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Draft Final Report to USAID Khartoum Mission on the Management Information System Project with the Ministry of Finance and Economics Planning, Government of Sudan

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CHAPTER 1: AN OVERVIEW OF THE PROJECT HISTORY AND OBJECTIVES

1. Introduction

This report describes the first year and a half of activities under the management information system (MIS) project sponsored by the United States Agency for International Development, Khartoum Mission, for the Ministry of Finance and Economic Planning, Government of Sudan. This project was carried out under the direction of Profs. Dale Whittington and Craig Calhoun, both with the University of North Carolina at Chapel Hill. The two other members of the project team were Mr. William Drummond and Ms. Laura Drummond, of Chapel Hill, North Carolina, who were primarily responsible for computer programming and training activities.

This project grew out of discussions Prof. Whittington and Prof. Calhoun had with Dr. William Brown, USAID Khartoum Mission Director, in December of 1983 about the possibility of establishing a microcomputer-based project management information system for the USAID Khartoum mission. At the time Prof. Whittington was a Fulbright lecturer at the Institute of Environmental Studies at the University of Khartoum, and Prof. Calhoun was a Research Associate at the Development Studies Research Center at the University of Khartoum; both were on leave from their regular faculty positions at the University of North Carolina at Chapel Hill. During their research in Khartoum one of the things that struck them both was the lack of knowledge among the donor community about each other's activities and the lack of donor cooperation. At the time there was little systema-

tic, centralized information being collected in Khartoum about donor activities, either within the government or the donor community. One indication of this problem was the explosion of debt incurred by the Government of Sudan over the period 1977-1983, with seemingly little awareness on the part of the donors of the magnitude of the borrowing. But the problem was also apparent just from casual conversations with friends and acquaintances; no one really seemed to have a clear idea of the portfolio of projects underway in Sudan. The UNDP annual report on donor activities was about all that existed in terms of centralized project data, but this report contained only limited project information and was incomplete.

Before they returned to Chapel Hill in December, 1983, Profs. Whittington and Calhoun drafted a proposal for Dr. Brown to establish a microcomputer-based project directory for the Khartoum mission using dBase II software. The proposed system was to include detailed information on all ongoing donor projects in Sudan. The idea was that a questionaire would be filled out by the donors for completed, ongoing, and proposed projects in Sudan, and then the data would be entered into the microcomputer database system. The information in the database, or "project directory", could then be easily accessed in a variety of ways. For example, a user might want to know all the publications available from ongoing projects in Kordofan in the agricultural sector, or all the consultants who have worked in the transportation sector over the last three years. Such a system could help with planning new projects, with donor coordination, and with improving USAID's institutional memory.

In the winter of 1984 the USAID Khartoum Mission issued an Request for Proposals to establish such a management information system. Dr. Brown also discussed the proposed project with the World Bank. In the spring of 1984 the World Bank was in the process of trying to initiate a technical assistance project in the Ministry of Finance and Economic Planning (MOFEP) with a related objective, using its own consultant, but for various reasons it did not materialize. In June, 1984, the USAID Mission contacted Profs. Whittington and Calhoun with regard to their original proposal, and requested that they come to Khartoum for a consultancy of several weeks.

Prof. Whittington arrived in Khartoum in July, 1984, and Prof. Calhoun in early August. By that time the conception of the project had shifted from that of working with the USAID Mission itself to working with the Joint Monitoring Committee (JMC) in the Ministry of Finance and Economic Planning (MOFEP). The Joint Monitoring Committee is a group of donor representatives and MOFEP officials organized and chaired by the Undersecretary of MOFEP for Planning. The primary goal of the group is to promote donor communication and coordination of the flow of both balance of payments aid and commodity assistance to Sudan. The staff work for the Joint Monitoring Committee was supposed to be carried out by the JMC Secretariat, a small unit within the MOFEP. The JMC Secretariat was, however, understaffed, and in practice unable to respond to the requests of the donor representatives in the JMC for information on the disbursement of aid by the Government of Sudan (GOS). Given USAID's commitment

to institution building, and in light of the original objectives of the MIS project, it seemed appropriate that the energies of the MIS project be redirected to support the JMC Secretariat.

Profs. Whittington and Calhoun were thus requested to design a project to provide staff support for the JMC in order to supply the donors better quality information for discussion at the JMC meetings. This project objective was directly responsive to the recent World Bank report on SubSaharan Africa (1984), which called for increased attention to both donor coordination efforts and to building the institutional and management capability in developing countries for improved policy analysis within planning ministries. In fact, we feel training ministry staff in microcomputer applications for budgeting, financial management, and investment planning is one of the best ways to promote this process.

The July, 1984, JMC meeting was held soon after Prof. Whittington arrived in Khartoum, and one of the central issues discussed was the delay in the disbursement of donor aid. The donors felt that the delay was largely due to the inability of the Sudanese government to expedite the paperwork required to draw on the aid commitments; the Sudanese felt the problems arose from delays on the donor side. Given the high priority attached to this issue by both the Ministry and the donors, USAID made the decision to focus more of the resources of the MIS project on this problem of aid disbursements. This significantly expanded the scope of the project, and led Profs. Whittington and Calhoun to work directly with the Accounting Department and the Foreign Loans Department in the Planning Wing of the MOFEP, and the

Commodity Aid Committee in the Finance Wing of the MOFEP.

One of the primary objectives of the MIS project has been to train Sudanese professionals to use the microcomputer as a development planning tool, and to develop the institutional structure within the Ministry to ensure that such work could be continued after the MIS project is completed. Thus, shortly after their arrival Profs. Calhoun and Whittington worked with the UNDP/IRDB resident advisor in the MOFEP (Dr. Abdel Sattar) to identify Sudanese professionals within the Ministry for further training. During the last two weeks of July, 1984, USAID agreed to send two MOFEP officials to the United States for training in the use of microcomputers: first to a microcomputer short course at Stanford University, and then to Chapel Hill, North Carolina to work with Profs. Whittington and Calhoun on the specific microcomputer MIS applications being developed for the Ministry. These two individuals, Mr. Faisal Salih and Shadia Bakhiet, left for California in the first week of August, 1984.

During the first weeks of August, 1984, Profs. Whittington and Calhoun began the work of designing some simple, microcomputer-based systems for keeping track of financial, commodity, and project data on donor aid. Profs. Calhoun and Whittington worked with Dr. Sattar to develop a list of information to be included in the project directory. Prof. Whittington and Mr. Mahdi Dawood El-Khalife (staff member of the JMC Secretariat) went to see all the major donors in Khartoum, and discussed the data collection necessary to establish the Project Directory. Profs. Whittington and Calhoun initiated a parallel

data collection exercise to obtain information on projects from the various sectors in Planning (eg. transportation, industry, agriculture, services, etc.). In addition, working with the director of the Commodity Aid Committee in the Finance wing of the Ministry, Dr. Mohamed Kheir Zubeir, they designed a series of forms and initiated a data collection effort which could form the basis for a transaction-based database system for commodity aid.

During September and October, 1984, Profs. Whittington and Calhoun worked with William and Laura Drummond on a series of training activities for Faisel Salih and Shadia Bakhiet during their stay in Chapel Hill. When Mr. Salih and Ms. Bakhiet returned to Khartoum in November, they took with them an IBM-PC XT and assorted hardware and software to start a new "Management Information Systems Unit" of the MOFEP. The establishment of this Management Information System unit was the direct result of the work of the USAID MIS project, and reflects the commitment of the Undersecretary of MOFEP for Planning to improved data management procedures within the Ministry.

During the fall of 1984 the MIS project team also worked on on the computer programs for the Project Directory and the commodity assistance database, and completed prototype systems for both. In November, 1984, the project team learned that the data collection for the project directory was being delayed, and Prof. Whittington returned to Khartoum to help expediate the data collection process. Profs. Whittington and Calhoun, as well as William Drummond, returned to Khartoum in December, 1984, and ran three weeks of training courses for MOFEP staff on the use of these prototype systems. They also continued to work with the new

staff of the MIS unit to push the data collection efforts which had been started in August and November.

In addition, work was begun on the design of a financial accounting system for the Foreign Loans Department in the MOFEP, which could be used to address the problem of aid disbursements, and on collecting data from the files in the Accounting Department. During January and February the project team developed a Lotus 1-2-3 system for keeping the financial accounts in the Foreign Loans Department. The system was designed to be very simple so that the desk officers in the Foreign Loans Department could be easily trained to maintain current balances on the active grants and loans for which they were responsible. It is menu-driven and worked something like an electronic checkbook. The operator enters each transaction on the account for a project loan or grant--either a request for payment or a disbursement notification--and the spreadsheet automatically makes all the necessary currency conversions and recalculates current balances in the account. It is not intended to be a sophisticated, integrated accounting system, but it is consistent with the objective of the MIS project to provide "appropriate technology" software, given the current state of affairs within the MFEP. It is easy enough to understand that the indivduals trained in Chapel Hill have mastered the program and and can make modifications in it if necessary. During the January trip to Khartoum, the project staff also worked with the IMF expert in the new External Debt Management Unit of the Finance wing of the MOFEP to develop a similar Lotus-based system for keeping track of debt

rescheduling on outstanding loans.

In March, 1985, Prof. Whittington returned to Khartoum for two weeks to demonstrate the prototype verson of the financial accounting system and train staff in its use. Planning began for computerizing the production of the development budget, which is a major logistical task for the MOFEP. A major training program was planned for the summer of 1985 in Khartoum, and agreement was reached on additional computer equipment procurement for the microcomputer center in the Management Information Systems Unit.

During April, May, and June, 1985, the project team worked in Chapel Hill on refinements to the financial accounting system and the project directory. Equipment and materials were procured to take to Khartoum for the summer training workshop and ultimately for the Management Information System Unit. The previous year's development budget was put on a Lotus 1-2-3 spreadsheet so that it could be used as a training exercise in the summer workshops and to demonstrate to senior Ministry officials the advantages of computerizing the development budget process.

The project team arrived in Khartoum during the last week of June and the first week of July, 1985. The major activities of the project team in Khartoum during July and the first half of August, 1985, were concerned with the training workshop, described in the next section of this report (2. Training Activities). In addition, work continued on data collection for the Project Directory and on refinements in the Project Directory and financial accounting system. Ministry staff were trained in the use of both systems. Planning continued with the Undersecretary of MOFEP for Planning for a long term technical assistance

project, including both long and short term training courses. When the project team left Khartoum in mid-August, the Under-secretary of Planning requested that the project team offer a training course in December, 1985, for senior Ministry officials in the use of the microcomputer and specifically in the use of the financial accounting system software.

From its initiation in the summer of 1984 through the summer of 1985, the MIS project made substantial progress in the following three areas: (1) developing appropriate computer systems to meet the needs of the MOFEP, (2) establishing the institutional arrangements necessary for the achievement of long term progress in data management within the Ministry of Finance and Economic Planning, and (3) training staff. The strategy of the MIS project team has been to tackle problems which are both of immediate interest to the people in the Ministry and relatively simple, where results can be achieved quickly. This strategy has at times been difficult to implement because many of the data management problems within the MOFEP are best approached from a long term development perspective, and their solution requires, among other things, a long term technical assistance project.

One of the central issues the MIS project team faced was whether to design the computer programs to be relatively rigid and thus prevent user mistakes in data entry, or to be simpler and more flexible, and thus be easier to reprogram and modify. The project team generally tended toward the latter, and tried to get the first set of trainees to increasingly take over both training of new staff and the design of new computer applications.

The project team has spent a lot of its energies on training, which could conceivably backfire if the trainees leave for the private sector or the Gulf states. Yet there is a tremendous enthusiasm on the part of the young people in the Ministry to learn this new technology and apply it to their work, and as a result the project team is convinced that the microcomputer can serve as a very effective means of improving planning and management in the ministry. The MIS project has very quickly become involved in a wide variety of management issues crucial to the role of the Ministry. This kind of access would not have been available had the MIS project not been able to offer microcomputer training and the possibility of obtaining microcomputer equipment. The MIS project team feels strongly that USAID should not underestimate the importance of microcomputer applications in Third World bureaucracies as a development planning strategy.

2. Microcomputer Training Activities

2.1. Introduction

The training element of the MIS project, was one of the most extensive, and successful, portions of the project. In the training of microcomputer users three basic skill levels, originally identified by Carl Gotsch, can be distinguished (see Pinckey et.al., 1984). First, the lowest skill level is the user who can effectively utilize a "turnkey" system. A turnkey system, thus named because all the user must do is "turn the key" to start the system, is a hardware/software package designed so that a user with a minimum of computer skills may enter data, do simple analyses, and print pre-defined output reports. Turnkey systems are able to start themselves (once the user turns on the computer and places the proper disk in the disk drive) and provide constant assistance in the form of menus, help screens, elaborate error checking, and extensive error recovery. The MIS project developed two turnkey systems: the Financial Accounting System, which runs within Lotus 1-2-3 and is technically called a Lotus "Macro" system, and the Project Directory, which runs within dBase III and is a menu-driven system utilizing the dBase command language.

At the second skill level the more sophisticated person may utilize one or more of the powerful application packages available for microcomputers. Lotus 1-2-3, dBase III, the Harvard Project Manager, and Wordstar are examples of these application packages. Where the level one user may only accomplish what someone else has already programmed into the

turnkey system, the level two user can develop totally new applications, usually based upon new spreadsheets or databases.

The most sophisticated level of accomplishment is the third, at which users become actual programmers, developing the turnkey systems to be used by level one users. Actual programming languages, such as Pascal, BASIC, or Fortran may be used, but many application packages (Lotus 1-2-3, dBase III) have built-in programming languages as well. In addition, those people trained to level three competency have the background and skills to train additional users to levels one, two, and eventually three.

The MIS project addressed all these three levels of training. First, by training a small number of MOFEP personnel to level three competency; second, by training a large number of people to level two achievement; and third, by helping those with the most sophisticated training to begin training others themselves. The project training strategy, then, was to offer long and sophisticated education to a small number of people in order to bring them to level three, and simultaneously provide less intense, but still extensive, training to many people. Two MOFEP personnel, Shadia Bakhiet and Faisal Salih, were given elaborate training including several months' work in the United States, and are now approaching level three. Twenty-four others were given a shorter training course in Sudan over the summer of 1985, and many of these have achieved solid level two skills. Several of these persons have gone on the United States for added education and may now be approaching level three.

The training efforts of the project had two particularly noteworthy features. First, the major training effort in the

summer of 1985 did not simply address abstract concepts and teach generic software packages. The USAID consultants had spent sufficient time working with Ministry staff and were able to create classroom assignments that specifically focused on problems faced by the trainees during the course of their daily work. Also, individuals in the training program were taught the use of application systems that had already been designed specifically for the Ministry's use. This tailoring of the training sessions to the particular needs of the Ministry made the training efforts much more effective.

Second, the USAID consultants provided extensive training to two individuals before conducting the large-scale training activities in the summer of 1985. These first Sudanese trainees were then used to assist with the larger-scale training effort. They provided role models for the students and classroom assistance in both translation and substantive supervision. The use of level trainees greatly enhanced the effectiveness of the training activities.

This section of the report consists of four additional parts. First, a detailed account of all the training given to all MOFEP personnel will be given. Second, a list of lessons learned will be presented. These lessons may help guide future microcomputer training sponsored by USAID, either in the Sudan or in other countries. Third, we will present the results of our own course evaluation. Before the summer 1985 training course was given all twenty-four students filled out an extensive questionnaire (see Table 17). After the course was completed the students were graded according to a final test and the course

instructors' judgment. The answers to the questionnaire were then compared to the final student evaluations to try and isolate those factors that led to more successful training, and those results will be presented. Finally, a series of recommendations for future training will be presented.

2.2. Detailed account of training activities

Fall 1984

Two employees of the Ministry of Finance and Economic Planning (Shadia Bakhiet and Faisal Salih), were sent to the Stanford Food Research Institute in August of 1984 to take a course entitled "Introduction to Microcomputers." For a month they worked on Compaq computers using Lotus 123, dBase III, Wordstar, and the Harvard Project Manager.

Early in September they came to Chapel Hill, N.C. for further training with the USAID consultants. The MIS project rented an office and set up a training area which included an Osborne microcomputer, an IBM PC-XT, and an Epson LQ-1500 printer. The Sudanese trainees received daily instruction in computer concepts, Lotus 123, and DOS tree-structured directories, taught by Bill Drummond, one of the the MIS project programmer/analysts. Three times a week they worked with Laura Drummond, the second project programmer/analyst using dBase III. In addition, Ms. Bakhiet and Mr. Salih attended an advanced course in Lotus 123 offered commercially in Raleigh, N.C.

During the stay in North Carolina, which lasted six weeks, the trainees and programmer/analysts also worked on various items in the MIS project program. Spreadsheets (in Lotus 1-2-3) for Sudanese agricultural production statistics were set up, data entered, and reports generated. The Project Directory (in dBase III) was developed, and data entry commenced. An outline for the commodities assistance system was also created at this time. Raw data for some of the various subsystems had been collected by the trainees and the MOFEP staff (under project supervision) and brought with them to the U.S.

Winter 1984-1985

From December 20, 1984 to January 12, 1985 further training was carried out while the consultant team was in Khartoum. Ms. Bakhiet and Mr. Salih received individual instruction for two to three hours per day over the three-week period. Emphasis was placed upon organization and use of the PC-XT hard disk system, with additional word processing, Lotus 1-2-3 macro system, and dBase III command file training.

Bill Drummond worked with the two advanced trainees as the three of them adapted the dBase III project directory to the changing requirements of the Ministry. The Financial Accounting System was designed in broad outline, and the commodity spreadsheets took final form.

Ms. Bakhiet, working with the consultant team, also developed several spreadsheets summarizing the Sudan's quarterly loan payments. Ms. Bakhiet's work showed that the previous published summaries contained large mathematical and/or

typographical errors, and were incorrect by several hundred thousand dollars.

The training effort also extended beyond the MIS unit. Mohamed Kheir Zubeir of the Finance Wing of the Ministry, for example, asked that his staff receive computer training. First Bill Drummond, then Ms. Bakhiet provided introductory, general training. This was followed by intermediate training in Lotus 1-2-3. One of the two officials who began training at this time would later take the full training course in summer, 1985.

Summer 1985

The major part of the MIS project training came in the summer of 1985 and took place in Khartoum at the Ministry of Finance and Economic Planning. Twenty-four Ministry employees (see below for demographic breakdown) attended a six-week course introducing them to microcomputers, commercially-written software packages, and the MIS project-developed systems.

A computer laboratory was set up in the Ministry having four workstations, with three students working at each. The equipment included an IBM PC-XT, two IBM PCs, a Compaq, and two printers.

The students were divided into two sections: a morning group, which met from 8:30 a.m. to 12:30 p.m., with a one-hour breakfast break; and an evening group, which met from 5:30 p.m. to 9:00 p.m., with one half-hour break. Both sections received classroom instruction five days a week (Monday, Wednesday, Thursday, Saturday, and Sunday).

The format for these sessions was a combination of lecture and hands-on practice. A limited amount of outside reading was

required as preparation for the sessions. During the practicum, the three students at each work station would alternate turns at the computer so everyone was able to have hands-on practice. One day per week (Tuesday) was designated a practice day when students came individually for one-hour sessions to work on whatever they chose. Instructors were present to answer questions and provide special help. Students were encouraged to bring projects from their specific jobs to work on during this time to increase their appreciation for how the computer might be used for other applications in their work environment.

The training schedule was as follows:

1 week of DOS. During this time students were introduced to general computer concepts. They were also given the opportunity to increase their touch typing skills using Typing Tutor - a package which proved popular with everyone (even non-students who had no English).

2-1/2 weeks of Lotus 123. This included, in addition to basic spreadsheet techniques, instruction in Lotus graphics and macros.

1-1/2 weeks of dBase III. Students were introduced to database concepts, creating and maintaining a dBase structured database, and began working with the MIS project directory system.

1 week of Wordstar. Preliminary word processing skills were introduced. A couple of days this week were also used by MOFEP request to give a very cursory introduction to the Harvard Project Manager.

1/2 week was spent providing specific training in the MIS project's Financial Accounting System.

During the summer training course, the two Sudanese trainees who had been to the United States for training the previous fall were active in various aspects of the MIS project. Mr. Salih, as head of the newly established Management Information Systems Unit, was involved in the administrative tasks of the project,

and he served as a liaison with other Ministry officials. Ms. Bakhiet both worked on data collection and data entry, and continued her computer training. The project programmer/analysts spent time with her working on various software packages. She also received in-depth experience with the Financial Accounting System. In the classroom she proved very helpful as a tutor, and in giving Arabic explanations to students whose English was less advanced. Both advanced Sudanese trainees were involved in the final stage development of the Financial Accounting System and the project directory.

2.3. Lessons learned for future training

2.3.1. The success of any computer application will be determined by its effect on the career paths (and remuneration) of individuals.

One serious difficulty the project faced was providing career tracks for computer personnel. USAID and the Sudanese managers were unable to establish a fair method of additional pay to people who could dramatically increase their salaries by leaving the Ministry as soon as they were trained to level two.

One solution may be the agreement of those who receive computer training to remain employed by the Ministry for a certain number of years. Another solution might be for USAID to hire well-trained Ministry personnel part-time to train other Sudanese and USAID personnel. Such problems are a significant barrier to further introduction of computer technology into the Ministry.

2.3.2. Training must involve both a few people to very high levels and many people to lower levels.

If only a small number of personnel are provided sophisticated training and one or more should leave the Ministry, the entire computer effort could be crippled. Thus training should be provided to many people in order to identify potential level three users, and ensure, to the extent possible, that no computer application should depend exclusively upon one person.

On the other hand, it is absolutely necessary to train some Ministry employees to the point where they may design systems themselves. In the long run the MIS project cannot be overly dependent on outside technical consultants, but must build up extensive expertise within the Ministry. Only sophisticated users may develop new systems and train other users and thus assure the long-term stability of the computer section of Ministry. Moreover, level three users are required to lead future training efforts.

2.3.3. Training must include senior decision makers as well as junior staff specializing in using a particular system.

Senior officials cannot be expected to make good policy decisions regarding computerization efforts without general knowledge of the equipment and systems in question. Moreover, they may be reluctant to discuss the crucial questions if they think that junior staff under them will consider them ignorant.

Special kinds of training are needed for senior officials who need to understand but are not expected to use a system. Senior or middle level officials will very likely consider it inappropriate to receive training side by side with the junior staff. Separate training emphasizing system design constraints and the effective use of computer-generated information should be given to senior officials. Some of these may be interested enough to want further, detailed, training for themselves, and special provision should be made for that training as well. Finally, some systems, such as the Financial Accounting System, provide information so important that senior officials might require instant access to it through a computer on the official's desk. Again, specialized training in the use of particular turnkey systems may be required.

2.3.4. English language skills are very important for success in computer training.

At this early stage of microcomputer software development nearly all of the powerful computer packages require a good level of English language skills. This will not always be true, but until good Arabic language software is available, adequate English will be a necessary prerequisite for training. Perhaps

those who are now receiving training will soon help provide that Arabic software.

One path not explored by the MIS project was the use of more visually oriented computer systems, such as the Apple Macintosh. The Macintosh uses easy-to-understand menus with small pictures in order to guide its users. It also makes use of a hand-held pointing device, known as a "mouse," in order to minimize the need for typing skills. When the project started, powerful Macintosh software was not yet available, but over the last year sophisticated spreadsheets and databases have appeared. It may be that these more visually oriented computers could substantially ease computer training for people whose native language is not English.

2.3.5. Hands-on interactive training is much more effective than lecture presentation of new material.

Because of the English language barrier and the abstract nature of computer work, lecture is not an effective means to present new material. Instead students should be grouped around the computers themselves (three to a machine is acceptable) and given step-by-step instructions that they directly execute. This means that the size of a training class is restricted by the number of machines.

Interactive training also requires a low student-to-teacher ratio. One instructor could not comfortably handle four machines (twelve students) at the same time. Often a level three instructor could be assisted by a good level two student in order to free instructor time for additional courses.

2.3.6. Adequate time must be allowed for individual student practice of newly-acquired computer skills.

Interactive instruction must be balanced with individual practice. When students receive instructions in groups of three per computer, the strongest member of the group tends to dominate. Only by encouraging (or requiring) individual work can those students who learn a little more slowly be assured of success. Computer homework assignments should be given and students required to complete them individually. During this practice time no format instruction is necessary, but more knowledgeable level two or level three users should be available for consultation.

2.3.7. Prior technical training and/or use of machines may be an important predisposition to success in computer training.

In the more developed economies nearly everyone deals with a sufficient range, variety and complexity of mechanical and electro-mechanical appliances to be at least roughly familiar with how any specific device, such as a microcomputer, works. In a less developed country even fairly well educated people may find it hard to learn the basic orientation to the machine, which is essential, let alone basic keyboard skills. People with an engineering background may tend to do better in computer work than those who studied economics or geography. This issue will be further developed in section 2.4 below.

2.4. Evaluation of the results of student training

In order to evaluate the results of the training and attempt to isolate the kind of personnel that would gain most from computer training, at the beginning of the course each student was required to fill out a questionnaire. The questionnaire asked for information about age, sex, educational and job background, motivations for taking the courses, and several other items of information.

At the end of the course a required examination was given to each student. In order not to penalize those students who had lesser skills in reading and writing English, the test was given orally and individually. Each student was asked to perform seventeen DOS, Lotus 1-2-3, and dBase III operations that had been explained during the course. Some of the operations were very simple; others quite complex. The instructors giving the exam then awarded the students 0, 1, or 2 points depending if the operation was accomplished with no difficulty or prompting (3 points), done with some difficulty but no prompting (2 points), done with moderate difficulty and some prompting of the instructor (1 point), or not completed at all (0 points).

Some students who had done very well throughout the course became nervous during the exam and did not perform up to potential, while others, through short-term preparation, performed above previous levels of achievement. The instructors, therefore, considered both the test scores and overall course achievement to determine final evaluations. By this method the consultants rated each student in one of four categories: excellent, very good, good, and fair. The consultants decided that no student receive a grade lower than fair; it would be

unnecessarily demoralizing. Table 1 presents the final exam scores and instructors' evaluation for all students, while Table 2 shows the relationship between the final exam and overall evaluation. As would be expected, the better students generally did well on the exam, and the less skilled students did not do as well. Yet one excellent student scored only 41 (due to extreme nervousness), while several of the highest scoring exam students received very good, rather than excellent, ratings. Four students (who left for training outside the Sudan) were excused from the final exam, but did receive ratings from the instructors.

When the results of the initial questionnaire are combined with the final evaluation ratings, some conclusions about those students most likely to succeed in training can be tentatively drawn. We must emphasize that twenty-four students is too small a sample for much statistical confidence, nor were we able to control for such important variables as the students' general intelligence or level of English skills. But we believe that the results are still suggestive and instructive. Instead of more elaborate statistical measures, due to the small sample size we have restricted ourselves to presenting a series of cross-tabulation tables.

These tables (Tables 3 to 16) show the relationship between various characteristics of interest (on the left hand side of each table) and the final evaluation (shown across the top of each table). We will briefly comment on the results of each crosstab.

Table 3 shows that graduates of some universities did better than others. The graduates of foreign universities did very well, as did graduates of the University of Khartoum. Those who attended the University of Cairo, Khartoum did not perform well, with three of the four "fair" rated students coming from that institution. It is not clear whether this has to do with pre-university student selection, teaching in university, or other factors. In this rather specific range, however, it seems that university attended is a good predictor of computer aptitude.

Tables 4 and 5 show years employed in current job and years employed in the Ministry. Those employed one to two years in their current position did best, while half of the fair students had been in their job less than one year. Surprisingly, employees who had been at the Ministry one to two years did worst. These results may be chance fluctuations rather than significant relationships. Or they may reflect problems with the quality of training very recently in Sudanese schools and universities (an hypothesis suggested by some senior Sudanese civil servants and educators).

Tables 6, 7, 8, and 9 concern age, job title, sex, and subject of university study. Though students twenty-eight years old did remarkably well (all four were excellent), there was little general correlation of skill with age. There was no overall pattern relating position to performance. Neither female nor male students had an advantage, but females tended to do very well or poorly, while males tended to cluster in the medium categories. Economics students did quite well, but there was not much variation in the backgrounds of the students. For instance no engineering or mathematics students took the course.

Tables 10, 11, 12, and 13 all relate to motivations for taking the training course. For these questions students chose an answer of 1 to 5 depending on whether they strongly agreed (1), to strongly disagreed (5) that they were motivated to take the course for the stated reason. The motivations include desire to acquire new skills, desire for promotion, personal interest, the need of computer skills for current job. No clear overall patterns are present, but those with higher personal interest tended to do better in the course.

Finally, Tables 14, 15, and 16 describe desired career path, previous computer experience, and previous typing shills. There was no relation between performance and whether the student wished to become a computer specialist, or remain in his or her current job. Those reporting previous computer experience did perhaps a little better than those who had no experience, but the difference was slight. Those claiming some typing skills did not do much better than those with none, but the instructors observed that few of those reporting typing experience were actually adept at handling the keyboard.

2.5. Recommendations for future training

Our recommendations fall in three areas: (1) intensive level three training for a small number of well-qualified personnel, (2) broad level two training for a large number of Ministry employees and (3) specialized training for senior (and some middle level) Ministry officials.

Although a good start has been made, even the most sophisticated Ministry computer personnel require further training to achieve solid level three status. This could involve graduate study in computer science, business administration, policy analysis, city and regional planning, or public administration. Unfortunately admission to graduate computer science programs in the United States is very competitive, and the education provided tends to be so technically oriented that much of it would not be directly relevant for the Ministry's current needs. In the longer run the Ministry would benefit greatly from having graduates of computer science programs, but less so in the short run. Programs in business, policy studies, planning, or administration are a better option, if the specific program in question allows a student to specialize in Management Information Systems. We recommend that USAID and the Ministry support several students is such programs, perhaps contingent upon that the student spend two additional years of employment in the Ministry for each year of training is stipulated. Promising students for graduate training include all those with excellent ratings for the summer 1985 course of training.

A second option for level three training is the establishment of a training institute in the Sudan. If USAID would support a institute, training could be done at much lower cost and could also be provided for personnel from all sectors of government, as well as USAID employees. The institute could be staffed by computer science faculty at Sudanese universities, as well as very good students from within the Sudanese government. It could possibly be established in connection with the new

private university in Omdurman. It would also provide a rewarding career path for highly skilled computer personnel, and help slow the inevitable drain of computer specialists to the private sector. Perhaps the institute could even provide computer training for personnel from outside Sudan, and eventually begin work on developing Arabic language software as well.

For the broad training of many persons to level two competence, we recommend the establishment of a training center, as part of the MIS unit, within the Ministry of Finance and Economic Planning. The center would provide training for all Ministry personnel from both the Planning and Finance sides of the Ministry. It would require additional computer hardware and software, more adequate staffing, and technical support from USAID until enough level three personnel are available for the center to provide its own training.

Finally, for senior staff, we propose special, individually tailored training. Since it would probably be awkward for Sudanese junior staff to train senior officials, technical consultants would need to be provided for this work. Perhaps each individual course would take place within the official's office, extend for ten hours a week over two to three weeks, and include the provision of a desktop computer for the senior official. If his or her department had use for it, the official could keep the computer in place at the end of the training course.

Table 1

Student Final Ratings and Exam Scores

Student Name	Rating	Score
Abdalla Ibrahim Ali	Very good	47
Abdel Moniem Saeed	Excellent	--
Abdelrhman Khalid Mohamed Ali	Good	44
Afaf Abo Sef	Fair	38
Ahmed Awad Elkarim Ballah	Fair	--
Ali Mohamed Khier Ali	Very good	49
Amira Bashir Ishaq	Excellent	--
Azhari Idris Bakhiet	Excellent	49
Elsiddig Elkhalil Bilal Osman	Excellent	41
Faiza Awad Mohamed	Good	--
Hassan Ahmed Abdelnabi Ahmed	Excellent	48
Hyder A Gasim Mohamed	Very good	48
Hyder Abdella Elsheikh	Fair	40
Ibrahim Ahmed Onour	Good	42
Ibrahim Siddig Mohamed	Very good	46
Khadiga Ismael Magdoub	Good	47
Mutasim Elshiekh Mohamed	Very good	50
Nemat Osman Mohamed Hassan	Fair	26
Salah Ibrahim	Very good	45
Salih Mahdi Umbadda	Excellent	50
Salwa Salama	Good	45
Sanna A Elgalil Imam	Excellent	49
Widad Abdel Mutaal Osman	Excellent	51
Zein El Abdein Ali Seid Ahmed	Excellent	51

Table 2

Crosstabulation of Evaluation and Exam Score

		Evaluation				
		Excellent	Very Good	Good	Fair	ALL
S	--	2	0	1	1	4
C	26	0	0	0	1	1
O	38	0	0	0	1	1
R	40	0	0	0	1	1
E	41	1	0	0	0	1
	42	0	0	1	0	1
	44	0	0	1	0	1
	45	0	1	1	0	2
	46	0	1	0	0	1
	47	0	1	1	0	2
	48	1	1	0	0	2
	49	2	1	0	0	3
	50	1	1	0	0	2
	51	2	0	0	0	2
ALL		9	6	5	4	24

Table 3

Crosstabulation of Evaluation and University

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
AMERICAN UNIV.(DC)	1	0	0	0	1
CAIRO UNIVERSITY	0	1	0	0	1
PEOPLE'S FRIEND. U.	0	1	0	0	1
U. OF ALEXANDRIA	1	2	0	0	3
U. OF KHARTOUM	5	2	3	1	11
U.CAIRO:KHARTOUM	2	0	2	3	7
ALL	9	6	5	4	24

Table 4

Crosstabulation of Evaluation and Years Employed

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
0 TO 1	3	2	1	1	7
1 TO 2	0	1	2	2	5
2 TO 3	3	0	2	0	5
3 TO 4	1	2	0	0	3
4 TO 5	0	0	0	1	1
5 TO 6	1	1	0	0	2
6 -- 7	1	0	0	0	1
ALL	9	6	5	4	24

Table 5

Crosstabulation of Evaluation and Years Employed in Current Position

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
0 TO 1	3	3	1	2	9
1 TO 2	4	1	4	0	9
2 TO 3	1	0	0	1	2
3 TO 4	1	1	0	0	2
4 -- 5	0	1	0	1	2
ALL	9	6	5	4	24

Table 6

Crosstabulation of Evaluation and Age

		Evaluation				
		Excellent	Very Good	Good	Fair	ALL
A	24	0	1	1	1	3
G	25	2	0	0	1	3
E	26	3	2	2	1	8
	27	0	0	2	0	2
	28	4	0	0	0	4
	29	0	2	0	1	3
	30	0	1	0	0	1
ALL		9	6	5	4	24

Table 7

Crosstabulation of Evaluation and Job Title

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
ACCOUNT INSPECTOR	0	0	1	0	1
ASSIST. FOR USAID	1	0	1	0	2
ASSIST. INSPECTOR	3	2	0	3	8
IAT. TRAINING OFFICER	1	0	0	0	1
PLAN. INSPECTOR	4	4	3	1	12
ALL	9	6	5	4	24

Table 8

Crosstabulation of Evaluation and Sex

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
'emale	3	0	3	2	8
lale	6	6	2	2	16
LL	9	6	5	4	24

Table 9

Crosstabulation of Evaluation and University Subject of Study

		Evaluation				
		Excellent	Very Good	Good	Fair	ALL
S	Accounting	0	1	0	1	2
u	Agric. Econ.	1	1	0	0	2
b	Agriculture	0	0	1	0	1
j	Economics	6	2	1	0	9
e	Geography	0	0	1	0	1
c	Unknown	2	2	2	3	9
t						
	ALL	9	6	5	4	24

Table 10

Crosstabulation of Evaluation and Desire for New Skills

		Evaluation				
		Excellent	Very Good	Good	Fair	ALL
New Skill	1	6	4	3	2	15
	2	3	0	1	1	5
	3	0	2	0	0	2
	4	0	0	1	0	1
	5	0	0	0	1	1
	ALL	9	6	5	4	24

Note: 1 means this factor was very important in motivating the student to take the training course, 5 means this factor was not very important.

Table 11

Crosstabulation of Evaluation and Desire for Promotion

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
1	1	1	1	0	3
2	0	0	1	1	2
3	3	1	0	1	5
4	3	3	3	1	10
5	2	1	0	1	4
ALL	9	6	5	4	24

Note: 1 means this factor was very important in motivating the student to take the training course, 5 means this factor was not very important.

Table 12

Crosstabulation of Evaluation and Personal Interest

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
1	7	1	5	2	15
2	2	4	0	0	6
3	0	0	0	1	1
ALL	9	6	5	4	24

Note: 1 means this factor was very important in motivating the student to take the training course, 5 means this factor was not very important.

Table 13

Crosstabulation of Evaluation and Need for Computer in Job

		Evaluation				
		Excellent	Very Good	Good	Fair	ALL
Job Need	1	3	3	2	2	10
	2	5	2	2	2	11
	3	1	0	0	0	1
	4	0	1	0	0	1
	5	0	0	1	0	1
	ALL	9	6	5	4	24

Note: 1 means this factor was very important in motivating the student to take the training course, 5 means this factor was not very important.

Table 14

Crosstabulation of Evaluation and Type of Job Wanted

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
Computer job	4	3	2	1	10
Current job	5	3	3	3	14
ALL	9	6	5	4	24

Table 15

Crosstabulation of Evaluation and Previous Experience with Computers

	Evaluation				
	Excellent	Very Good	Good	Fair	ALL
Yes	4	1	3	1	9
No	5	5	2	3	15
ALL	9	6	5	4	24

Table 16

Crosstabulation of Evaluation and Typing Skills

		Evaluation				
		Excellent	Very Good	Good	Fair	ALL
Typing	Yes	3	1	1	1	6
	Slight	1	0	0	1	2
	No	5	5	4	2	16
	ALL	9	6	5	4	24

Table 17:
QUESTIONAIRE FOR SHORT COURSE PARTICIPANTS
MANAGEMENT INFORMATION SYSTEMS UNIT
PLANNING SECTION, MINISTRY OF FINANCE AND ECONOMIC PLANNING

NAME: _____

AGE: _____ SEX: male female

1. What degrees of level of training do you have?

2. What university (or universities) did you attend?

3. What is your current position?

4. How long have you worked in the Ministry?

5. How long have you been in your current job?

6. What was your previous job?

7. Have you had any previous experience with computers? (If so, please describe it.)

8. Before this course began, did you know how to type?

9. What do you think are the best things about computers?

10. What do you think are the worst things about computers?

Table 17 (cont.)

11. How important to you were the following possible reasons for taking this course? (Circle the most appropriate number.)

	very important				not important
a. request from supervisor	1	2	3	4	5
b. personal interest in computers	1	2	3	4	5
c. general desire for new skills	1	2	3	4	5
d. need computers in current job	1	2	3	4	5
e. desire for promotion or new job	1	2	3	4	5

12. What are your main goals for learning in this course?

13. How do you think you are likely to use computers in your current job?

14. Do you think that the computer training you are receiving is likely to lead to a promotion or a new job for you?

15. After the course, do you think you will prefer to stay in your current job or work primarily with computers? (Circle one.)

current job computer specialist

16. What do you think are some of the most important tasks you think computers might perform for the Ministry?

Table 17 (cont.)

17. How important do you think the computer will be for each of the following tasks in the work of the Ministry?

	very important				not important
a. financial management	1	2	3	4	5
b. preparation of plans	1	2	3	4	5
c. record keeping	1	2	3	4	5
d. word processing	1	2	3	4	5
e. statistical analysis	1	2	3	4	5
f. project management	1	2	3	4	5
g. budget preparation	1	2	3	4	5

18. How important are the following possible obstacles to the use of computers in the Ministry?

	very important				not important
a. lack of skilled operators	1	2	3	4	5
b. not knowing what computers can do	1	2	3	4	5
c. expense	1	2	3	4	5
d. availability of computers and supplies	1	2	3	4	5
e. electrical power	1	2	3	4	5
f. shortage of Arabic materials	1	2	3	4	5
g. maintenance	1	2	3	4	5

19. How important a role do you think computers will play in the Sudan's ecomonic development?

very important				not important
1	2	3	4	5

20. How long do you think it takes to become proficient in computer use?

_____ 6 weeks or less _____ 6 months or less

_____ 1 or 2 years _____ longer

21. What do you think is the cost of an IBM computer system, such as the ones in this room? (not including import duties)

_____ less than LS5000 _____ LS5000-10000

_____ LS10000-15000 _____ more than LS15000

3. Software Development

3.1. Software Development: Financial Accounting System

3.1.1 Background

At the December, 1983, Consultative Group meeting for Sudan, the donors agreed to support the efforts of the Joint Monitoring Committee to determine the reasons for the slow disbursements of aid commitments. Both the Government of Sudan and the donors agreed that disbursements were moving slowly, but they differed on the causes. Donors generally felt that cumbersome GOS procedures and an inability to comply promptly with their accounting requirements were hindering their disbursement. Some expressed the feeling that this was partly due to the deteriorating staff situation in the public sector. On the other hand, officials of the Ministry of Finance and Economic Planning complained that each donor had different, complicated disbursement requirements and that whether intentionally or not donors were slowing down their aid disbursements, and the resources in the aid pipeline were growing.

When we arrived in Khartoum in July, 1984 to start our consultancy, both USAID and the MFEP officials with whom we talked expressed an interest in trying to resolve this issue and in using microcomputeres to improve disbursement reporting procedures. Two of our initial tasks were thus (1) to study the flow of paperwork on foreign loans and grants in order to understand why the status of disbursements was not readily available, and (2) to study the accounting procedures utilized by the Accounting Department attached to the Foreign Aid

Administration department in the Planning Wing of the MOFEP.

3.1.2. The Flow of Paperwork Associated with Foreign Loans and Grants

Although there are exceptions, the paperwork for a typical grant or loan for a development project would proceed in the following manner. The project should first be prepared by the Project Preparation Unit and/or one of the sector divisions in the Planning Wing of MOFEP (Agriculture, Services, Industry, Transportation and Communications, Power, Regional Development). If it is decided that the project is worth funding, it would be included in the three-year, rolling preinvestment plan. The preinvestment program would ideally be submitted to donors to serve as a basis for negotiations on aid assistance. In practice donors often take their own initiatives in project development.

If negotiations with a donor on the project are successful, MOFEP authorizes the Sudanese Ambassador in the country of the donor to sign the agreement. After this signature, the agreement must be ratified in Sudan; this is typically required by the donor to insure that the loan agreement is a legally binding instrument within the Sudanese legal system. Copies of the agreement are thus sent to the Sudanese Attorney General for Ratification, and the Ministry of Finance and Economic Planning is notified of the ratification (we were told this normally takes about ten days). Copies are then made of the following seven documents:

1. Agreement (in Arabic)
2. Agreement (translation)
3. Memo prepared by the Minister of Finance and Economic Planning
4. Ratification document in English
5. " " " Arabic
6. Certification of the Attorney General
7. Certificate of the Minister that the project funds will be

used for development purposes

All project documents are then sent to the Presidential Council and forwarded to the President. If the President signs the Agreement, it is sent to the Attorney General, who certifies that all the legal procedures have been correctly completed. The agreement is then sent to the donor, who declares it to be effective. The GOS can then begin project implementation. This process from the date of the agreement until the date of its effectiveness may take three to five months, and is considered part of the normal delay in aid disbursement.

The unit of the GOS which has the responsibility for executing the project can now draw down the funds in the project account. The implementing agency may initiate contracting procedures for obtaining goods and services, and then submit an "Application for Payment," or a "Request for Payment" to the Minister of Finance and Economic Planning for his approval. The Minister or Director of the executing unit will authorize an individual to sign such "Application for Payment" forms for the project loan. This letter of authorization is then signed by the Minister of Finance and Economic Planning.

The executing unit fills in the Application for Payment form, which specifies, for example, that a contractor requires an advance payment or needs to be reimbursed for goods or services provided. The form is sent to MOFEP, where it is examined by the Foreign Aid Administration department. This Foreign Loans department has a Director (a Deputy Undersecretary), four Assistant Deputy Undersecretaries, six senior inspectors, and six inspectors. Mr. Sayed Yousri M. Gabr is presently the Director of

the Foreign Loans Department.

The staff of the Foreign Loans Department, often referred to as "Desk Officers", are responsible for the loan and grant agreements with the donors. Each Desk Officer is assigned a few specific countries for which he is responsible. Thus, someone is in charge of all agreements with a handful of bilateral donors, and another for a few of the multilateral donors. Each Desk Officer keeps files for their agreements. Our study of some of these files indicates that varying amounts of project management is done by the Desk Officers, but they do not keep accounts for the loan; this is done in the Accounting Department attached to the Foreign Loans Department.

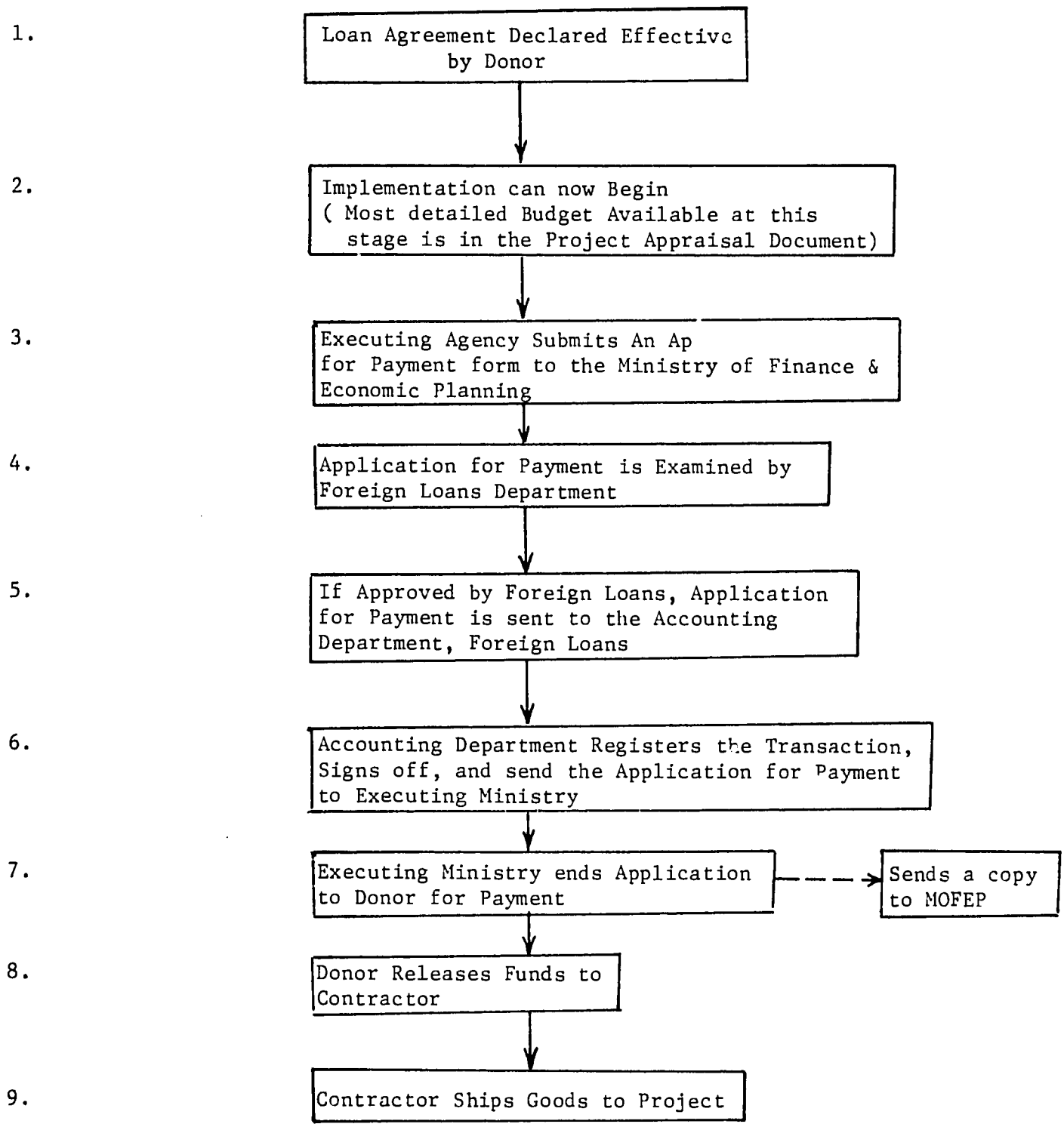
If the Desk Officer and then Mr. Yousri sign off on the Application for Payment, it is sent to the Accounting Department, which is presently headed by Mr. Hamsa Doka. The staff of the Accounting Department are seconded to the Planning Wing, and are thus not actually employees of the Foreign Loans Department. The Accounting Department theoretically checks in its ledger, or account, books to ensure that the funds requested in the Application for Payment are actually available for disbursement. If the Accounting department authorizes payment, the Application for Payment is then sent either to the donor for payment, or to the executing unit, which forwards it to the donor for payment. The donor then releases the monies to the contractor's bank. The donor then sends a "disbursement voucher" or notification back to the Ministry of Finance and Economic Planning that a certain amount has been disbursed. This disbursment voucher also records

the "value date", or the date on which the monies were actually released and a specific exchange rate was used to calculate the amount to be charged against the loan. The Accounting department keeps these disbursement vouchers in a file for each loan or grant, and records the disbursement in its ledger book. If the terms of the loan are not met the donor sends a letter to the Ministry of Finance and Economic Planning indicating the nature of the problem. Figure 1 summarizes this set of procedures.

It is important to note that the Accounting department does not at any time actually handle monies; it is simply the last authorization required for their release by the donor agency. The accounting department attempts to keep a record of the Applications for Payment and the disbursement vouchers to see if the amounts correspond. Theoretically, if there is a difference between the amount requested and the amount disbursed, the Ministry should pursue the matter and attempt to reconcile the difference. In practice neither the authorization of the accounting department nor of the Desk Officer serves as an adequate check on the financial status of an agreement. The Desk Officers do not attempt to keep books on the applications for payment which they sign (in fact, we were told that they keep the account balances in their heads). Applications for Payment are rarely (if ever) rejected by either the Accounting department or the Foreign Aid Administration. Also, the Accounting department makes no attempt to calculate or keep track of repayments (or lack there of) on the loans; they are simply trying to keep track of the disbursements.

The Accounting department does attempt to prepare monthly

Figure 1 : Schematic of Paperwork Flow for Project Grant or Loan



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reports on the status of active loans and grants, but this is a very time consuming process, and it is typically far behind schedule. The running totals are not kept in the ledger books in the Accounting department so that timely information on current balances is not readily available to decisionmakers in the Ministry. Moreover, the ledger books are kept only by agreement, with the agreements organized by donor. If a project has several donors, there is currently no easy means of obtaining an accounting for the entire project.

The procedures described above provide a general outline of what occurs in perhaps 75% of the outstanding loans and grants. One of the major problems facing the Ministry in its attempt to keep better records is the fact that some bilateral donors make disbursements directly to their contractors without notifiying the Ministry. In such situations it is obviously impossible for the Ministry to keep accurate accounts of its loans and grants.

3.1.3. Description of the Financial Accounting System Software

It was clear from our discussions with Ministry officials that the present accounting procedures were not adequately serving the Ministry's needs. It is not possible for the present accounting system to provide even the most basic information on a timely basis, and thus management decisions are made without adequate knowledge of the financial status of various projects. Accounting information is not available to the sectoral offices in the Ministry for planning and budgeting operations; specifically, the accounting information is not available for use during the preparation of the annual budget. The existing set of

accounting procedures is essentially a "sink" for information: information goes in but little comes out. The account or "ledger" books presently kept by the accounting department are only balanced when a special request is made for a report on grants and loans, or disbursements. Such a report typically proves time consuming and difficult to prepare, when in fact it should be a simple and routine exercise. What is needed is a "transaction-based" accounting system which is always kept up-to-date. By "transaction-based" we mean simply a system of accounts for which each request for payment is entered and each disbursement voucher is recorded and compared with the request. Running totals should be kept on both requests for payment and disbursements so that current balances are always available, such as checkbook for a personal checking account.

Such a set of books would at first appear so simple to establish and maintain that it is easy to be overly critical of the accounting department--and also to wonder why a microcomputer would be required. However, even a very simple accounting system for foreign grants and loans confronts one difficult question: how to deal with the multiple currencies involved and fluctuating exchange rates.

An example will illustrate the nature of the problem. A loan or grant is typically established in one donor currency, such as French francs, and all payments from the account are ultimately debited in this "currency of the loan agreement." Requests for payment from the loan account, however, are generally made in many different currencies. This occurs because contractors from

different countries may be working on the same project, and they may invoice the Government of Sudan in their own currency. For example, an English contractor may submit an invoice in pounds sterling to be paid from a IBRD loan which is denominated in US$ or special drawing rights. This invoice must be approved for payment by the executing unit of the Government of Sudan and then approved by the Foreign Aid Administration Department in the Ministry.

The problem this poses for the accounting department is easy to understand. The request for payment is recorded in the ledger books in the currency of the invoice, not the currency of the loan agreement. Since the requests for payment must be entered in several different currencies, it is not possible to total the requests for payment without converting each of them into the currency of the loan agreement. However, at the time the request for payment is entered in the ledger books, the accounting department does not know the exact exchange rate which the donor will use to convert the request for payment into the currency of the loan agreement. Thus, any conversion of the amount of the request for payment into the currency of the loan agreement (which is done at the time the request for payment is entered in the ledger books) must be an estimate of the amount which the donor will debit the account. The accounting department therefore needs to revise this estimate when the disbursement voucher is received from the donor, recalculate the amount of the request for payment in the currency of the loan agreement, and compare this figure with the amount disbursed by the donor.

There are several reasons, however, why actual disburse-

ments might differ from requests for payment. First, a donor might lose a request for payment, in which case the Ministry would need to be alerted as soon as possible so that it could reissue the request for payment. Second, the donor might have made a simple arithmetic error and paid the wrong amount. Third, a donor may disallow an invoice as inappropriate in the context of the terms of the loan, in which case the Ministry's account balances need to be adjusted. Fourth, as noted, currency fluctuations may result in a different amount being disbursed than the Ministry originally estimated. The Financial Accounting System is designed to catch discrepancies between the amount requested and the amount disbursed, but, except in the case of the currency fluctuations, it cannot determine precisely why the discrepancy has occurred.

Such a procedure has proved too difficult and tedious for the accounting department to do manually. However, even if the department were to revise the requests for payment in this manner, it is important to realize that some of the requests for payment would still typically be outstanding, so that any total of all of the requests for payment would still be an estimate.

To help solve this problem, the project team has designed a simple microcomputer-based financial accounting system which uses the widely available program Lotus 1-2-3. The FAS is designed to automate the currency conversions in the accounts in the simpliest way possible, and provide the Ministry with a tool which can perhaps best be imagined as an "electronic checkbook" for keeping the accounts for foreign grants and loans. The

Financial Accounting System (FAS) works in the following way. When a loan or grant is signed, an account is to be opened in the computer, and various background information are entered into the file for this account, including the amount of the loan and the currency of the agreement. When the first request for payment is received by the Ministry, it is entered into the computer, along with an estimate of the exchange rate which the donor will use to convert this amount of request into the currency of the loan agreement. The exchange rate can either be provided by the user or the system will provide a default value.

When the disbursement voucher is received, the information on the amount by which the account was debited will be entered, along with the exchange rate which was actually used by the donor. The computer then automatically recalculates the amount of the request using the final exchange rate. The balance on the account is always kept current and summary tables of the requests, disbursements, and balances can be printed at any time with one simple command. Specific examples of how the FAS can be used to reconstruct the financial information of existing loan accounts are presented in the User's Manual: Financial Accounting System (Draft 11/12/85).

The data entry process is very simple; the program is menu-driven and will prompt the user for the required information. Our experience during the summer, 1985 training workshop was that someone familiar with Lotus 1-2-3 commands could use the FAS effectively after a one-day training session. Difficulties arose in the training not because of any problems with the software, but rather from a lack of familiarity on the part of the trainees

with the set of procedures followed by the Foreign Loans Department.

Much more sophisticated accounting systems could, of course, have been designed and programmed, which would theoretically do many more things. But in practice we felt that they would be more likely to fail at the present time due to the shortage of trained personnel and the poor state of the financial records in the Ministry. The Lotus 1-2-3 system we designed cannot do as many things as more sophisticated accounting systems, but it can provide the essential information required by the Ministry, and it will be more "robust" than a complicated system, that is it will be much less likely to breakdown totally. For example, if the data collection or data entry procedures are disrupted for some of the accounts, with the Lotus system we will still have accurate accounts for the others. More sophisticated accounting systems would also be much more expensive and require much more technical assistance. In addition, they would make the Ministry heavily dependent on outside consultants for the operation and maintenance of the system. The accounting system designed by Peat Marwick for the Bank of Sudan exemplifies this problem: the calculations of the payments due on Sudan's outstanding foreign debt is for all practical purposes done in London by expatriot advisors. We consider this an inappropriate and unacceptable long run solution for the Ministry.

The implementation of the Financial Accounting System within the Ministry requires that the Undersecretary make two strategic decisions: (1) designate the responsible unit for establishing

and maintaining the computerized project accounts, and (2) determine where the implementation effort should begin, ie. on old or new accounts. With regard to the former, we see three basic organizational options:

1. MIS unit
2. Accounting department
3. Foreign Aid Administration

We favor placing responsibility for the financial accounting system with the foreign loans department for the following reasons. If the new MIS unit were to try to keep the accounts for foreign loans and grants, it would need to receive copies of both the requests for payment and the disbursement vouchers in a timely fashion. We believe that establishing a new set of paperwork procedures which would entail making additional paper copies is both impractical and unnecessary. Moreover, the staff of the MIS unit is not particularly familiar with the accounting procedures of the different donors. We believe that the appropriate role for the MIS staff in the establishment of the financial accounting system is to provide technical assistance and support, as well as training.

Establishing the financial accounting system in the accounting department is one option which deserves more serious consideration. The personnel in the accounting section are already familiar with the accounts in the existing ledger books and files, and the new Lotus system would make their present job much easier. Moreover, we have already provided training for several staff from the accounting section in the use of Lotus and the FAS. We believe that with additional training the staff of the accounting section could use the FAS effectively, but we like

the third option better: locating the responsibility with the desk officers in the Foreign Loans department.

There are two reasons why we think this is the best option. First, the desk officers know more about the specific accounts under their responsibility than anyone else, and would thus best understand the data which need to be entered into the system. They are the individuals most likely to catch an error in the data before entering it in the computer, and in general would recognize when something is wrong and raise questions. This is very important if the quality of the data in the system is to be maintained.

Second, the desk officers are the people who have the most immediate need for the information the system will provide. They will not need to rely on someone else to provide them with the information they need. They should thus have the incentive to keep the accounts for loans for which they are responsible in good shape. In order for the system to work properly,the desk officers must receive the disbursement vouchers or copies of the disbursement vouchers from the donors or Hamsa Doka.

During the course of the project, two main arguments were expressed to us as to why the desk officers may not be the appropriate individuals to establish and maintain the financial accounting system we have designed. First, it is argued that they do not have the time, that they are too busy. In fact, we believe the new financial accounting system will save them time. Keeping the accounts for their grants and loans should not be a time consuming activity. After the accounts are set up in the computer

and the desk officers are trained in the use of the FAS, we do not anticipate that it would require more than 30 minutes a week for a desk officer to enter the latest transactions and keep the accounts up-to-date. Most of the time it will probably not take him 15 minutes per week.

The second argument expressed against relying on the desk officers is that they are highly trained people, and this proposal would ask them to do "clerical" work, essentially turning executives into clerks. If this were the case, the desk officers might well not cooperate. We believe, however, that our proposal would do the exact opposite: it will enable the desk officers to assume more managerial responsibility because they will have access to more of the information they need to make management decisions. All over the world managers in organizations are turning to microcomputers to assist them with strategic planning functions. We do not see any reason why microcomputers cannot serve the desk officers in a similiar fashion.

If the Ministry decides to place the responsibility for the financial accounting system with the desk officers, this decision has several important implications. First, training must be arranged. Unfortunately, the senior desk officers did not participate in the training workshop offered during the summer of 1985, and an opportunity was lost to make a fast start on the implementation of the system. Although the system is relatively easy to use, we feel the desk officers should have a general familiarity with microcomputers such as was presented during the summer training course.

Second, the Undersecretary must decide where to begin. We

have attempted to reconstruct the accounts for about ten loans (some of these are presents in the User's Manual). It is a tedious process and many times we have questions which are not easily resolved by the accounting department. This presents a problem: for the existing grants and loans there is no accurate baseline balance from which to begin keep track of the account transaction by transaction. For some purposes the balances we obtained from the donors in response to the Undersecretary's letter of August 22, 1984, may be good enough. The reconstruction of the accounts will, however, take time, and we recommend that the new financial accounting system be implemented immediately for all new loans and grants and aid agreements.

3.2. Software Development: Project Directroy

3.2.1. Background

The establishment of a microcomputer-based project directory of development activities in Sudan was the initial impetus for our MIS project. Although the system subsequently became somewhat more complicated, the initial idea was to create a database using commercially available software (dBaseIII). Each record in the database would contain various kinds of information on a specific development project. The user could easily search the project database for projects of a certain type (eg. all agricultural and irrigation projects in a particular region, or all energy projects funded by Western European donors which are behind schedule).

The Project Directory was to serve two primary objectives. First, a centralized, easily accessible project directory would provide an overview of donor-financed development activities, and promote the dissemination of information on projects among donors. The MOFEP staff could prepare reports in response to specific requests from donors or government agencies for project information. This would encourage donor coordination and communication.

Although conceptually simple, the importance of this objective of information storage and dissemination should not be underestimated. The institutional memory of donor organizations in countries such as Sudan is quite short due to short staff assignments, and there is an urgent need for basic data on project activities. Paper records are poorly maintained, and project reports are not widely circulated.

The second objective, and ultimately the more important, was to begin to establish a project database which would support an improved planning and budgeting system within the MOFEP. An up-to-date, centralized project database is essential for (1) the preparation of the development budget, (2) sectoral planning, and (3) project monitoring and evaluation. One major purpose would be to provide the Ministry with an early warning system for implementation and financial problems on projects.

These two objectives, however, pose somewhat different data requirements. The objective of donor collection and information storage and dissemination can be largely accomplished with static, background data that do not need frequent updating. In order to fully support the MOFEP's planning and budgeting activities, however, the project directory needs to include information on the physical implementation of the project and an up-to-date record of past and projected expenditures. The later is needed to estimate future financial requirements and recurrent costs. Such data needed to be much more frequently up-dated to be useful in terms of integrating financial and physical implementation.

On the other hand, the objective of donor coordination required more information on completed projects than did the objective of improved planning and budgeting. For a donor considering a reforestation project in Darfur, it could be vital to learn of the experiences of two similar projects funded by other donors and completed four years ago. Such historical information would be of little use in project monitoring. One of the princi-

pal decisions in the design of the project database was thus to find a reasonable balance between the data requirements necessary to meet these two objectives.

The need for a centralized set of data on development project activities was widely recognized within the MOFEP and the donor community when our project began. The April, 1984 World Bank report, Sudan: Planning and Budgeting for Recovery, by R. Ridker, called for the establishment of a centralized project directory, and actually proposed two project data forms for use in system design and data collection (included in Appendix C). The MOFEP itself had made several previous attempts to collect project data, and various forms were available in the Ministry (three of these are also included in Appendix C). As one example, we were shown a collection of handwritten index cards with project loan information. For illustrative purposes, the data from these index cards are presented in Appendix F. In addition, project proformas were drafted by the UNDP Advisors to the MOFEP, and the Planning wing sent the forms out in June, 1983, to the implementing agencies to complete. However, despite repeated assurances that the completed forms were available within the Ministry's files, the data could never be located. At any rate, nothing had ever been done with the data collected; no reports had been prepared. In our opinion, the actual processing and management of the records for approximately 250 on-going donor-financed development projects and 750 loans and grants proved a major impediment to both simple data analysis and improved planning and budgeting procedures.

The Bank of Sudan has centralized files of project loans, but

these data are not easily available to the Planning Wing of the MOFEP. Moreover, the Bank of Sudan naturally focuses on financial data and its records do not include much of the data required by the MOFEP for project monitoring and evaluation.

Some project information was prepared by the donors themselves. In theory the UNDP sends out a simple questionaire to donors every year which asks for data on the project title and number, sector and location, source of assistance, assistance committed to date and total over the life of the project, project duration, and a brief description of the nature of the assistance. A report is then prepared which is simply a compilation of the responses received to the questionaire. In practice, this report seems to be published every couple of years, and provides only the most minimal data on donor activities. Each of the bilateral and multilateral donors keeps various kinds of summary documents on their on-going activities, some of which are quite detailed and useful. However, there is, of course, no uniformity in the way project data are reported or maintained. In 1983 USAID prepared a partial list of on-going development projects in Sudan, but was unable to keep it up to date.

3.2.2. Description of the Project Directory

The Project Directory is divided into two parts: the Ministry Directory and the Donor Directory. These parts are technically separate subsystems, stored on different diskettes. Each subsystem has a different source of information with its own input form. Data from the Ministry Directory come from the

internal records of the MOFEP. Data for the Donor Directory come from the various bilateral and multilateral donors who make grants and loans to Sudan. While much of the information on the two subsystems is similar, some of it is different. This is because the records of the Ministry and a donor may disagree. We had to design these two subsystems because it was not yet possible to resolve differences in the information received from the Ministry records and the donors. This reconciliation of the data from different sources remains to be done, and is a major task for the MIS Unit.

Although there are two different subsystems for the Project Directory, they function in exactly the same way. The main menu and its options are identical on each subsystem. The instruc tions for using the two subsystems are the same, and there are only a few minor differences in the structure of the two subsys-tems (These differences are discussed in the Users' Manual).

The Ministry Directory and Donor Directory <u>each</u> consist of two <u>databases</u>: (1) a Project database, and (2) a Donor database. The Project database (in both the Ministry Directory and the Donor Directory) has one record for each project and contains most of the information relating to that project. The Donor database has one record for every donor associated with a single project. There may be several donor records for one project or there may be none.

Data for the Project Directory come from the records of the MOFEP and from information provided by the bilateral and multilateral lenders. Input forms titled PROJECT DATA SHEET

(MOFEP) are used to collect data for the Ministry Directory. Input forms titled PROJECT DATA SHEET (DONORS) are used to collect data for the Donor Directory (Examples of these forms are included in Appendix C). The data for each database is taken directly from the relevant input form. The donor data is taken from item 16 of the input form PROJECT DATA SHEET (DONORS), and from item 17 of the input form PROJECT DATA SHEET (MOFEP). The project data is taken from the rest of the form.

Table 18 presents the structure of the Project database. Table 19 presents the structure of the Donor database. These two lists of the kinds of information (or "fields") included in the two databases illustrate why two databases were, in fact, required for each Directory. Suppose that only the Project database were used. If a project had multiple donors, then the Project database would have to include the fields in the Donor database for every donor participating in the project. Although most projects are only supported by one or two donors, space would have to be reserved in the database for the maximum possible number of donors. The use of a Project database and a Donor database is thus more efficient. The Users' Manual fully explains how to use the Project Directory and provides documentation for all the dBase III programs.

3.2.3. Data Collection

By far the most difficult part of establishing the Project Directory was the collection of the data to put into the system. In Khartoum there were three primary places where project data might be located: (1) Ministry of Finance and Economic Planning

Table 18 : Structure of the Project Database

1.	MISPROJID	- Management Information System internal project identification number. Each project in the database is assigned a unique identification number by the MIS staff.
2.	PERSENTER	- The name of the person entering the data form into the computer.
3.	DONOR	- For records containing project information received from donors, this field lists the name of the donor providing the information. For records with information provided by MFEP, this field is blank.
4.	PREPYEAR	- The year in which the form was prepared.
5.	PREPMON	- The month in which the form was prepared.
6.	PRIDNO	- For MFEP forms, this is the internal Ministry project number. For Donor forms this is the donor's project number.
7.	TITLE	- The short title of the project.
8.	SECTOR	- The official government economic sector within which the project lies.
9.	SUBSECTOR	- The official government economic subsector within which the project lies.
10.	REGION	- The geographic region of Sudan, or overseas location in which the major portion of the project activity takes place.
11.	OBJECTIVES	- Text of the overall project objectives.
12.	STATUS	- Whether the project is proposed, under negotiation, being implemented, completed, suspended, or cancelled.
13.	DESCRIPT	- Text briefly describing the project.
14.	INPUTS	- Text listing major project resource inputs.
15.	OUTPUTS	- Text listing major project outputs.
16.	TARGETS	- Text describing intended target groups, or project beneficiaries.
17.	DURATION	- Duration of the project in years.
18.	STARTYEAR1	- Original starting year of the project.
19.	STARTMON1	- Original starting month of the project.
20.	STARTYEAR2	- Revised starting year of the project.
21.	STARTMON2	- Revised starting month of the project.
22.	COMPYEAR1	- Original completion year of the project.
23.	COMPMON1	- Original completion month of the project.
24.	COMPYEAR2	- Revised completion year of the project.
25.	COMPMON2	- Revised completion month of the project.
26.	CENTRALMIN	- Responsible central ministry or Sudanese executing agency.
27.	DEPARTMENT	- Responsible department of Sudanese executing agency.
28.	CONTNAME	- Name of principal Sudanese contact person.

Table 18 : Structure of the Project Database (cont.)

29.	CONTPOSITN	- Position held by principal Sudanese contact person.
30.	CONTORGNIZ	- Organization of principal Sudanese contact person.
31.	CONTPHONE	- Telephone number of principal Sudanese contact person.
32.	PROGRESS	- Whether progress is satisfactory, behind schedule, or ahead of schedule.
33.	PROGREMARK	- Text of remarks on project progress.
34.	TOTCOSTLS	- Total project cost in Sudanese pounds.
35.	TOTCOSTDOL	- Total project cost in U.S. dollars.
36.	FORCURRENC	- Foreign currency used to calculate project costs for donors. (This is not available on forms from the Ministry.)
37.	FORCOSTAMT	- Amount of foreign donor contributions for all donors, in foreign currency. (Not available on Ministry forms.)
38.	EXCHRATE	- Assumed exchange rate for convering foreign currency contributions to equivalent Sudanese pounds. (Not available on Ministry forms.)
39.	EQUIVLS	- Equivalent in Sudanese pounds of foreign donor contributions for all donors. (Not available on Ministry forms.)
40.	FORLSCNTRB	- Direct foreign contribution of Sudanese pounds to project. (Not available on Ministry forms.)
41.	SUDLSCNTRB	- Sudanese contribution to project cost in Sudanese pounds. (Not available on Ministry forms.)
42.	TODONCNTRB	- Total foreign donor contribution to project, the sum of EQUIVLS and FORLSCNTRB. (Not available on Ministry forms.
43.	COSTREVYR	- Year of the last revision (if any) of cost information. (Not available on Ministry forms.)
44.	COSTREVMON	- Month of the last revision (if any) of cost information. (Not available on Ministry forms.)
45.	SOURCE	- The source of the data: DONOR, or MINISTRY.

Table 19 : Structure of the Donor Database

1.	MISPROJID	- Management Information System internal project identification. Each project in the Project database is assigned a number. Every donor record in the Donor database contains the same number as the project with which it is associated.
2.	PERSENTER	- The name of the person entering the data form into the computer.
3.	DONOR	- The name of the donor.
4.	GRANT	- The amount of the grant being made by the donor.
5.	GRANTCURR	- The currency in which the grant is made.
6.	LOAN	- The amount of the loan being made by the donor.
7.	LOANCURR	- The currency in which the loan is made.
8.	TOTALCOMMT	- The total amount being supplied by the donor. This is the sum of GRANT and LOAN.
9.	CURRENCY	- The currency of the total donor amount.
10.	AGREEYEAR	- The year of the date of the loan or grant agreement.
11.	AGREEMON	- The month of the date of the loan or grant agreement.
12.	EFFECTYEAR	- The year of the effective date of the loan or grant.
13.	EFFECTMON	- The month of the effective date of the loan or grant.
14.	FRSTDSBYR	- The year of the date of the first disbursement made by the donor.
15.	FRSTDSBMON	- The month of the date of the first disbursement made by the donor.
16.	AMTDSB	- The total amount disbursed by the donor to date.
17.	AMTDSBYEAR	- The year of the date of the last disbursement made by the donor.
18.	AMTDSBMON	- The month of the date of the last disbursement made by the donor.
19.	DONORNAMES	- The names of any other donors associated with this project.

itself, (2) the Donor offices, and (3) the implementing agencies. During the first stage of our efforts we concentrated on the first two of these.

During our first trip to Khartoum in the summer of 1984, we worked with the UNDP advisor, Dr. A. Sattar, to devise a project data sheet which could be distributed to both the sector offices within the MOFEP and the donors. Our first data collection form was based on the forms already available in the MOFEP and the World Bank project proformas included in the Ridker report (1984). In August, 1984, staff from the Secretariat for the Joint Monitoring Committee and Prof. Whittington visited the heads of the sector offices within the MOFEP, explained our project to them, and requested that they assist us in completing the project data sheets. We had planned to return to Chapel Hill with enough completed project data sheets to establish a preliminary Project Directory. The few forms which were returned to us, however, were of low quality. After another effort by the MIS unit during the fall and winter to collect information from within the MOFEP, we concluded that the detailed project data required for the Project Directory was simply not available within the Planning Wing of the MOFEP.

In August, 1984, Prof. Whittington and staff from the Secretariat of the Joint Monitoring Committee personally visited the representatives of the major bilateral and international donors in Khartoum. The MIS project had been formally announced at the July, 1983 meeting of the Joint Monitoring Committee, and these subsequent visits provided an opportunity to explain the project objectives and solicit the donors' cooperation. In

Khartoum we visited the following donors: UNDP, World Bank, EEC, France, United Kingdom, Federal Republic of Germany, Italy, Japan, Netherlands, Switzerland, and USAID. In addition, on August 22, 1984, the UnderSecretary of Planning, Dr. E.A.A. Zaki, wrote to twenty two donors requesting their assistance in completing two forms: (1) PROJECT DATA SHEET (DONORS), and (2) DATA SHEET FOR AID AVAILABILITY AND DISBURSEMENT. The latter form was primarily intended to provide baseline data for the financial accounting system, but it also included some useful project data for the Project Directory. In addition to the eleven donors noted above, Dr. Zaki's letter (included in Appendix C) was sent to the following: Embassy of Denmark, African Development Bank, OPEC Fund for International Development, Kuwait Fund for Arab Economic Development, Islamic Development Bank, Abu Dhabi Fund for Economic and Social Development, Abu Dhabi Government, Saudi Fund for Development, Arab Fund for Economic and Social Development, UNCDF, and IFAD.

To the best of our knowledge, no replies were ever received from the following: UNDP, EEC, Federal Republic of Germany, Italy, Netherlands, Switzerland, World Bank, Kuwait Fund for Economic Development, or the Arab Fund for Economic and Social Development. Contrary to the expectations of the Western donors, by far the most complete, thorough, and fastest responses were received from the Arab donors. Many of the major Western donors never even bothered to answer the Undersecretary's letter; of those that did, several replied in a superficial and incomplete manner.

The Undersecretary's letter of August 24, 1984, actually only included the second form noted above, DATA SHEET FOR AID AVAILABILITY AND DISBURSEMENT; copies of the PROJECT DATA SHEET (DONORS) were not distributed until November, 1984. On January 5, 1985, Dr. Zaki again wrote to the donors requesting their assistance in the completion of the PROJECT DATA SHEET (DONOR) forms. Follow-up visits were made to the donors in January, March, and July, 1985, to again request their assistance in collecting these project data. By the summer of 1985, only two replies had been received: (1) a letter from the Federal Republic of Germany infomring the Undersecretary that they did not have time to fill out the forms, and (2) two project data sheets from the Swiss Embassy.

What is extraordinary about this experience is that the vast majority of donors did not even feel obiliged to answer the Undersecretary's letter of January, 1985, seemingly a simple, normal courtesy. Perhaps the experience with the World Bank best illustrates the lack of cooperation of most of the donors to this effort. The World Bank's own mission in March, 1984, called for a computerized project database. In the summer of 1984, Prof. Whittington spoke with World Bank representatives from both the Khartoum and Washington offices about the project. Changes suggested by World Bank representatives were incorporated in the PROJECT DATA SHEET (DONORS). World Bank staff continually promised to cooperate with the effort to establish a Project Directory in the Management Information System Unit of the MOFEP, but in fact never even answered either of the two letters from the Undersecretary. The World Bank never completed any of <u>either</u> of

the two data forms. In the summer of 1985, World Bank staff in Khartoum did allow us to work with selected World Bank documents and partially complete some of the project data sheets ourselves.

During the winter of 1985, staff of the MOFEP redesigned the project data sheets to more accurately reflect their needs, and sent them out to the implementing agencies under a cover letter from the Undersecretary, which requested their assistance in completing the forms. Personal visits were paid by MIS staff to several ministries to follow up this letter. By the summer of 1985, no responses had been received.

Our last data collection effort occurred during the summer of 1985. Using the Project Directory, we printed copies of the full Project Data Reports for every project for which we had any information, including whatever information was in databases. The reports were blank where informmation was not available. After we departed Khartoum in August, 1985, the MIS Unit planned to send these forms back to the donors, showing them what information was now in the Project Directory, and again requesting their asssitance in providing additional data.

Annex 1 includes three sets of project summary reports: (1) those completed from data obtained from the Ministry files, (2) those completed from data received from the donors' responses to the PROJECT DATA SHEET (DONORS), and (3) those completed from data from the donors' responses to DATA SHEET FOR AID AVAILABILITY AND DISBURSEMENT.

3.2.4. Reasons for the Donors Failure to Cooperate

There are several, interacting explanations for this failure of the donors to cooperate with the Ministry of Finance and Economic Planning and USAID in the establishment of a central depository of information on projects. We have categorized them into three groups: (1) reasons internal to the donor bureaucracy, (2) donor impressions of the external planning environment, and (3) donor impressions of the computer technology itself. All of these explanations were informally proffered to us by the donors themselves in followup interviews we made in the summer of 1985.

First, the donor bureaucracies are not structured to promote donor coordination. There are few bureaucratic incentives to individuals within donor bureaucracies to work with other donors. Donor coordination is hard and time consuming, and it is rarely rewarded in terms of professional evaluation or promotion. Both executives and more junior staff are evaluated by central offices, which have little awareness of efforts by their field staff to work with other donors. In fact, central office personnel evaluation procedures often foster competition between donors. An enterprising program officer who lets others know some of his "best" project ideas may well find them funded by other donors. On the other hand, many donor agencies make most of their major programming decisions at the central headquarters, so that individuals in the field may feel there is little they can do to promote donor coordination, even if they wanted to. Finally, the donor's field offices are typically understaffed relative to central headquarters, and the individuals of whom we requested assistance were often extremely busy.

Second, given the pressures on their time, donor representatives were forced to make a judgment as to (1) the likelihood of success of our effort to establish a computerized project data base, and (2) the effectiveness of such a system if it could be established. Too often, the subjective probability assigned to both of these events was low. The likelihood that we would succeed in creating the system in the first place was perceived to be low in part because each donor felt the other donors would not cooperate. Therefore each donor saw little reason to participate in the data collection effort themselves. The western bilateral donors in particular felt that the Arab donors would not cooperate. This is a classic free rider problem which we had hoped to address by reaching a collective agreement in the Joint Monitoring Committee to support this effort. In the end, however, the Joint Monitoring Committee failed to meet regularly, and there was little informal pressure which could be exerted on donors who did not participate.

The donors also had little regard for the efficacy of the Planning Wing of the Ministry. To many donor representatives, the Planning Wing was so ineffective as to be irrelevant to their objectives. Their primary interest in the planning ministry had become finding the easiest, fastest means of getting their projects approved and their funds disbursed. An effective planning operation in the Minisitry would inevitably entail less discretion on the part of the donors in programming their aid, and in the short run at least, this was perceived to be another obstacle to their aid program, rather than a necessary step in institutional development.

The issue of whether the effort would be successful had yet another twist: it was not clear to donors that they wanted it to succeed. As one representative of a private voluntary organization put it, "I don't really think you will be able to establish this microcomputer database, but what happens if you do? I see more problems for me than advantages. Why should I want to give the planning ministry the information to meddle in our affairs?"

Another, related reason the donors failed to cooperate was that the project was perceived to be too closely tied to USAID. For the Planning Wing of the MOFEP to have a centralized data base of development projects was bad enough; for USAID to be the only donor with such centralized information was even worse. At the July, 1984 Joint Monitoring Committee meeting at which this project was announced to the donors, both USAID and Ministry of Planning representatives assured the donor representatives that the data in the project directory would be available to all. However, the donors' skepticism is understandable in an environment where data is scarce, and typically treated as proprietary. There was a fear that the planning wing of MOFEP, and indirectly USAID, would have much greater access to the centralized database. Among at least one individual there was also an underlying apprehension about creating the institutional capability in what was then a military dictatorship to create and manage centralized data bases. This concern was not entirely groundless; within a matter of just a few weeks after the creation of the Management Information System Unit in the MOFEP, one of the USAID-supplied computers was commandeered by the security police (whose stated

objective was to set up a database of automobile license plates in Khartoum).

A third set of reasons for the donors' lack of cooperation relates to the technology itself. Individuals working for donor agencies in a place like Sudan can hardly be expected to be up-to-date in the latest microcomputer technology developments, and indeed they were not. They were thus unable to realistically evaluate the magnitude of the software development which we proposed and the likelihood that it would succeed. Many had had frustrating experiences with mainframe computers of some sort, and tended to extrapolate their horror stories to microcomputers. We encountered a wide range of skeptical comments about computers in general. At least five individuals must have independently prooffered us that sage advice, "Garbage in;garbage out"; by which they tended to imply that the effort was futile, not that they themselves should take care in giving the MOFEP high quality data. The message was really that computers were simply an appropriate technology in such a data-poor environment--that this was simply another example of a capital-intensive technology being pushed by donors without regard to the needs and capabilities of the local economy. We disagree with this line of reasoning, but it certainly deserves a serious intellectual treatment (see section 4).

In contrast to hardware issues, several donor representatives felt that the software development applications we proposed were far too sophisticated. In reality, the software development was by far the the easiest, most tractable, and least time consuming

part of our assignment. The maintenance of the software and training people in its use, on the other hand, is a serious concern.

3.3. SOFTWARE DEVELOPMENT: COMPUTERIZATION OF THE DEVELOPMENT BUDGET

In the spring of 1985, our project initiated the computerization of the preparation of the MOFEP's annual development budget. The annual development budget is a portion of the three-year rolling development budget, or three-year public investment program (TYPIP). The three-year development budget is the major part of the document entitled, Prospects, Programs, and Policies for Economic Development (PPPED), which examines the Sudanese economy's prospects for the current fiscal year and two years into the future. The three-year development budget itself is broken down by programs and projects. Expenditure categories are shown, as well as domestic and foreign currency components.

Our work in this area followed a long and rather extensive debate on improved development budgeting procedures in Sudan (for a summary, see Azhar, 1977; Ridker, 1984). The three-year rolling development budgeting exercise was started in 1980-1981, and replaced a more traditional six-year Development Plan. The PPPED was first published in October, 1982. A separate division of the Planning Wing of the MOFEP is responsible for the preparation of the development budget.

The TYPIP should be a major policy and planning document for the Government of Sudan, serving two major purposes: (1) to set investment priorities among competing public sector investments, and (2) to inform donors of the government's investment priorities and identify priority areas for donor support. In practice, the development budget has not been used to control or guide budget expenditures on investment projects; it has become a document

with largely symbolic importance rather than with actual fiscal authority. At least part of the failure of the planning and budgeting system is due to the Ministry's inability to collect and manage data on a timely basis. For example, because data are not available on the recurrent costs of public sector projects, new projects find their way into the development budget when resources are not even available to fund the recurrent costs of existing projects. As another example, the development budget is prepared without accurate information on actual expenditures on projects and programs during the previous year. The budget allocations bear little resemblance to either the actual needs of the project or the likelihood that funds will be made available.

The simple tasks of typing and summing columns in the document consume an enormous amount of staff time, and the division is left with little time for analysis or investment programming. It appeared to us that the physical production of the development budget posed a major constraint on serious thinking about what was in it. We felt the appropriate first step was to computerize the annual development budget in order to show the staff how easy the production of both the annual and the three-year development budget could be. To do this, we created five Lotus 1-2-3 spreadsheets, one for each of the following sectors of the annual development budget: (1) industrial, (2) energy and mining, (3) transport and communications, (4) services, and (5) agricultural. In addition, there is a summary spreadsheet. With a few minor exceptions, these spreadsheets simply replicated the budget presented in Development Programme Estimates for Fiscal Year 1983-

84, The Democratic Republic of the Sudan, MOFEP, in both format and substance. We have included a printout of these spreadsheets in Appendix D.

These spreadsheets of the annual development budget were easy to prepare and easily understood by the MIS staff which we trained. No special skills are required for the use of these spreadsheets other than a familarity with Lotus commands. Unlike the FAS, the development budget spreadsheets are not based on specially written macros. During the summer of 1985, these spreadsheets were used as part of our classroom training exercises; students from the various planning sectors worked with the portions of the budget with which they were responsible. Students quickly understood and were able to manipulate the budgets. The MIS Unit staff demonstrated to senior management in the MOFEP how changes could be made in the development budget, and the budgets totals immediately recalculated and printed. MIS staff also pointed out several arithmetric mistakes which the spreadsheets caught in the manually prepared figures.

Manipulation of budget figures and tables is such an ideal spreadsheet application that an obvious question to ask is why we did not start with such a straightforward microcomputer application. There were four reasons. First, we did not initially have a mandate to tackle any application which seemed to us appropriate; our ability to branch out into other problems grew over the life of the project. Second, the development budget was not of immediate interest to the members of the Joint Monitoring Committee, nor of immediate policy interest to USAID, in large part because it had such minimal influence on actual

expenditure decisions. Third, numerous Ministry staff would have been made redundant; this could have had negative ramifications for the project in its initial stages if it was generally perceived that the introduction of microcomputers would cost people their jobs. Fourth, we felt it necessary to first build the project and financial databases which would be ultimately be necessary for sound investment programming.

The response to the development budget spreadsheets from senior management was seemingly enthusiastic. Yet the Development Budget Division has not, to our knowledge, adopted these spreadsheets in their daily operations. Despite the initial reluctance to adopt the development budget spreadsheets, we feel that the computerization of the development budget will eventually be accepted within the Ministry. The savings in time and energy are significant, but more important will be the ability the spreadsheets give senior management, particularly the Undersecretary of Planning, to make last minute changes and revisions, and to thus respond to unforeseen developments. In retrospect, we underestimated the time it would take to train senior staff in the Budget Preparation Division in the use of the development budget spreadsheets. The advantages of computerizing the development budget seemed so obvious to us that we did not pay enough attention to the fact that there was not initially a strong proponent for changing the existing system. We should have paid greater attention to creating an advocate for such change.

3.4. Software Development: Spreadsheets for Commodity Aid Committee

Some public expenditures in Sudan do not go through the normal budgeting procedures. One example is direct comodity aid from the donors. Commodity aid is a significant portion of the total donor assistance to Sudan, and the Ministry's and the donors' concern over the delay in disbursements obviously extended to commodity assistance. As our scope of work expanded in July, 1984, to include the design of an improved system for financial accounts for project grants and loans, we also began to work with the Commodity Aid Committee of the MOFEP to assist with their data management problems. Since one of our objectives was to help understand the delay in disbursements, it was necessary to document both financial and commodity transactions.

The Committee Aid Committee (CAC) is under the Finance Wing of the MOFEP. It was established to provide a center to coordinate and rationalize the allocation of commodity aid to Sudan. Its current head, Dr. Mohamed Kheir Zubeir, is an economist with experience in the Planning Wing of the MOFEP. The CAC reports quarterly to the Minister on the utilization and disbursement of commodity aid.

In July and August, 1984, Profs. Whittington and Calhoun spent about two man-weeks reading the files of CAC in order to understand its recordkeeping system and data management procedures, and to determine how best to assist the CAC in its data management tasks. In summary, the system works as follows. Commodity aid is committed annually by the donors to the Government of Sudan. Commodity aid protoculs or agreements are

signed which detail the level of assistance which will be available from a specific donor and the terms of the agreement. Although most commodity agreements are negotiated annually, the disbursements from the commitment may continue over more than one year. Most commodity assistance to Sudan is now in the form of grants, not loans.

The Government of Sudan (GOS) sells the commodities it receives to Sudanese parties, both public and private, for local currency, thus generating local currency revenues for the GOS. The advantage for the parties that purchase the commodities is that they do not have to pay in foreign currency; the GOS obtains an additional source of revenue. Commodity aid is thus a major source of balance of payments assistance.

One of the tasks of the CAC is to determine which Sudanese parties should be entitled to purchase the commodity aid. For example, if France agrees to provide 100 automobiles, the CAC must allocate them among potential beneficiaries (commodity are not rationed by price). Thus, each year the CAC solicits requests from Sudanese parties for commodity aid, and attempts to establish priorities among them.

The CAC has about ten staff members in addition to the Director. Staff are assigned responsibility for maintaining the records for specific countries. USAID's PL480 and the Commodity Assistance Program (CIP) are so large that the detailed administration of them was handled by a separate office in the Planning Wing of the MOFEP.

In August, 1984, the CAC's reporting system was essentially

limited to a quarterly report which was based on data compiled by hand from the files of agreements for each country. This quarterly report attempted to provide a summary of the commodity aid disbursements under each aid agreement. The basic data included the following: (1) the beneficiary unit in Sudan, (2) the type of commodity, (3) the amount allocated, (4) the amount disbursed at the end of the quarter, (5) the amount at the tendering and contracting stage, and (6) information on the counterpart funds generated. The two main data collection and reporting forms used by the CAC are included in Appendix E. In practice, it proved impossible to keep up-to-date with either its own reporting requirements or the paperwork associated with commodity assistance, in part because each quarterly report had to be prepared anew. There was no transaction-based accounting system for the commodity aid agreements. The typing and arithmetic required for the preparation of the quarterly reports again posed a major obstacle to effective operation of the CAC; it was simply overwhelmed by the recordkeeping and data management tasks.

Based on our observation of the CAC records and reporting forms, in the fall of 1984 we designed a series of Lotus 1-2-3 spreadsheets to assist the CAC committee with its recordkeeping. These spreadsheets were based on two data collection forms which we designed (both the spreadsheets and the two data forms are included in Appendix E). The **COMMODITY ASSISTANCE DATA SHEET #1: AGREEMENTS**, was designed to collect baseline and background information on each commodity aid agreement signed, such as the name of the donor, the name of the agreement, the agreeement

number, the total commitment, the currency, the amount of grant and the amount of loan, the date of the agreement, the date of its effectiveness, the date of termination. In addition, a table was included to record quarterly disbursements under this agreement for each beneficiary unit receiving commodities. Totalling the columns of the table yielded the total disbursements under the agreement in a specific quarter; totalling the rows yielded the total disbursements to a specific beneficiary over the life of the agreement. The data from this table were to be used to update a Lotus 1-2-3 spreadsheet (one for each agreement), which would be used to provide a current summary of the status of the agreement every quarter. When regularly up-dated, these spreadsheets effectively produced the CAC's quarterly disbursement report and eliminated the CAC's chore of typing and totalling account columns.

The second data collection form, **COMMODITY ASSISTANCE DATA SHEET #2: ALLOCATIONS AND DISBURSEMENTS**, was designed to be completed by the CAC straff for each Sudanese organization receiving goods under a specific commidity assistance agreement. Data items included the following: (1) name of the donor, (2) number of the agreement, (3) name of the beneficiary, (4) name and address of the foreign supplier, (5) description of the goods, (6) value of the goods, in foreign currency, (7) date of the opening of the letter of credit, (8) a record of the date of shipments, the quantity, and the value, and (9) the dates and amounts of local currency deposits, and (10) the organization receiving the local counterpart funds from the beneficiary.

From the CAC's records we filled out these data forms for selected agreements and beneficiaries, as best we could, in order to illustrate how the Lotus 1-2-3 spreadsheets could be used to assist the CAC with its reporting and recordkeeping tasks. Examples of these illustrative cases are included in Appendix E.

The spreadsheets and data collection forms designed for the CAC were originally envisaged as an initial first step toward the establishment of a database system in which the basic records would be shipment and local currency transactions. Our decision to begin with some simple spreadsheets was a strategic one. First, we hoped that by automating the existing reporting forms, the value of the microcomputer and the spreadsheets would be immediately apparent to the staff of the CAC, and that this would promote further cooperation. Second, the records of the CAC were in very poor shape. We felt the data collection required by our two forms was a necessary first step before any more elaborate database system based on shipment and local currency transactions could be contemplated. By August, 1984, we had already committed to establish two more extensive management information systems (the Project Directory and the Financial Accounting System), and we felt that we should wait to make sure that the data and staff were available in the CAC to support a more complicated database system for commodity assistance.

Unfortunately, this judgement to limit our involvement with the CAC proved to be the right one. In December, 1984, we demonstrated the spreadsheets to Dr. Mohamed Zubeir and his staff. Dr. Zubeir was very cooperative and enthusiastic, but he was also extremely busy, and we never received any feedback from

the CAC on either the spreadsheets or the data collection forms. We left copies of both data collection forms so that the CAC staff could complete them for the agreements for which they were responsible. This would have provided the database for the spreadsheets, and perhaps would have served as a starting point for a transaction-based datebase system. However, very few of either form were completed, and thus the spreadsheets have not to date been used for the CAC's quarterly reporting tasks.

During our December, 1984 trip to Sudan, we also agreed to start training staff from the CAC in the use of microcomputers and software applications, and to provide the CAC with its own microcomputer and printer. During our March, 1985 trip the political chaos in Sudan prevented any serious work with the CAC; staff were simply not accessible. During the summer of 1985, we delivered an IBM-PC microcomputer, printer, and associated software to the CAC office, and trained two CAC staff members during our five week, intensive training workshop. Unfortunately for our project, however, Dr. Mohamed Kheir Zubeir was in the United States on a short course for the entire period of our summer stay in Sudan. We were thus unable to followup on the initial spreadsheets or the data collection efforts begun in December, 1984. Nor could we discuss future directions for CAC work in automating its recordkeeping and reporting tasks.

Our work with the CAC did provide a start for future efforts. Staff training was initiated, and equipment was installed. An initial application was developed and demonstrated to the staff. We feel that many of the problems encountered in

our work with the CAC resulted from the political instability in Sudan over the course of our project and were beyond anyone's control. Much work remains to be done with the CAC, and it's responsibilities are important enough to warrant future technical assistance.

4. LESSONS BASED ON THE PROJECT EXPERIENCE

In Section 2.3 we summarized the lessons learned for future microcomputer training activities from our project experiences. In this fourth section of the report we want to turn to possible lessons our experience may offer about the distinctive issues facing efforts to introduce computerized management information systems in settings such as government bureaucracies in 'charity economies.' The term 'charity economies' was coined by Abu-Lughod (1984), who used it to denote economies with a high level of dependence on external grants and loans. Even relatively well-off countries with a considerable ability to influence the terms under which they receive aid (e.g. Israel) might fall into this definition. Moreover, while most charity economies are poor, it is not the case that all very poor countries receive comparable amounts of international aid or financing. Here, however, we use the term 'charity economy' to denote those countries which are both poor and heavily dependent on external finance.

In a country like Sudan, for example, foreign aid and related activities account for the absolute majority of macroeconomic activity; without it, we might reasonably say, there would be no national level economy but only local subsistence economies. In such settings, the ideas of centralized planning and project monitoring face the realities of seemingly intractable economic problems, the absence of transportation and communications infrastructure to knit the country together, organizationally weak governments, and in many cases severe brain drains

(Goldthorpe, 1985, ch. 12). Moreover, the various external donors who may call for effective central governments nonetheless help in many ways to undermine it. Their agents demand constant attention from senior government officials, distracting the latter from their domestic duties.

4.1. The Setting

We first offer four general observations regarding the setting for computerization efforts in economies such as Sudan's.

4.1.1. Charity economies such as Sudan's present extremely unstable environments for computerization efforts. Not only are physical facilities problematic, but human inputs are highly unreliable. A shortage of trained employees means that any computerization effort must incorporate a substantial training component, but simultaneously face the likelihood that its trainees will rapidly be siphoned off into the private sector, other government organizations, or (as the presence of oil-rich Arab countries made likely in the Sudan) into the general brain drain which plagues weak economies. The severity of problems facing such economies makes long-term planning difficult, which in turn means that the mandate to pursue the development of any one computer system for any one purpose may be very unstable.

4.1.2. Where most organizations in relatively advanced countries already have gone through several planned changes in management information and accounting systems--including not only a variety of paper-file systems, but often previous experience with mainframe and other computers--counterpart organizations in

charity economies are likely to have made only ad hoc changes in an overall system developed years ago. This means (a) that they will be unfamiliar with the process of planned organizational change which must accompany a substantial revision of information management procedures, (b) the structure into which computers are being brought will be one lacking many features of preparation (ranging from ordinary keyboard skills to any idea of paper flows) which are taken more or less for granted in advanced economies, (c) the distinctive advantages of specific technological arrangements (e.g. the decentralization which microcomputers allow) may not be appreciated, and (d) the existing system may be fragmented by an organizational habit of multiplying units rather than reforming overall structures.

4.1.3. In charity economies computerization efforts often originate with donors, rather than internally to the organizations where they will take place. This means (a) that there may be only relatively slight and relatively fuzzy organizational commitment to the new system, (b) that it may seem an external imposition on organizational life, (c) that it may even appear as the intrusion of foreign technology into a sensitive domestic environment.

4.1.4. Organizations responsible for physical implementation of development programs will be accustomed to a high level of actual autonomy from the planners who nominally monitor and bring order to their work. They will therefore be likely to resist the development of any management information system which allows effective monitoring of their performance. In the Sudan, at

least, this unintended autonomy is due not only to administrative failure but to the absence of developed transportation and communications infrastructure. It is important to recognize that computerization efforts cannot take for granted the presence of such an infrastructure and the information flows it would ordinarily engender.

Despite these four problems, planning ministries and similar organizations in many charity economies stand to benefit a great deal from computerization. Most importantly, computerization offers almost the only effective way of gaining a control over information (especially financial accounts) comparable to that of donor countries and other external organizations. Secondarily, computers offer the potential to help Ministry staff subordinate their information management and certification tasks to genuine efforts to plan economic development activities and to monitor the performance of those placed in charge of them. Microcomputer technology makes this feasible in a way that previous computer technology never did. It is much less expensive than mainframe or minicomputers. It can be implemented more or less piecemeal rather than requiring an initial commitment to a very large system. It can be operated more easily in hostile physical environments (like the Sahara desert, which encroaches on the capital of Sudan) than earlier computer technologies could, and individual machines can continue operating while others are down. Moreover, microcomputers can function as 'catalysts' for change in the planning and budgeting systems (Pinckey, et.al., 1984); they can help get the process going, as well as to achieve

certain technical goals within that process.

Empirical studies of computerization in the United States and other technologically and economically advanced countries are still in their infancy (King and Kraemer, 1985; Danziger, 1985). Implementation efforts, however, are guided by a shared understanding of the process which, though produced partially in an ad hoc way, is nonetheless incrementally advanced by reports on more and more projects. Our experiences on this project suggest that computerization efforts in settings such as the Sudanese Ministry of Finance and Economic Planning may differ in some important respects from those in more autonomous and/or system-rich environments, yet in other respoects are quite similar.

In the rich, technologically advanced societies, we think of microcomputers largely by contrast to mainframe technologies (indeed, in many cases, by contrast especially to earlier mainframe technologies). We are apt, thus, to stress possibilities for decentralization, building on earlier pushes for distributed computing (The Diebold Group, 1973; Nora and Minc, 1980). We may praise the equalizing, even democratic potential of small computers (cf. Evans, 1980; Naisbitt, 1982). While the power of mainframe computers may remain essential for some tasks, the current excitement in the field and the potential for social transformation come from the possibilities for widespread computer use and the easy individual access which microcomputers offer (Danziger, 1985; Calhoun, 1981).

In the Sudanese Ministry of Finance, however, we found that

microcomputers were perceived and managed as if they were mainframe computers. For example, we recommended putting the computers on the desks of those with responsibility for the tasks being computerized. The Ministry, however, rather strongly preferred to form a separate Management Information Systems Unit. This was not simply a matter of senior officials maximizing their power, or of the computer-specialists-in-the-making protecting their turf. Rather almost all personnel at all levels shared this centralized, mainframe orientation to the machines. One reason was probably the influence of an image drawn from films, reading, and other casual familiarity with an older generation of computers. Others no doubt included the microcomputer's strangeness, high cost and relative complexity compared to any other technology in staff experience. Still another was an unwillingness to accept computer use as a part of one's ordinary job--an apparent increase in responsibility. Last but not least, no members of the Ministry staff had ever had to suffer the difficulties of very centralized computing. They had never worked through centralized mainframe computing as a stage of system development--the normal condition of microcomputer use in organizations with deeper computer experience (King and Kraemer, 1985; of course, centralization vs. decentralization of computing is a recurrent dilemma everywhere; see Kling and Scacchi, 1982b; King, 1983).

We believe the Ministry would be making a serious mistake if it limited the use of microcomputers to more clerical, junior people. The idea of centralizing computer operations makes sense in some situations for some kinds of tasks, but for the vast majority of applications within the Ministry, we believe decen-

tralization of both computers and training is the best strategy.

The notion of a computer package is a convenient way to break down our remaining observations and specific recommendations. We deal first with equipment, then technique (a category which includes computing policies, information flows and organizational structures).

4.2. EQUIPMENT: KEEP IT SIMPLE

4.2.1. Reliability is more important than 'state-of-the-art' in hardware. The number of unanticipatable problems is multiplied in a physically hostile environment. Repair services in the Sudan were extremely limited not only in absolute terms but in kinds of problems they could solve. This stems from the country's absolute poverty, from the low level of previous computer and other technological system use, and even from its charity-economy dependence. The last skews equipment choice to those products manufactured in donor countries, and may introduce problems (e.g. availability of hard currency or stable direct relationships with vendors) in securing a ready supply of parts. For example, U.S. government procurement policy (and that of most donors) systematically undercuts computer vendors in charity economies by requiring purchases to be made in donor countries and/or through following lowest bid price rules which eliminate local vendors. Tying aid to purchases in donor countries is done to ensure that government spending on foreign aid boosts the donor's own economy and (in the case of capitalist countries) the private interests of the donor's manufacturers. Lowest bid price rules simply represent an attempt to manage costs and combat

corruption. Unfortunately, keeping initial prices down in this way does not always keep long-term costs down. Moreover, undercutting the position of local vendors is both antithetical to the professed goal of development, and damaging to the immediate task of computerization to the extent it minimizes the development of support systems. Even where local purchases may be precluded, local maintenance contracts would be helpful; foreign donors characteristically do not make any provision for later maintenance of the goods they provide. This is also an argument in favor of 'brand name' purchases, insofar as they provide not merely prestige but a much better chance of service in remote settings.

4.2.2. An easy-to-maintain, simple system is better than an easy-to-use but more complex system. In the U.S., software development has moved towards increasing internal complexity in an effort to achieve 'user-friendliness'. User-friendliness is of course a desirable goal anywhere, but an extremely unstable computing environment (like that in the Sudan) makes flexibility essential. Difficulties in training and retaining employees means that any system will have to be easily learned. Few highly skilled people will be available to 'maintain' or modify software. Users will not be able easily to buy a new system or hire new technical advisors as applications change. Turnkey systems which work fine at the start will tend to fail because of lack of software maintenance or a changed organizational environment.

4.2.3. Observable, interactive, visually-oriented systems stand a better chance of succeeding than 'black box' or batch systems. The interactive friendliness and visual appeal of microcomputers is an important virtue to be maximized--even at the cost of system power. Shared goals and boss's orders are often insufficient motivations for learning to use a system. We found an ability to see the program do its work to be important not only in teaching new users, but in explaining the workings of our systems to the senior decision makers in both Sudanese Government and donor bureaucracies. Those systems based on Lotus 1-2-3 caught the attention of all sorts of people during demonstrations and generated an interest that will probably translate into effective use. Database applications were less transparent and thus less interesting.

4.2.4. Systems with modular, decentralized component parts will be more likely to survive. Highly integrated systems have undeniable advantages, but not as the first (or early) computer implementations in a very unstable, poorly developed computing environment. It is important to remember that systems will always fail. In a modular system, the failure of one sub-system will not cripple the whole. Not only are technological reasons not entirely controllable, but there are political/organizational reasons for failure. In the Sudan, the Presidential Palace for a time overruled the Ministry of Finance's authority to enforce development budget allocations. If work on the budget itself (the ultimate unifying system of our project) had to stop, the other information management functions could proceed separately.

It is also easier to keep the systems simple when they are developed modularly. Moreover, implementing one module at a time allows for an iterative feedback process to inform the whole effort. Implementation of this principle may run counter to the prevailing emphasis on top-down programming, but as Simon has suggested,

> complex systems will evolve from simple systems much more rapidly if there are stable intermediate forms than if there are not. (Simon, 1969: 209)

4.3. TECHNIQUE: DEVELOPING THE COMPUTING ENVIRONMENT

4.3.1. Technical efficiency in itself is seldom a sufficient reason for adoption of an innovation. The gains from such efficiency (1) may be spread very thinly through the organization as collective goods not of sufficient benefit to anyone for him to sponsor the innovation, (2) may be offset by loss in personal power on the part of an important decision-maker, or (3) may not be accompanied by a corollary improvement in personal situation in the organization. Generally, every application, no matter how self-evident its benefits may seem, requires an enthusiastic and powerful sponsor with the organization. One sub-system which we proposed, for example, offered a fairly obvious gain in efficiency. Budget preparation--a task on which half a dozen staff work for several months each year, and in which burdensome and repetitive clerical and arithmetical work overwhelms policy analysis--was computerized in 50 man-hours, including both system design and data entry. Revisions which now necessitate lengthy and error-ridden recomputation were rendered routine. But the computer system was not fully or enthusiastically implemented

because no one saw a direct gain. It would probably have cut the staff of an important section head, while locating the physical computer (the potential reward) in the centralized MIS Unit, rather than in the section whose work would be computerized.

4.3.2. Any system which requires a new information flow, however reasonable or efficiently designed, will be more likely to fail than one which does not. Systems should be designed to make maximum use of existing information flows in order to make data collection as simple as possible. It proved much easier for us to develop software systems than to get the data collection organized to make the systems worthwhile. One should not underestimate the sheer shortage of reliable data, or the difficulty of getting government officials to do research to find data. Indeed, those who possess new computer skills seem particularly prone to feel that they are above searching for or checking over data. While professionals may see computers as worthy of their attention, they think of dealing with data as a mere clerical matter (even when, as in our case, clerical assistants able to do this work are not available). Consultants need to build a substantial plan for implementing data collecting and management processes into their plans, rather than assuming that these will follow easily from good system design.

4.3.3. Applications should be computerized incrementally to allow the implementation experience to influence the design, and to increase organizational fit and commitment. Within the Ministry we found little appreciation of the need for accurate paper

records. At the beginning of the system development process, virtually no one understood what was being computerized. As a result, it was necessary to design a simple system prototype, partially implement it to show how it worked, then gain the benefit of comments from Ministry staff who began to understand better what was going on, and what the range of possibilities were (see Naumann and Jenkins, 1982 on a "prototyping" approach to systems development). Verbal explanations are no substitute for seeing the systems at work. Any system which is designed completely in advance will tend to be less well suited to user needs, and less accurately understood by users.

4.3.4. Implementations should be planned to promote rather than subvert development of a country's support-systems for computing. Both within a particular organization and in a country as a whole, we think it likely that the biggest gains from early computerization efforts will be contributions to the creation of a stable, supportive computing environment which will allow future implementations to be made at higher and higher levels of sophistication and efficacy. One of the strengths of microcomputer technology as opposed to mainframe computing, of course, is the lower level of infrastructural support it requires. Nonetheless it requires a fair amount, and much of that may be lacking in developing countries. At present, applications tend to undercut the growth of better computing environments by (a) failing to buy from local suppliers, (b) failing to use and support local computer specialists and institutions (such as University computer science departments or computer centers), and (c) failing to

provide as much training and infrastructural development as they might. Any turnkey system, for example, designed to be run by very low-skilled locals with high-skilled contributions coming only from foreigners minimizes its contribution to developing a better computing environment.

5. SUMMARY AND CONCLUSIONS

Our project in the Sudanese Ministry of Finance and Economic Planning was designed to use computerization as a catalyst for more general improvements in information management. Because paper-based information management was minimal within the Ministry, our approach was to focus on computers as the medium for introducing information management procedures; we could not just try to computerize existing tasks. We opted for an incremental approach in which a separate, autonomous software system would be created for each task, so that failure of one system would not sink the whole effort. The nature of the difficulties can be summed up by noting that at the outset neither the government of the Sudan nor anyone else had a cumulative database indicating what development projects were underway or in the planning stage. While some (but not all) foreign donors had current accounts on their transactions with the Sudan, neither the Sudanese government nor anyone else attempted to keep accounts for the whole range of aid activity. The Sudanese Ministry of Finance and Economic Planning, indeed, was not in a position to say how far its lines of credit were drawn down at any one time, how much of last year's budget had actually been expended, or whether the statements particular lenders proffered of Sudan's debt to them were accurate. Our project did not in itself transform planning. Rather, it begins the process of creating the database necessary for any serious policy analysis. Whether that policy analysis will follow is a separate question. Indeed, it seems in retrospect that we, like many other consul-

tants working on similar problems, may have concentrated too much on the information management technology in this sort of setting and not adequately recognized the need to proceed simultaneously with an effort to develop procedures and expertise for policy analysis. Of course, it may be that there simply is no mandate from the ministerial level for genuine policy analysis within the bureaucracy.

During the next few years, microcomputers are likely to become increasingly common in even the poorest Third World countries. In charity economies, especially, they hold the potential to help greatly in meeting particularly acute problems of national administration and mediation between donors, planners, and those who carry out actual development projects. These countries, however, are extremely unstable and inhospitable computing environments. The nature of the earliest implementations will play a major role in determining how rapidly overall progress can be made, not only because they will serve as models, but because they will create either rich or poor environments for later implementations. Moreover, the distinctive features of these environments suggest that consultants and others engaged in introducing computers into them need to orient their work in somewhat different ways from what they might do in a more technologically or economically advanced country.

The issues we have suggested do not arise primarily from differences in individual abilities or motivations, nor even from general education levels. Rather the key differences stem from the distinctive problems of (1) the nature of the planning process in charity economies, (2) the introduction of microcomputers

into organizations which have not used previous generations of computers (or often even of paper-based record-keeping and accounting techniques), and (3) the extreme instability of computing environments. The last is, in turn, largely the result of (a) organizational and infrastructural weakness, and (b) the fact that even in the late 1980s computers are new in such settings. Applications, therefore, are unable to benefit from the higher level of general knowledge and support-systems which bolsters the use of computer systems in the industrialized countries.

Despite the problems which will continue to plague computerization efforts, we think that microcomputers are an appropriate technology for administrative work in charity economies. With sensible design and implementation, they will meet an important need. This need, moreover, increasingly is recognized by major international organizations and by various Third World governments. Consultants will be called upon to develop systems, many of much greater magnitude and potential importance than that on which we have worked. It is important to specify how features of computing environments determine the outcomes of computerization efforts and the best implementation strategies. Although the conclusions detailed in this report are only extrapolations and suggestions from a single case study, we hope that they can contribute to the analysis of the effects of differing computing enviroments by showing some of the implications of a relatively extreme case: computerization in the development planning bureaucracy of a very poor, very aid-dependent country, with minimal previous experience of computers or other formal informa-

tion technology and management systems. The case is extreme because it unites two phenomena each of which is more common: (1) a lack of organizational autonomy, signified in part by the predominence of external pressures in the push for computerization, and (2) a lack of supporting technical infrastructure and prior experience with information systems.

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Appendix A : List of Equipment and Supplies Purchased Under this Project

List of Equipment & Supplies

Item	Destination
1 IBM PC 256k, 2 disk drives	to be delivered to the Commodity Aid Committee from MIS Unit
2 IBM PC XT	for MIS Unit
1 Epson LQ1500 Printer	for CAC
1 printer cable	CAC
3 Boxes of Paper	2 for MIS Unit; 1 for CAC
6 Boxes of Diskettes	3 for MIS Unit; 3 for CAC
3 Surge protectors	2 for MIS Unit; 1 for CAC
12 Ribbons for LQ1500	10 for MIS Unit; 2 for CAC
1 Verbatim Disk Drive Analyzer	MIS Unit
30 copies of 1-2-3 Go	for course use and subsequent distribution
30 copies of PC DOS Manual	" " " " " "
3 Compucover PC	2 for MIS Unit; 1 for CAC
1 Compucover for LQ1500	CAC
3 dust covers	2 for MIS; 1 for CAC
1 disk drive cover	MIS Unit
2 copies of dBase III	MIS Unit
2 copies of DOS 2.1	1 for CAC; one for MIS
2 copies of Lotus 1-2-3	" "
1 copy of Typing Tudor III	MIS Unit
1 copy of Lotus 1-2-3 manual	MIS Unit
1 copy of dBase III manual	MIS Unit
1 Advanced Programming Guide	MIS Unit
1 set of tools	MIS Unit
2 Princeton Graphics Systems Monitors	1 for CAC; 1 for MIS Unit
2 Hercules Graphics Adapt rs	1 for CAC; 1 for MIS Unit
3 replacement disk drives	MIS Unit
1 copy of PC Copy II	MIS Unit
1 copy of Sideways	MIS Unit
1 Compaq Portable Computer 256k; two disk drives	USAID Mission
1 IBM PC; 256k; 2 disk drives	MIS Unit

Faisal Salih
Director, MIS Unit
Ministry of Finance and Economic Planning (Planning)
Khartoum, Sudan

Dear Faisal: 21 July, 1985

According to our records, Craig Calhoun has this month delivered the following computer equipment to the MIS Unit, as part of the current USAID-funded MIS project. Would you check to see that the list is accurate? And then, would you, or the appropriate official if it is not you, please countersign a copy of this letter to acknowledge receipt of the equipment?

ITEM	DESTINATION
1 IBM PC 256k, 2 disk drives	(to be delivered to the Commodity Assistance Committee)
1 IBM PC XT	(for MIS Unit)
1 Epson LQ1500 printer	(for CAC)
1 printer cable	(CAC)
3 Boxes of paper	(1 for CAC; 4 for MIS Unit)
6 Boxes of disks	(3 for CAC; 12 for MIS Unit)
3 surge protectors	(1 for CAC; 2 for MIS Unit)
12 ribbons for LQ1500	(2 for CAC; 10 for MIS Unit)
1 Verbatim Disk Drive Analyzer	(MIS Unit)
30 copies 123 Go	(for course and subsequent distribution)
30 copies of PC DOS Manual	"
3 Compucover PC	(1 for CAC; 2 for MIS)
1 Compucover LQ1500	(CAC)
3 dust covers	(1 for CAC; 2 for MIS)
1 disk drive cover	(MIS)
2 dBase III	(MIS)
2 DOS 2.1	(1 for CAC; 1 for MIS)
2 Lotus 123	"
1 copy Typing Tutor III	(MIS)
1 copy LOTUS 123 Manual	(MIS)
1 copy dBASE III Manual	(MIS)
1 Advanced Programming Guide	(MIS)
1 set tools	(MIS)
2 Princeton Graphic Systems Monitor	(CAC)
2 Hercules Graphics Adaptor	(CAC)
3 Replacement disk drives	(MIS)
1 PC Copy II	(MIS)
1 Sideways	(MIS)

Your signature will also indicate that you understand that all maintenance and repair of this equipment will be the responsibility of the Ministry of Finance and Economic Planning.

USAID is pleased to have been able to support the Ministry in undertaking this project, and I personally have enjoyed working with you and your colleagues. Please contact me if you have any questions.

Sincerely Yours,

Dr. Ravinder Aulakh
Project Manager

Appendix B : Financial Accounts from Donor Reports (Parts 1 and 2)

(data obtained from donors from DATA SHEET FOR AID AVAILABILITY AND DISBURSEMENT forms)

FINANCIAL ACCOUNTS FROM DONOR REPORTS (PART 1)

	Activity Name	Agreement Date	Agreement Number	Effectiveness Date	Duration	Termination Date	Counterpart Funds Amount	Counterpart Funds Currency
Abu Dhabi Fund	Hag Abdulla Cotton Mill	Jul-76	522		15 years	Dec-91	0	
Abu Dhabi Fund	Sudan Railways	Dec-77	540		20 years	Oct-97	0	
Subtotal								
Abu Dhabi Government	Balance of Payments Ass.	Apr-80	1011		10 years	Apr-90	0	
Abu Dhabi Government	Khartoum Airport	Nov-80	1014		26 years	Jul-2006	0	
African Development Bank	Quarantaine Stations (3)	Jul-71	CS/SD/AGR/71/002	Apr-72	3 years	Jul-76	926,190	ADB
African Development Bank	Thermal Power Project	Jul-74	CS/SD/PU/74/004	Dec-74	2 years		3,400,000	ADB
African Development Bank	Railways II	Dec-74	CS/SD/TR/74/003	Feb-75	3 years	Jul-77	0	
African Development Bank	Seed Multiplication Proj.	Oct-81	CS/SD/AGR/81/006	Jun-82	4 years		2,314,000	ADB
Subtotal							6,640,190	
France	Trucks & Maint. Facilities	Feb-78	1-1978	Apr-79	1 year	Dec-82	0	
France	Sudan Railways - overall	Feb-78	1-1978	Apr-79	1 year	Dec-82	0	
France	Setit Upper Atbara Feasibilit	Feb-78	1-1978	Apr-79	1 year	Dec-82	0	
France	Oil Truck Wagon	Feb-78	1-1978	Apr-79	1 year	Dec-82	0	
France	Port Sudan/Khartoum Pipe Line	Feb-78	1-1978	Apr-79	1 year	Dec-82	0	
France	Commodities	Feb-78	1-1978	Apr-79	1 year	Dec-82	0	
France	Earth Moving Equipment	Feb-78	1-1978	Apr-79	1 year	Dec-82	0	
France	Sudan Railways, Brakes, Phs2&	Nov-79	2A - 1979	Apr-80	1 year	Dec-84	0	
France	Red Sea Hills Mining Project	Nov-79	2A - 1979	Apr-80	1 year	Dec-84	0	
France	Commodities	Nov-79	2b - 1979	Apr-80	1 year	Dec-84	0	
France	MEC Port Sudan Diesel Generat	Nov-79	2A - 1979	Apr-80	1 year	Dec-84	0	
France	Pipe Line Khartoum/Port Sudan	Nov-79	2A - 1979	Apr-80	1 year	Dec-84	0	
France	M.A.N.	May-81	3B - 1981	1981	1 year	Dec-84	0	
France	Sudan Railways Brakes	May-81	3A - 1981	1981	1 year	Dec-84	0	
France	Agricultural Equipment	May-81	3B - 1981	1981	1 year	Dec-84	0	
France	Khartoum/Port Sudan pipe Line	May-81	3A - 1981	1981	1 year	Dec-84	0	
France	Industrial Bakeries	May-81	3B - 1981	1981	1 year	Dec-84	0	
France	Urban Traffic/Pt Sudan,Kharto	May-81	3A - 1981	1981	1 year	Dec-84	0	
France	Spare Parts and Cars	May-81	3B - 1981	1981	1 year	Dec-84	0	
France	Low Cost Housing study	May-81	3A - 1981	1981	1 year	Dec-84	0	
France	Medicines	May-81	3B - 1981	1981	1 year	Dec-84	0	
France	Nyala Power Plant	May-81	3A - 1981	1981	1 year	Dec-84	0	
France	Industrial Inputs	May-81	3B - 1981	1981	1 year	Dec-84	0	
France	Haj Abdallah Factory	May-81	3A - 1981	1981	1 year	Dec-84	0	
France	Industrial Inputs	Mar-82	4B - 1982	1982	1 year	Dec-84	NA	
France	PtSudan Power Station CompFnd	Mar-82	4A - 1982	1982	1 year	Dec-84	0	
France	Khart/PtSudan Microwave Link	Mar-82	4A - 1982	1982	1 year	Dec-84	0	
France	Nyala Power Sta. Comp. Fund	Mar-82	4A - 1982	1982	1 year	Dec-84	0	
France	Vehicles, Spare Parts, Maint	Mar-82	4B - 1982	1982	1 year	Dec-84	NA	
France	Silos in Juba	Mar-82	4A - 1982	1982	1 year	Dec-84	0	

	Activity Name	Agreement Date	Agreement Number	Effectiveness Date	Duration	Termination Date	Counterpart Funds Amount	Counterpart Funds Currency
France	M.A.N. Equipment	Mar-82	4B - 1982	1982	1 year	Dec-84	NA	
France	Darfur Water Research Study	Mar-82	4A - 1982	1982	1 year	Dec-84	0	
France	Agricultural Equipment	Mar-82	4B - 1982	1982	1 year	Dec-84	NA	
France	Chemicals and Medicines	Mar-82	4B - 1982	1982	1 year	Dec-84	NA	
France	K.P.W.C. Equipment	Mar-82	4B - 1982	1982	1 year	Dec-84	NA	
France	Khartoum/Port Sudan Pipe Line	Mar-82	4A - 1982	1982	1 year	Dec-84	0	
France	Chemicals	Feb-83	5B - 1983	1983	1 year	Dec-85	NA	
France	Railway Tankers	Feb-83	5B - 1983	1983	1 year	Dec-85	NA	
France	Silos Study	Feb-83	5A - 1983	1983	1 year	Dec-85	0	
France	Spare Parts and Vehicles	Feb-83	5B - 1983	1983	1 year	Dec-85	NA	
France	Silos	Feb-83	5A - 1983	1983	1 year	Dec-85	0	
France	Jonglei Pilot Cattle Farm	Feb-83	5A - 1983	1983	1 year	Dec-65	0	
France	Kordofan Water Drilling	Feb-83	5A - 1983	1983	1 year	Dec-85	0	
France	Highway Traffic Control	Feb-83	5B - 1983	1983	1 year	Dec-85	NA	
France	Khartoum/Port Sudan Pipe Line	Feb-83	5B - 1983	1983	1 year	Dec-85	NA	
France	Pt. Sudan Microwave, Phase II	Feb-83	5A - 1983	1983	1 year	Dec-85	0	
France	Agricultural Inputs	Feb-83	5B - 1983	1983	1 year	Dec-85	NA	
Subtotal								
International Fund for Agri.Dev.	Southern Region Agric. Proj.	Jul-79	20 SU	Feb-80	50 years	Jan-2029	39,800,000	US$
International Fund for Agri.Dev.	New Halfa Irrigation Rehabil.	Jun-80	39 SU	Feb-81	50 years	Apr-2030	0	
International Fund for Agri.Dev.	North. Region Agric. Rehabil.	Nov-83	134 SU	Jul-84	50 years	Aug-2033	13,100,000	US$
Subtotal							52,900,000	
Islamic Development Bank	Port Sudan Airport	Not signed		Not yet signed			0	
Islamic Development Bank	Nyala-Kas-Zalingei Road	May-77	1-15-2	Mar-78	30 years	Sep-2007	0	
Islamic Development Bank	Laboratory Equipment	May-77	1-15-1	Mar-78	18 years	Sep-95	0	
Subtotal								
Japan	Blue Nile Health Project	Sep-80	NA	1980	1.5 years	Mar-82	NA	
Japan	Increased Food Prod. Project	Nov-80	NA	1980	1.5 years	Mar-82	533	mil. Yen
Japan	Jebel Aulia Reserv. Fisheries	Feb-82	NA	1982	1 year	Mar-83	NA	
Japan	Social Welfare Project	Feb-82	NA	1982	1 year	Mar-83	NA	
Japan	Blue Nile Health Project	Feb-82	NA	1982	1 year	Mar-83	NA	
Japan	Increased Food Prod. Project	Feb-82	NA	1982	1 year	Mar-83	533	mil. Yen
Japan	Water & Electricity Supply	Feb-82	NA	1982	1 year	Mar-83	NA	
Japan	Social Development Project	Apr-82	NA	1982	1 year	Mar-83	NA	
Japan	Abu-Gasafa Pilot Rice Farm	Apr-82	NA	1982	1 year	Mar-83	NA	
Japan	Food Aid	Apr-82	NA	1982	1 year	Mar-83	513	mil. Yen
Japan	Economic Stabilization Prog.	May-82	SU-C3	1982	2.5 years	Nov-84	NA	
Japan	Food Aid	Oct-82	NA	1982	1.5 years	Mar-84	501	mil. Yen
Japan	Increased Food Prod. Project	Oct-82	NA	1982	1.5 years	Mar-84	NA	

	Activity Name	Agreement Date	Agreement Number	Effectiveness Date	Duration	Termination Date	Counterpart Funds Amount	Counterpart Funds Currency
Japan	Khartoum Training Hospital I	Oct-82	NA	1982	1.5 years	Mar-84	NA	
Japan	Water Supply Improve. Project	Oct-82	NA	1982	1.5 years	Mar-84	NA	
Japan	Social Welfare Project	Dec-82	NA	1982	1.5 years	Mar-84	NA	
Japan	Debt Relief	Feb-83	NA	1983	1 year	Mar-84	NA	
Japan	Soba University Hospital	May-83	NA	1983	1 year	Mar-84	NA	
Japan	Social Development Project	May-83	NA	1983	1 year	Mar-84	NA	
Japan	Blue Nile Health Project	Jul-83	NA	1983	1.5 years	Mar-85	NA	
Japan	Khartoum Training Hospital II	Jul-83	NA	1983	1.5 years	Mar-85	NA	
Japan	Water Supply Improve. Project	Jul-83	NA	1983	1.5 years	Mar-85	NA	
Japan	Food Aid	Oct-83	NA	1983	.5 years	Mar-84	386	mil. Yen
Japan	Increased Food Prod. Project	Oct-83	NA	1983	1.5 years	Mar-85	733	mil. Yen
Japan	Textile Technology: Gezira U.	Feb-84	NA	1984	1 year	Feb-85	NA	
Japan	Printing Equip.: Khartoum U.	Apr-84	NA	1984	1 year	Mar-85	NA	
Japan	Increased Food Prod. Project	Oct-84	NA	1984	.5 years	Mar-85	999	mil. Yen
Japan	Rural Broadcasting Network	Oct-84	NA	1984	.5 year	Mar-85	NA	
Japan	Food Aid	Oct-84	NA	1984	.5 years	Mar-85	207	mil. Yen
Subtotal							4,405	
Saudi Fund for Development	Rahad Irrigation Project	Jun-75	1/10	1976	20 years	Jun-95	0	
Saudi Fund for Development	Port Sudan Airport	Jan-77	3/32	1977	20 years	Aug-96	0	
Saudi Fund for Development	Kassala-Haya Road	Jan-77	2/31	1977	20 years	Aug-96	0	
Saudi Fund for Development	Domestic Satellite System	Jul-77	5/42	1977	20 years	Mar-97	0	
Saudi Fund for Development	Western Savannah Develop.	Jul-77	4/41	Sep-79	20 years	Mar-97	0	
Saudi Fund for Development	Aeronautical Telecom. Proj.	Jul-77	6/43	1978	20 years	Feb-97	0	
Saudi Fund for Development	Scientific Equip. for Schools	Oct-77	7/52	1978	20 years	Oct-97	0	
Saudi Fund for Development	Nyala-Kas-Zalingei Road	Jun-78	8/78	1979	20 years	Oct-97	0	
Saudi Fund for Development	Kenana Sugar Project	Mar-79	9/92	1979	20 years	Dec-98	0	
Saudi Fund for Development	Rahad Roads Project	Sep-80	10/121	1981	20 years	Mar-2000	0	
Saudi Fund for Development	Financing BOP Gap	Sep-80	11/122	1981	20 years	Sep-2000	0	
Saudi Fund for Development	Al-Jazirah Rehabilitation	Apr-84	12/205	Not yet	15 years	Mar-99	0	
United Kingdom	Grant No. I: Atbara Roadway	Jan-79	NA	1979	6 years	Mar-85	NA	
United Kingdom	Sudan Grant No.I: Power III	Jun-80	NA	1980	6 years	Mar-86	NA	
United Kingdom	Burri Power Station	Jun-82	NA	1982	3 years	Mar-85	NA	
United Kingdom	Imatong Mtn. Forestry Proj.	Mar-83	NA	1983	1 year	Aug-84	NA	
United Kingdom	Red Sea Fisheries: Phase III	Oct-83	NA	1983	3 years	Mar-86	NA	
United Kingdom	Grant No. 2: Old Burri Power	Jan-84	NA	1984	1 year	Dec-84	NA	
United Kingdom	Northern Region Irrigation I	Jan-84	NA	1984	2 years	Mar-86	NA	
United Kingdom	Gezira Light Railways	May-84	NA	1984	2 years	Mar-86	NA	
United Kingdom	Sudan Grant No. 5: ERAP	Jul-84	NA	1984	4 years	Mar-88	NA	
Subtotal								
United States of America (USAID)	Kordofan Rainfed Agriculture	Not signed	650-0054	NA	NA	NA	NA	NA

	Activity Name	Agreement Date	Agreement Number	Effectiveness Date	Duration	Termination Date	Counterpart Funds Amount	Counterpart Funds Currency
United States of America (USAID)	Southern Access Road	Aug-80	650-0036	1980	5 years	Aug-85	???	
United States of America (USAID)	Environmental Training & Man.	Dec-80	698-0427	1980	5 years	Sep-85	NA	
United States of America (USAID)	Pt Sudan Refugee Water Supply	Apr-81	72-1111035	1981	2.5 years	Dec-84	417,000	US$
United States of America (USAID)	Rural Renewable Energy	Aug-81	650-0041	1982	5 years	Jan-87	2,317,400	LS
United States of America (USAID)	North Kordofan Water Supply	Mar-82	72-1111031	1982	3 years	Dec-85	450,000	US$
United States of America (USAID)	Commodity Import Program	May-82	650-K-603	Jul-82	3 years	Jun-85	???	
United States of America (USAID)	Energy Planning & Management	Aug-82	650-0059	1982	4 years	Apr-88	9,240,000	LS
United States of America (USAID)	Commodity Import Program	Jan-83	650-K-604	Jan-83	2 years	Aug-85	???	
United States of America (USAID)	Southern Roads Maint. & Rehab	Aug-83	650-0043	1983	6 years	Sep-89	???	
United States of America (USAID)	Gedaref Water Supply Project	Sep-83	72-1931143	Sep-83	3.5 years	Jan-87	862,000	US$
United States of America (USAID)	PL 480 Title I FY84	Dec-83	NA	FY 83/84	1 year	Sep-84	39,000,000	LS
United States of America (USAID)	CIP Petroleum Initiative	Jun-84	650-K-606/A	Not yet	2 years	???	40,000,000	US$
United States of America (USAID)	Western Agric. Marketing Road	Aug-84	650-0069	1984	6 years	Dec-91	???	
United States of America (USAID)	PL 480 Title III FY84	Aug-84	NA	FY 83/84	1 year	Dec-84	36,000,000	LS
United States of America (USAID)	Commodity Import Program	Aug-84	650-K-606/B	Not yet		???	62,060,000	
United States of America (USAID)	African Manpower Development	Aug-84	698-0433.9	Aug-84	1 year	Sep-88	49,500	US$
Subtotal								

	Activity Name	Grant Amount	Grant Currency	Loan Amount	Loan Currency	Aid Category	Original Allocation	Amendments or Revisions Date	Amount + or -	Amount Disbursed	Balance	As Of
Abu Dhabi Fund	Hag Abdulla Cotton Mill			100,500,000	UAE Dirhams	Project	80,000,000	Feb-81	20,500,000	89,097,480	11,402,520	Sep-84
Abu Dhabi Fund	Sudan Railways			40,000,000	UAE Dirhams	Project	40,000,000			35,838,532	4,161,468	Sep-84
Subtotal				140,500,000			120,000,000			124,936,012	15,563,988	
Abu Dhabi Government	Balance of Payments Ass.			50,000,000	US$	BOP	50,000,000			49,601,081	398,919	Sep-84
Abu Dhabi Government	Khartoum Airport			375,000,000	UAE Dirhams	Project	375,000,000			20,850,229	354,149,771	Sep-84
African Development Bank	Quarantaine Stations (3)			800,000	ABD	Project	800,000			661,000	139,000	
African Development Bank	Thermal Power Project			4,000,000	ABD	Project	4,000,000			2,900,000	1,100,000	
African Development Bank	Railways II			3,000,000	ABD	Project	3,000,000			2,990,000	10,000	Jul-77
African Development Bank	Seed Multiplication Proj.			7,100,000	ABD	Project	7,100,000			0	7,100,000	
Subtotal				14,900,000	ABD						8,349,000	
France	Trucks & Maint. Facilities			11,000,000	FF	Project	11,000,000			11,000,000	0	Oct-84
France	Sudan Railways - overall			18,000,000	FF	Project	18,000,000			18,000,000	0	Oct-84
France	Setit Upper Atbara Feasibility			5,000,000	FF	Project	5,000,000			5,000,000	0	Oct-84
France	Oil Truck Wagon			29,000,000	FF	Project	29,000,000			29,000,000	0	Oct-84
France	Port Sudan/Khartoum Pipe Line			6,000,000	FF	Project	6,000,000			6,000,000	0	Oct-84
France	Commodities			5,000,000	FF	Commodity	5,000,000			5,000,000	0	Oct-84
France	Earth Moving Equipment			26,000,000	FF	Project	26,000,000			26,000,000	0	Oct-84
France	Sudan Railways, Brakes, Phs2&	loan amount		47,000,000	FF	Project	47,000,000			47,000,000	0	Oct-84
France	Red Sea Hills Mining Project	"		20,000,000	FF	Project	20,000,000			20,000,000	0	Oct-84
France	Commodities	22,000,000 FF				Commodity	22,000,000			21,300,000	700,000	Oct-84
France	NEC Port Sudan Diesel Generat	combined with		55,000,000	FF	Project	55,000,000			55,000,000	0	Oct-84
France	Pipe Line Khartoum/Port Sudan	"		16,000,000	FF	Project	16,000,000			16,000,000	0	Oct-84
France	N.A.N.	"		10,000,000	FF	Commodity	10,000,000			10,000,000	0	Oct-84
France	Sudan Railways Brakes	combined with		12,000,000	FF	Project	12,000,000			12,000,000	0	Oct-84
France	Agricultural Equipment	"		40,000,000	FF	Commodity	40,000,000			40,000,000	0	Oct-84
France	Khartoum/Port Sudan pipe Line	loan amount		20,000,000	FF	Project	20,000,000			20,000,000	0	Oct-84
France	Industrial Bakeries	"		30,000,000	FF	Commodity	30,000,000			30,000,000	0	Oct-84
France	Urban Traffic/Pt Sudan,Kharto	"		4,700,000	FF	Project	4,700,000			4,700,000	0	Oct-84
France	Spare Parts and Cars	"		5,000,000	FF	Commodity	5,000,000			5,000,000	0	Oct-84
France	Low Cost Housing study	"		1,300,000	FF	Project	1,300,000			1,300,000	0	Oct-84
France	Medicines	"		10,000,000	FF	Commodity	10,000,000			10,000,000	0	Oct-84
France	Nyala Power Plant	"		40,000,000	FF	Project	40,000,000			40,000,000	0	Oct-84
France	Industrial Inputs	"		13,200,000	FF	Commodity	15,000,000			13,200,000	1,800,000	Oct-84
France	Haj Abdallah Factory	"		12,000,000	FF	Project	12,000,000			0	12,000,000	Oct-84
France	Industrial Inputs	"		30,000,000	FF	Commodity	30,000,000		(9,600,000)	19,000,000	1,400,000	Oct-84
France	PtSudan Power Station CompFnd	"		5,500,000	FF	Project	5,500,000			5,500,000	0	Oct-84
France	Khart/PtSudan Microwave Link	"		38,000,000	FF	Project	38,000,000			38,000,000	0	Oct-84
France	Nyala Power Sta. Comp. Fund	"		15,000,000	FF	Project	15,000,000		4,100,000	19,100,000	0	Oct-84
France	Vehicles, Spare Parts, Maint	"		27,000,000	FF	Commodity	27,000,000			27,000,000	0	Oct-84
France	Silos in Juba	"		2,500,000	FF	Project	2,500,000		5,500,000	8,000,000	0	Oct-84
France	N.A.N. Equipment	"		10,000,000	FF	Commodity	10,000,000			7,000,000	3,000,000	Oct-84
France	Darfur Water Research Study	"		2,000,000	FF	Project	2,000,000			2,000,000	0	Oct-84
France	Agricultural Equipment	"		25,000,000	FF	Commodity	25,000,000			25,000,000	0	Oct-84
[illegible]	[illegible]	"		[illegible]	FF	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]

Donor	Activity Name	Grant Amount	Grant Currency	Loan Amount	Loan Currency	Aid Category	Original Allocation	Amendments or Revisions Date	Amount + or -	Amount Disbursed	Balance	As Of
France	Khartoum/Port Sudan Pipe Line			9,000,000	FF	Project	9,000,000			9,000,000	0	Oct-84
France	Chemicals			30,000,000	FF	Commodity	30,000,000			28,900,000	1,100,000	Oct-84
France	Railway Tankers			15,000,000	FF	Commodity	15,000,000			0	15,000,000	Oct-84
France	Silos Study			1,000,000	FF	Project	1,000,000			0	1,000,000	Oct-84
France	Spare Parts and Vehicles			5,000,000	FF	Commodity	5,000,000			5,000,000	0	Oct-84
France	Silos			24,000,000	FF	Project	24,000,000			0	24,000,000	Oct-84
France	Jonglei Pilot Cattle Farm			10,000,000	FF	Project	10,000,000			0	10,000,000	Oct-84
France	Kordofan Water Drilling			20,000,000	FF	Project	20,000,000			20,000,000	0	Oct-84
France	Highway Traffic Control			10,000,000	FF	Commodity	10,000,000			10,000,000	0	Oct-84
France	Khartoum/Port Sudan Pipe Line			6,500,000	FF	Commodity	6,500,000			6,500,000	0	Oct-84
France	Pt. Sudan Microwave, Phase II			25,000,000	FF	Project	25,000,000			25,000,000	0	Oct-84
France	Agricultural Inputs			23,500,000	FF	Commodity	23,500,000			10,500,000	13,000,000	Oct-84
Subtotal				828,200,000	FF					769,000,000	83,000,000	
International Fund for Agri.Dev.	Southern Region Agric. Proj.			11,700,000	SDR	Project	11,700,000			10,408,079	1,291,921	Aug-84
International Fund for Agri.Dev.	New Halfa Irrigation Rehabil.			11,950,000	SDR	Project	11,950,000			3,843,143	P 106,857	Aug-84
International Fund for Agri.Dev.	North. Region Agric. Rehabil.			9,500,000	SDR	Project	9,500,000			0	9,500,000	Aug-84
Subtotal				33,150,000	SDR		33,150,000			14,251,222	18,898,778	
Islamic Development Bank	Port Sudan Airport			5,500,000	Dinars	Project						
Islamic Development Bank	Nyala-Kas-Zalingei Road			4,500,000	Dinars	Project	4,500,000			1,813,000	2,687,000	Nov-84
Islamic Development Bank	Laboratory Equipment			3,000,000	Dinars	Project	3,000,000				3,000,000	Nov-84
Subtotal				13,000,000	Dinars		7,500,000			1,813,000	5,687,000	
Japan	Blue Nile Health Project	400	mil. Yen			Project	400			400	0	Oct-84
Japan	Increased Food Prod. Project	800	mil. Yen			Project	800			800	0	Oct-84
Japan	Jebel Aulia Reserv. Fisheries	500	mil. Yen			Project	500			500	0	Oct-84
Japan	Social Welfare Project	400	mil. Yen			Project	500			500	0	Oct-84
Japan	Blue Nile Health Project	400	mil. Yen			Project	400			400	0	Oct-84
Japan	Increased Food Prod. Project	800	mil. Yen			Project	800			800	0	Oct-84
Japan	Water & Electricity Supply	400	mil. Yen			Project	400			400	0	Oct-84
Japan	Social Development Project	200	mil. Yen			Project	200			200	0	Oct-84
Japan	Abu-Gasafa Pilot Rice Farm	150	mil. Yen			Project	150			150	0	Oct-84
Japan	Food Aid	770	mil. Yen			Commodity	770			770	0	Oct-84
Japan	Economic Stabilization Prog.	2,500	mil. Yen			BOP	2,500			???	???	
Japan	Food Aid	753	mil. Yen			Commodity	753			753	0	Oct-84
Japan	Increased Food Prod. Project	1,000	mil. Yen			Commodity	1,000			1,000	0	Oct-84
Japan	Khartoum Training Hospital I	1,580	mil. Yen			Project	1,580			1,580	0	Oct-84
Japan	Water Supply Improve. Project	600	mil. Yen			Project	600			600	0	Oct-84
Japan	Social Welfare Project	200	mil. Yen			Commodity	200			200	0	Oct-84
Japan	Debt Relief	399	mil. Yen			Project	399			399	0	Oct-84
Japan	Saba University Hospital	275	mil. Yen			Project	275			275	0	Oct-84

FINANCIAL ACCOUNTS FROM DONOR REPORTS (PART 2)

Donor	Activity Name	Grant Amount	Grant Currency	Loan Amount	Loan Currency	Aid Category	Original Allocation	Amendments or Revisions Date	Amount + or -	Amount Disbursed	Balance	As Of
Japan	Social Development Project	200	mil. Yen			Commodity	200			200	0	Oct-84
Japan	Blue Nile Health Project	600	mil. Yen			Project	600			???	???	
Japan	Khartoum Training Hospital II	1,490	mil. Yen			Project	1,490			0	1,490	Oct-84
Japan	Water Supply Improve. Project	1,470	mil. Yen			Project	1,470			???	???	
Japan	Food Aid	580	mil. Yen			Commodity	580			580	0	Oct-84
Japan	Increased Food Prod. Project	1,100	mil. Yen			Commodity	1,100			???	???	
Japan	Textile Technology: Gezira U.	400	mil. Yen			Project	400			0	400	Oct-84
Japan	Printing Equip.: Khartoum U.	50	mil. Yen			Project	50			0	50	Oct-84
Japan	Increased Food Prod. Project	1,500	mil. Yen			Project	1,500			0	1,500	Oct-84
Japan	Rural Broadcasting Network	1,951	mil. Yen			Project	1,951			0	1,951	Oct-84
Japan	Food Aid	311	mil. Yen			Commodity	311			0	311	Oct-84
Subtotal		9,652	mil. Yen				9,652			780	5,702	
Saudi Fund for Development	Rahad Irrigation Project			90,000,000	SR							Jan-85
Saudi Fund for Development	Port Sudan Airport			35,300,000	SR	Project	35,300,000			0	35,300,000	Jan-85
Saudi Fund for Development	Kassala-Haya Road			91,780,000	SR							Jan-85
Saudi Fund for Development	Domestic Satellite System			35,300,000	SR	Project	35,300,000				35,300,000	Jan-85
Saudi Fund for Development	Western Savannah Develop.			20,070,000	SR	Project	30,000,000	May-83	(9,930,000)	4,986,259	15,083,741	Jan-85
Saudi Fund for Development	Aeronautical Telecom. Proj.			24,700,000	SR	Project	24,700,000			22,462,525	2,237,475	Jan-85
Saudi Fund for Development	Scientific Equip. for Schools			12,300,000	SR	Project	12,300,000			4,228,966	8,071,034	Jan-85
Saudi Fund for Development	Nyala-Ras-Zalingei Road			123,600,000	SR	Project	123,600,000			105,501,777	18,098,223	Jan-85
Saudi Fund for Development	Kenana Sugar Project			120,160,000	SR	Project	120,160,000			77,568,656	42,591,344	Jan-85
Saudi Fund for Development	Rahad Roads Project			20,100,000	SR	Project	20,100,000			15,296,314	4,803,686	Jan-85
Saudi Fund for Development	Financing BOP Gap			50,000,000	US$	BOP	50,000,000			29,078,554	20,921,446	Jan-85
Saudi Fund for Development	Al-Jazirah Rehabilitation			56,800,000	SR	Project	56,800,000			0	56,800,000	Jan-85
United Kingdom	Grant No. 1: Atbara Roadway	3,500,000	LSTG			Project	3,500,000	Jul-84	335,000	3,739,611	95,389	Sep-84
United Kingdom	Sudan Grant No.1: Power III	61,000,000	LSTG			Project	61,000,000	Dec-82	12,825,000	67,365,950	6,459,050	Nov-84
United Kingdom	Burri Power Station	1,579,000	LSTG			Project	1,579,000			1,343,083	235,917	Aug-84
United Kingdom	Imatong Mtn. Forestry Proj.	704,000	LSTG			Project	704,000	Dec-83	250,000	754,797	199,203	Sep-84
United Kingdom	Red Sea Fisheries: Phase III	434,000	LSTG			Project	434,000			27,617	406,383	Sep-84
United Kingdom	Grant No. 2: Old Burri Power	3,950,000	LSTG			Project	3,950,000			123,174	3,826,826	Sep-84
United Kingdom	Northern Region Irrigation I	1,486,000	LSTG			Project	1,486,000			196,079	1,289,921	Sep-84
United Kingdom	Gezira Light Railways	4,230,000	LSTG			Project	4,230,000			0	4,230,000	Sep-84
United Kingdom	Sudan Grant No. 5: ERAP	3,660,000	LSTG			Project	3,660,000			0	3,660,000	Sep-84
Subtotal		80,543,000	LSTG				80,543,000			73,550,311	20,402,689	
United States of America (USAID)	Kordofan Rainfed Agriculture	18,100,000	US$	50,000,000	LS	Project					NA	Feb-85
United States of America (USAID)	Southern Access Road	10,000,000	US$			Project	10,000,000			???	???	Feb-85
United States of America (USAID)	Environmental Training & Man.	489,500	US$			Project	489,500			???	???	Feb-85
United States of America (USAID)	Pt Sudan Refugee Water Supply	2,500,000	US$			Project	2,000,000	Jun-83	500,000	???	???	Feb-85
United States of America (USAID)	Rural Renewable Energy	4,600,000	US$			Project	3,500,000			2,457,156	1,042,844	Feb-85
United States of America (USAID)	North Kordofan Water Supply	880,000	US$			Project	880,000			???	???	Feb-85

Donor	Activity Name	Grant Amount	Grant Currency	Loan Amount	Loan Currency	Aid Category	Original Allocation	Amendments or Revisions Date	Amendments or Revisions Amount + or -	Amount Disbursed	Balance	As Of
United States of America (USAID)	Commodity Import Program	100,000,000	US$			Commodity	100,000,000			96,346,884	3,653,116	Feb-85
United States of America (USAID)	Energy Planning & Management	6,600,000	US$			Project	5,455,000			2,983,247	2,471,753	Feb-85
United States of America (USAID)	Commodity Import Program	60,250,000	US$			Commodity	60,250,000			50,949,655	9,300,345	Feb-85
United States of America (USAID)	Southern Roads Maint. & Rehab	19,700,000	US$			Project	18,237,000			???	???	Feb-85
United States of America (USAID)	Gedaref Water Supply Project	13,000,000	US$			Project	7,500,000	Oct-84		???	???	Feb-85
United States of America (USAID)	PL 480 Title I FY84			30,000,000	US$		30,000,000			30,000,000	0	Feb-85
United States of America (USAID)	CIP Petroleum Initiative	40,000,000	US$			Commodity	40,000,000			0	40,000,000	Feb-85
United States of America (USAID)	Western Agric. Marketing Road	15,680,582	US$			Project	Undecided			0		Feb-85
United States of America (USAID)	PL 480 Title III FY84			20,000,000	US$		20,000,000			20,000,000	0	Feb-85
United States of America (USAID)	Commodity Import Program	62,000,000	US$			Commodity	62,000,000			0	62,000,000	Feb-85
United States of America (USAID)	African Manpower Development	664,535	US$			Project	329,000	Aug-84	335,535	494,838	169,697	Feb-85
Subtotal		325,875,117	US$	50,000,000	US$		350,151,000			203,231,780	118,637,755	

Appendix C : Selected Project Data Sheets

Project Data Sheets Used by MIS Project :

1. Project Data Sheet (MOFEP)

2. Project Data Sheet (DOnors)

3. Data Sheet for AID Availability and Disbursement

PROJECT DATA SHEET (MPFP)

1. Project Identification No. _____

2. Date of Preparation of Data Form _____

3. Project Title _____

_____

4. Project Objectives (coded) _____

_____

5. Project Objectives (Text) _____

_____

_____

_____

_____

6. Project Description _____

_____

_____

_____

_____

7. Project Status (check appropriate box) - Under Negotiation /__/

Implementation /__/ On Hold /__/ Completed /__/

8. Sector _____

9. Subsector _____

10. Location [List Province(s) or "National"] _____

_____

11. Project Inputs (check appropriate boxes) Technical Assistance /__/

Capital Assistance /__/ Training /__/ Commodity Assistance /__/

Budget Support/Cash Assistance /__/

12. Project Outputs _____

_____

13. Intended Target Group(s) [i.e. Project Beneficiaries] _____

_____

_____

14. Total Project Cost: (a) LS _____

(b) $ US _____

15. Starting Date (a) Original _____

(b) Revised _____

16. Completion Date (a) Original _____

(b) Revised _____

17. Donor Grant and Loan Information

Donor Name	Amount of Grant	Amount of Loan	Currency	Date of Agreement	Date of Effectiveness	Date of First Disbursement
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

18. Sudanese Executing Agency(ies) _____

_____

19. Principal Sudanese Contact:

Name _____

Organization _____

Telephone _____

20. Project Budget -

Original /_/ Revised /_/

Date of Preparation _____

Budget Category	Local (Million LS)	Foreign (Million)	Currency
Building/Construction			
Machinery & Equipment			
Vehicles			
Materials			
Salaries and Wages (local)			
Technical Assistance			
Training			
Custom Duties			
Other			
_____			
Total			

21. Donor Contribution to Local Currency Costs _____

22. Physical Implementation (List Implementation Steps)

Implementation Step	Date Started	In Progress	Date Completed	Not Yet Started
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				
(10)				

23. Remarks on Project Progress -

24. Project Evaluation Reports

Date of Evaluation	Institution(s) Responsible
(1)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	

25. Project Reports and Publications

	Title	Date	Published or Unpublished	Number of Pages	Publication Number
(1)					
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					

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Return to: Dr. S.A.A. Zaki
Under Secretary
Ministry of Finance and Economic Planning

Attn: Mr. Faisal Salah

Donor _____

Date _____

Project Data Sheet (Donors)

1. Project Identification No. _____

2. Project Title _____

_____

3. Sector _____

4. Subsector _____

5. Location (List Region or "National") _____

_____

6. Project Objectives _____

_____

_____

_____

_____

_____

7. Project Description _____

_____

_____

_____

_____

_____

8. Project Status (check appropriate box) - Proposed /__/

Under Negotiation /__/ Implementation /__/ Completed /__/

Suspended (Implementation stopped, but may continue) /__/

Cancelled /__/

9. Project Inputs (check appropriate boxes)

Technical Assistance /___/ Capital Assistance /___/

Training /___/ Commodity Assistance /___/

Budget Support/Cash Assistance /___/

10. Project Outputs _____

_____

_____

_____

11. Project Benefits

a. Financial _____

_____

_____

b. Economic _____

_____

_____

c. Other _____

_____

_____

12. Intended Target Group(s), ie. Project Beneficiaries

_____

_____

13. Project Duration (years) _____

Starting Date (a) Original _____

(b) Revised _____

Completion Date (a) Original _____

(b) Revised _____

14. Sudanese Executing Agency (ies)

a. Responsible Central Ministry _____

b. Operating Unit _____

15. Principal Sudanese Contact:

Name _____

Position _____

Organization _____

Telephone _____

16. Donor Grant and Loan Information (for donor completing this form)

Amount of Grant _____ Currency _____

Amount of Loan _____ Currency _____

Terms of Loan _____

_____

Total Commitment _____

Amount Disbursed _____ As of (Mo/Yr) _____

Date of Agreement _____

Are other donors involved in this project? Yes ☐ No ☐

Name(s) _____

17. Total Project Cost (LS Thousand)

Original ☐ Revised ☐

Date of Last Revision (mo/yr) _____

(a) Donor Contribution (for all donors)

	Currency	Amount	Assumed Exchange Rate	Equivalent in LS Thousand
Foreign	_____	_____	1 LS = _____	_____
Local				_____
Total Donor Contribution				_____

(b) Government of Sudan Local Currency Component _____

(c) Total Project Cost

18. Progress to date

Satisfactory /___/ Behind Schedule /___/ Ahead of Schedule /___/

19. Remarks on Project Progress _____

_____

_____

_____

_____

_____

20. Project Evaluation Reports

	Date of Evaluation	Institutions Responsible
(1)		
(2)		
(3)		
(4)		
(5)		

21. Project Publications and Reports

	Title	Date	Published or Unpublished	Number of Pages	Publicat: Number
(1)					
(2)					
(3)					
(4)					
(5)					

22. Sudanese Receiving Training (use additional sheets if necessary)

a. Name _____

Current Position _____

Field or Subject of Training _____

Type of Training (eg. university) _____

Location of Training _____

b. Name _____

Current Position _____

Field or Subject of Training _____

Type of Training (eg. university) _____

Location of Training _____

c. Name _____

Current Position _____

Field or Subject of Training _____

Type of Training (eg. university) _____

Location of Training _____

d. Name _____

Current Position _____

Field or Subject of Training _____

Type of Training (eg. university) _____

Location of Training _____

e. Name _____

Current Position _____

Field or Subject of Training _____

Type of Training (eg. university) _____

Location of Training _____

23. Expatriate Consultants Used on Project (use additional sheets if necessary)

a. Name _____

Address _____

Date of Trips _____

Title of Report _____

b. Name _____

Address _____

Date of Trips _____

Title of Report _____

c. Name _____

Address _____

Date of Trips _____

Title of Report _____

d. Name _____

Address _____

Date of Trips _____

Title of Report _____

e. Name _____

Address _____

Date of Trips _____

Title of Report _____

f. Name _____

Address _____

Date of Trips _____

Title of Report _____

17. (Cont.)
ANNUAL PHASING OF PROJECT EXPENDITURES
(i.e. the estimated pattern of disbursements over the life of the project)

	Year 1 (Calendar Yr._____)	Year 2 (Calendar Yr._____)	Year 3 (Calendar Yr._____)	Year 4 (Calendar Yr._____)	Year 5 (Calendar Yr._____)
Local	_____	_____	_____	_____	_____
Foreign	_____	_____	_____	_____	_____
Total Cost	_____	_____	_____	_____	_____

Estimated Annual Operating Costs After Completion of the Project:

Amount _____ Currency _____

Return to: JMC Secretariat
Ministry of Finance
& Economic Planning
P.O. Box 2666
Khartoum.

Data Sheet for AID Availability and Disbursement

Donor _____

Date _____

Please complete one form for each active assistance agreement or protocol (project, commodity aid, balance of payment, cash, or combination).

1. Name of Agreement _____

2. Agreement No. _____

3. Total Original Commitment:

	Amount	Currency
a. Grant		
b. Loan		

4. Date of Agreement (mo/yr) _____

5. Date of Effectiveness (yr) _____

6. Duration of Agreement (yr) _____

7. Date of Termination (mo/yr) _____

8. Are counterpart funds generated by this agreement?

( ) Yes ( ) No

a. If so, amount _____

9. Budget and Disbursements

Aid Category Codes for Column 2

	Project Aid	Balance of Payment Support	Commodity Aid
Loan	1	3	5
Grant	2	4	6

Sub-account*	Category Code	Original Allocation	Amendments or Revisions (if any)			Disbursement		Balance
			Date	Amounted Added or Sub-tracted	Revised Allocation	During.....	Total To-Date	On.....
1	2	3	4	5	6	7	8	9xx
TOTAL								

* NOTE: Sub-account refers to the categories or line items into which the protocol or agreement divides the funds committed.

XX equal to 3-8, or in case there was revision it equals 6-8

Project Data Sheet used by the MOFEP for the preparation of the Development Budget project profiles

FIFTH THREE YEAR INVESTMENT PROGRAMME

(1984/85 - 1986/87)

PROJECT INFORMATION

1. Name of the Project: _____

2. Location: _____

3. Sector _____ Sub-sector _____

4. Govt. Unit responsible for Project: _____

5. Starting Date: Proposed _____ Actual _____

6. Date of Completion: Proposed _____ Revised _____

7. Project Objectives:

8. Project Description:

9. Total Project Costs: Whether original ☐ or Revised ☐ Date _____

Expenditure Group	Cost in million LS		
	Local	Foreign	Total
Buildings and Works			
Machinery and Equipment			
Materials			
Vehicles			
Salaries & wages (local)			
Custon Duties			
Other T.A.			
Total			

10. Sources of Financing

Item	Source	Type of Finance	currency	Amount (Thous.	Present Status
Buildings & Works					
Machinery & equipment					
Materials					
Vehicles					
Salaries & wages					
Custon duties					
Others					
Total					

?

11. Expenditure:

	Local LS mn.	Foreign LS. mn	Total LS mn.	Remarks (Prices & Exchange Rate
Cumulative to 30 June '83				
Estimated Actual 1983/84				
Budget 1984/85				
Proposed 1985/86				
Proposed 1986/87				

?

Disbursement by currencies / donors.

Donor	Curr	Commitment	Cumulative Disbursement to - - - -	Disbursement current year	Balance Undisbursed
GOS	LS	7.5 m	5.4	0.5	1.6
USAID	$	12.5	0	1.5	4.5
ADF					

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12. Physical Implementation

Implementation Step*	Work done so far	Programme of work 1984/85
Acquiring land		
Construction		
Machinery		

* For example Preparation of tenders, Procurement of machinery, acquisition of land, construction of building, etc.

13. Project Benefits (Target beneficiaries, main products, exportable surplus, import substitution, more food, etc.)

Project Data Sheet developed by the MOFEP, Management Information System Unit, March, 1985.

MINISTRY OF FINANCE AND ECONOMIC PLANNING
(PLANNING)
PROJECT INFORMATION SHEET

1. Name of the project: _____
2. Location: _____
3. Classification: National _____ Regional _____
4. A/ Sector: _____ B/Sub _ sector: _____
5. Govt. unit responsible _____
6. Starting date: Proposed _____ Actual _____
7. Date of completion: Planned _____ Revised _____
8. Project Objectives: _____

9. Project Description: _____

(2)

PROJECT COSTS:

year of estimation	original 19../14..	revised 19../14..			
total cost					
expenditure group	cost in million				
	local LS	currency	foreign*	LS equi. of 4	total LS
1	2	3	4	5	6
buildings, works & related materials					
machinery and equipment					
vehicles					
petrol, oil and lubricant					
Other materials					
salaries & wages					
custom duties **					
tech. assistance and training					
other costs					
total					6

revised

9)

* exchange rate assumption in col.3 above LS = $ .....

** state if exempted or enjoying concession

Note-: Total cost in col. 5 will be equal to the revised cost given above; offer if there is [illegible] original cost.

11 - 12

SOURCES OF FINANCE:

SOURCE	CUR.	AMOUNT	TYPE	STATUS *	REMARKS
1	2	3	4	5	6

* SECURED & EFFECTIVE SECURED NOT YET EFFECTIVE UNDER NEGOTIATION PROPOSED SUSPENDE

EXPENDITURE:

	LOCAL MILLION LS	FOREIGN CURR. & AMOUNT	LOCAL EQU. OF 3	TOTAL MILLION LS
1	2	3	4	5
CUMULATIVE TO 19....				
ESTIMATED ACTUAL 19....				
BUDGET 19..../.... 14....H				
PROPOSED 19..../.... 14....H				
PROPOSED 19..../.... 14....H				
BALANCE OF PROJECT COST*	ERR	ERR	ERR	

* Item 12 totals deducted from relevant col. totals in item 10.
Exchange rate

(11)

(13)

PROJECT IMPLEMENTATION:

INSTITUTIONAL STEPS	WORK DONE SO FAR	PROGRAMME OF WORK 1/..../14....
1. Preinvestment steps: (pre-feasibility, feasibility appraisal, nature of finance)		
2. Acquisition of land		
3. Site preparation and infrastructure		
4. Detailed design and specifications		
5. Tendering		
6. Procurement of machinery and equipments		
7. Execution of construction work		
8. Installation of machinery		
9. Management and staffing		
10. Training		
11. Tenant and/or labour settlements		
12. Commissioning		
13. Others		
14. Over all progress	satisfactory ☐ behind schedule ☐	

(Target beneficiaries, main products, exportable surplus, import substitution, more food, etc ...)

(14)

PROJECT BENIFITS:

---6

(15)

PROBLEMS:

---

(16)

REPORTS:

DATE	AUTHOR	TITLE

Project Proforma included in "Sudan: Planning and Budgeting for Recovery."

World Bank Mission Report, IDRB: Washington D.C. March, 1984.

DRAFT

PROJECT NUMBER:

Proposed Project Proforma

Part A: Project Summary

1. Title of Project:

2. (a) Sector: | (b) Sub-sector:

3. Location:

4. (a) Starting Date: original ——————Revised——————
(b) Date of completion: original ——————— Revised

5. Estimated cost:

	Date	Cost L.S. Million			Assumptions	
		Local	Foreign	Total	Exchange Rate	Prices
Original						
Latest Revised						

6. Objectives and targets: (a) objectives:
(b) Targets by years:

7. Brief Project Description

8. Benefits:
(a) Financial
(b) Economic
(c) Others

9. (a) Central Ministry / Regional Govt. concerned | (b) Implementation Unit

10. Unit responsible for preparation of this Proforma: | Date of Preparation

Part B: Project Description

11. Feasibility studies:

completed ☐ in progress ☐ Planned ☐ None ☐

If completed:

a- Title .....

b- Nature .....

c- Date .....

12. Detailed description of the project: (Main components, size, location, project area, expected output, relation to other projects) (Annex supporting maps, technical data, etc.)

13. Organization and management agency:

a- For Implementation.

b- For operation (after completion)

14. Time Phasing Main activities	(Use bars to show length of activities)									
	Year 1		Year 2		Year 3		Year		Year	
1										
2										
3										
4										
5										
6										
7										
8										

Part C: Project Costs and Financing

15. Estimated total cost by main items:	Thousand Sudanese Pounds		
	Local	Foreign	Total
1			
2			
3			
4			
5			
6			
7			
8			

16. Annual Phasing of Local costs by main items:	Thousand Sudanese Pounds					
	Yr. 1	Yr. 2	Yr. 3	Yr.	Yr.	Total
1						
2						
3						
4						
5						
6						
7						
8						
9						

17. Annual Phasing of Foreign cost by main items

	Thousand Sudanese Pounds					
	Yr. 1	Yr. 2	Yr. 3	Yr.	Yr.	Total
1						
2						
3						
4						
5						
6						
8						
9						
Total cost						

18. Exchange rate and pricing assumptions:

19. Financing of the Project:

Source	Type of Finance (loan, grant, TA, commodity, local)	Currency	Amount	Status (Secured, under negotiation, requested, to be sought)
1				
2				
3				
4				
5				

20. Estimated annual operating costs after completion of project.

Item	L.S. 000's	Item	LS 000's
Chapter I		Self Financed	
Chapter II		Central Bank	
Chapter 3(a)		Commercial Banks	
		Total	

Part D: Project Benefits and Justification

21. Direct and indirect benefits of project and beneficiaries:

22. Estimated annual project revenue by beneficiaries — Thousand Sudanese Pounds

	Yr.	Yr	Yr.	Yr.	Yr.	Yr.	Yr.
Central Government							
Regional & Local Govt.							
Project Authority							
Others (Specify)							
Total							

23. Estimated financial and economic rates of return to the project:

Date of estimation.....	Standared		Sensitivity *		
	Total	incremental	1	2	3
F R R					
E R R					

Part E: Project Inputs

Materials, and equipment required for execution of project:
(*L = Local source; *F = Foreign source)

Major items	Unit	Quantity	L* F*	(Use bars to show dates required)				
				Year 1	Year 2	Year 3	Year	Year
Materials:								
Equipment								

25. Specify materials, equipment and supplies needed for annual operations after completion of Project:
(Tractors, chemicals, fuel, etc)

Major items	Unit	Quantity	Major items	Units	Quantity
1			4		
2			5		
3			6		

26. (a) Manpower requirements

Type of personnel	Required for execution					For operation
	Yr. 1	Yr. 2	Yr. 3	Yr.	Yr.	
(1) Management						
(2) Administrative						
(3) Professional:						
(4) Skilled Labour						

e various local cadres:

28. Foreign manpower required for execution of project and steps taken or proposed to secure them.

29. Training Requirements

Cadre	Number	Training Required		
		in service	local	foreign

30. Infrastructure required to support the project:

Type of infrastructure/ supporting services*	Units	When required	Existing or Not	Remarks

* Includes roads, railway sidings; power, water, sewrage, telex, telephone and other utilities; educational, health, social and recreational facilities housing, storage supporting processing facilities; other (specify).

31. List Annexes attached to this proforma:

32 Contact name, address and telephone numbers of person who may answer any queries about this project.

Appendix D : Development Budget Spreadsheets

SUMMARY

1. Presidency of the Republic	194,000	0	194,000	194,000	0	0	0	0	0	194,000
2. Administrative Expansion	4,961,000	0	4,961,000	4,961,000	0	0	0	0	0	4,961,000
3. Police Headquarters	351,000	0	351,000	291,000	0	60,000	0	0	0	351,000
4. Criminal Research	230,000	0	230,000	94,000	0	0	136,000	0	0	230,000
5. High-Way Traffic Admin.	386,000	1,790,000	2,096,000	386,000	1,790,000	0	0	0	0	2,096,000
6. Meteorological Department	95,000	0	95,000	75,000	0	20,000	0	0	0	95,000
7. Ministry of Internal Affairs	2,143,000	79,000	2,222,000	1,252,000	538,000	174,000	127,000	0	131,000	2,222,000
(a) Passports, Emmigration, and Nationality Department	765,000	0	765,000	759,000	0	0	0	0	6,000	765,000
(b) Prisons Department	207,000	0	207,000	115,000	92,000	0	0	0	0	207,000
(c) Fire Brigade	50,000	0	50,000	50,000	0	0	0	0	0	50,000
(d) Wild Animal Administration	207,000	0	207,000	79,000	57,000	15,000	21,000	0	35,000	207,000
(e) Social Welfare	207,000	79,000	286,000	207,000	79,000	0	0	0	0	286,000
(f) Central Archives	352,000	0	352,000	42,000	310,000	0	0	0	0	352,000
(g) Survey Department	355,000	0	355,000	0	0	159,000	106,000	0	90,000	355,000
8. Ministry of Labour and Social Insurance	1,410,000	500,000	1,910,000	865,000	515,000	0	30,000	500,000	0	1,910,000
(a) Labour Department	1,369,000	500,000	1,869,000	824,000	515,000	0	30,000	500,000	0	1,869,000
(b) General Corporation for Labour Culture	41,000	0	41,000	41,000	0	0	0	0	0	41,000
9. Ministry of Education and Guidance	5,127,000	7,263,000	12,390,000	4,664,000	6,079,000	22,000	0	0	1,625,000	12,390,000
10. Higher Education	6,450,000	7,500,000	13,950,000	6,450,000	7,500,000	0	0	0	0	13,950,000
11. Higher Council for Youth Care and Sports	414,000	0	414,000	288,000	126,000	0	0	0	0	414,000
12. Higher Council for Religous Affairs	41,000	0	41,000	30,000	0	0	0	0	11,000	41,000
13. Ministry of Health	4,016,000	21,188,000	25,204,000	1,788,000	21,069,000	14,000	0	260,000	2,023,000	25,154,000
14. National Council for Research	577,000	1,300,000	1,877,000	577,000	0	0	0	0	1,300,000	1,877,000
15. (a) Ministry of Construction and Public Works	1,447,000	0	1,447,000	1,293,000	29,000	50,000	75,000	0	0	1,447,000
(b) Housing Department	205,000	0	205,000	67,000	0	108,000	0	0	30,000	205,000
16. Ministry of Information and Culture	257,000	0	257,000	196,000	22,000	5,000	29,000	0	5,000	257,000
(a) Antiquities	46,000	0	46,000	0	7,000	5,000	29,000	0	5,000	46,000
(b) Information	157,000	0	157,000	157,000	0	0	0	0	0	157,000
(c) Supreme Council for Arts	54,000	0	54,000	39,000	15,000	0	0	0	0	54,000
17. Courts Administration	752,000	0	752,000	752,000	0	0	0	0	0	752,000
18. Min. of Cooperation, Trade, and Supply	349,000	0	349,000	249,000	0	0	0	0	100,000	349,000
(a) Cooperation	18,000	0	18,000	18,000	0	0	0	0	0	18,000
(b) Trade	331,000	0	331,000	231,000	0	0	0	0	100,000	331,000
19. Min. of Finance and Economic Planning	3,344,000	3,563,000	6,907,000	1,070,000	292,000	544,000	30,000	121,000	4,850,000	6,907,000
(a) Finance	414,000	0	414,000	414,000	0	0	0	0	0	414,000
(b) Planning	2,026,000	2,704,000	4,730,000	275,000	0	183,000	30,000	70,000	4,172,000	4,730,000
(c) Statistics Department	472,000	0	472,000	0	100,000	275,000	0	0	97,000	472,000
(d) Customs & Excise Duties Dept.	107,000	0	107,000	107,000	0	0	0	0	0	107,000
(e) Stores and Equipment	151,000	0	151,000	151,000	0	0	0	0	0	151,000
(f) Institute of Accounting Studies	174,000	859,000	1,033,000	123,000	192,000	86,000	0	51,000	581,000	1,033,000
20. General Auditor Chamber	590,000	0	590,000	590,000	0	0	0	0	0	590,000
21. Attorney General Chamber	80,000	0	80,000	80,000	0	0	0	0	0	80,000

	TOTAL Services Sector	33,339,000	43,183,000	76,522,000	26,132,000	37,960,000	997,000	427,000	881,000	10,075,000	76,472,000
8.1.0	THE PRESIDENCY OF THE REPUBLIC										
8.1.6	Presidential Residence	66,000	0	66,000	66,000	0	0	0	0		66,000
8.1.7	Heroes Monument	17,000	0	17,000	17,000	0	0	0	0	0	17,000
8.1.8	Peoples Place Extension	95,000	0	95,000	95,000	0	0	0	0	0	95,000
8.1.9	Presidential Rest Houses	16,000	0	16,000	16,000	0	0	0	0	0	16,000
	TOTAL Presidency	194,000	0	194,000	194,000	0	0	0	0	0	194,000
8.2.1	ADMINISTRATIVE EXPANSION										
	TOTAL	4,961,000	0	4,961,000	4,961,000	0	0	0	0	0	4,961,000
	POLICE										
21.1.3	Police Housing Projects	233,000	0	233,000	173,000	0	60,000	0	0	0	233,000
21.1.5	Vehicle Place Rectory	41,000	0	41,000	41,000	0	0	0	0	0	41,000
21.1.6	Consol. of Police College	61,000	0	61,000	61,000	0	0	0	0	0	61,000
21.1.6	Stand-by Forces	16,000	0	16,000	16,000	0	0	0	0	0	16,000
	TOTAL Police	351,000	0	351,000	291,000	0	60,000	0	0	0	351,000
	CRIMINAL RESEARCH										
21.1.8	Finger Print Complex	12,000	0	12,000	12,000	0	0	0	0	0	12,000
21.1.11	Transportation	136,000	0	136,000	0	0	0	136,000	0	0	136,000
21.1.12	Criminal	82,000	0	82,000	82,000	0	0	0	0	0	82,000
	TOTAL Crime Research	230,000	0	230,000	94,000	0	0	136,000	0	0	230,000

	HIGHWAY TRAFFIC ADMINISTRATION										
7.1.1	Admin. of Highway Traffic	306,000	1,790,000	2,096,000	306,000	1,790,000	0	0	0	0	2,096,000
	TOTAL HTA	306,000	1,790,000	2,096,000	306,000	1,790,000	0	0	0	0	2,096,000
	METEOROLOGICAL DEPARTMENT										
7.4.1	Radar at Juba & El Fashir	20,000	0	20,000	0	0	20,000	0	0	0	20,000
7.4.4	Meteorological Machinery	43,000	0	43,000	43,000	0	0	0	0	0	43,000
7.4.6	Meteorological Regis. Networks	32,000	0	32,000	32,000	0	0	0	0	0	32,000
	TOTAL Meteorological	95,000	0	95,000	75,000	0	20,000	0	0	0	95,000
	MINISTRY OF INTERNAL AFFAIRS										
	NATIONALITY, IMMIGRATION AND PASSPORT DEPARTMENT			0							0
21.2.0	Regional Offices	345,000	0	345,000	345,000	0	0	0	0	0	345,000
21.2.3	Extension of Regional Archives	65,000	0	65,000	65,000	0	0	0	0	0	65,000
21.2.6	Alien Control Project	132,000	0	132,000	132,000	0	0	0	0	0	132,000
21.2.7	Consolidation of Headquarters	91,000	0	91,000	85,000	0	0	0	0	6,000	91,000
21.2.8	Regional Identity Card Offices	132,000	0	132,000	132,000	0	0	0	0	0	132,000
	TOTAL Nationality...	765,000	0	765,000	759,000	0	0	0	0	6,000	765,000
	PRISONS										
21.3.4	Officers Mess	115,000	0	115,000	115,000	0	0	0	0	0	115,000
21.3.5	Port Sudan Saltcellar &Consolidation Prisons Projects	92,000	0	92,000	0	92,000	0	0	0	0	92,000
	TOTAL Prisons	207,000	0	207,000	115,000	92,000	0	0	0	0	207,000
	FIRE BRIGADE										
21.4.2	First Flour Construct. Proj.	50,000	0	50,000	50,000	0	0	0	0	0	50,000
	TOTAL Fire Brigade	50,000	0	50,000	50,000	0	0	0	0	0	50,000
	WILD ANIMAL ADMINISTRATION										
5.9.1.2	Wild Animal Hunting Unit	49,000	0	49,000	9,000	10,000	5,000	0	0	25,000	49,000
5.9.1.4	National Zoo	158,000	0	158,000	70,000	47,000	10,000	21,000	0	10,000	158,000

	TOTAL Wild Animals	207,000	0	207,000	79,000	57,000	15,000	21,000	0	35,000	207,000
	SOCIAL WELFARE										
15.1.4	Mental Retardation Institute	16,000	0	16,000	16,000	0	0	0	0	0	16,000
15.1.5	Multipurpose Social Centres	66,000	75,000	141,000	66,000	75,000	0	0	0	0	141,000
15.1.7	Nat.Cntre/Trng.Baby Sitters	28,000	4,000	32,000	28,000	4,000	0	0	0	0	32,000
15.1.8	El Nur Institute	82,000	0	82,000	82,000	0	0	0	0	0	82,000
15.1.9	Consolidation Voluntary Effort	15,000	0	15,000	15,000	0	0	0	0	0	15,000
	TOTAL Social Welfare	207,000	79,000	286,000	207,000	79,000	0	0	0	0	286,000
	NATIONAL CENTRE ARCHIVES										
9.1.1	Nat. Cnt. Archives Equip.	310,000	0	310,000	0	310,000	0	0	0	0	310,000
9.1.2	Headquarters Building	42,000	0	42,000	42,000	0	0	0	0	0	42,000
	TOTAL Archives	352,000	0	352,000	42,000	310,000	0	0	0	0	352,000
	SURVEY DEPARTMENT										
6.5.7	Survey Projects	355,000	0	355,000	0	0	159,000	106,000	0	90,000	355,000
	TOTAL Survey	355,000	0	355,000	0	0	159,000	106,000	0	90,000	355,000
TOTAL Ministry of Internal Affairs		2,143,000	79,000	2,222,000	1,252,000	538,000	174,000	127,000	0	131,000	2,222,000
MINISTRY OF LABOUR & SOCIAL ISSUES											
	LABOUR DEPARTMENT										
20.2.2	National Vocational Train. Dep	1,300,000	500,000	1,800,000	800,000	500,000	0	0	500,000	0	1,800,000
20.2.3	Indestrial Safety	69,000	0	69,000	24,000	15,000	0	30,000	0	0	69,000
	TOTAL Labour Dept.	1,369,000	500,000	1,869,000	824,000	515,000	0	30,000	500,000	0	1,869,000
	PUBLIC CO. For LABOUR CULTURE										
20.3.1	Labour Culture Centres	41,000	0	41,000	41,000	0	0	0	0	0	41,000
	TOTAL Labour Culture	41,000	0	41,000	41,000	0	0	0	0	0	41,000
TOTAL FOR MINISTRY OF LABOUR		1,410,000	500,000	1,910,000	865,000	515,000	0	30,000	500,000	0	1,910,000
MINISTRY OF EDUCATION AND GUIDANCE											
10.1.4	National Handicrafts Schools	574,000	375,000	949,000	582,000	340,000	0	0	0	107,000	949,000

10.1.6	Second Educational Project	430,000	550,000	980,000	430,000	550,000	0	0	0	0	980,000
10.1.7	Educational Up-grading	297,000	0	297,000	197,000	0	0	0	0	100,000	297,000
10.1.8	Khartoum Inst. for Arabic Lang	256,000	0	256,000	150,000	0	0	0	0	106,000	256,000
10.1.9	Laboratories and Workshoos Equ	20,000	1,560,000	1,580,000	0	1,560,000	0	0	0	20,000	1,580,000
10.1.10	Support of Existing Schools	384,000	0	384,000	120,000	39,000	0	0	0	225,000	384,000
10.1.13	Support of Industrial Schools	24,000	1,238,000	1,262,000	1,238,000	0	0	0	0	24,000	1,262,000
10.1.15	Educational Statistics	36,000	40,000	76,000	0	0	0	0	0	76,000	76,000
10.1.16	Technical Secondary Education	1,410,000	0	1,410,000	820,000	90,000	0	0	0	500,000	1,410,000
10.1.17	Teacher Training Centres	1,035,000	0	1,035,000	685,000	0	0	0	0	350,000	1,035,000
10.1.18	Third Educational Proj.	661,000	3,500,000	4,161,000	522,000	3,500,000	22,000	0	0	117,000	4,161,000
TOTAL FOR MINISTRY OF EDUCATION		5,127,000	7,263,000	12,390,000	4,664,000	6,079,000	22,000	0	0	1,625,000	12,390,000
HIGHER EDUCATION											
10.2.1	University of Khartoum			0							0
10.2.2	Gezira University			0							0
10.2.3	Juba University			0							0
10.2.4	Institute of Technical Colleges			0							0
10.2.6	High Nursing College			0							0
10.2.7	Abu Haraz College			0							0
10.2.11	Omdurman Islamic University			0							0
10.2.12	Abu Wiama College			0							0
10.2.13	Health College			0							0
10.2.14	High Sports Institute			0							0
TOTAL FOR HIGHER EDUCATION		6,450,000	7,500,000	13,950,000	6,450,000	7,500,000	0	0	0	0	13,950,000
	YOUTH										
14.1.0	National Council for Youth Care and Popular Sports	82,000	0	82,000	82,000	0	0	0	0	0	82,000
14.1.3	Inorder Training Compound	206,000	0	206,000	206,000	0	0	0	0	0	206,000
14.1.5	Equipment for Youth Centres	126,000	0	126,000	0	126,000	0	0	0	0	126,000
	TOTAL Youth	414,000	0	414,000	288,000	126,000	0	0	0	0	414,000
HIGHER COUNCIL FOR RELIGIOUS AFFAIRS											
16.1.3	Mosque Construction Contributi	41,000	0	41,000	30,000	0	0	0	0	11,000	41,000

	TOTAL Religious Affairs	41,000	0	41,000	30,000	0	0	0	0	11,000	41,000
	MINISTRY OF HEALTH										
17.1.3	Rural Health	1,410,000	3,250,000	4,660,000	0	3,250,000	0	0	0	1,410,000	4,660,000
17.1.6	Machinery and Equipment	494,000	1,865,000	2,359,000	0	2,159,000	0	0	200,000	0	2,359,000
17.1.9	Consol. Nat. Health Corp.	373,000	8,742,000	9,115,000	373,000	8,742,000	0	0	0	0	9,115,000
17.1.16	Consol. Voluntary Efforts	200,000	0	200,000	200,000	0	0	0	0	0	200,000
17.1.17	Primary Health Care	441,000	5,233,000	5,674,000	804,000	4,820,000	0	0	0	0	5,624,000
17.1.19	Blue Nile Health Project	522,000	1,210,000	1,732,000	248,000	1,210,000	14,000	0	60,000	206,000	1,732,000
17.1.21	Main Stores Project	413,000	88,000	501,000	0	88,000	0	0	0	413,000	501,000
17.1.22	Epidemic & Endemic Diseases	163,000	800,000	963,000	163,000	800,000	0	0	0	0	963,000
	TOTAL FOR MINISTRY OF HEALTH	4,016,000	21,188,000	25,204,000	1,788,000	21,069,000	14,000	0	260,000	2,023,000	25,154,000
	NATIONAL COUNCIL FOR RESEARCH										
11.1.1	Planning & Programming Technol	17,000	0	17,000	17,000	0	0	0	0	0	17,000
11.1.2	National Inst. for Technology	33,000	0	33,000	33,000	0	0	0	0	0	33,000
11.1.4	Marine Science Equipment	71,000	0	71,000	71,000	0	0	0	0	0	71,000
11.1.5	Research/Chemical & Cellulose	40,000	0	40,000	40,000	0	0	0	0	0	40,000
11.1.9	Medical & Aromatic Plant Unit	40,000	0	40,000	40,000	0	0	0	0	0	40,000
11.1.11	Institute of Tropical Medicine	68,000	0	68,000	68,000	0	0	0	0	0	68,000
11.1.13	Computer Services Improvement	71,000	0	71,000	71,000	0	0	0	0	0	71,000
11.1.20	Remote Sense Techniques	40,000	0	40,000	40,000	0	0	0	0	0	40,000
11.1.21	Social & Econ. Res. Inst.	60,000	0	60,000	60,000	0	0	0	0	0	60,000
11.1.22	Nat. Council for Research Bldg	45,000	0	45,000	45,000	0	0	0	0	0	45,000
11.1.23	Energy Research	92,000	1,300,000	1,392,000	92,000	0	0	0	0	1,300,000	1,392,000
	TOTAL/NATIONAL COUNCIL FOR RESEARCH	577,000	1,300,000	1,877,000	577,000	0	0	0	0	1,300,000	1,877,000
	MINISTRY OF CONSTRUCTION AND PUBLIC WORKS										
28.1.2	Expansion of Central Stores	248,000	0	248,000	223,000	0	0	25,000	0	0	248,000
28.1.6	Timber & Metal Work Plant	248,000	0	248,000	248,000	0	0	0	0	0	248,000
28.1.9	Training Centres	49,000	0	49,000	49,000	0	0	0	0	0	49,000
28.1.12	Rehabilitation of Marawi	824,000	0	824,000	724,000	0	50,000	50,000	0	0	824,000
28.1.13	Soil Examination Lab.	49,000	0	49,000	49,000	0	0	0	0	0	49,000
28.1.14	Construct., Equip, Bldg. Mater	29,000	0	29,000	0	29,000	0	0	0	0	29,000
	TOTAL/CONSTRUCT. & PUBLIC WORKS	1,447,000	0	1,447,000	1,293,000	29,000	50,000	75,000	0	0	1,447,000

HOUSING											
18.2.1	Economic Housing	144,000	0	144,000	54,000	0	76,000	0	0	20,000	144,000
18.2.1.1	El Rashadoubs	61,000	0	61,000	13,000	0	38,000	0	0	10,000	61,000
TOTAL FOR HOUSING		205,000	0	205,000	67,000	0	108,000	0	0	30,000	205,000
MINISTRY OF INFORMATION AND CULTURE											
	ANTIQUITIES										
	Specific data missing from paper copy of development budget total taken from summary										
	TOTAL Antiquities	46,000	0	46,000	0	7,000	5,000	29,000	0	5,000	46,000
	INFORMATION										
12.1.10	Informational Training Inst.	35,000	0	35,000	35,000	0	0	0	0	0	35,000
12.1.11	Developing Information	40,000	0	40,000	40,000	0	0	0	0	0	40,000
12.1.13	Unity Information Centre	82,000	0	82,000	82,000	0	0	0	0	0	82,000
	TOTAL Information	157,000	0	157,000	157,000	0	0	0	0	0	157,000
12.1.12	Supreme Council for Arts	54,000	0	54,000	39,000	15,000	0	0	0	0	54,000
TOTAL/MINI. OF INFORMATION & CULTURE		257,000	0	257,000	196,000	22,000	5,000	29,000	0	5,000	257,000
COURTS ADMINISTRATION											
23.1.2	Existing Courts	752,000	0	752,000	752,000	0	0	0	0	0	752,000
	TOTAL for Courts	752,000	0	752,000	752,000	0	0	0	0	0	752,000
MINISTRY OF COOPERATION, TRADE AND SUPPLIES											
	COOPERATION										

19.1.4	Nat. Coop Centre Board. Hse	18,000	0	18,000	18,000	0	0	0	0	0	18,000
	TRADE AND SUPPLIES										
24.1.4	Aflatoxin	331,000	0	331,000	231,000	0	0	0	0	100,000	331,000
TOTAL/MINISTRY OF COOPERATION		349,000	0	349,000	249,000	0	0	0	0	100,000	349,000
MINISTRY OF FINANCE AND ECONOMIC PLANNING											
	FINANCE										
25.1.1	Finance Headquarters	166,000	0	166,000	166,000	0	0	0	0	0	166,000
25.1.2	Taxation Offices & Houses	248,000	0	248,000	248,000	0	0	0	0	0	248,000
	TOTAL for Finance	414,000	0	414,000	414,000	0	0	0	0	0	414,000
	PLANNING										
13.1.1	Technical Assistance	629,000	0	629,000	0	0	72,000	0	0	557,000	629,000
13.1.2	Project Preparation Unit	413,000	2,704,000	3,117,000	0	0	40,000	0	0	3,077,000	3,117,000
13.1.5	Headquarters Building	140,000	0	140,000	140,000	0	0	0	0	0	140,000
13.1.6	Preparation of New Dev. Plan	497,000	0	497,000	0	0	0	0	0	497,000	497,000
13.1.7	Food Aid Central Office	347,000	0	347,000	135,000	0	71,000	30,000	70,000	41,000	347,000
	TOTAL for Planning	2,026,000	2,704,000	4,730,000	275,000	0	183,000	30,000	70,000	4,172,000	4,730,000
	STATISTICS DEPARTMENT										
13.2.4	Population Census	438,000	0	438,000	0	100,000	250,000	0	0	88,000	438,000
13.2.6	Improvement of Nat. Stat. Acct	34,000	0	34,000	0	0	25,000	0	0	9,000	34,000
	TOTAL for Statistics	472,000	0	472,000	0	100,000	275,000	0	0	97,000	472,000
	CUSTOMS & EXCISE DUTIES										
25.2.5	Excise Duties	41,000	0	41,000	41,000	0	0	0	0	0	41,000
25.2.7	Customs Stations in Sinkkat & Suakin	66,000	0	66,000	66,000	0	0	0	0	0	66,000
	TOTAL for Customs	107,000	0	107,000	107,000	0	0	0	0	0	107,000
	STORES & EQUIP. DEPT.										
25.4.1	Headquarters Bldg.	151,000	0	151,000	151,000	0	0	0	0	0	151,000
	TOTAL for Stores	151,000	0	151,000	151,000	0	0	0	0	0	151,000
	INSTITUTE OF ACCOUNTING STUDIES										

25.5.1 Accounting Inst. Bldg.	174,000	859,000	1,033,000	123,000	192,000	86,000	0	51,000	581,000	1,033,000
TOTAL for Accounting Inst.	174,000	859,000	1,033,000	123,000	192,000	86,000	0	51,000	581,000	1,033,000
TOTAL FOR MIN. FINANCE & EC. PLANNING	3,344,000	3,563,000	6,907,000	1,070,000	292,000	544,000	30,000	121,000	4,850,000	6,907,000
GENERAL AUDITOR'S CHAMBER										
28.3.1 Headquarters Building	590,000	0	590,000	590,000	0	0	0	0	0	590,000
TOTAL FOR GEN. AUDITOR	590,000	0	590,000	590,000	0	0	0	0	0	590,000
ATTORNEY GENERAL'S CHAMBER										
22.1.1 Headquarters Building	80,000	0	80,000	80,000	0	0	0	0	0	80,000
TOTAL FOR ATTORNEY GENERAL'S CHAMBER	80,000	0	80,000	80,000	0	0	0	0	0	80,000

SUMMARY OF INDUSTRIAL SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries and Wages	Vehicles	Customs	Others	TOTAL
(A)	Spinning and Weaving Projs.	5,082,000	8,865,000	13,947,000	5,125,000	4,337,000	1,090,000	0	0	3,395,000	13,947,000
(B)	Sugar Projects	8,600,000	27,260,000	35,860,000	0	27,260,000	225,000	0	1,500,000	6,875,000	35,860,000
(C)	Rehabilitation of Industrial Corp.	3,013,000	7,180,000	10,193,000	1,060,000	6,538,000	310,000	655,000	200,000	1,430,000	10,193,000
	TOTAL Industrial Sector	16,695,000	43,305,000	60,000,000	6,185,000	38,135,000	1,625,000	655,000	1,700,000	11,700,000	60,000,000

MINISTRY OF INDUSTRY

A. Spinning and Weaving Projs.

6 1 2	Gadaw Spinning and Weaving Factory	140,000	0	140,000	0	0	40,000	0	0	100,000	140,000
6 1 3	El Haq Abdalla Spinning Mill	300,000	1,500,000	1,800,000	0	1,500,000	0	0	0	300,000	1,800,000
6 1 4	P. Sudan Spinning Mill	800,000	0	800,000	500,000	0	200,000	0	0	100,000	800,000
6 1 5	Khartoum North Spinning Mill	2,262,000	6,665,000	8,927,000	4,500,000	2,137,000	90,000	0	0	2,200,000	8,927,000
6 1 7	El Tong Kenaf Project	500,000	0	500,000	0	0	360,000	0	0	140,000	500,000
6 1 13	Friendship Ready-made Cloths Factory	1,000,000	700,000	1,700,000	125,000	700,000	440,000	0	0	475,000	1,700,000
	TOTAL (1)	5,082,000	8,865,000	13,947,000	5,125,000	4,337,000	1,090,000	0	0	3,395,000	13,947,000

B. Sugar Projects

6 1 11	Mellut Sugar Project	600,000	7,260,000	7,860,000	0	7,260,000	225,000	0	0	375,000	7,860,000
6 1 10	Sennar and Assalya Sugar Rehabilitation Projects	4,000,000	12,000,000	16,000,000	0	12,000,000	0	0	1,000,000	3,000,000	16,000,000
6 1 16	Gunied and New Halfa Sugar Projects	4,000,000	8,000,000	12,000,000	0	8,000,000	0	0	500,000	3,500,000	12,000,000
	TOTAL (2)	8,600,000	27,260,000	35,860,000	0	27,260,000	225,000	0	1,500,000	6,875,000	35,860,000

6 2 1 3. Rehabilitation of Industrial Corp.

(a)	Khartoum Central Foundry	635,000	2,890,000	3,525,000	500,000	2,890,000	10,000	0	100,000	25,000	3,525,000
(b)	Kassala Onion Dehydration Factory	350,000	300,000	650,000	60,000	500,000	0	30,000	0	60,000	650,000
(c)	Wau Canning Factory	128,000	100,000	228,000	0	168,000	0	40,000	0	20,000	228,000
(d)	Marima Canning Factory	150,000	390,000	540,000	0	480,000	0	60,000	0	0	540,000
(e)	Tannaries Rehabilitation Studies	100,000	0	100,000	0	0	0	0	0	100,000	100,000

SUMMARY OF INDUSTRIAL SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries and Wages	Vehicles	Customs	Others	TOTAL
(f)	White Nile Brewery	350,000	0	350,000	0	0	300,000	0	0	50,000	350,000
(g)	Anzara Agro-Industrial Complex	300,000	3,000,000	3,300,000	0	2,000,000	0	500,000	0	800,000	3,300,000
(h)	Central Workshop	1,000,000	500,000	1,500,000	500,000	500,000	0	25,000	100,000	375,000	1,500,000
	TOTAL (3)	3,013,000	7,180,000	10,193,000	1,050,000	6,538,000	310,000	655,000	200,000	1,430,000	10,193,000
	TOTAL Industrial Sector	16,695,000	43,305,000	60,000,000	6,185,000	38,135,000	1,625,000	655,000	1,700,000	11,700,000	60,000,000

SUMMARY OF ENERGY AND MINING SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
A.	ENERGY (TOTAL)	12,544,003	58,843,000	71,487,003	9,149,750	55,393,550	0	50,000	0	6,893,703	71,487,003
1.	National Energy Administration	249,754	3,250,000	3,499,754	0	0	0	50,000	0	3,449,754	3,499,754
2.	General Petroleum Corp.	2,387,549	243,000	2,630,549	1,500,000	506,000	0	0	0	624,549	2,630,549
3.	National Electricity Corp.	10,006,700	55,350,000	65,356,700	7,649,750	54,887,550	0	0	0	2,819,400	65,356,700
B.	MINING (TOTAL)	1,137,125	0	1,137,125	206,750	0	558,225	82,700	0	289,450	1,137,125
1.	Geological Survey Department	992,400	0	992,400	165,400	0	496,200	82,700	0	248,100	992,400
2.	Sudanese Mining Corp. (Mica Production)	144,725	0	144,725	41,350	0	62,025	0	0	41,350	144,725
C.	WATER (TOTAL)	7,856,500	15,000,000	22,856,500	2,360,000	17,475,000	321,000	480,000	0	2,220,500	22,856,500
	National Water Corp.	7,856,500	15,000,000	22,856,500	2,360,000	17,475,000	321,000	480,000	0	2,220,500	22,856,500
	TOTAL Energy and Mining	21,637,628	73,843,000	95,480,628	11,716,500	72,868,550	879,225	612,700	0	9,403,653	95,480,628

ENERGY

1. NATIONAL ENERGY ADMINISTRATION

6 4 2 Studies and Research	97,754	0	97,754	0	0	0	50,000	0	47,754	97,754
6 4 2 1Energy Planning and Management	152,000	3,250,000	3,402,000	0	0	0	0	0	3,402,000	3,402,000
TOTAL (1)	249,754	3,250,000	3,499,754	0	0	0	50,000	0	3,449,754	3,499,754

2. GENERAL PETROLEUM CORPORATION

6 4 1 6L.P.G. Filling Plants	1,707,549	0	1,707,549	1,500,000	100,000	0	0	0	107,549	1,707,549
6 4 1 8Extension of Storage Facilities at El Shagara	255,000	243,000	498,000	0	243,000	0	0	0	255,000	498,000
6 4 2 4Petroleum Depots.	425,000	0	425,000	0	163,000	0	0	0	262,000	425,000
TOTAL (2)	2,387,549	243,000	2,630,549	1,500,000	506,000	0	0	0	624,549	2,630,549

3. NATIONAL ELECTRICAL CORPORATION

6 8 1 Juba Power Station	165,400	2,000,000	2,165,400	165,400	2,000,000	0	0	0	0	2,165,400
6 8 4 Feasability & Tech. Studies	330,000	1,000,000	1,330,000	0	0	0	0	0	1,330,000	1,330,000

SUMMARY OF ENERGY AND MINING SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
6 8 10	Distribution Projects in Town	413,500	0	413,500	165,400	206,750	0	0	0	41,350	413,500
6 8 11	Transmission Projects	1,240,500	0	1,240,500	827,030	330,800	0	0	0	82,700	1,240,500
6 8 13	Karima/Marawi Elect.	661,600	5,000,000	5,661,600	578,900	5,000,000	0	0	0	82,700	5,661,600
6 8 18	Burri Extension (4X10 MW)	413,500	1,000,000	1,413,500	413,500	1,000,000	0	0	0	0	1,413,500
6 8 19	Extension of Raseires Station	496,200	5,000,000	5,496,200	496,200	5,000,000	0	0	0	0	5,496,200
6 8 20	Khartoum North Steam Station	661,600	2,000,000	2,661,600	578,900	2,000,000	0	0	0	82,700	2,661,600
6 8 21	New Power in 4 Towns	165,400	2,000,000	2,165,400	124,050	2,000,000	0	0	0	41,350	2,165,400
6 8 22	Training Center	827,000	6,000,000	6,827,000	827,000	6,000,000	0	0	0	0	6,827,000
6 8 23	Power III Transmission Project	827,000	5,000,000	5,827,000	827,000	5,000,000	0	0	0	0	5,827,000
6 8 25	Kassala Elect.	82,700	350,000	432,700	0	350,000	0	0	0	82,700	432,700
6 8 29	Elect. Meters Workshop	165,400	0	165,400	165,400	0	0	0	0	0	165,400
6 8 32	Rehabilitation of K/El Girba Hydro P.S.	165,400	2,000,000	2,165,400	82,700	2,000,000	0	0	0	82,700	2,165,400
6 8 33	Myala Power Station	330,800	4,000,000	4,330,800	330,800	4,000,000	0	0	0	0	4,330,800
6 8 34	Control Center	165,400	3,500,000	3,665,400	165,400	3,500,000	0	0	0	0	3,665,400
6 8 35	Rehabilitation of Blue Nile	661,600	2,000,000	2,661,600	578,900	2,000,000	0	0	0	82,700	2,661,600
6 8 38	Rehabilitation of Burri Power Station	165,400	2,500,000	2,665,400	165,400	2,500,000	0	0	0	0	2,665,400
6 8 41	Atbara New Station	578,900	7,000,000	7,578,900	496,200	7,000,000	0	0	0	82,700	7,578,900
6 8 42	Gaseous New Station	827,000	5,000,000	5,827,000	661,600	5,000,000	0	0	0	165,400	5,827,000
6 8 43	Power IV Project	661,600	0	661,600	0	0	0	0	0	661,600	661,600
	TOTAL (3)	10,006,700	55,350,000	65,356,700	7,649,750	54,687,550	0	0	0	2,819,400	65,356,700
	TOTAL Energy	12,644,003	58,843,000	71,487,003	9,149,750	55,393,550	0	50,000	0	6,893,703	71,487,003

MINING

6 4 0 1. GEOLOGICAL SURVEY DEPARTMENT

6 4 2	Geol. Survey & Exploration in Red Sea Hills	330,800	0	330,800	0	0	248,100	0	0	82,700	330,800
6 4 4	Exploration of Minerals in Sudan	322,530	0	322,530	62,025	0	128,185	82,700	0	49,620	322,530
6 4 8	Sudanese/German Exploration Proj.	140,590	0	140,590	37,215	0	62,025	0	0	41,350	140,590
6 4 9	Natural Building Materials	24,810	0	24,810	0	0	8,270	0	0	16,540	24,810
6 4 11	Geological Survey in Sudan	173,670	0	173,670	66,160	0	49,620	0	0	57,890	173,670
	TOTAL (1)	992,400	0	992,400	165,400	0	496,200	82,700	0	248,100	992,400

2. SUDANESE MINING CORPORATION

6 4 1 1	Mica Production Development	144,725	0	144,725	41,350	0	62,025	0	0	41,350	144,725

SUMMARY OF ENERGY AND MINING SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
	TOTAL (2)	144,725	0	144,725	41,350	0	62,025	0	0	41,350	144,725
	TOTAL Mining	1,137,125	0	1,137,125	206,750	0	558,225	82,700	0	289,450	1,137,125
1 11 0	WATER										
1 11 1	National Water Corp. Drilling Equipment	200,000	3,000,000	3,200,000	0	3,000,000	50,000	0	0	150,000	3,200,000
1 11 3	Water Pumps Installation Equip	250,000	7,000,000	7,250,000	0	7,100,000	50,000	0	0	100,000	7,250,000
1 11 4	Surface Water Research	200,000	0	200,000	80,000	80,000	10,000	0	0	30,000	200,000
1 11 5	Haffirs Construction Equipment	250,000	1,500,000	1,750,000	0	1,500,000	20,000	80,000	0	150,000	1,750,000
1 11 6	Haffirs Improvements Equip.	70,000	0	70,000	0	60,000	5,000	0	0	5,000	70,000
1 11 7	Wells Drilling Equipment	70,000	0	70,000	0	60,000	5,000	0	0	5,000	70,000
1 11 8	Underground Water Research	350,000	0	350,000	100,000	150,000	10,000	80,000	0	10,000	350,000
1 11 9	Improvements at Water Services	40,000	0	40,000	20,000	15,000	0	0	0	5,000	40,000
1 11 10	Mech. and Manufacturing Dept.	200,000	400,000	600,000	100,000	400,000	10,000	80,000	0	10,000	600,000
1 11 11	Promotion of Water Stations	36,500	0	36,500	0	0	16,000	0	0	20,500	36,500
1 11 12	Technical Aid for Research	200,000	0	200,000	0	0	50,000	0	0	150,000	200,000
1 11 13	Maintenance Workshops	2,400,000	0	2,400,000	1,400,000	0	0	0	0	1,000,000	2,400,000
1 11 14	Water Balance	100,000	0	100,000	10,000	60,000	10,000	0	0	20,000	100,000
1 11 15	Nubian Sand Stone	300,000	0	300,000	100,000	50,000	20,000	80,000	0	50,000	300,000
1 11 16	Promotion of Water Resources in West of Sudan	250,000	3,100,000	3,350,000	0	3,100,000	0	160,000	0	90,000	3,350,000
6 9 1	Port Sudan Water Supply	240,000	0	240,000	0	200,000	0	0	0	40,000	240,000
6 9 2	El Fasher Water Supply	300,000	0	300,000	250,000	0	0	0	0	50,000	300,000
6 9 3	Improvement at Water Services in the Small Towns	1,200,000	0	1,200,000	200,000	900,000	0	0	0	100,000	1,200,000
6 9 9	Improvement at Water Services in Rahad Reserves	300,000	0	300,000	0	200,000	20,000	0	0	80,000	300,000
6 9 10	Improvement at Water Services in El Obeid	300,000	0	300,000	100,000	150,000	15,000	0	0	35,000	300,000
6 9 13	Improvement of Water Services in Southern Region Towns	600,000	0	600,000	0	450,000	30,000	0	0	120,000	600,000
	TOTAL Water	7,856,500	15,000,000	22,856,500	2,360,000	17,475,000	321,000	480,000	0	2,220,500	22,856,500
	TOTAL Energy and Mining Sector	21,637,628	73,843,000	95,480,628	11,716,500	72,858,550	879,225	612,700	0	9,403,653	95,480,628

TRANSPORTATION AND COMMUNICATIONS SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	Total	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	Total
SUMMARY											
	1. MINISTRY OF TRANSPORT AND COMMUNICATIONS										
	A. TRANSPORT (TOTAL)	4,027,490	3,200,000	7,227,490	1,125,704	3,258,850	1,268,000	0	400,000	1,174,936	7,227,490
	(i) Mechanical Transport Dept.	388,690	0	388,690	125,704	258,850	3,000	0	0	1,136	388,690
	(ii) River Transport Corp.	3,638,800	3,200,000	6,838,800	1,000,000	3,000,000	1,265,000	0	400,000	1,173,800	6,838,800
	B. COMMUNICATION (TOTAL)	603,710	0	603,710	198,210	248,100	0	0	82,700	82,700	603,710
	(i) Post & Telegraph Public Corp.	603,710	0	603,710	198,210	248,100	0	0	82,700	82,700	603,710
	2. MINISTRY OF CONSTRUCTION (TOT)	18,938,300	27,100,000	46,038,300	1,168,350	11,989,000	4,045,550	165,400	796,200	27,873,800	46,038,300
	(i) Road and Bridge Public Corp.	18,938,300	27,100,000	46,038,300	1,168,350	11,989,000	4,045,550	165,400	796,200	27,873,800	46,038,300
	3. MINISTRY OF DEFENSE										
	(i) Civil Aviation Dept.	4,713,900	7,000,000	11,713,900	2,253,575	3,744,300	467,255	752,570	330,800	4,165,400	11,713,900
	TOTAL Aviation	4,713,900	7,000,000	11,713,900	2,253,575	3,744,300	467,255	752,570	330,800	4,165,400	11,713,900
	TOTAL Transport and Communications Sector	28,283,400	37,300,000	65,583,400	4,737,839	19,240,250	5,780,805	917,970	1,609,700	33,296,836	65,583,400
7 5 0	MECHANICAL TRANSPORT DEPT.										
7 5 4	Expansion on Feuil Supply	16,540	0	16,540	1,654	10,750	3,000	0	0	1,136	16,540
7 5 5	Const. of Workshop and Stores	248,100	0	248,100	0	248,100	0	0	0	0	248,100
7 5 7	New Workshop at Khartoum North	124,050	0	124,050	124,050	0	0	0	0	0	124,050
	TOTAL Mech. Trans. Dept.	388,690	0	388,690	125,704	258,850	3,000	0	0	1,136	388,690
7 6 0	RIVER TRANSPORT CORP.										
7 6 1	Development of River Trans.										
	(A) Assembling and Modernization of Vessels	1,654,000	3,000,000	4,654,000	0	3,000,000	500,000	0	400,000	754,000	4,654,000
	(B) Improvement of Harbour	1,819,400	0	1,819,400	1,000,000	0	600,000	0	0	219,400	1,819,400
	(C) Improvement of Navigation and Navigation Aids	165,400	200,000	365,400	0	0	165,000	0	0	200,400	365,400
	TOTAL River Trans. Corp.	3,638,800	3,200,000	6,838,800	1,000,000	3,000,000	1,265,000	0	400,000	1,173,800	6,838,800

TRANSPORTATION AND COMMUNICATIONS SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	Total	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	Total
7 2 0	**POST & TELEGRAPH PUBLIC CORPORATION**										
7 2 1	Const. of P & T Offices Two Houses for Post Masters	190,210	0	190,210	190,210	0	0	0	0	0	190,210
7 2 2	Const. of P & T Institute	82,700	0	82,700	0	82,700	0	0	0	0	82,700
7 2 12	Consolidation of P & T Public Corp.	330,800	0	330,800	0	165,400	0	0	82,700	82,700	330,800
	TOTAL P & T Public Corp.	603,710	0	603,710	190,210	248,100	0	0	82,700	82,700	603,710
7 1 0	**ROADS & BRIDGES PUBLIC CORP**										
7 1 1	R.B.P.C. Support	2,481,000	4,000,000	6,481,000	289,450	4,827,000	41,350	165,400	165,400	992,400	6,481,000
7 1 4	Strengthening of Madani-Sinnar-Kosti	1,612,650	0	1,612,650	0	900,000	165,400	0	0	547,250	1,612,650
7 1 8	Camps at Nyala-Kas-Zalingei	827,000	3,600,000	4,427,000	413,500	0	165,400	0	248,100	3,600,000	4,427,000
7 1 9	Jebel Aulia - El Duiem Road	248,100	0	248,100	0	0	0	0	0	248,100	248,100
	El Duiem - Rabak Road	744,300	1,300,000	2,044,300	0	0	0	0	82,700	1,961,600	2,044,300
7 1 10	Sinnar - Singa-Damazine Road	827,000	1,300,000	2,127,000	300,000	1,300,000	200,000	0	300,000	27,000	2,127,000
7 1 11	Studies for New Roads	683,710	2,100,000	2,783,710	0	0	0	0	0	2,783,710	2,783,710
7 1 14	El Obeid - El Debeibat	595,440	2,300,000	2,895,440	0	0	0	0	0	2,895,440	2,895,440
7 1 15	Nyala - El Fashir Road	413,500	2,200,000	2,613,500	0	0	0	0	0	2,613,500	2,613,500
7 1 16	Singa Bridge	248,100	0	248,100	0	0	0	0	0	248,100	248,100
7 1 18	Administrative Expenditure	3,225,300	0	3,225,300	0	0	3,225,300	0	0	0	3,225,300
7 1 19	Maintenance of Road Completed	4,548,500	1,000,000	5,548,500	0	4,548,500	0	0	0	1,000,000	5,548,500
7 1 21	Sudan - Kenya Road	413,500	2,300,000	2,713,500	0	0	0	0	0	2,713,500	2,713,500
7 1 22	Rabak - El Gebelein Road	827,000	0	827,000	165,400	413,500	248,100	0	0	0	827,000
7 1 23	Kosti - Um Ruwaba - El Obeid	827,000	3,000,000	3,827,000	0	0	0	0	0	3,827,000	3,827,000
7 1 24	Juba - Ber - Kenger Road	248,100	1,000,000	1,248,100	0	0	0	0	0	1,248,100	1,248,100
7 1 25	Maintenance of Southern Region Roads	248,100	3,000,000	3,248,100	0	0	0	0	0	3,248,100	3,248,100
	TOTAL R.B.P.C.	18,938,300	27,100,000	46,038,300	1,168,350	11,989,000	4,045,550	165,400	796,200	27,873,800	46,038,300
7 7 0	**CIVIL AVIATION DEPARTMENT**										
7 7 1	Improvement of Khartoum Airport	1,736,700	0	1,736,700	1,591,975	0	62,025	0	0	82,700	1,736,700
7 7 3	Improvement of Domestic Airports	1,488,600	0	1,488,600	372,150	496,200	124,050	496,200	0	0	1,488,600
7 7 6	(Juba Airport	413,500	2,000,000	2,413,500	165,400	0	248,100	0	0	2,000,000	2,413,500
	(B) Port Sudan Airport	82,700	2,000,000	2,082,700	0	0	0	0	0	2,082,700	2,082,700
7 7 7	Modernization of Navigational Aids	992,400	3,000,000	3,992,400	124,050	3,248,100	33,080	256,370	330,800	0	3,992,400
	TOTAL Civil Aviation Dept.	4,713,900	7,000,000	11,713,900	2,253,575	3,744,300	467,255	752,570	330,800	4,165,400	11,713,900

TRANSPORTATION AND COMMUNICATIONS SECTOR

No. of Project	Name of Unit	Local Currency	Foreign Currency	Total	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	Total
	TOTAL Transport and Communications Sector	28,283,400	37,300,000	65,583,400	4,737,839	19,240,250	5,788,885	917,970	1,609,700	33,296,836	65,583,400

SUMMARY OF SELF-FINANCING UNITS

No. of	Name of Unit	Local Currency	Foreign Currency	Total	Building and Construction	Machinery and Equipment	Salaries and Wages	Vehicles	Customs	Others	Total
1	Telecommunications Corp.	7,000,000	12,000,000	19,000,000	1,510,000	11,910,000	270,000	400,000	4,690,000	220,000	19,000,000
2	Sudan Railways Corp.	15,000,000	14,000,000	29,000,000	8,500,000	12,750,000	1,000,000	0	0	6,250,000	28,500,000
3	Sea Port Corp.	10,000,000	9,350,000	19,350,000	14,710,000	4,100,000	0	0	0	2,340,000	21,150,000
4	Tourism & Hotels Pub. Corp.	4,000,000	3,135,000	7,135,000	2,790,000	3,741,000	0	570,500	0	393,500	7,495,000
5	Agricultural Bank	5,200,000	4,800,000	10,000,000	0	0	0	0	0	10,000,000	10,000,000
	TOTAL	41,200,000	43,285,000	84,485,000	27,510,000	32,501,000	1,270,000	970,500	4,690,000	19,203,500	86,145,000

TELECOMMUNICATIONS CORPORATION

7 3 1	Telephone Exchanges/Main Towns	565,000	1,500,000	2,065,000	500,000	1,000,000	45,000	100,000	420,000	20,000	2,065,000
7 3 2	International Telephone Exchan	395,000	1,000,000	1,395,000	0	1,000,000	20,000	35,000	300,000	40,000	1,395,000
7 3 5	Underground Cable Network	1,140,000	2,000,000	3,140,000	70,000	2,000,000	50,000	190,000	800,000	30,000	3,140,000
7 3 9	Improvement of Telex Services	340,000	1,000,000	1,340,000	0	910,000	20,000	60,000	300,000	50,000	1,340,000
7 3 10	Rural Telecommunication	0	0	0	0	0	0	0	0	0	0
7 3 11	Mechanical & Electrical Works	250,000	0	250,000	200,000	0	15,000	15,000	0	20,000	250,000
7 3 18	Extension of Microwave Link	0	0	0	0	0	0	0	0	0	0
7 3 19	New International Station	0	0	0	0	0	0	0	0	0	0
7 3 22	Rehab. of Telecommunications	550,000	1,000,000	1,550,000	200,000	1,000,000	20,000	0	300,000	30,000	1,550,000
7 3 23	Arab Sat	1,400,000	2,000,000	3,400,000	500,000	2,000,000	10,000	0	890,000	0	3,400,000
7 3 24	Umharas Station	1,060,000	1,000,000	2,060,000	10,000	1,500,000	50,000	0	500,000	0	2,060,000
7 3 25	Sudosat Network	550,000	1,000,000	1,550,000	0	1,000,000	20,000	0	500,000	30,000	1,550,000
7 3 26	Frequency Monitoring Station	440,000	1,000,000	1,440,000	30,000	1,000,000	10,000	0	400,000	0	1,440,000
7 3 27	Studies	310,000	500,000	810,000	0	500,000	10,000	0	300,000	0	810,000
	TOTAL	7,000,000	12,000,000	19,000,000	1,510,000	11,910,000	270,000	400,000	4,690,000	220,000	19,000,000

RAILWAYS CORPORATION

7 8 1	Track Installation	2,500,000	5,500,000	8,000,000	2,000,000	4,500,000	500,000	0	0	1,000,000	8,000,000
7 8 2	Building & Establishments	3,000,000	1,000,000	4,000,000	2,000,000	1,000,000	500,000	0	0	0	3,500,000
7 8 3	Workshop Equipment	2,000,000	0	2,000,000	0	1,000,000	0	0	0	1,000,000	2,000,000
7 8 4	Signalling & Communication	1,020,000	4,000,000	5,020,000	4,500,000	0	0	0	0	500,000	5,000,000
7 8 5	Handling Facilities	1,500,000	0	1,500,000	0	1,000,000	0	0	0	500,000	1,500,000
7 8 6	Freight Wagon	500,000	0	500,000	0	0	0	0	0	500,000	500,000
7 8 7	Oil Tankers	0	2,000,000	2,000,000	0	2,000,000	0	0	0	0	2,000,000
7 8 8	Brake Vans	1,500,000	0	1,500,000	0	1,000,000	0	0	0	500,000	1,500,000
7 8 9	Service Cars	1,000,000	0	1,000,000	0	750,000	0	0	0	250,000	1,000,000
7 8 10	Passenger Coaches	1,000,000	1,500,000	2,500,000	0	1,500,000	0	0	0	1,000,000	2,500,000
7 8 14	Miscellaneous	1,000,000	0	1,000,000	0	0	0	0	0	1,000,000	1,000,000
	TOTAL	15,000,000	14,000,000	29,000,000	8,500,000	12,750,000	1,000,000	0	0	6,250,000	28,500,000

SEA PORTS CORPORATION										
7 10 1 Port Sudan Development	9,500,000	9,150,000	18,650,000	12,710,000	4,100,000	0	0	0	1,840,000	18,650,000
7 10 3 Basic Infrastructure for Port Sudan Area	500,000	200,000	700,000	2,000,000	0	0	0	0	500,000	2,500,000
TOTAL	10,000,000	9,350,000	19,350,000	14,710,000	4,100,000	0	0	0	2,340,000	21,150,000
TOURISM AND HOTELS PUBLIC CORPORATION										
A. Tourism										
6 7 1 Dinder National Park	360,000	0	360,000	360,000	360,000	0	0	0	0	720,000
6 7 2 Red Sea Project	260,000	0	260,000	0	0	0	260,000	0	0	260,000
6 7 3 Studies Project	30,000	0	30,000	0	0	0	0	0	30,000	30,000
TOTAL Tourism	650,000	0	650,000	360,000	360,000	0	260,000	0	30,000	1,010,000
B. Hotels										
6 6 4 Sudan Hotel	750,000	0	750,000	750,000	0	0	0	0	0	750,000
6 6 5 Juba Hotel	600,000	0	600,000	600,000	0	0	0	0	0	600,000
6 6 5 Red Sea Hotel	730,000	0	730,000	730,000	0	0	0	0	0	730,000
TOTAL Hotels	2,080,000	0	2,080,000	2,080,000	0	0	0	0	0	2,080,000
C. Catering Department										
6 7 11 Lemonade Factory	1,024,000	3,135,000	4,159,000	350,000	3,135,000	0	310,500	0	363,500	4,159,000
6 7 13 Automatic Ovens	246,000	0	246,000	0	246,000	0	0	0	0	246,000
TOTAL Catering	1,270,000	3,135,000	4,405,000	350,000	3,381,000	0	310,500	0	363,500	4,405,000
TOTAL	4,000,000	3,135,000	7,135,000	2,790,000	3,741,000	0	570,500	0	393,500	7,495,000
AGRICULTURAL BANK										
5 14 1 Agricultural Services	5,200,000	4,800,000	10,000,000	0	0	0	0	0	10,000,000	10,000,000
TOTAL Agricultural	5,200,000	4,800,000	10,000,000	0	0	0	0	0	10,000,000	10,000,000

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
SUMMARY											
	Ministry of Agriculture (Total)	38,762,000	96,575,000	135,337,000	26,828,000	68,084,000	5,709,000	8,539,000	5,575,000	28,682,000	135,337,000
1	Agricultural Production (HQ & So. Region Proj.)	4,082,000	12,348,000	16,430,000	1,113,000	4,128,000	2,046,000	404,000	265,000	8,474,000	16,430,000
2	Western Savannah Development Corporation	3,586,000	7,824,000	11,530,000	1,586,000	2,362,000	2,884,000	113,000	300,000	3,285,000	10,530,000
3	Strengthening and Rehabilitation of Agric Corporation	14,303,000	35,229,000	49,532,000	12,867,000	25,432,000	619,000	3,668,000	2,090,000	5,656,000	49,532,000
4	Gezira Rehabilitation Project	12,453,000	37,306,000	49,759,000	7,882,000	26,181,000	160,000	4,354,000	2,640,000	8,622,000	49,759,000
5	Mechanized Farming Corp.	773,000	4,668,000	5,441,000	655,000	1,901,000	0	0	280,000	2,605,000	5,441,000
6	Rahad Agric Corp.	3,645,000	0	3,645,000	3,605,000	0	0	0	0	40,000	3,645,000
	Agricultual Services Admin. (Total)	7,622,000	10,997,000	18,619,000	8,962,000	4,260,000	918,000	684,000	295,000	3,500,000	18,619,000
7	Plant Protection Admin.	210,000	2,115,000	2,325,000	0	2,175,000	0	0	95,000	55,000	2,325,000
8	Horticulture Admin.	251,000	0	251,000	88,000	22,000	42,000	94,000	0	5,000	251,000
9	Soil Analysis Admin.	140,000	0	140,000	140,000	0	0	0	0	0	140,000
10	Seed Propagation Admin.	1,000,000	3,759,000	4,759,000	1,698,000	1,440,000	12,000	540,000	100,000	977,000	4,759,000
11	Agric Research Corp.	6,021,000	5,123,000	11,144,000	7,044,000	623,000	864,000	50,000	100,000	2,463,000	11,144,000
	Natural Resources Administration (Total)	2,980,000	7,853,000	10,833,000	686,000	3,042,000	1,898,000	0	415,000	4,600,000	10,833,000
12	Soil Conservation Admin.	1,022,000	2,285,000	3,307,000	399,000	730,000	1,497,000	0	0	681,000	3,307,000
13	Forest Department	1,362,000	5,168,000	6,530,000	155,000	2,291,000	353,000	0	300,000	3,431,000	6,530,000
14	Pasture and Forage Admin.	553,000	294,000	847,000	315,000	2,000	0	0	115,000	415,000	847,000
15	Anti Desert Creep Campaign	43,000	106,000	149,000	17,000	19,000	40,000	0	0	73,000	149,000
	Animal Resources Admin. (Total)	9,101,000	6,469,000	15,570,000	9,112,000	2,355,000	369,000	395,000	286,000	3,051,000	15,568,000
16	Animal Production Admin.	660,000	36,000	696,000	545,000	25,000	0	80,000	10,000	36,000	696,000
17	Public Animal Production Corporation	2,852,000	0	2,852,000	924,000	50,000	319,000	0	0	1,559,000	2,852,000
18	Veterinary Research and Lab Administration	700,000	0	700,000	571,000	129,000	0	0	0	0	700,000
19	Disease Control Admin.	556,000	0	556,000	50,000	136,000	50,000	225,000	0	95,000	556,000
20	Veterinary Services Admin.	1,189,000	1,000,000	2,189,000	770,000	22,000	0	90,000	0	1,305,000	2,187,000
21	Fisheries Dept.	338,000	258,000	596,000	152,000	368,000	0	0	50,000	26,000	596,000
22	Livestock and Meat Marketing Project	2,806,000	5,175,000	7,981,000	6,100,000	1,625,000	0	0	226,000	30,000	7,981,000
	Ministry of Irrigation (Total)	13,785,000	20,758,000	34,543,000	10,566,000	6,720,000	2,114,000	26,000	850,000	14,267,000	34,543,000
23	Irrigation Projects	12,185,000	17,979,000	30,164,000	9,770,000	5,979,000	250,000	0	650,000	13,515,000	30,164,000
24	Junglei Project (executive Organ)	1,200,000	2,779,000	3,979,000	396,000	741,000	1,864,000	26,000	200,000	752,000	3,979,000
25	Reconstruction of	400,000	0	400,000	400,000	0	0	0	0	0	400,000

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
	Wadi Halfa and Nuba Lake										
26	Modernization of Agric. Sector	93,000	0	93,000	0	0	15,000	0	0	78,000	93,000
	TOTAL	72,343,000	142,652,000	214,995,000	56,354,000	76,381,000	11,015,000	9,644,000	7,421,000	54,178,000	214,993,000
	MINISTRY OF AGRICULTURE										
	1. Agricultural Production										
	1 1 0 (A) HEADQUARTERS PROJECTS										
1 1 1	Sag el Naam Experimental Project	143,000	0	143,000	3,000	54,000	48,000	0	0	38,000	143,000
1 1 4	White Nile Expr. Rice Farm	96,000	0	96,000	0	0	78,000	0	0	18,000	96,000
1 1 10	Agricultural Planning	248,000	0	248,000	0	0	0	0	0	248,000	248,000
1 1 13	Abyei Area Rural Development Project	500,000	1,000,000	1,500,000	0	0	0	0	0	1,500,000	1,500,000
1 1 14	Tamboul Farm Machinery Training Center	75,000	0	75,000	20,000	0	35,000	0	10,000	10,000	75,000
1 1 16	Musad Training Center	600,000	1,170,000	1,770,000	410,000	1,170,000	25,000	0	130,000	35,000	1,770,000
	TOTAL (A)	1,662,000	2,170,000	3,832,000	433,000	1,224,000	186,000	0	140,000	1,849,000	3,632,000
	(B) SOUTHERN REGION PROJECTS										
1 1 6	Rice Production in Ameil	530,000	1,736,000	2,266,000	80,000	1,736,000	0	0	50,000	400,000	2,266,000
1 1 7	Coffee Production	42,000	0	42,000	20,000	0	15,000	0	0	7,000	42,000
1 1 8	Tea Production										
	a- Experimental Tea Proj.	35,000	0	35,000	20,000	0	15,000	0	0	0	35,000
	b- Upper Talanga Tea Proj.	105,000	2,122,000	2,227,000	50,000	418,000	850,000	154,000	25,000	730,000	2,227,000
1 1 15	Agricultural Rehabilitation Southern Reg. Phase II	1,708,000	6,320,000	8,028,000	510,000	750,000	900,000	250,000	50,000	5,458,000	8,028,000
	TOTAL (B)	2,420,000	10,178,000	12,598,000	680,000	2,904,000	1,860,000	404,000	125,000	6,625,000	12,598,000
	TOTAL (1)	4,082,000	12,348,000	16,430,000	1,113,000	4,128,000	2,046,000	404,000	265,000	8,474,000	16,430,000
	2. Western Savannah Development Corporation										
1 1 3	South Darfur & Savann. Belt Development Proj.	1,000,000	5,083,000	6,083,000	1,260,000	1,300,000	1,483,000	0	150,000	1,970,000	6,083,000
1 1 2	Jebel Marra Rural	2,506,000	1,941,000	4,447,000	326,000	1,062,000	1,481,000	113,000	150,000	1,315,000	4,447,000

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
	Development Project										
	TOTAL (2)	3,506,000	7,024,000	10,530,000	1,505,000	2,362,000	2,884,000	113,000	300,000	3,285,000	10,530,000
	3. Strengthening and Rehabilitation of Agri-Corporation										
1 8 2	Northern Agri-Corp.	1,509,000	6,045,000	7,554,000	480,000	3,458,000	30,000	927,290	500,000	2,159,000	7,554,000
1 8 3 (a)	Blue Nile Agri-Corp.	2,722,000	9,802,000	12,524,000	1,055,000	9,016,000	187,000	786,000	750,000	730,000	12,524,000
(b)	White Nile Agri-Corp.	2,345,000	7,582,000	9,927,000	2,045,000	5,688,000	0	644,000	500,000	1,050,000	9,927,000
(c)	New Halfa Agri-Corp.	2,745,000	11,179,000	13,924,000	7,700,000	4,397,000	0	572,000	300,000	955,000	13,924,000
1 8 4 (a)	Nuba Mountains Agri-Corp.	850,000	0	850,000	0	650,000	0	200,000	0	0	850,000
(b)	Nuba Mountains Rural Development Project	1,761,000	270,000	2,031,000	275,000	742,000	402,000	65,000	40,000	507,000	2,031,000
(c)	Nuba Mountains Exp. Farm	55,000	351,000	406,000	0	88,000	0	78,000	0	240,000	406,000
1 8 5	El Suki Corp.	596,000	0	596,000	252,000	208,000	0	136,000	0	0	596,000
1 8 8	Tokar Delta Corp.	510,000	0	510,000	90,000	335,000	0	85,000	0	0	510,000
1 8 9	Dash Delta Corporation	1,000,000	0	1,000,000	25,000	850,000	0	125,000	0	0	1,000,000
1 8 10	Improvement and Strength. Kha. Agricultural Projects	210,000	0	210,000	145,000	0	0	50,000	0	15,000	210,000
	TOTAL (3)	14,303,000	35,229,000	49,532,000	12,067,000	25,432,000	619,000	3,668,000	2,090,000	5,556,000	49,532,000
1 9 0	4. Gezira Rehabilitation Project										
1 9 1 (a)	Gezira Rehab. Executing Unit	332,000	500,000	832,000	0	0	70,000	80,000	0	682,000	832,000
(b)	Gezira Administration	7,426,000	20,767,000	28,193,000	4,545,000	17,835,000	0	2,488,000	1,735,000	1,590,000	28,193,000
(c)	Irrigation	2,489,000	10,242,000	12,731,000	1,315,000	5,396,000	0	851,000	485,000	4,684,000	12,731,000
(d)	Gezira Research	600,000	2,942,000	3,542,000	706,000	1,389,000	0	706,000	300,000	441,000	3,542,000
(e)	Rural Water Development	1,306,000	1,738,000	3,044,000	1,051,000	1,548,000	0	190,000	100,000	155,000	3,044,000
(f)	Health Program	300,000	1,117,000	1,417,000	185,000	13,000	90,000	39,000	20,000	1,070,000	1,417,000
	TOTAL (4)	12,453,000	37,306,000	49,759,000	7,802,000	26,181,000	160,000	4,354,000	2,640,000	8,622,000	49,759,000
1 10 0	5. Mechanized Farming Corp.										
1 10 3	Sam Sam Experimental Project	0	2,920,000	2,920,000	0	733,000	0	0	0	2,187,000	2,920,000
1 10 8	Mech. Farming Proj. III	773,000	1,748,000	2,521,000	655,000	1,168,000	0	0	280,000	418,000	2,521,000
	TOTAL (5)	773,000	4,668,000	5,441,000	655,000	1,901,000	0	0	280,000	2,605,000	5,441,000
3 1 0	6. Rahad Agri. Corp.										

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
3 1 1	Rahad Operational Works	2,845,000	0	2,845,000	2,805,000	0	0	0	0	40,000	2,845,000
3 1 4	Commissioner's Office Service Budget	800,000	0	800,000	800,000	0	0	0	0	0	800,000
	TOTAL (6)	3,645,000	0	3,645,000	3,605,000	0	0	0	0	40,000	3,645,000
	TOTAL Agri. Crop Prod. (1+2+3+4+5+6)	38,762,000	96,575,000	135,337,000	26,828,000	60,004,000	5,709,000	8,539,000	5,575,000	28,682,000	135,337,000
	AGRI. SERVICES ADMINISTRATION										
1 2 0	1. Plant Protection Department										
1 2 1	Modernization of Plant and Protection Services	100,000	1,659,000	1,759,000	0	1,659,000	0	0	75,000	25,000	1,759,000
1 2 3	Horticultural Pest Control	110,000	456,000	566,000	0	516,000	0	0	20,000	30,000	566,000
	TOTAL (1)	210,000	2,115,000	2,325,000	0	2,175,000	0	0	95,000	55,000	2,325,000
1 4 0	2. Horticulture Adm.										
1 4 1	Expansion of Hort. Crops	65,000	0	65,000	50,000	0	15,000	0	0	0	65,000
1 4 3	Tobacco Products Proj.	186,000	0	186,000	38,000	22,000	27,000	94,000	0	5,000	186,000
	TOTAL (2)	251,000	0	251,000	88,000	22,000	42,000	94,000	0	5,000	251,000
1 5 0	3. Soil Analysis Admin.										
1 5 1	Strengthening of Soil Analysis Station	140,000	0	140,000	140,000	0	0	0	0	0	140,000
	TOTAL (3)	140,000	0	140,000	140,000	0	0	0	0	0	140,000
1 6 0	4. Seed Propagation Admin.										
1 6 1	Strengthening of Seed Propagation Stations	1,000,000	3,759,000	4,759,000	1,690,000	1,440,000	12,000	540,000	100,000	977,000	4,759,000

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
	TOTAL (4)	1,000,000	3,759,000	4,759,000	1,690,000	1,440,000	12,000	540,000	100,000	977,000	4,759,000
1 7 0	5. Agric. Research Corp.										
1 7 1	Strengthening of Agr. Research Station	867,000	1,123,000	1,990,000	917,000	623,000	0	50,000	100,000	300,000	1,990,000
1 7 3	Western Sudan Agr. Research Project	5,154,000	4,000,000	9,154,000	6,127,000	0	864,000	0	0	2,163,000	9,154,000
	TOTAL (5)	6,021,000	5,123,000	11,144,000	7,044,000	623,000	864,000	50,000	100,000	2,463,000	11,144,000
	TOTAL Administration	7,622,000	10,997,000	18,619,000	8,962,000	4,268,000	918,000	684,000	295,000	3,500,000	18,619,000
	NATURAL RESOURCES										
1 12 0	1. Soil Conservation Admin.										
1 12 1	Central Laboratories	45,000	0	45,000	0	45,000	0	0	0	0	45,000
1 12 2	Remote Sensing Techniques	5,000	0	5,000	5,000	0	0	0	0	0	5,000
1 12 3 (a)	Settlement of Nomad Studies	30,000	0	30,000	15,000	15,000	0	0	0	0	30,000
(b)	Savannah Survey Land Reclam.	17,000	0	17,000	10,000	0	4,000	0	0	3,000	17,000
1 12 4	Study of Seasonal Rivers	25,000	0	25,000	0	0	25,000	0	0	0	25,000
1 12 5	Blue Nile Integ. Agric. Development Project	960,000	2,285,000	3,185,000	369,000	670,000	1,468,000	0	0	678,000	3,185,000
	TOTAL (1)	1,022,000	2,285,000	3,307,000	399,000	730,000	1,497,000	0	0	681,000	3,307,000
1 13 0	2. Forestry Department										
1 13 3	Reservation of Forests	194,000	718,000	912,000	84,000	530,000	175,000	0	50,000	73,000	912,000
1 13 4	Dev. of Gum Arabic Products	790,000	2,950,000	3,740,000	0	200,000	174,000	0	50,000	3,316,000	3,740,000
1 13 5	Sudan Wood Production	261,000	1,500,000	1,761,000	41,000	1,500,000	0	0	200,000	20,000	1,761,000
1 13 8	Shelters Belts	117,000	0	117,000	30,000	61,000	4,000	0	0	22,000	117,000
	TOTAL (2)	1,362,000	5,168,000	6,530,000	155,000	2,291,000	353,000	0	300,000	3,431,000	6,530,000
5 10 0	3. Pastures and Forage Admin.										
5 10 1 (a)	Conservation of Pasture	122,000	0	122,000	65,000	2,000	0	0	0	55,000	122,000
(b)	Improvement of Pasture	431,000	294,000	725,000	250,000	0	0	0	115,000	350,000	725,000

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
	TOTAL (3)	553,000	294,000	847,000	315,000	2,000	0	0	115,000	415,000	847,000
1 13 2	4. Desert Creep Campaign Projects										
1 13 2	Desert Creep Campaign Projects	43,000	106,000	149,000	17,000	19,000	40,000	0	0	73,000	149,000
	TOTAL (4)	43,000	106,000	149,000	17,000	19,000	40,000	0	0	73,000	149,000
	TOTAL Natural Resources	2,980,000	7,853,000	10,833,000	886,000	3,042,000	1,890,000	0	415,000	4,600,000	10,833,000
	ANIMAL RESOURCES ADMIN.										
5 2 0	1. Animal Prod. Research Services Administration										
5 2 2	Poultry Research and Produc.	175,000	0	175,000	175,000	0	0	0	0	0	175,000
5 2 4	Animal Production Complex	100,000	0	100,000	100,000	0	0	0	0	0	100,000
5 2 5	Improvement of Leather and Skin Production	40,000	0	40,000	40,000	0	0	0	0	0	40,000
5 4 1	Consolidation of Animal Product. Research	345,000	36,000	381,000	230,000	25,000	0	80,000	10,000	36,000	381,000
	TOTAL (1)	660,000	36,000	696,000	545,000	25,000	0	80,000	10,000	36,000	696,000
5 3 0	2. Public Animal Prod. Corp.										
5 3 6	North Gezira Dairy Prod.	870,000	0	870,000	847,000	0	18,000	0	0	5,000	870,000
5 3 7	Khartoum Fodder Industry	1,315,000	0	1,315,000	0	0	146,000	0	0	1,169,000	1,315,000
5 3 8	Chicken Product. Project	500,000	0	500,000	0	0	155,000	0	0	345,000	500,000
5 3 4	Development of Nuba Lake Fisheries	167,000	0	167,000	77,000	50,000	0	0	0	40,000	167,000
	TOTAL (2)	2,852,000	0	2,852,000	924,000	50,000	319,000	0	0	1,559,000	2,852,000
5 5 0	3. Veterinary Research and Lab Administration										
5 5 1	Central Veterinary Res. Lab	700,000	0	700,000	571,000	129,000	0	0	0	0	700,000
	TOTAL (3)	700,000	0	700,000	571,000	129,000	0	0	0	0	700,000

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
5 6 0	4. Disease Control Admin.										
5 6 1	Rinder Pest Control	435,000	0	435,000	0	110,000	25,000	225,000	0	75,000	435,000
5 6 3	Control of Ticks and Tick-Related Disease	80,000	0	80,000	50,000	0	15,000	0	0	15,000	80,000
5 6 4	Control of Abu Ginait	41,000	0	41,000	0	26,000	10,000	0	0	5,000	41,000
	TOTAL (4)	556,000	0	556,000	50,000	136,000	50,000	225,000	0	95,000	556,000
5 8 0	5. Veterinary Service Admin.										
5 8 1	Livestock Route and Veterinary Guard Post	300,000	1,000,000	1,300,000	0	0	0	0	0	1,300,000	1,300,000
5 8 2	Khartoum Vet. Hospital	105,000	0	105,000	105,000	0	0	0	0	0	105,000
5 8 3	Improvement of Vet. Services in Provinces	180,000	0	180,000	180,000	0	0	0	0	0	180,000
5 8 4	Improvement of Vet Ext. Service	82,000	0	82,000	82,000	0	0	0	0	0	82,000
5 6 2	Disease Free Zone	522,000	0	522,000	403,000	22,000	0	90,000	0	5,000	520,000
	TOTAL (5)	1,189,000	1,000,000	2,189,000	770,000	22,000	0	90,000	0	1,305,000	2,187,000
5 9 0	6. Fisheries Department										
5 9 2	Marine Fisheries Development	188,000	258,000	446,000	62,000	308,000	0	0	50,000	26,000	446,000
5 9 3	Inland Fisheries Development	150,000	0	150,000	90,000	60,000	0	0	0	0	150,000
	TOTAL (6)	338,000	258,000	596,000	152,000	368,000	0	0	50,000	26,000	596,000
5 11 0	7. Livestock and Meat Marketing Corporation										
5 11 1	Livestock Marketing Proj.	2,806,000	5,175,000	7,981,000	6,100,000	1,625,000	0	0	226,000	30,000	7,981,000
	TOTAL (7)	2,806,000	5,175,000	7,981,000	6,100,000	1,625,000	0	0	226,000	30,000	7,981,000
	TOTAL Animal Resources	9,101,000	6,469,000	15,570,000	9,112,000	2,355,000	369,000	395,000	286,000	3,051,000	15,568,000

MINISTRY OF IRRIGATION

2 1 0 1. Irrigation Projects

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
2 1 2	Improvement of Irrigation Means	2,570,000	6,500,000	9,070,000	1,770,000	4,500,000	0	0	500,000	2,300,000	9,070,000
2 1 3	Grouping Up & Electrification of Pump Scheme										
	(a) Ramash	1,000,000	0	1,000,000	1,000,000	0	0	0	0	0	1,000,000
	(b) Shashaina Irrigation Service	2,900,000	3,979,000	5,879,000	4,950,000	1,479,000	150,000	0	150,000	150,000	6,879,000
2 1 6	Hydrological R. Station	200,000	0	200,000	200,000	0	0	0	0	0	200,000
2 1 7	Irrig. Work in Rahad Proj.	710,000	0	710,000	610,000	0	100,000	0	0	0	710,000
2 1 8	Irrig. Work in Jungli Proj.	3,000,000	3,500,000	6,500,000	0	0	0	0	0	6,500,000	6,500,000
2 1 10	Irrig. Work in Ailafoun Proj.	45,000	0	45,000	0	0	0	0	0	45,000	45,000
2 1 12	Malout Sugar Proj.	1,000,000	0	1,000,000	1,000,000	0	0	0	0	0	1,000,000
2 1 13	Irrig. Work Studies in Atbara and Sitait Rivers	250,000	1,000,000	1,250,000	0	0	0	0	0	1,250,000	1,250,000
2 1 15	Control of River Erosion	260,000	0	260,000	240,000	0	0	0	0	20,000	260,000
2 1 16	Irrig. Work Studies in Merawi Dam	250,000	3,000,000	3,250,000	0	0	0	0	0	3,250,000	3,250,000
	TOTAL (1)	12,185,000	17,979,000	30,164,000	9,770,000	5,979,000	250,000	0	650,000	13,515,000	30,164,000
4 1 0	2. Jungli Project (Executive Organ)										
4 1 1	Development Project in Jungli Canal Area	1,200,000	2,779,000	3,979,000	396,000	741,000	1,864,000	26,000	200,000	752,000	3,979,000
	TOTAL (2)	1,200,000	2,779,000	3,979,000	396,000	741,000	1,864,000	26,000	200,000	752,000	3,979,000
5 12 1	3. Reconstruction of Wadi Halfa and Lake Nuba										
5 12 1	Reconstruction of Wadi Halfa and Lake Nuba	400,000	0	400,000	0	0	0	0	0	400,000	400,000
	TOTAL (3)	400,000	0	400,000	0	0	0	0	0	400,000	400,000
5 13 0	4. Procurement Committee for Modernization of Agric. Sector										
5 13 1	Modernization of Agric. Sector	93,000	0	93,000	0	0	15,000	0	0	78,000	93,000
	TOTAL (4)	93,000	0	93,000	0	0	15,000	0	0	78,000	93,000

AGRICULTURAL SECTOR

Number of Project	Name of Unit	Local Currency	Foreign Currency	TOTAL	Building & Construction	Machinery & Equipment	Salaries & Wages	Vehicles	Customs	Others	TOTAL
	TOTAL Ministry of Irrig.	13,878,000	20,758,000	34,636,000	10,166,000	6,728,000	2,129,000	26,000	850,000	14,745,000	34,636,000
	TOTAL Agric. Sector	72,343,000	142,652,000	214,995,000	55,954,000	76,381,000	11,015,000	9,644,000	7,421,000	54,578,000	214,993,000

Appendix E : Commodity Assistance Spreadsheets and Data Forms

KINGDOM OF NORWAY

NAME OF AGREEMENT	Grant Agreement Between the Norwegian Agency for International Development and Sudan
AGREEMENT NUMBER	
TOTAL COMMITMENT	5,000,000.00
COMMITMENT CURRENCY	U.S. Dollars
GRANT AMOUNT	5,000,000.00
GRANT CURRENCY	U.S. Dollars
LOAN AMOUNT	0.00
LOAN CURRENCY	
DATE OF AGREEMENT	12/83
EFFECTIVE DATE	12/83
TERMINATION DATE	Open
COMMODITY AID RESTRICTED?	Yes

SUDANESE BENEFICIARY ORGANIZATION	TOTAL COMMITMENT	CALENDAR YEAR 1983 JAN-MAR	APR-JUN	JUL-SEP
Al Ayam Print & Pub. House	2,500,000.00			
Al Sahafa	500,000.00			
Government Printing Press	1,000,000.00			
Department of Survey	250,000.00			
Khartoum University Press	430,000.00			
Omdurman University Press	120,000.00			
Ministry of Education	200,000.00			
TOTAL FOR ALL BENEFICIARIES	5,000,000.00	0.00	0.00	0.00

CALENDAR YEAR 1984

OCT-DEC	TOTAL	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	TOTAL	GRAND TOTAL
249,510.00	249,510.00	1,454,101.00	275,567.00			1,729,668.00	1,979,178.00
	0.00	396,409.20				396,409.20	396,409.20
168,275.00	168,275.00	323,053.10	295,820.00			618,873.10	787,148.10
	0.00	201,016.40				201,016.40	201,016.40
		152,833.70	183,175.40				0.00
		84,733.14	15,208.00				0.00
	0.00	1,607,800.00				1,607,800.00	1,607,800.00
417,785.00	417,785.00	3,982,379.70	571,387.00	0.00	0.00	4,553,766.70	4,971,551.70

AMT. NOT REC'D
520,822.00
103,590.80
212,851.90
48,983.60
430,000.00
120,000.00
(1,407,800.00)
28,448.30

ALLOCATIONS AND DISBURSEMENTS

Daral Ayam Printing and Publishing House

DONOR	Kingdom of Norway
AGREEMENT NUMBER	
NAME OF SUPPLIER	Nordo
ADDRESS OF SUPPLIER	N-3001 Drammen, Norge Post Boks 129
DESCRIPTION OF GOODS	Paper
COMMODITY CODE	2:04
VALUE OF GOODS	2,500,000.00
CURRENCY	Dollars
CREDIT DATE	12/83

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
12/83	659 Rell	249,510.24	U.S. Dollars
01/84	1068 Rell	425,834.17	U.S. Dollars
01/84		503,822.58	U.S. Dollars
01/84		45,472.70	U.S. Dollars
02/84	713 Rell	336,353.47	U.S. Dollars
02/84	395 Rell	142,679.09	U.S. Dollars
04/84	551 Rell	275,567.54	U.S. Dollars

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
05/84	381,751.00	Exim Bank
05/84	851,526.24	Exim Bank
05/84	770,849.00	Exim Bank
05/84	69,573.23	Exim Bank
05/84	514,621.00	Exim Bank
05/84	218,299.00	Exim Bank
05/84	435,388.00	Exim Bank

Al Sahafa House

DONOR	Kingdom of Norway
AGREEMENT NUMBER	
NAME OF SUPPLIER	Norad
ADDRESS OF SUPPLIER	N-3001 Drammen, Norge Post Boks 129
DESCRIPTION OF GOODS	Paper
COMMODITY CODE	2:04
VALUE OF GOODS	5,000,000.00
CURRENCY	Dollars
CREDIT DATE	12/83

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
01/84	3231	396,409.20	Dollars

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
02/84	606,506.13	Exim Bank

Government Printing Press

DONOR	Kingdom of Norway
AGREEMENT NUMBER	
NAME OF SUPPLIER	Norad
ADDRESS OF SUPPLIER	N-3001 Drammen, Norge Post Boks 129
DESCRIPTION OF GOODS	Paper

COMMODITY CODE	2:04
VALUE OF GOODS	1.0
CURRENCY	Dollars
CREDIT DATE	12/83

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
12/83	613 Bales	168,275.00	Dollars
02/84	355 Bales	42,324.09	Dollars
02/84	96 Bales	18,047.00	Dollars
02/84	1320 Rells	262,682.00	Dollars
02/84	1234 Rells	251,467.00	Dollars
02/84	357 Rells	44,353.00	Dollars

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
05/84	257,462.00	Exim Bank
06/84	64,756.00	Exim Bank
05/84	27,611.00	Exim Bank
05/84	461,904.00	Exim Bank
06/84	384,745.00	Exim Bank
06/84	67,861.00	Exim Bank

Department of Survey

DONOR	Kingdom of Norway
AGREEMENT NUMBER	
NAME OF SUPPLIER	Norad
ADDRESS OF SUPPLIER	N-3001 Drammen, Norge Post Boks 129
DESCRIPTION OF GOODS	Paper
COMMODITY CODE	2:04
VALUE OF GOODS	.25
CURRENCY	Dollars
CREDIT DATE	12/83

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
01/84	587	105,347.36	Dollars
02/84	495	95,664.00	Dollars

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
02/84	161,181.46	Exim Bank
06/84	146,374.00	Exim Bank

University of Khartoum

DONOR	Kingdom of Norway
AGREEMENT NUMBER	
NAME OF SUPPLIER	Norad
ADDRESS OF SUPPLIER	N-3001 Drammen, Norge Post Boks 129
DESCRIPTION OF GOODS	Paper
COMMODITY CODE	2:04
VALUE OF GOODS	430,000.00
CURRENCY	Dollars
CREDIT DATE	12/84

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
01/84	140 Bales	37,346.40	Dollars

02/84	648 Bales	115,487.27 Dollars
03/84	188 Bales	69,796.00 Dollars
03/84	176 Bales	21,866.36 Dollars
03/84	350 Bales	71,513.00 Dollars

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
05/84	57,139.00	Exim Bank
05/84	176,696.00	Exim Bank
05/84	137,387.00	Exim Bank
05/84	33,455.00	Exim Bank
05/84	109,415.00	Exim Bank

Omdurman Islamic University

DONOR	Kingdom of Norway
AGREEMENT NUMBER	
NAME OF SUPPLIER	Norad
ADDRESS OF SUPPLIER	N-3001 Drammen, Norge Post Boks 129
DESCRIPTION OF GOODS	Paper
COMMODITY CODE	2:04
VALUE OF GOODS	120,000.00
CURRENCY	Dollars
CREDIT DATE	12/83

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
02/84	440 Bales	84,733.14	Dollars
04/84	78 Bales	15,208.00	Dollars

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
04/84	129,642.00	Exim Bank
07/84	23,268.19	Exim Bank

Ministry of Education Printing Press

DONOR	Kingdom of Norway
AGREEMENT NUMBER	
NAME OF SUPPLIER	Norad
ADDRESS OF SUPPLIER	N-3001 Drammen, Norge Post Boks 129
DESCRIPTION OF GOODS	Paper
COMMODITY CODE	2:04
VALUE OF GOODS	200,000.00
CURRENCY	Dollars
CREDIT DATE	12/83

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
01/84	688 Bales	123,473.57	Dollars
02/84	92 Bales	37,306.50	Dollars

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
	188,915.00	Exim Bank
	57,079.00	Exim Bank

NETHERLANDS

NAME OF AGREEMENT	Netherlands Aid Agreement
AGREEMENT NUMBER	
TOTAL COMMITMENT	11.1
COMMITMENT CURRENCY	D.F.L.
GRANT AMOUNT	11.1
GRANT CURRENCY	D.F.L.
LOAN AMOUNT	0
LOAN CURRENCY	D.F.L.
DATE OF AGREEMENT	03/84
EFFECTIVE DATE	03/84
TERMINATION DATE	
COMMODITY AID RESTRICTED?	

SUDANESE BENEFICIARY ORGANIZATION	TOTAL COMMITMENT	CALENDAR YEAR 1984		
		JAN-MAR	APR-JUN	JUL-SEP
Shell Co. Ltd.	5.0			5.0
Animal Resource Dept	1.5			
Agricultural Bank	1.0			
Blue Nile Health Project	0.6			
Mechanical Transport Dept.	3.0			
TOTAL FOR ALL	11.1	0.0	0.0	5.0

OCT-DEC	TOTAL	GRAND TOTAL	AMT. NOT REC'D
	5.0	5.0	0.0
	0.0	0.0	1.5
	0.0	0.0	1.0
	0.0	0.0	0.6
	0.0	0.0	3.0
0.0	5.0	5.0	6.1

ALLOCATIONS AND DISBURSEMENTS

Shell Co. Ltd.-Sudan

DONOR	Netherlands
AGREEMENT NUMBER	
NAME OF SUPPLIER	Shell Netherlands Reeltinaderz BV
ADDRESS OF SUPPLIER	P.O. Box 7000, 3000 HA Rotterde
DESCRIPTION OF GOODS	Oil and lubricants (Base oil)
COMMODITY CODE	4:05
VALUE OF GOODS	5.0
CURRENCY	D.F.L.
CREDIT DATE	

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
08/84	2998 MT	4,997,413.38	D.F.L.

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
06/10/84	2,235,702.00	Exim Bank

WEST GERMANY

NAME OF AGREEMENT	West German Commodity Aid
AGREEMENT NUMBER	Commodity Aid XIV-84 65 114
TOTAL COMMITMENT	15.0
COMMITMENT CURRENCY	D.M.
GRANT AMOUNT	15.0
GRANT CURRENCY	D.M.
LOAN AMOUNT	0
LOAN CURRENCY	
DATE OF AGREEMENT	04/05/84
EFFECTIVE DATE	05/84
TERMINATION DATE	12/84
COMMODITY AID RESTRICTED?	Yes

SUDANESE BENEFICIARY ORGANIZATION	TOTAL COMMITMENT	CALENDAR YEAR 1984		
		JAN-MAR	APR-JUN	JUL-SEP
Kenana Sugar Company	5.0			
University of Khartoum	3.0			
Sudan TV	2.0			
Vocational Training Center	2.0			
el Shaap Hospital	1.5			
Omdurman Hospital	1.5			
TOTAL FOR ALL BENEFICIARIES	15.0	0.00	0.00	0.00

OCT-DEC	TOTAL	GRAND TOTAL	AMT. NOT REC'D
3,775,548.00	3,775,548.00	3,775,548.00	1,224,452.00
	0.00	0.00	3,000,000.00
	0.00	0.00	2,000,000.00
	0.00	0.00	2,000,000.00
	0.00	0.00	1,500,000.00
	0.00	0.00	1,500,000.00
3,775,548.00	3,775,548.00	3,775,548.00	11,224,452.00

ALLOCATIONS AND DISBURSEMENTS

Kenana Sugar Co. Ltd.

DONOR	West Germany
AGREEMENT NUMBER	Commodity Aid XIV-84 65-114
NAME OF SUPPLIER	Rhein Bayern
ADDRESS OF SUPPLIER	Fahrzeugban GMBH & Company K.G. Kewerpestrasca-61 D-8950 Kaufperen 2
DESCRIPTION OF GOODS	Harvest equipment and spare parts
COMMODITY CODE	6:04
VALUE OF GOODS	5.0
CURRENCY	D.M.
CREDIT DATE	06/24/84

SHIPMENT INFORMATION

DATE OF SHIPMENT	QUANTITY	VALUE	CURRENCY
07/23/84	1,223 Kg	156,597.20	D.M.
08/17/84	68,711 Kg	2,081,835.60	D.M.
08/23/84	510 Kg	67,381.60	D.M.
09/08/84	42,520 Kg	75,051,635.00	D.M.
09/30/84	43,046 Kg	659,154.83	D.M.
10/17/84	1,335 Kg	59,962.50	D.M.

LOCAL CURRENCY PAYMENTS

DATE OF DEPOSIT	AMOUNT	ORGANIZATION
06/24/84	1,000,000.00	Exim Bank

SWITZERLAND

NAME OF AGREEMENT	Balance of Payments Assistance Program
AGREEMENT NUMBER	
TOTAL COMMITMENT	10.0
COMMITMENT CURRENCY	Swiss Francs
GRANT AMOUNT	10.0
GRANT CURRENCY	Swiss Francs
LOAN AMOUNT	0
LOAN CURRENCY	
DATE OF AGREEMENT	07/83
EFFECTIVE DATE	07/83
TERMINATION DATE	12/83 extended to 12/84
COMMODITY AID RESTRICTED?	No

SUDANESE BENEFICIARY ORGANIZATION	TOTAL COMMITMENT	CALENDAR YEAR 1983 JAN-MAR	APR-JUN	JUL-SEP
Ministry of Health	2.80			
Agricultural Corporations	2.10			
Private Sector	2.10			
Unallocated*	3.00			
TOTAL FOR ALL BENEFICIARIES	10.00	0.00	0.00	0.00

*Transferred to 1984 Grant and Reallocation

CALENDAR YEAR 1984

OCT-DEC	TOTAL	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	TOTAL	GRAND TOTAL
	0.00	2,800,000.00				2,800,000.00	2,800,000.00
2,100,000.00	2,100,000.00					0.00	2,100,000.00
300,000.00	300,000.00	400,000.00				400,000.00	700,000.00
	0.00					0.00	0.00
2,400,000.00	2,400,000.00	3,200,000.00	0.00	0.00	0.00	3,200,000.00	5,600,000.00

AMT. NOT REC'D
(.00)
.00
1,400,000.00
3,000,000.00
4,400,000.00

UNITED KINGDOM

NAME OF AGREEMENT	U.K. Grant for Balance of Payment Support
AGREEMENT NUMBER	
TOTAL COMMITMENT	7.0
COMMITMENT CURRENCY	Pound Sterling
GRANT AMOUNT	7.0
GRANT CURRENCY	Pound Sterling
LOAN AMOUNT	0
LOAN CURRENCY	
DATE OF AGREEMENT	04/83
EFFECTIVE DATE	04/83
TERMINATION DATE	
COMMODITY AID RESTRICTED?	Yes

SUDANESE BENEFICIARY ORGANIZATION	TOTAL COMMITMENT	CALENDAR YEAR 1983		
		JAN-MAR	APR-JUN	JUL-SEP
Agricultural Corporations	5.0			5.00
Civil Aviation*	0.5			
Sudan Railways*	0.3			
Mechanical Transport Dept.*	0.7			
Sudan Ren*	0.4			
National Records Center*	0.1			
TOTAL FOR ALL BENEFICIARIES	7.0	0.00	0.00	5.00

*Amounts allocated (total 2.0m PS) have been transferred to 1984 Grant and reallocated.

OCT-DEC	TOTAL	GRAND TOTAL	AMT. NOT REC'D
	5.00	5.00	0.00
	0.00	0.00	0.50
	0.00	0.00	0.30
	0.00	0.00	0.70
	0.00	0.00	0.40
	0.00	0.00	0.10
0.00	5.00	5.00	2.00

UNITED STATES OF AMERICA

NAME OF AGREEMENT	1983 CIP Grant 604
AGREEMENT NUMBER	604
TOTAL COMMITMENT	60.25
COMMITMENT CURRENCY	U.S. Dollars
GRANT AMOUNT	60.25
GRANT CURRENCY	U.S. Dollars
LOAN AMOUNT	0
LOAN CURRENCY	
DATE OF AGREEMENT	01/83
EFFECTIVE DATE	04/83
TERMINATION DATE	10/31/84 extended to 02/85
COMMODITY AID RESTRICTED?	No

SUDANESE BENEFICIARY ORGANIZATION	TOTAL COMMITMENT	CALENDAR YEAR 1983		
		JAN-MAR	APR-JUN	JUL-SEP
Rahad Agric. Scheme	20.0			
Sudan Gezira Board	18.7			
National Electricity Corp.	1.2			
Sudan Railways	3.0			
Telecommunications Corp.	5.0			
Civil Aviation Dept.	1.0			
Customs Dept.	0.7			
Private Sector	10.6			
TOTAL FOR ALL BENEFICIARIES	60.2	0.00	0.00	0.00

CALENDAR YEAR 1984

OCT-DEC	TOTAL	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	TOTAL	GRAND TOTAL
	0.00					0.00	0.00
	0.00					0.00	0.00
	0.00					0.00	0.00
	0.00					0.00	0.00
	0.00					0.00	0.00
	0.00					0.00	0.00
	0.00					0.00	0.00
	0.00					0.00	0.00
0.00	32.80	0.00	13.00	3.80	0.00	16.80	49.60

AMT. NOT REC'D
20.00
18.70
1.20
3.00
5.00
1.00
0.70
10.60
10.60

Commodity Assistance Data Sheet #1: Agreements

1. Donor: _____

_____

2. Name of Agreement: _____

_____

3. Agreement Number: _____

4. Amount of Total Pledge (Commitment) _____

Currency: _____

a. Grant: _____ Currency: _____

b. Loan : _____ Currency: _____

5. Date of Agreement (month/year): _____

_____

6. Date of Effectiveness (month/year): _____

_____

7. Date of Termination (month/year): _____

_____

8. Is commodity aid restricted (tied) to suppliers in donor country?

Yes No

7. Disbursements

Indonesian Beneficiary Organization	Total Commitment	Amount Disbursed Prior to 1982	Calendar Year 1982					Calendar Year 1983					Calendar Year 1984				
			Jan Mar	Apr Jun	Jul Sep	Oct Dec	Year Total	Jan Mar	Apr Jun	Jul Sep	Oct Dec	Year Total	Jan Mar	Apr Jun	Jul Sep	Oct Dec	Year Total
Total for All Beneficiaries																	

Currency for figures on this form _____

Date this form completed _____

200

Commodity Assistance Data Sheet #2: Allocations and Disbursements

(NOTE: Complete one copy of this form for each Sudanese organization receiving goods under a specific commodity assistance agreement.)

1. Donor: _____

2. Number of Agreement: _____

3. Name of Beneficiary (Sudanese organization receiving goods):

_____

4. Name of Supplier: _____

Address: _____

5. Description of goods (including quantity) _____

_____

a. Commodity code (if known): _____

6. Foreign (donor) currency value of goods allocated: _____

_____

7. Date of Opening of Letter of Credit: _____

8. Shipments (record each transaction)

Date of Shipment	Quantity	Value of Shipment (Indicate in what Currency)

9. Local currency payments by beneficiary:

Date of Deposit	Amount (LS)	Organization Receiving Local Counterpart Funds From Beneficiary

Appendix F: Ministry Data on Project Loans

(Data obtained from an index card file maintained at the Ministry at the beginning of our project.)

Ministry of Finance and Economic Planning
Cardfile of Assistance

DONOR	NAME	DATE	CURRENCY	AMOUNT	GORL	INTEREST	LOAN TYPE	DURATION
Abu Dhabi	Balance of Payments Loan	1980	US	50000	L	3	Cash	1983-1990 (10 years)
Abu Dhabi Fund	Haya-Port Sudan Road Proj	1972	US	10000	L	2	Develop	1977-1987 (10 years)
Abu Dhabi Fund	S.Darfur Rural Devel.Proj	1976	US	16500	L	3	Develop	1982-1997 (20 years)
Abu Dhabi Fund	S.Darfur Rural Develop.Pr	1976	US	16500	L	3	Develop	1982-1997
Abu Dhabi Fund	S. Darfur Rural Develop.	1976	US	16500	L	3	Develop	1982-1997 (20 years)
Abu Dhabi Fund	???	1977	US	40000	L	3	Develop	1981-1997 (20 years)
Abu Dhabi Fund	???	1977	US	40000	L	3	Develop	1981-1997 (20 years)
Abu Dhabi Fund	Khartoum Inter.Airport	1980	US	375000	L	2	Develop	1987-2006 (25 years)
African Development Bank	???	1971	AU	2800	L	6	Develop	1975-1984 (13 years)
African Development Bank	Veterinary Project	1971	AU	800	L	6	Develop	1974-1983 (12 years)
African Development Bank	Power Station Project	1974	AU	4000	L	6	Develop	1978-1993 (20 years)
African Development Bank	???	1974	AU	3000		6	Develop	1977-1987 (13 years)
African Development Bank	Port Sudan Water Supply	1976	US	81	L	0	Develop	1986-2026 (50 years)
African Development Bank	Port Sudan Water Supply P	1976	US	81	L	0	Develop	1986-2026 (50 years)
African Development Bank	Agricul.-Industrial. Proj	1978	AU	4600	L	7	Develop	1983-1997 (20 years
African Development Bank	Seeds Improvement Project	1981	AU	7100	L	7	Develop	1987-2002 (20 years
African Development Bank	Blue Nile Pumps Scheme	1981	AU	8300	L	3	Develop	1991-2031
African Development Fund	???	1971	AU	2800	L	6	Develop	1975-1984 (13 years)
African Development Fund	???	1974	Au	3000	L	6	Develop	1977-1987 (13 years)
Africian Development Bank	Seeds Improvement Project	1981	AU	7100	L	7	Develop	1987-2002 (20 years)
Afro-Arab Bank	Satellite Station Loan	1976	US	3000	L	2	Develop	1981-1983 (7 Years)
Arab Bank Ltd.	Satellite Station Loan	1976	US	1000	L	2	Develop	1981-1983 (7 years)
Arab Exchange Fund	Cash Loans	1978	AD	1875	L	4	cash	1979-1981 (3 years)
Arab Exchange Fund	Cash Loans	1979	AD	1875	L	4	Cash	1981-1982 (3 years)?
Arab Exchange Fund	Cash Loans	1979	AD	11250	L	6	Cash	1985-1986 (7 years)?
Arab Exchange Fund	Cash Loans	1980	AD	5000	L	5	Cash	???
Arab Fund Eco&Soc Develop	Microwave Telecom.Project	1975	KD	4800	L	4	Develop	1980-1995 (20 years)
Arab Fund Eco&Soc Develop	Sennar-Singa-Damazin Proj	1976	KD	11000	L	4	Develop	1983-1997 (20 years)
Arab Fund Eco&Soc Develop	???	1977	KD	5000	L	4	Develop	1981-1997 (20 years)
Arab Fund Eco&Social Dev.	???	1975	KD	5000	L	4	Develop	1981-1997 (20 years)
Arab Fund Eco&Social Deve	Anzara Rural Development	1981	KD	2500	L	4	Develop	1986-2001 (20 years)
Arab Fund for Eco&Soc Dev	Telecom. Microwave Proj.	1975	KD	4800	L	4	Develop	1980-1995 (20 years)
Arab Fund for Eco&Soc Dev	Microwave Telecom.Project	1975	KD	4800	L	4	Develop	1980-1995 (20 years)
Arab Investment Company	???	1974	US	13489	L	7	Develop	1974-1980 (6 years)
Arab Investment Company	Satellite Station Loan	1976	US	2000	L	2	Develop	1981-1983 (7 years)
British Export Department	1000 Land Rovers	1977	US	4031	L	7	Commod.	1979-1986 (9 years)
Bulgaria	???	1968	LS	3000	L	2	Develop	1972-1988 (20 years)
Bulgaria	???	1969	LS	6000	L	2	Develop	1970-1980 (10 years)
Canada		1979	US	1170	G	0	Commod.	---
China	Commodity Loans	1970	Yuan	100000	L	0	Commod.	1986-1995 (25years)
China	Commodity Loans	1971	Yuan	100000	L	0	Commod.	1987-1996 (25 years)
China	Commodity Loans	1979	Yuang	50000	L	0	Commodi	1984-1989 (10 years)
City Bank	Cash Loan	1977	US	12000	L	2	Cash	1978-1982 (5 years)
Czcheoslovakia	Commodity Loans	1965	US	10000	L	3	Commod.	1975-1983 (18 years)
Czcheoslovakia	Commodity Loans	1973	US	20000	L	3	Commod.	1975-1985 (12 years)
Czcheoslovakia	Commodity Loans	1980	US	30000	L	3	Commod.	1994 - ???
Czcheoslovikia	Military Trade Agreement	1971	US	6420	1	4	Develop	1971-1978 (8 years)
Czchoslovakia	Commodity Loans	1977	US	4000	L	3	Commod.	1977-1987

Ministry of Finance and Economic Planning
Cardfile of Assistance

DONOR	NAME	DATE	CURRENCY	AMOUNT	GORL	INTEREST	LOAN TYPE	DURATION
Czechoslovakia	Khartoum North Water Stat	1970	US	117	L	3	Develop	1970-1975 (5 years)
Denmark	Commodity Loan	1971	DK	15000	L	0	Commod.	
Denmark	Comodity Loan	1974	DK	25000	L	0	Commod.	1984-2008 (34 years)
Denmark	Commodity Loan	1978	DK	40000	L	0	Commodi	1988-2013 (35 years)
Denmark	Commodity Loan	1980	DK	110000	L	0	Commod.	1990-2030 (50 years)
EEC	???	1975	AU	10000	L	1	Develop	1985-2025 (50 years)
EEC	???	1975	AU	10000	L	1	Develop	1985-2025 (50 years)
Egypt	Commodity Loan	1967	LS	1720	L	0	Commod.	1973-1996 (30 years)
Egypt	Commodity Loans	1968	LS	8000	L	0	Commod.	1968-1973 (5 years)
European Develop. Fund	Sawakin Port (Feas.Study	1980	EAU	450		0	Develop	
European Development Fund	South. Tea Proj.(Talinga)	1977	EAU	288	?	0	Develop	???
European Development Fund	South. Tea Proj.(Talinga)	1977	EAU	8350	?	0	Develop	???
European Development Fund	Building Materials	1977	EU	200	?	0	?	
European Development Fund	Trade Promotion Project	1977	EAU	500	?	0	Develop	???
European Development Fund	University Proj.(Stage I)	1977	EAU	1304	?	0	Develop	
European Development Fund	S.Region Tea Pr.(Talinga)	1977	EAU	8350	?	0	Develop	???
European Development Fund	Juba University Support	1977	EAU	120	?	0	Develop	???
European Development Fund	Juba ElNuba Area Develop.	1977	EAU	244	?	0	Develop	???
European Development Fund	Four Technical Schools	1978	EAU	335	6	0	Develop	---
European Development Fund	Awail Rile Plantation Pro	1978	EAU	335	?	0	Develop	???
European Development Fund	Jonglei Canal Project	1978	EAU	2150	?	0	Develop	???
European Development Fund	Juba ElNuba Area Develop.	1978	EAU	5500	?	0	Develop	???
European Development Fund	Juba Airport	1978	EAU	450	?	0	Develop	???
European Development Fund	Jebel Mara Area Develop.	1978	EAU	135	?	0	Develop	???
European Development Fund	Sudan Railway Project	1978	EAU	9000	?	0	Develop	???
European Development Fund	???	1978	EAU	5000		0		
European Development Fund	???	1978		0		0		
European Development Fund	Four Technical Schools	1979	EAU	6300	6	0	Develop	---
European Development Fund	Awail Rile Plantation Pro	1980	EAU	4400	?	0	Develop	???
European Development Fund	Juba University Support	1980	EAU	7000	?	0	Develop	???
European Development Fund	Juba Airport	1980	EAU	11500	?	0	Develop	???
European Development Fund	Jebel Mara Area Develop.	1980	EAU	11000	?	0	Develop	???
European Development Fund	Kadogli-Talodi Road Feasi	???	EAU	300	?	0	Develop	???
First Chicago Bank	First Chicago Bank Loan	1977	US	20000	L	2	cash	1977-1981 (4 years)
France	Credite Lyons Bank Loan	1969	FF	37200	1	7	cash	1969-1974
France	Port Sudan Port Project	1975	F	28000	L	7	Develop	1976-1979 (4 years)
France	Presidential Airplane	1977	F	17872	L	6	Develop	1977-1980 (3 years)
France	Peugeot Cars	1977	F	46478	L	6	Commod.	1977-1980 (3 years)
Germany (Federal Republic	Port Sudan Weaving Factor	1975	DM	18633	L	9	Develop	1979-1983 (8 years)
Germany (Federal Republic	Industrial Bank Project	1978	DM	5000	L	3	Cash	1988-2028 (50 years)
Germany (Federal Republic	Nayala-Kas-Zalingi Road	1978	DM	83000	?	0	Develop	???
Hambours Bank Ltd.	Satellite Station Loan	1976	US	1000	L	2	Develop	1981-1983 (7 years)
Hungary	Commodity Loan	1970	US	10000	L	2	Commod.	1973-1983 (10 years)
IBRD	Power Project	1968	US	24000	L	6	Develop	1973-1993 (25 years)
IBRD	Rahad Project	1973	US	42000	L	1	Develop	1983-2023 (50 years)
IDA	Industrial Bank Project	1963	US	2000	L	0	Cash	1971-1986 (15 years)
IDA		1968	US	5000	L	0	Develop	1977-1993 (22 years)
IDA	Highway Project	1972	US	7000	L	0	Develop	1982-2022 (50 years)

Ministry of Finance and Economic Planning
Cardfile of Assistance

DONOR	NAME	DATE	CURRENCY	AMOUNT	GOR.	INTEREST	LOAN TYPE	DURATION
IDA	Industrial Bank Project	1973	US	4000	L	0	Cash	1982-2027 (50 years)
IDA	Sudan Railway Project	1973	US	24000	L	0	Develop	1983-2023 (50 years)
IDA	S.Region Rehabilitation P	1974	US	10700	L	0	Develop	1984-2024 (50 years)
IDA	S.Region Rehabil.Project	1974	US	10700	L	0	Develop	1984-2024 (50 years)
IDA	S. Region Rehabil. Proj.	1974	US	10700	L	0	Develop	1984-2024 (50 years)
IDA	Industrial Bank Project	1975	US	7000	L	0	Cash	1985-2025 (50 years
IDA	Power Station Project	1975	US	23000	L	0	Develop	1985-2025 (50 years)
IDA	Technical Assistance Proj	1976	US	4000	L	0	Develop	1986-1926 (50 years)
IDA	???	1976	US	4000	L	0	Develop	1986-1926 (50 years)
IDA	???	1976	US	4000	L	0	Develop	1986-2026 (50 years)
IDA	S.Region Agricultural Pro	1977	US	15000	L	0	Develop	1989-2029 (50 years)
IDA	Savana Development Projec	1977	US	17000	L	0	Develop	1987-2027 (50 years)
IDA	Sudan Railway Project	1977	US	8000	L	0	Develop	1987-2027 (50 years)
IDA	S. Region Agricul. Proj.	1977	US	15000	L	0	Develop	1989-2029 (50 years)
IDA		1978	US	16000	L	0	Develop	1988-2028 (50 years
IDA	Gum Arabic Feasibility St	1978	EAU	163	?	0	Develop	???
IDA	Port Sudan Port Project	1978	US	22000	L	0	Develop	1988-2028 (50 years)
IDA	W.Sudan Agricul. Research	1978	US	15000	L	0	Develop	1988-2028 (50 years)
IDA	Gum Arabic Feasibility St	1978	EAU	163	?	0	Develop	???
IDA	Ports Project (Port Sudan	1978	US	22000	L	0	Develop	1988-2028 (50 years)
IDA	South.Region Agricul.Proj	1979	US	15000	L	0	Develop	1981-2021 (42 years)
IDA	Highway Project	1979	US	41000	L	0	Develop	1989-2028 (50 years)
IDA	Power Station Project	1980	US	65000	L	0	Develop	1990-2030 (5 years)
IDA	Blue Nile Agricultural Pr	1981	US	32000	L	0	Develop	1991-2031 (50 years)
IDA	White Nile Agricultural P	1981	US	35000	L	0	Develop	1991-2031 (50 years)
IFAD	S.Region Agricultural Pro	1979	US	15000	L	0	Develop	1981-2021 (42 years)
IFAD	???	1979	US	15000	L	0	Develop	1981-2021 (42 years)
India	Commodity Loan	1980	R	120000	?	0	Commod.	???
Iran	Crude Petroleum Supply	1974	US	48822	L	5	Commod.	1978-1983 (5 years)
Iraq	Cash Loan	1975	US	10000	L	2	Cash	1978-1982 (7 years)
Iraq	Crude Petroleum Supply	1977	US	30000	L	2	Commod.	1979-1989 (10 years
Islamic Development Bank	Nayala-Kas-Zalingi Road	1977	ID	4500	L	2	Develop	1982-2008
Islamic Development Bank	Petroleum Products Export	1977	US	3215	L	5	Cash	1978-1980 (3 years)
Islamic Development Bank	School Laboratory Equip.	1977	ID	3000	L	2	Develop	1978-1995 (18 years)
Islamic Development Bank	Refugees Technical Assist	1980	US	900	G	0	Commod.	---
Islamic Development Bank	Refugees Techncial Assist	1980	US	900	?	0	Commod.	???
Islamic Development Bank	Port Sudan Airport Projec	1980	ID	5000	L	0	Develop	1985-2005 (25 years)
Italy	Khashm El Girba Project	1961	Lira	4666	L	5	Develop	1963-1972 (10 years)
Italy	Bonivika Loans	1968	US??	679	L	6	Develop	1970-1975 (7 years)?
Italy	Commodity Loan	1969	Lira	3500	L	4	Commod.	1970-1982 (12 years)
Italy	Bonivika Loans	1970	US	5584	L	6	Develop	1972-1976 (6 years)?
Italy	Port Sudan-Khartoum Road	1971	Lira	20000	L	6	Develop	1972-1977 (7 years)
Italy	Khartoum Airport	1972	Lira	1250	L	6	Develop	1974-1982 (10 years)
Italy	Tong-Kenaf Factory	1973	Lira	4520	L	6	Develop	1977-1984 (10 years)
Italy	Presidential Headquarters	1973	Lira	4520	L	6	Develop	1976-1982 (10 years)
Italy	???	1973	Lira	2625	L	6	Develop	1974-1979 (6 years)
Italy	???	1975	Lira	10000	L	6	Develop	1976-1988 (13 years)
Italy	Kosti Bridge	1977	Lira	12500	L	6	Develop	1977-1997 (20 years)

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Italy	Kosti Bridge	1981	Lira	9500	L	4	Develop	1983-2002 (20 years)
Japan	Commodity Loan	1976	Yen	3000000	L	3	Commod.	1986-2006 (30 years)
Japan	Nayala-Kas-Zalingi Road	1976	Yen	3000	L	3	Develop	1986-2006 (30 years)
Japan	???	1977	US	1226	L	2	Develop	1982-1990 (13 years)
Japan	Commodity Loan	1978	Yen	5000	L	3	Commod.	1988-2008 (30 years)
Japan	???	1978	Yen	2000000	L	2	Develop	1988-2008 (30 years)
Japan	???	1978	Yen	3000	L	3	Develop	1988-2008 (30 years)
Japan	???	1978	Yen	3000000	L	3	Develop	1988-2008 (30 years)
Korea	???	1970	LS	1500	L	0	Commod.	1971-1980 (10 years)
Kuwait	Cash Loan	1965	KD	5000	L	4	Cash	1971-1981 (15 years)
Kuwaiti Fund	Mechanized Farm Project	1972	KD	1600	L	2	Develop	1977-1999 (27 years)
Kuwaiti Fund	Pipeline Project	1974	KD	7000	L	8	Develop	1976-1985 (10 years)
Kuwaiti Fund	Pipeline Project	1975	KD	10000	L	8	Develop	1977-1985 (10 years)
Kuwaiti Fund	Technical Assistance Proj	1976	KD	900	L	1	Develop	1980-1986 (10 years)
Kuwaiti Fund	Technical Assistance Proj	1976	KD	900	L	1	Develop	1986-2016 (40 years)
Kuwaiti Fund	???	1976	KD	900	L	1	???	1986-2016 (40 years)
Kuwaiti Fund	???	1977	KD	9000	L	3	Develop	1981-1997 (20 years)
Kuwaiti Fund	Sennar-Singa-Damazin Proj	1977	KD	9000	L	2	Develop	1983-1997 (20 years)
Kuwati Fund	????	1962	KD	7000	L	4	Develop	1966-1972 (10 years)
Kuwati Fund	???	1962	KD	7000	L	4	Develop	1966-1972 (10 years)
Kuwati Fund	Land Reform Project	1967	KD	4200	L	2	Develop	1970-1988 (20 years)
Kuwati Fund	Rahad Project	1973	KD	3300	L	2	Develop	1978-2003 (30 years)
Kuwati Fund	West Sennar Sugar Project	1973	KD	4500	L	3	Develop	1978-1989 (16 years)
Kuwati Fund	Pipeline Project	1974	KD	7000	L	8	Develop	1976-1985 (10 years)
Kuwati Fund	Pipeline Project	1975	KD	10000	L	8	Develop	1977-1985 (10 years
Kuwati Fund	Kenana Sugar Project	1976	US	12535	L	9	Develop	1982-1984 (6 years)
Kuwati Fund	???	1976	KD	900	L	1	Develop	1980-1986 (10 years)
Kuwati Fund	???	1977	KD	9000	L	3	Develop	1981-1997 (20 years)
Kuwati Fund	???	1978	KD	5000	L	3	Develop	1982-1998 (20 years)
Netherlands	Commodity Loan	1965	G	10000	L	6	Commod.	1972-1991 (25 years)
Netherlands	Commodity Loan	1975	G	12000	L	3	Commod.	1972-1991 (25 years)
Netherlands	Commodity Loan	1976	G	13000	L	0	Commod.	1989-2026 (50 years)
Netherlands	DAF Trucks	1977	G	4000	L	0	Commod.	1980-1993 (16years)
Netherlands	???	1977	G	40000	?	0	Commod.	???
Netherlands	Commodity Loan	1977	G	4000	L	4	Commod.	1980-1992 (16 years)
Netherlands	Commodity Grant	1978	G	45000	G	0	Commod.	---
Netherlands	Commodity Grant	1979	G	50000	G	0	Commod.	---
Netherlands	Commodity Grant	1980	G	44000	G	0	Commod.	---
OPEC	Balance of Payments Loans	1976	US	7450	L	0	Cash	1982-1996 (20 years)
OPEC	Haya-Kassala Road Project	1977	US	3250	L	0	Develop	1981-1997 (20 years)
OPEC	???	1978	US	9500	?	0	Develop	1983-1997 (20 years)
OPEC	Cash Loans	1981	SR	100000	L	13	Cash	1987-1991(10 years)?
OPEC	Balance of Payments Loan	1981	US	12000	L	0	Cash	1984-1990 (9 years)?
OPEC	???	1981	US	1360	L	0	Cash	???
Poland	Public Elect.&Water Corp.	1981	US	8503	L	6	Develop	???
Poland	Public Elect.&Water Corp.	1981	US	8503	L	6	Develop	???
Power Station Project	OPEC	1978	US	9500	?	0	Develop	1983-1997 (20 years)
Quattar	???	1974	US	14000	L	3	Cash	1977-1983 (10 years)

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Quattar	Cash Loan	1974	US	14000	L	3	Cash	1977-1983 (10 years)
Quattar	Balance of Payments Loan	1980	US	10000	L	1	Cash	???
Romania	???	1972	LS	8500	L	2	Develop	1974-1982 (10 years)
Romania	???	1972	LS	28500	L	2	Develop	1975-1985 (13 years)
Romania	Khartoum North Weaving Fa	1977	Shi	6670	L	6	Develop	1978-1982 (5 years)
S.Region Tea Pr.(Talinga)	European Development Fund	1977	EAU	288	?	0	Develop	???
Saudi Fund	Cash Loans	1974	US	200000	L	5	Cash	1982-1989 (15 years)
Saudi Fund	???	1975	SR	98000	L	3	Develop	1980-1995 (20 years)
Saudi Fund	Cash Loans	1977	US	48200	L	5	Cash	1983-1988(10 years)?
Saudi Fund	Laboratory Equipment	1977	SR	12300	L	2	Develop	1982-1997 (20 years)
Saudi Fund	Port Sudan Port Project	1977	SR	35300	L	2	Develop	1982-2002 (25 years)
Saudi Fund	West Savanna Project	1977	SR	30000	L	2	Develop	1982-1995 (18 years)
Saudi Fund	Satellite St tion Loan	1977	SR	35300	L	2	Develop	1982-1997 (20 years)
Saudi Fund	Ports Project (Port Sudan	1977	SR	35300	L	2	Develop	1982-2002 (25 years)
Saudi Fund	Navigation Equipment	1977	SR	24700	L	2	Develop	1982-2002 (25 years)
Saudi Fund	Saudi Arab Exchange Corp.	1978	US	300000	L	5	Cash	1984-1993 (15 years)
Saudi Fund	Nayala-Kas-Zalingi Road	1978	SR	41000	L	2	Develop	1983-1998 (20 years)
Saudi Fund	Cash Loans	1979	US	500000	L	5	Cash	1984-2000 (2 years)?
Saudi Fund	Kenana Sugar Project	1979	SR	120160	L	2	Develop	1984-1998 (18 years)
Saudi Fund	???	1980	SR	20100	L	2	Develop	1985-2000 (20 years)
Spain	Commodity Loans	1979	US	25000	L	5	Commod.	1996 - ???
Spain	Commodity Loans	1979	US	5000	?	0	Commod.	???
Spain	Commodity Loan	1979	US	25000	L	5	Commod.	1996 - ???
Spain	Commodity Loan	1979	US	5000	?	0	Commod.	????
Sudan Development Corp.	Textile Factories "Six"	1975	BF ??	775000	L	9	Develop	1977-1979 (4 years)
Sudan Development Corp.	Asalaya Sugar Project	1974	LS	1636	L	12	Develop	1976-1977 (3 years)
Sudan Development Corp.	Asalaya Sugar Project	1974	LS	1636	L	12	Develop	1976-1977 (3 years)
Sudan Development Corp.	???	1975	US	15000	L	12	Develop	1976-1979 (4 years)
Sudan Development Corp.	Textile Factories "Six"	1975	Bel.F	775000	L	9	Develop	1977-1979 (44 years)
Sudan Development Corp.	???	1975	US	15000	L	12	Develop	1976-1979 (4 years)
Sweden	???	1966	SK	35000	L	2	Develop	1971-1991 (20 years)
Sweden	???	1966	SK	25000	L	2	Develop	1971-1991 (20 years)
Sweden	???	1969	SK	15000	L	2	Develop	1979-1994(25 years)
Sweden	???	1969	SK	15000	L	2	Develop	1979-1994 (25 years)
UK	General Loan	1959	LS	5000	L	5	Develop	1961-1963 (4 years)
UK	General Loan	1963	LS	5000	?	0	Develop	1968-1978 (15 years5
UK	Medani-Sennar-Kosti Road	1969	LS	3500	L	8	Develop	1981-1999 (30 years)
UK	Rural Water Corp.	1969	LS	145	L	10	Develop	1970-1974 (5 years)
UK	Sennar Dam	1969	LS	500	L	0	Develop	1971-1994 (35 years)
UK	Sennar Dam	1969	LS	500	L	0	Develop	1971-1994 (35 years)
UK	???	1969	LS	200	L	0	Develop	1971-1993 (24 years)
UK	Medani-Sennar-Kosti Road	1969	Lira	3500	L	8	Develop	1981-1999 (30 years)
UK	???	1969	LS	200	L	0	Develop	1971-1993 (24 years)
UK	General Loan	1973	LS	10240	?	0	Develop	1980-2005 (32 years
UK	Sennar Dam	1973	LS	360	L	0	Develop	1975-1998 (25 years)
UK	Sennar Dam	1973	LS	360	L	0	Develop	1975-1998 (25 years)
UK	West Sennar Sugar Project	1974	LS	9900	L	6	Develop	1976-1984 (10 years)
UK	Port Sudan Refinery	1976	LS	800	L	2	Develop	1976-1980 (5 years)

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UK	Port Sudan Refinery	1976	LS	800	L	2	Develop	1976-1980 (5 years)
UK	Commodity Grant	1976	LS	4000	G	0	Commod.	
UK	Port Sudan Power Station	1977	LS	4031	L	7	Develop	1979-1986 (9 years)
UK	Port Sudan Power Station	1977	LS	4031	L	7	Develop	1979-1986 (9 years)
UK	Commodity Grant	1978	LS	4000	G	0	Commod.	
UK	Commodity Grant	1976	LS	15000	G	0	Commod.	
UK	Commodity Grant	1979	LS	3500	G	0	Commod.	
UK	Commodity Grant	1980	LS	61000	G	0	Commod.	
USA	Cash Loan	1963	US	5000	L	4	Cash	1963-1967 (4 years)
USA	Boeing Airplane	1973	US	34795	L	6	Develop	1975-1982 (10 years)
USA	AID Loan 650H-017	1973	US	11000	L	2	Develop	1973-2013 (40 years)
USA	Rahad Project	1973	US	11000	L	2	Develop	1973-2013 (40 years)
USA	Wheat Loan	1973	US	2223	L	2	Commod.	1983-2014 (41 years)
USA	Aero-Space Project	1976	US	12000	L	2	Develop	1978-1987 (10 years)
USA	Commodity Import Program	1979	US	40000	G	0	Commod.	???
USA	Commodity Import Program	1980	US	40000	G	0	Commod.	???
USSR	Military Agreement	1968	R	30040	L	2	Develop	1969-1977 (8 years)
USSR	Loan	1969	R	20000	L	2	?	1978-1982 (13 years)
USSR	Loan	1969	R	5000	L	3	?	1973-1984 (15 years)
USSR	Military Agreement	1975	US	1608	L	2	Develop	1975-1985 (10 years)
World Bank				0		0		
World Bank	Sudan Railway Project	1958	US	39000	L	5	Develop	1961-1978 (20 years)
World Bank	Sudan Railway Project	1965	US	31000	L	5	Develop	1970-1990 (25 Years)
World Bank	Mechanized Farm Project	1968	US	5000	L	6	Develop	1973-2018 (50 years)
World Bank	Sudan Railway Project	1977	US	12000	L	8	Develop	1984-2003 (25 years)
Yugoslavia	???	1956	LS	8000	L	2	Cash	(8 years)
Yugoslavia	???	1956	LS	8000	L	2	Cash	(8 years)
Yugoslavia	Aroma Cor.Sheet/Kh.Tanner	1959	LS	5500	L	3	Develop	???
Yugoslavia	???	1961	LS	1450	L	3	Develop	1970-1977 (8 years)
Yugoslavia	"Two Ships" Loan	1962	LS	1300	L	3	Develop	1965-1973 (10 years)
Yugoslavia	Khartoum Tannery	1970	LS	843	L	3	Develop	1975-1982 (7 years)