U.S. for about three months to study government auditing in the U.S. The program should include visits to the GAO, the Interagency Graduate School of Auditing, the Auditing Department of a state, and a visit to a university with a good program in professional auditing education. The participant's terms of reference would include collection of course outlines and teaching materials to be used for developing training programs at the IAS.

IV.A.2.e.2 To American Institute of Certified Public Accountants and Other Professional Accounting Bodies in the U.S.

Mr. Hussein Abdel Rahim, Chairman of the Steering Committee for the Development of a Sudanese Accounting Profession, requested that a qualified Sudanese senior accountant be given an opportunity to visit the American Institute of Certified Public Accountants in New York in the U.S. The purpose would be to study the organization, by-laws, code of ethics, etc. of the American accounting profession and U.S. laws affecting the accounting profession, especially some state laws. Presently, they are relying entirely on U.K. professional accounting organizations for advice and information on these matters. He feels that familiarity with the U.S. profession would be helpful in their efforts to organize the Sudanese profession. On the occasion of such a visit, formal contacts should be arranged with the International Federation of Accountants (IFAC) which has its
present headquarters in New York City (actually in the same building as the AICPA). We recommend that such a visit of about 4 – 6 weeks be funded by USAID.

IV.A.2.f. Establishment of a Systems Analysis Section

The request for a systems analysis of current operations came from several corners of the governmental accounting system: Central Medical Stores, Department of Statistics, the former Auditor General and the IAS. This task not only has short-term benefits for the units involved, but could also be advantageous to the central government on a continuing basis. We feel that such a unit is highly desirable. The purpose of such a unit within MOFEP would be to review existing systems and procedures in MOFEP. Specifically, the following objectives should be given:

(1) To document the existing systems to an extent beyond the current state-of documentation, i.e., the Financial Regulations. This includes descriptions of document flows, process flows, forms, procedures and job descriptions. A complete and detailed manual of the governmental accounting system would be the result.

(2) To maintain the above manual.

(3) To analyze existing systems with the purpose of simplifying procedures and accelerating information flows when cost-effective. This also includes analysis of forms and reports and suggestions for modifications in their design.

(4) To modify existing systems designs and design new systems.

(5) To assist the Institute of Accounting Studies in the
development of training materials and textbooks for its courses in governmental accounting, auditing, and systems analysis. Priority should be given to the development of a textbook and teaching aid on Sudanese governmental accounting to be used in IAS courses for government accountants and auditors.

(6) To assist in pilot studies of computerization within MOFEP.

Organizationally, the Systems Analysis Section (SAS) should be within MOFEP. For two reasons, we feel that the SAS should initially be under the IAS. First, MOFEP has its hands full with its normal operations and processing. They do not need to be burdened with the responsibility of forming, training and staffing such a unit. Second, the nature of the task of systems analysis is technical and consultative. The IAS is a reservoir of advanced accounting expertise and can offer an objective view of operations.

Internally, the SAS should be comprised of a Head and 3-4 analysts. Their job descriptions are shown in Annex VIII. The Head of SAS should be a permanent position. However, given the difficulty of finding permanent accountants, it may not initially need to be a full-time position; thus, a member of the IAS faculty could perform this function.

No specific techniques are recommended here. The techniques to be applied should, however, be standardized. The final determination of the techniques should be the responsibility of the Head; nevertheless there are several well-used approaches. In
the Study Guide for the AAT Examination there are generic types of techniques and documents: procedure narratives, form description documents, forms flowcharts, file descriptions, clerical procedure flowcharts, process flowcharts and decision tables. Annex III gives examples of these types of analysis techniques applied to two currently operating sub-systems within the governmental accounting system of MOFEP. For details on funding the SAS and its projects see Annex V.

IV.A.3. Computerization Pilot Study

The volume of transactions that flow through the governmental accounting system is great. The payroll and pension systems involve millions of individual accounts. Because many other services are centralized, e.g., medical stores and mechanical transport, the number of small items is also huge.

At the Central MOFEP level, however, this volume is manageable with the current manual system. The design is sound. The standardization of forms and procedures allows for a good system of checks and balances. The main problem in the Centralization Section is the delay in receiving reports from other units, i.e., ministries, departments, and regions. When these reports do arrive, supposedly monthly, they are processed quite adequately with the manual system. The volume is not that high because they deal in highly aggregated figures, not individual accounts. There seems to be no reason to change their mode of operation purely for processing purposes. The processing problem lies more within the ministries and the regions themselves. This problem is too great of a task for an initial
An area within the central MOFEP that could benefit from computerization is reporting and data retrieval. The monthly delays in data arriving from the other units, coupled with the fixed deadline for closing the government books (set by law), overburdens the Centralization Section towards year-end. They have to spend long, overtime hours just to close the books on time. It is during this same time period that the most reporting requests are made of them, e.g., demand for yearly financial statements. They have very little time to satisfy such requests, especially for ad hoc reporting. The International Monetary Fund further complicates matters by requiring a different reporting format.

Throughout the year, other ministries and sections have other ad hoc reporting needs, e.g., current balances, historical trends or inter-ministry comparisons. Although the books are in good order for data entry and normal reporting, it is very difficult to retrieve specific items of data manually, even the head of the Centralization Section was in favor of some support for reporting.

One does not want to suggest computerization for the sheer sake or novelty of it. There are pre-conditions. First, and most importantly, there must be a well-designed, well-documented and well-run manual system already in place. This is not to say that all computerization projects should merely automate clerical functions. But an effectively operating manual system implies that much thought has gone into its design and much experience
has been acquired in its operation. Many of the design and operational problems have already been worked out. It also provides a backup for a computer-based system and a standard against which a new system can be measured. Lack of a soundly functioning system often implies a lack of understanding of the system's fundamental objective. Second, the necessary hardware must be available. Third, the necessary technical personnel must be available to design, program and operate the system. Fourth, the user personnel, in this case the accounting personnel of the Centralization Section, must be able to interface with the system. And finally, the whole system must be cost-effective.

There are other reasons why a computer project could be beneficial in the long run. The inevitability of computer influence, even in developing countries, is almost a given. A project of small size, i.e., a pilot study, could give the government an opportunity to experience computerization without major investment or risk. Large scale computerization, such as automating all the pension records, although possibly accruing enormous cost savings if successful, would be a technical nightmare. The investment in time, money and personnel would be huge. The lead time from inception to operation, if ever, could be years. (Note: This is true also in developed countries.) The Sudanese government does not have the time, money or the personnel to waste. We believe it would be a classic case of a misdirected computer project; it would drag on for years, consume enormous amounts of resources, and eventually be scrapped leaving the Sudanese with a bias against any further
computerization attempts. This negativism must be avoided. It would only delay further the Sudan's necessary entry into computer usage.

At present, the international push for computerization arises more as a result of "public relations" by vendors, and because the progress and development of developed countries is equated with computerization. It has been portrayed as a panacea for all administrative and financial problems. This, of course, is an outright lie, a subtle ruse or uninformed misdirection. In any case, the developing country is the one that suffers; lost resources, dashed (false) hopes and further delay in development are the inevitable results.

The more appropriate reason for computerization is the true need of decision-makers for support in their decision-making function. If they can see the benefit of computer-based support in their daily functions then they will be favorably disposed to future endeavors. Such future endeavors, i.e., the large scale systems development, can only survive if upper management and the intended decision-makers fully support the new system. Because large scale systems have very long development cycles, this management support must be genuine and not dictated. Thus, initial projects should be more conservative in nature, more likely to succeed, and more attuned to important decision-makers needs.

The Centralization Section of MOFEP provides an appropriate setting. (1) They have a well-run manual system, and they understand its operation. (2) The Department of Statistics
(MOFEP) already has a new, idle computer system that is adequate for a modest pilot project. (3) The Department of Statistics (MOFEP) also has an available staff of trained (or being trained) analysts and programmers. (4) The report generation function of the Centralization Section offers a low risk but high yield project. The decision-makers who could make use of it are ministerial officials in the Central Government. These are the individuals that must be behind any future large scale computerization projects.

There are negative aspects, however: (1) The hardware and the technical personnel in the Department of Statistics are unproven. (2) The determination of who is to enter the necessary data into the computer system (i.e., who has the time, money and personnel) has not been determined. Several alternative designs will be suggested.

There are four alternative designs for such a system. They differ with respect to when the data is collected (before or after the monthly report is separated) and who is to enter the data directly into the computer (Centralization Section personnel or Department of Statistics personnel). These four alternatives are shown in Figure 7 through 10. To require the Centralization Section personnel to input the data directly implies that either a computer terminal (linked to the ICL computer) is resident in the Centralization Section or that they periodically go to the Department of Statistics and input the data there. Physically locating terminals in the Centralization Section has the technical problem noted in section
Figure 7. Alternative I
Prepare Monthly Reports

Monthly Report

Verify, Cover Sheet to Support Sheets

Distribute Parts of Report to Appropriate Departments

Post to Books

Post to Books

Post to Books

Put Data into Machine-readable form

Key-in Data to Computer

Produce Reports

Ministry Accounting Unit

Budget

Current

Deposit & Suspense

Followup

Dept. of Statistics

Figure 8. Alternative II
Figure 9. Alternative III
Figure 10. Alternative IV
III.B.3. in that it would have to be hard-wired. This poses a virtually insurmountable problem given the state of Khartoum's electric and communication systems. If the Department of Statistics' computer were moved into the Ministry of Finance and Economic Planning headquarters, this might not be such a problem.

The second choice is more amenable from a technical standpoint, but not from a behavioral standpoint. The two buildings are, at present, only two blocks away from each other. The Centralization Section personnel may nevertheless feel that this extra task is a burden that should not be placed upon them. Especially at year-end, when they have so much regular posting and closing to do, the interruption of having to walk to the Department of Statistics may prove counter-productive. Thus, overall, neither Alternative I nor Alternative III is promising. Alternative III has the added burden of having four sets of people doing the same things. The benefit that these individuals would know the data better and would make fewer mistakes must be weighed against the fact that they have never used a computer before. Therefore, although logic errors may be reduced, typing errors would probably increase at a proportionate rate.

Thus, we are left with Alternatives II and IV. Leaving the actual interface with the computer to the Department of Statistics personnel relieves the burden of having to train the Centralization Section in a new technology. Eventually, it would be useful for them to have such a skill, but to base the success of the operation of the project on the added training and understanding is not a good risk.

Concerning the alternatives for capturing the data, there
are arguments favoring both of them. If done by each department fewer logical errors would result because they know their data better. But that means having to train four sets of people (or four persons) in the data capture operation. Although this operation may be only filling in a preprinted form with the appropriate data, its smooth operation depends on these four individuals or this group being present at the right times. Absenteeism problems are multiplied.

Alternative II requires only one person or one group of persons to capture data. Because the data capture function is only copying numbers, the data-knowledge edge that an individual department may have would not be great. If 2-3 people were assigned to this task, then the odds that at least one of them would be there on a given day is good. The volume is not that great: annually it equals (52 ministries) X (12 months) X (# of codes), and monthly it equals 52 X (# of codes). Because the total number of codes is great, restricting the system to only one department, e.g., budget, may be wise, in that this is only a pilot study. The Budget Department has Chapters 1 and 2, which makes it a good choice.

Potentially, an expatriate consultant should be retained on a short-term basis to supervise the design and implementation. The consultant should be familiar with systems design, programming practices, program testing, documentation and implementation. A consultant should not be retained to completely construct the system because (1) the Sudanese are the ones who will have to live with the system, not the consultant,
and they should be an integral part of its design, and (2) an important by-product of this study would be the added experience gained by the Department of Statistics staff in the development of the system.

The timing of the design and implementation should consider the work-load of the Centralization Section. From June to December they are swamped with the closing of the books. Thus, minimal interruptions should take place during this period and there should definitely be no implementation (i.e., changing the operations of the Section). But design, programming and testing could take place. Because the new system does not replace the manual system it will always be in parallel. The speed of implementation, of course, depends on the current capabilities of the technical staff of the Department of Statistics.

The costs of such-a pilot study would be minimal for the Sudanese. We recommend that three locally available analysts and one data entry technician be funded for a one year period and that some of the Centralization staff be assigned to the project on a part-time basis.

The expatriate consultant, however, would also have to be financed. To supervise the project a total of four (4) weeks would be required as follows:

- design 1 week
- programming 1 week
- testing 1 week
- implementation 1 week

Depending on the productivity of the staff of the Department of Statistics, the consultant may be able to perform these functions
in one four-week stay, but would probably need two or three week-to-ten day visits. Such service would probably cost $20,000.

Thus, our recommendations are:

1. Computerize, as a pilot project, the data storage and reporting functions of one of the four departments within the Centralization Section.
2. Use the ICL Computer in the Department of Statistics.
3. Use the technical staff of the Department of Statistics to design and implement the project with the assistance of a consultant.
4. Follow Alternative IV in the design. For details on funding see Annex V.

IV.B. Intra-Ministerial Level

IV.B.1. Central Medical Stores (CMS) Bookkeeper Training Project

We recommend that the IAS become involved in the efforts of improving the accounting system at the CMS. As a first step we recommend that the present, totally obsolete accounting machines be junked. These units should be replaced by manual battery operated calculators with tapes. Posting to individual inventory records should be done manually. To assure efficient operation of the proposed manual system at the CMS, we recommend a special training course for stores bookkeepers.

Objective of Program: Train stores bookkeepers of the CMS and eventually stores bookkeepers of the regional warehouses, hospitals and other units maintaining medical stores with a view to the installing and maintaining an effective system of stores.
control.

The course would have a duration of about three (3) weeks. Course content and teaching materials will be developed by the IAS in collaboration with the CMS director and his USAID advisor.

The course will teach the system and the procedures developed by the CMS. Teaching materials will consist of the currently used or modified forms, flow charts, job descriptions, and procedures. Given the extent of donor involvement and interest in the system, it is suggested that forms be bilingual (Arabic and English). The CMS system should serve as a model for other stores. This means that eventually there should be one uniform standardized system at all locations (some locations may use a simplified version of the CMS system).

Resource Requirements: Assign two IAS staff members to the project.

Qualifications: Accounting graduates with at least two years of practical experience.

Terms of Reference:

(1) Study and analyze the stores control system proposed by CMS logistics advisors. It is essential that full consideration be given to findings and recommendations included in previous studies.

(2) Develop an appropriate documentation for the system.

(3) Develop a course outline and teaching aids in collaboration with CMS management.

(4) Test the course outline and teaching materials in
a pilot course.

(5) After modifications of the course outline and teaching materials, make the course available to all potential clients (this number is about 200 for all medical stores).

(6) Submit a work plan and progress reports periodically to the IAS and USAID/Khartoum.

For details on funding, see Annex V.

IV.B.2. Commercial Secondary Schools

IV.B.2.a. Funding of Equipment for One Commercial Secondary School

The purpose of these components is to provide Sudanese students with a more realistic learning experience to better prepare them for their first job. It is recommended that one school in the Khartoum area be equipped with two sets of 80 manual typewriters (with English and Arabic keyboards) and a set of 80 calculators with tapes. It is also recommended that a Sudanese educator visit the U.S. for 4-6 weeks to study recent developments in business education in American high schools (for further details see Annex V).

IV.B.2.b. Funding of Development of Refresher Courses for Commercial Secondary School Teachers

Assistance should be given the IAS in developing and conducting refresher courses, utilizing relevant teaching materials, to upgrade the qualifications of commercial secondary school teachers. These courses will be conducted during the
summer months. We recommend that an IAS staff member be assigned to this project full-time for a 6 month period. (For cost estimates, see Annex V.)

IV.C. Regional Level

IV.C.1. Kordofan Regional Government Bookkeeper Training Project

The objective of this project is to enable the Kordofan regional government to conduct its own training courses for bookkeepers and cashiers. The project is to finance the instructional cost (teacher salaries and travel) of approximately 8 courses for bookkeepers and 4 courses for cashiers during a two year period. It will also cover the development of teaching materials and the cost of renovating a classroom.

This will alleviate a crucial shortage of personnel at a lower cost. The alternative would be to send the participants to the IAS in Khartoum. Limiting the course to only governmental accounting topics will make graduates less attractive to the commercial sector. The added number of bookkeepers should enable the regional government to close its books on a more timely basis and thus have better budgetary procedures and financial control. (See Annex V for cost estimates.)

IV.C.2. Central Regional Government Bookkeeper Training Project

We recommend that the Central Region be included in the proposed regional accountancy training project. It is our understanding that USAID/Khartoum is presently planning to assist
only the Kordofan region. We feel that several factors speak for the inclusion of the Gezira region.

a. There is an unquestionable need for additional accounting training in the region.

b. There is a definite interest and enthusiasm for training on the part of very capable top government executives and support is essential for the success of the training program.

c. The marginal cost for including the Gezira region is minimal. It would include only the cost of equipping the classroom as requested by the government and outlined earlier and some additional travel cost for the teachers conducting the initial pilot program during the first two years (For funding details, see Annex V).
Annex I: List of Interviewees

Dr. Abdal Latif Imam, Director of the IAS

Hussein Abdel Rahim, Former Auditor-General; Advisor to IAS

Abdel Ahman Omer, Deputy Director of the Chamber Accounts; Acting Director MOFEP

Ibrahim Elmubark, Deputy Auditor General

Ahmed Mohammed Elamin, Assistant Director of the Accounts Chamber; Head of Centralization Section, MOFEP

Mr. Rishwan, Financial Controller, Department of Statistics, MOFEP

Ahmed Dafalla El Fiel, Head of Commercial Education, MOE

Ahmed Betiek, Registrar of IAS

Mr. Abdull Imam, Minister of Finance, Central Region

Mr. Vithal, IMF Officer

Abd Elraheem Mahmoud, Central Region Governor

Saad Awad Mohamed Ahmed, Deputy Governor, Central Region

Abdalla Imam, Minister of Finance, Central Region

Salah Elsimet, Minister of Administration and Services, Central Region

Mohamed Abuzeid, Legal Advisor, Central Region

Yassin Mohamed Ahmed, Director of the Training Administration, Central Region

Ibrahim Abd Elgafar Eldawi, Director of Accounts, Central Region

Galal Osman, Deputy Director of Accounts, Central Region

Abdalla Elamin, Director General of Kordofan RMOF

Saied Khogeli Mohamed Kheir, A/Director for Accounts, Kordofan

Ismail Salah Buchori, Deputy Director for Accounts, Kordofan

Edgezoli Idris, Director of the Regional IAS, Kordofan

Humida A/Gadir, Chief Accountant of the Liquidation Team
Eltigani Babaker, Accounts Inspector MOHWP, Kordofan

Nasir Elhag Tindel, Accounts Inspector, Ministry of Public Service, Kordofan

Elrasheed Mohamed Awadalla, Chairman of El Obeid District Council

Mohamed Hashim Abu Elgasim, Internal Auditor for El Obeid District Council

Ali Bashier, Accounts Inspector, El Obeid District Council

Omer Bashier, Assistant Director for Revenue Section, Kordofan

Bashier Kursi, Director, Regional Cooperative Training Center, Kordofan

Elraih A/Rahim Adam, Deputy Director, Regional Cooperative Training Center

Eltayeb Mohamed Musa, Financial Controller, MOH, Kordofan

Abd Elgadir Ali, Assistant Controller, MOH, Kordofan

Elfatih Eltigani, Minister of Finance, Kordofan

Saeed Abu Kambal, Assistant Director of Planning

Art Muge, Director USAID

Dr. Osman Mohamed Osman, Director, Planning in Regional Finance of Planning

Miles Toder, DAI, El Obeid

David Edens, DAI, Khartoum

Nasr El Din Fadl Elmula Saad, Financial Controller, Department of Mech Transport

Abd ElRahman El Rasheed, Director of Medical Supplies, MOH

Meredith Scovill, Economic Officer, USAID

Hassan Abd el Nabi, USAID

Mr. Wisniewski, USAID

Dr. Micka, USAID
Annex II: The 1983-1984 Development Budget for the IAS was presented as follows:

<table>
<thead>
<tr>
<th>Total available</th>
<th>LS</th>
<th>700,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part of which to be spent in local currency</td>
<td>200,000</td>
<td></td>
</tr>
<tr>
<td>Part of which in foreign currency</td>
<td>500,000</td>
<td></td>
</tr>
</tbody>
</table>

To be allocated as follows:

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th></th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>LS 150,000</td>
<td>LS 320,000</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries</td>
<td>-</td>
<td>130,000</td>
<td></td>
</tr>
<tr>
<td>Customs &amp; Misc.</td>
<td>50,000</td>
<td>50,000</td>
<td></td>
</tr>
</tbody>
</table>

200,000 500,000

1 This is supposed to come from an IDA loan. The World Bank reportedly does not plan to go through with it.

2 Salary for Director and one advisor.
Annex III Examples of Systems Analysis techniques
Annex III/1
Number: FFA43  Name: Adjustment/Consolidation Sheet
System: Receipt of Cheques
Purpose: To journalize all cheques received
Initiator: Accountant
Signatories: NONE

Data on Form:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province/Dept.</td>
<td>Alphabet</td>
<td>30</td>
</tr>
<tr>
<td>Year</td>
<td>Numeric</td>
<td>4</td>
</tr>
<tr>
<td>For each cheque</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Description</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Items</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>From one or other</td>
<td></td>
<td>12.3</td>
</tr>
<tr>
<td>To</td>
<td>N</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Copies and Disposition:

#1 - Resident Book retained by Accountant

Related Documents:

FFA50(2) - from which entries in FFA43 are derived

Audit Considerations:

1. Verify to FFA50.
2. Verify to individual FFR15's.
3. Verify cancelled cheques.

Annex III/3
Name: Register of Cheques Received/Sent

Purpose: To record all cheques received and sent by governmental units.

Initiator: Accountant

Signatories: Accountant

Data on Form:

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number</td>
<td>Numeric(N)</td>
<td>5</td>
</tr>
<tr>
<td>Date of Cheque Rec'd</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Number of Cheque</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Name/Address of Drawing Bank</td>
<td>Alphabetic(A)</td>
<td>30</td>
</tr>
<tr>
<td>Name of Cheque Payer</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Receiving Account</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Amount</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>Commission</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>Total Check Amount</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>Date of Sending Check fr Col.</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Tick of authorized official</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>Date of Sending Deduct'n Doc.</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Number of Deduction Doc.</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Month of Deduction</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>Remarks</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Deducted Amount</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>Remarks</td>
<td>A</td>
<td>30</td>
</tr>
</tbody>
</table>

Copies and Disposition:

#1 - Resident Book

Audit Consideration:

1. Verify amounts to individual FFR15's.
2. Verify to cancelled-checks from Bank.
3. Verify to Dispatch Book, when applicable.
4. Verify signatures.

Annex III/4
Number: FFR15  Name: Receipt
System: Receipt of Cheques

Purpose: To record individual payments to the government

Initiator: Any authorized collector of funds - either cash or cheque

Signatories: Authorized collector

Data on Form:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Numeric(N)</td>
<td>5</td>
</tr>
<tr>
<td>Report Number</td>
<td>N</td>
<td>5</td>
</tr>
<tr>
<td>Province/Dept. ID</td>
<td>Alphabetic(A)</td>
<td>30</td>
</tr>
<tr>
<td>Markax</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Date</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Collectors Name(signed)</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>For each transaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Particulars</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Amount</td>
<td>N</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Copies and Disposition:

#1 - Return to payee or paying unit

#2 Filed (retained) in FFR15 Book

Related Documents:

Cheque

FFA50 - individual FFR15 amounts are summarized on the FFA50

Audit Considerations:

1. Verify consecutive numbering in FFR15 Book

2. Verify amounts to FFA67(2)

3. Verify authorized signatures.

Annex III/5
Number: FFR67  
Name: Collector's Account  
System: Receipt of Cheques  

Purpose: To summarize cheques/cash received  

Initiator: Any authorized collector of funds- cash/cheque  

Signatories: Collector  
Accountant  

Data on Form:  

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number</td>
<td>Numeric(N)</td>
<td>5</td>
</tr>
<tr>
<td>Collector's Name</td>
<td>Alphabetic(A)</td>
<td>30</td>
</tr>
<tr>
<td>Markax</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Date</td>
<td>N</td>
<td>6</td>
</tr>
</tbody>
</table>

For each receipt(FFR15)  

<table>
<thead>
<tr>
<th>Number</th>
<th>N</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Payee</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Amount(s) (Up to 6)</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>Total Collected</td>
<td>N</td>
<td>15.3</td>
</tr>
<tr>
<td>Remarks</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Collector (signed)</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Accountant (signed)</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Date of Accountant's Sign</td>
<td>N</td>
<td>6</td>
</tr>
</tbody>
</table>

Copies and Disposition:  

#1 - Attached to supporting FFR15 and sent to Bank. In the case of a subunit, #1 is sent to the Accounting Unit for forwarding to the Bank.  

#2 - Filed in initiating office.  

Related Documents:  
Cheques  
FFR15  
FFA22  
FFA50  

Audit Considerations  
1. Verify FFR15 amounts.  
2. Verify FFA22 amounts.  
3. Verify amounts to Dispatch Book kept in Dispatch Office, when applicable.  
4. Verify signatures.  

Annex III/6
Number: FFA50  
Name: Paying in Slip  
System: Receipt of Cheques

Purpose: To identify all cheques and amounts to be deposited

Initiator: Head Accountant (or appointed staff)

Signatories: Head Accountant or staff

Data on Form:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number</td>
<td>Numeric(N)</td>
<td>6</td>
</tr>
<tr>
<td>Account Identification</td>
<td>Alphabetic(A)</td>
<td>30</td>
</tr>
<tr>
<td>Date of Issue</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Total Amount Cheques Dep'd</td>
<td>N</td>
<td>15.3</td>
</tr>
</tbody>
</table>

For each cheque:

<table>
<thead>
<tr>
<th>Number</th>
<th>N</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Written</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Date Received</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Amount</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>Name of Drawee</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Name of Bank against which to draw</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Checked by (signed)</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Signed by (signed)</td>
<td>A</td>
<td>30</td>
</tr>
</tbody>
</table>

Copies and Disposition:

#1 - Attached to cheques as cover letter and sent to Bank

#2 - Filed in Accounting unit; used to make monthly adjustments (FFA43)

#3 - Filed in Accounting Unit; receipt from Bank is pasted on back.

Related documents:

Cheque

FFR15 - gives details of each cheque

FFR67 - Gives daily summary of total cheques

Audit Considerations:

1. Verify FFA50 and Bank receipts pasted on back.

2. Verify FFA50 to supporting FFR15's.

3. Verify signatures.

Annex III/7
Number: FFA17  
Name: Payment Approval  
System: Payments through Banks  

Purpose: To control and approve payments  
Initiator: Paying Unit  
Signatories: Payment Authorizing Officer  
Certified Officer responsible for auditing  

Data on Form:  
<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept. al Serial Number</td>
<td>Numeric(N)</td>
<td>6</td>
</tr>
<tr>
<td>Unit</td>
<td>Alphabetic(N)</td>
<td>30</td>
</tr>
<tr>
<td>Payee</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Financial Year.</td>
<td>N</td>
<td>4</td>
</tr>
<tr>
<td>Deducted From(Acct)</td>
<td>A</td>
<td>30</td>
</tr>
</tbody>
</table>

For each document:  
| Number | N | 6    |
| Description | A | 30   |
| Amount   | N | 12.3 |
| Total Amount | N | 15.3 |
| Audited By(signed) | A | 30   |
| Paid by check number | N | 6    |
| Date of payment    | N | 6    |

Copies:  

#1 - Attached to voucher (FFR40) and sent to accounting unit; ?Filed?  

Related Documents:  
FFR40 - Attached  

Audit Considerations:  

1. Verify to cheque.  
2. Verify signatures.  
3. Verify to FFR40.  

Annex III/8
Number: FFA40  Name: Voucher
System: Payments Through Banks

Purpose: to detail vouchers for payment

Initiator: Payment Applicant

Signatories:

Applicant

Authorizing Agent

Verifier?

Data on Form:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number</td>
<td>Numeric(N)</td>
<td>6</td>
</tr>
<tr>
<td>Chest Book Number</td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td>Name of Payee</td>
<td>Alphabetic(A)</td>
<td>30</td>
</tr>
<tr>
<td>Finance Office to which Payable</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>For each item</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chargeable Against</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Particulars</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Details</td>
<td>N</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>N</td>
<td>15.3</td>
</tr>
<tr>
<td>Net Amount Payable</td>
<td>N</td>
<td>15.3</td>
</tr>
<tr>
<td>Verified (signed)</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Applicant (signed)</td>
<td>A</td>
<td>30</td>
</tr>
<tr>
<td>Authorized (signed)</td>
<td>A</td>
<td>30</td>
</tr>
</tbody>
</table>

Copies and Disposition:

#1 - attached to FFA17 and sent to Accounting Unit; ?Filed?

Related Documents:

FFA17 -

Audit Considerations:

2. Verify signatures.
Individual Form Flows: "Receipt of Cheques"

<table>
<thead>
<tr>
<th>Payee</th>
<th>Functional Sub-Unit</th>
<th>Dispatch Clerk</th>
<th>Head Accountant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheque (From Payee)</td>
<td>P→S-----------------</td>
<td>R→X1</td>
<td></td>
</tr>
<tr>
<td>FFR15(1) (Fr. Payee)</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR15(2) (Fr. Payee)</td>
<td>P→S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFA67(1) (Fr. Payee)</td>
<td>P→S→X1→X2</td>
<td></td>
<td>A(FFA50)</td>
</tr>
<tr>
<td>FFA67(2) (Fr. Payee)</td>
<td>P→S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheque (Fr. SubU)</td>
<td>P→S→X2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR15(1) (Fr. SubU)</td>
<td>P→S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR15(2) (Fr. SubU)</td>
<td>P→S</td>
<td>F→A(FFA67,FFA22)</td>
<td></td>
</tr>
<tr>
<td>FFA67(1) (Fr. SubU)</td>
<td>P→S→A(Dispch)→X3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispatch Book</td>
<td>P→F</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>FFA67(2) (Fr. SubU)</td>
<td>P→S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFA22</td>
<td>P→F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFA50(1)</td>
<td>P→S→X3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFA50(2)</td>
<td>P→F</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>FFA50(3)</td>
<td>P→F</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Monthly Adjust.</td>
<td>P→F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

KEY:
P = Prepare  R = Review  I = Initial  S = Sign  
A = Access  F = File  Xi = Attach Operation i.
### Individual Form Flows: "Payments Through Banks"

<table>
<thead>
<tr>
<th>Functional Sub-Unit</th>
<th>Accountant</th>
<th>Inspector</th>
<th>MOF</th>
<th>AG</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFA17</td>
<td>P X1</td>
<td>R I</td>
<td>R S</td>
<td></td>
</tr>
<tr>
<td>Voucher</td>
<td>P X1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheque (1)</td>
<td>S</td>
<td>P S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheque (2)</td>
<td>P S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Book</td>
<td>P F</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Expenditure</td>
<td>P F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconciliation (1)</td>
<td>P A</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconciliation (2)</td>
<td>P</td>
<td></td>
<td>A F</td>
<td></td>
</tr>
<tr>
<td>Reconciliation (3)</td>
<td>P</td>
<td></td>
<td>A F</td>
<td></td>
</tr>
</tbody>
</table>

**KEY:**

- **P** = Prepare
- **R** = Review
- **I** = Initial
- **S** = Sign
- **A** = Access
- **F** = File
- **Xi** = Attach operation i

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Annex III/11
JOB DESCRIPTION: ACCOUNTANT

Duties Related to "Payments Through Banks"

1. Verify Vouchers and FFA17's sent from Units and Initial if satisfactory.
2. Fill in and sign two(2) copies of check.
3. Send one(1) copy to designated Unit and file second copy (the counterfoil).
4. Enter details of check in Bank Book.
5. Enter check in Bank Expenditure Book.
6. At end-of-month, reconcile the Bank Book with the Bank Statement. Produce three(3) copies of the reconciliation, sending one each to the Ministry of Finance and the Auditor General not later than the 15th of the next month.

Duties Related to "Receipt of Cheques"

1. If payee directly submits check to accountant, then
   a. Fill out two(2) copies of FFR15, giving the top copy back to the payee as a receipt and retaining the second copy in the Book of FFR15's.
   b. Daily summarize these FFR15 transactions on FFR67; two(2) copies, the second being filed, and the first attached to the supporting FFR15's and cheques.
2. Daily verify and sign all checks, including those that have been received by the Dispatch clerk (which are in packets of cheques, associated FFR15's and a FFA67 cover letter).
3. Log all cheques in the FFA22 Book.
4. Daily prepare three(3) copies of FFA50; the top(1) copy travels with the cheques and supporting documents, the second and third copies are filed.
5. Monthly post the second copy of FFA50 to the Monthly Adjustment Book.
6. Upon receipt of the Bank Statement, paste the receipt from the bank for the cheques deposited on the back of the corresponding FFA50, and reconcile the statement to the Book of FFA22's and the Dispatch Book kept by the Dispatch Clerk. Any dishonoured cheques must be followed up for collection.

Annex III/12
JOB DESCRIPTION: ACCOUNTING PERSONNEL IN FUNCTIONAL SUB-UNIT

Duties Related to "Payments Through Banks"

1. Fill out appropriate voucher.
2. Prepare FFA17 and attach to voucher.
3. Obtain signature from designated responsible official.

Duties Related to "Receipt of Cheques"

1. Prepare Check.
2. Prepare FFR15 in duplicate; send the top copy back to the payee and retain the second copy in the Book of FFR15's.
3. Attach the FFR15 to the check.
4. Daily summarize all FFR15's on FFR67, in duplicate, retaining the second copy.
5. Send all cheques and FFR15's with cover FFR67 to the Dispatch Clerk of the Accounting Unit.

Annex III/13
JOB DESCRIPTION: DISPATCH CLERK

Duties Related to "Receipt of Cheques"

1. Receive from Functional sub-units, packets containing Cheques, accompanying FFR15's and one FFA67.
2. Record each cheque in Dispatch Book including cheque number, date and amount of each cheque, name of the payer and name of the drawee bank.

JOB DESCRIPTION: INSPECTOR OF ACCOUNTS

Duties Related to "Payments Through Banks"

1. Receive vouchers and accompanying FFR17 from Accountant.
2. Verify the amount of the check against the budgeted amount from the unit and against the current balance in the designated account.
3. If either comparison is unsatisfactory seek an explanation from the originating unit.
4. Assign the appropriate code.
5. Sign.
6. Send back to the Accountant.
## Decision Table for Accountant: "Receipt of Cheques"

<table>
<thead>
<tr>
<th>Direct Payee?</th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare FFR15 for each cheque</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Return FFR15(1)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>File FFR15(2)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Prepare one FFA67, daily</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Attach FFA67(1) to FFR15's</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>File FFA67(2)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Verify &amp; sign all check</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Enter Cheques in FFA22</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Prepare FFA50</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Attach FFA50(1) to FFA67</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>File FFA50(2) &amp; (3)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Send to Bank</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

## Decision Table for Inspector of Accounts: "Payment through Banks"

<table>
<thead>
<tr>
<th>Over-Budget?</th>
<th>Y</th>
<th>Y</th>
<th>N</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdraft?</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Seek Explanation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sign</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Annex III/15
Annex IV Curricula for Institute of Accounting Studies
<table>
<thead>
<tr>
<th>Description</th>
<th>Dates</th>
<th>Intensity (hr/wk)</th>
<th>Participants</th>
<th>Percent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Clerks</td>
<td>12/82 4/83 8/83</td>
<td>20 - 6</td>
<td>40</td>
<td>90</td>
<td>Course introduces governmental accounting and business accounting. Taken by beginning bookkeepers in government service.</td>
</tr>
<tr>
<td>Cashiers Course</td>
<td>1/83 4/83</td>
<td>18 - 6</td>
<td>40</td>
<td>95</td>
<td>Course leads to AAT certificate. Given through arrangements with the British Association of Accounting Technicians. Khartoum is recognized examination center. So far no one has taken the exam.</td>
</tr>
<tr>
<td>Accounting Technicians</td>
<td>4/83</td>
<td>24 - 6</td>
<td>25</td>
<td>100</td>
<td>Course leads to AAT certificate. Given through arrangements with the British Association of Accounting Technicians. Khartoum is recognized examination center. So far no one has taken the exam.</td>
</tr>
<tr>
<td>Certified Accountant Accountant Course(ACA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level I</td>
<td>- 9 mo.</td>
<td>18 - 6</td>
<td>20</td>
<td>90</td>
<td>Examinations taken. No formal course, materials and tutoring provided. Enrollment in AAT and ACA courses is expected to increase significantly during next few years.</td>
</tr>
<tr>
<td>Level II</td>
<td>- 10 mo.</td>
<td>(20-40)</td>
<td>10</td>
<td>100</td>
<td>Examinations taken. No formal course, materials and tutoring provided. Enrollment in AAT and ACA courses is expected to increase significantly during next few years.</td>
</tr>
<tr>
<td>Level III</td>
<td>- 3 mo.</td>
<td>(20-40)</td>
<td>3</td>
<td>100</td>
<td>Examinations taken. No formal course, materials and tutoring provided. Enrollment in AAT and ACA courses is expected to increase significantly during next few years.</td>
</tr>
</tbody>
</table>

Footnotes: 1a = lecture hours, b = seminar or tutoring hours and c = homework hours 23 months in class and 3 months on the job
<table>
<thead>
<tr>
<th>Description</th>
<th>Dates Given</th>
<th>Length</th>
<th>Intensity (hr/wk)</th>
<th>Participants</th>
<th>Percent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting for Agricultural Schemes</td>
<td>10/82</td>
<td>10 da.</td>
<td>24 - 6</td>
<td>28</td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td>Accounting for Textile Ind.</td>
<td>6/83</td>
<td>10 da.</td>
<td>24 - 6</td>
<td>33</td>
<td>33</td>
<td>100</td>
</tr>
<tr>
<td>Accounting and Financial Mgt. in the Sugar Industry</td>
<td>(Planned for September or October 1983)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Facilities in Sudanese Commercial Banking</td>
<td>(Planned for October 1983)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Footnote: 1 = lecture hours, b = seminar or tutoring hours and c = homework hours

IAS Training Programs
Special Courses Given or In-process During 1982-1983

Annex IV/2
<table>
<thead>
<tr>
<th>Description</th>
<th>Dates Given</th>
<th>Length</th>
<th>Intensity</th>
<th>Participants</th>
<th>Percent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course for Auditors: Scales A, J, F</td>
<td>1/83</td>
<td>6 mo.</td>
<td>4.5 - 2</td>
<td>20</td>
<td>20</td>
<td>100&lt;br&gt;These courses are given only one day a week. Participants return to their job on other 5 days. Courses taught in English, except the topic of governmental accounting which is taught in Arabic.</td>
</tr>
<tr>
<td>Course for Deputy Inspectors; Scale Q</td>
<td>1/83</td>
<td>6 mo.</td>
<td>4.5 - 2</td>
<td>20</td>
<td>20</td>
<td>100&lt;br&gt;Courses taught in English, except the topic of governmental accounting which is taught in Arabic.</td>
</tr>
<tr>
<td>Course for Audit Inspectors scale D</td>
<td>4/83</td>
<td>3 mo.</td>
<td>4 - 2</td>
<td>30</td>
<td>30</td>
<td>100&lt;br&gt;Senior Auditors in scales B and above</td>
</tr>
<tr>
<td>Course for Senior Auditors in scales B and above</td>
<td>4/83</td>
<td>3 mo.</td>
<td>4 - 2</td>
<td>30</td>
<td>30</td>
<td>100&lt;br&gt;Senior Auditors in scales B and above</td>
</tr>
</tbody>
</table>

Footnote: a = lecture hours, b = seminar or tutoring hours and c = homework hours

IAS Training Programs
Courses for the Auditor General's Staff During 1982-1983

Annex IV/3
Annex V: Cost Estimates for Recommendations

INSTITUTE OF ACCOUNTING STUDIES

Funding of Library Acquisitions and Renovation of Facilities

<table>
<thead>
<tr>
<th>Item</th>
<th>US$</th>
<th>LS</th>
</tr>
</thead>
<tbody>
<tr>
<td>General reference works and handbooks in Accounting and Auditing</td>
<td>$600</td>
<td>8000</td>
</tr>
<tr>
<td>80 textbooks in Management Accounting</td>
<td>1600</td>
<td></td>
</tr>
<tr>
<td>160 textbooks in Financial Accounting</td>
<td>3200</td>
<td></td>
</tr>
<tr>
<td>1 photocopying machine</td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>6 overhead projectors and screens</td>
<td>1800</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous video tapes on various accounting topics</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>130 Desk calculators (with tape)</td>
<td>8000</td>
<td>13000</td>
</tr>
<tr>
<td>Four(4) air conditioners (@LS2000)</td>
<td>20000</td>
<td>20000</td>
</tr>
<tr>
<td>Rewiring</td>
<td>10000</td>
<td></td>
</tr>
<tr>
<td>Repainting</td>
<td>40000</td>
<td></td>
</tr>
<tr>
<td>Carpentry Work</td>
<td>2400</td>
<td></td>
</tr>
<tr>
<td>120 Desks</td>
<td>27200</td>
<td>80400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$27,200</td>
<td>LS80,400</td>
</tr>
</tbody>
</table>

Expatriate advisors to IAS (2½ man years)                             | 30000 |       |
Salary of Sudanese Auditing Specialist                                 | 192000|       |
Salary of English Language Secretary                                   | 12000 |       |
Short-term visit to U.S. to study governmental auditing (CAO Interagency Audit Training School)(4-6 weeks) | 6000  |       |
Short-term visit to U.S. to American Institute of Accountancy and other professional accounting organizations (4-6 weeks) | 6000  |       |

**Total**                                                           | $312,000 | LS204,000 |

Central Medical Stores (CMS) Bookkeeper Training Project:

- 2 analysts and teachers for 2 years                                | 96000 |       |
- Teaching materials and miscellaneous                               | 15000 |       |

Establishment of a Systems Analysis Section:

- 1 Head of Section* for two years                                   | 60000 |       |
- 3 Analysts* (@LS24,000)                                           | 144000|       |
- Local Travel                                                       | 20000 |       |
- Supplies and Miscellaneous                                         | 30000 |       |

Development of governmental accounting textbook, including writing, editing and printing 1st edition of 2200 copies | 22000 |       |
Development of teaching aids for IAS (transparencies, sample forms, handouts) | 20000 |       |
Development and reproduction of job descriptions (2200 copies)        | 20000 |       |

**Total**                                                           | LS427,000|

*All salaries should be for no less than half-time appointment
### Computerization Pilot Study

<table>
<thead>
<tr>
<th>Task</th>
<th>Cost (US$)</th>
<th>Cost (LS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Analysts for one year at LS2400</td>
<td></td>
<td>7200*</td>
</tr>
<tr>
<td>1 Data entry technician for one year at LS2400</td>
<td></td>
<td>2400*</td>
</tr>
<tr>
<td>Forms design and printing</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>Computer Time</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Centralization Section Personnel for one year (part-time)</td>
<td>$20000</td>
<td>1800*</td>
</tr>
<tr>
<td>Expatriate Advisor for 4 weeks</td>
<td>$20,000</td>
<td>LS11,900</td>
</tr>
</tbody>
</table>

**COMMERCIAL SECONDARY SCHOOLS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost (US$)</th>
<th>Cost (LS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 manual typewriters (English keyboard)</td>
<td>24000</td>
<td></td>
</tr>
<tr>
<td>80 manual typewriters (Arabic keyboard)</td>
<td>24000</td>
<td></td>
</tr>
<tr>
<td>80 calculators (with tape)</td>
<td>8000</td>
<td></td>
</tr>
<tr>
<td>Short-term visit to U.S. to study business education courses and facilities in U.S. high schools</td>
<td>6000</td>
<td></td>
</tr>
<tr>
<td>Development of Refresher Course of Commercial Secondary Schools</td>
<td>25000</td>
<td></td>
</tr>
<tr>
<td>Salary for one IAS staff member to develop syllabus and course materials for commercial school teachers refresher course in accounting</td>
<td>6000</td>
<td></td>
</tr>
<tr>
<td>Cost of reproducing materials</td>
<td></td>
<td>10000</td>
</tr>
<tr>
<td></td>
<td>$ 62,000</td>
<td>LS41,000</td>
</tr>
</tbody>
</table>

**KORDOFAN REGIONAL BOOKKEEPER TRAINING PROJECT**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost (US$)</th>
<th>Cost (LS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Salaries for two years</td>
<td>15000</td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>Per Diem (240 da/yr for 2 yrs @LS30)</td>
<td>14400</td>
<td></td>
</tr>
<tr>
<td>Classroom Renovation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Costs</td>
<td>30000</td>
<td></td>
</tr>
<tr>
<td>40 Desks</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>Blackboard</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>30 Desk Calculators (with tape)</td>
<td>3000</td>
<td></td>
</tr>
<tr>
<td>Projector and Screen</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ 3,300</td>
<td>LS63,000</td>
</tr>
</tbody>
</table>

*These salaries reflect normal civil service rates*
<table>
<thead>
<tr>
<th>Item</th>
<th>US$</th>
<th>LS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Salaries for two years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Desk Calculators (with tape)</td>
<td>$400</td>
<td>500</td>
</tr>
<tr>
<td>20 Typewriters (English keyboard)</td>
<td>6000</td>
<td></td>
</tr>
<tr>
<td>20 Typewriters (Arabic keyboard)</td>
<td>6000</td>
<td></td>
</tr>
<tr>
<td>1 Overhead Projector</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>1 Air conditioner</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>$13,100</strong></td>
<td><strong>LS8,000</strong></td>
</tr>
<tr>
<td>Grand Totals:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>$419,600</strong></td>
<td><strong>LS35,300</strong></td>
</tr>
</tbody>
</table>
Annex VI: Terms of Reference for Expatriate Advisors to the IAS

Qualifications:

Professional qualification in Accountancy (chartered accountant or equivalent) and university degree in Accountancy.

Several years of teaching experience at college or professional level; experience with continuing education program.

At least two years experience as a practicing accountant.

Areas of Specialization:

(1) experience in developing and teaching courses leading to professional qualifications (C.A., CPA, accounting technicians).

(2) Management Accounting, familiarity with systems in specialized industries.

(3) Management Information Systems

Terms of Reference:

Assist the Institute's permanent staff in developing and procuring syllabi and teaching materials for the Institute's training programs;

Assist the Commission for the Establishment of Sudanese Accountancy Profession in drafting the necessary legislation for government approval;

Teach courses (maximum of six hours per week); and

Assist in development of Sudanese accounting and auditing standards.
Annex VII: Terms of Reference for Sudanese Auditing Specialist

Qualifications: Chartered Accountant or equivalent, 10 years of auditing experience, some teaching experience, preferably in professional or continuing education, plus acceptable academic background.

Suggested Salary: $48,000 p.a., possibly to be paid in local currency

Length of Appointment: 4 years

Terms of Reference:

(1) Assist in the development of Sudanese examinations for accounting technicians and professional accountants. Development of courses and teaching materials in auditing; course work should integrate with Systems Analysis Section.

(2) Teach professional level and continuing education courses.

(3) Collaborate with the National Committee of Accounting and Auditing Standards and the Steering Committee for the Organization of Sudanese Accounting Profession.
Annex VIII: Terms of Reference for Systems Analysis Section Personnel

A. Head

1. Qualifications:
   a. University degree in Accounting, Management, Industrial Engineering or similar discipline
   b. Several years of practical experience as accountant, manager or analyst
   c. Familiarity with governmental accounting practices

2. Terms of Reference:
   a. Plan and implement the initial effort directed towards a complete documentation of the existing governmental accounting system.
   b. Be responsible for directing efforts to keep the accounting manual up-to-date.
   c. Select, with the concurrence of the Head of Accounts Chamber, governmental units for detailed analysis, with the objective of possible modifications and improvements.
   d. Supervise the activities of the analysts including regular review of all work papers for technical accuracy, completeness and feasibility.
   e. Train new analysts.
   f. Advise MOFEP on systems problems, in general.
   g. Interface with the IAS on curricula, training, projects and students.
   h. Regularly report to the Director of IAS and the Head of the Accounts Chamber on the activities of the Section.

B. Analyst

1. Qualifications:
   a. University graduate with a good foundation in accounting.
   b. Areas of knowledge: financial accounting, logistics, management, governmental accounting, industrial engineering, systems or any combination.
c. Two (2) years experience in an accounting, finance or management office, preferably within a governmental setting.

2. Terms of Reference:
   a. Document the activities of governmental accounting units including document and process flows, job descriptions and forms analysis.
   b. Analyze this documentation with respect to inefficiencies, ineffectiveness, internal control, clarity and completeness.
   c. Recommend improvements in systems.
   d. Prepare training material for new analysts and for accounting personnel in MOFEP units.
ANNEX IX: LIST OF BOOKS AND TECHNICAL MATERIALS FURNISHED TO THE IAS

1. Professional and Auditing Standards of the International Federation of Accountants
2. Outlines for Five-Day Continuing Education Seminars in Financial and Management Accounting
3. Bylaws and Rules of Conduct of the American Institute of CPAs
4. Internal Control Evaluation (AICPA)
5. Case Studies: Internal Control (AICPA)
6. Audits of State and Local Governmental Units
9. Operational Auditing
10. Guidelines for Economy and Efficiency Audits of Federally Assisted Programs
11. Auditing for Fraud - A Resource Guide
12. Assuring Accurate and Legal Payments - The Roles of Certifying Officers in Federal Government
13. The Audit Survey
15. How Auditors Develop Findings
16. Examples of Findings from Governmental Audits
17. Standards for Audit of Governmental Organizations, Programs, Activities, and Functions
18. The Evolution of CPA Ethics: A Profile of Professionalization
19. Interagency Auditor Training Program, Graduate School, USDA
Bibliography and Other Useful Sources of Information


