



REPUBLIQUE ISLAMIQUE DE MAURITANIE

Honneur — Fraternité — Justice

Ministère de l'Economie et des Finances

**Direction des Etudes et
de la Programmation**

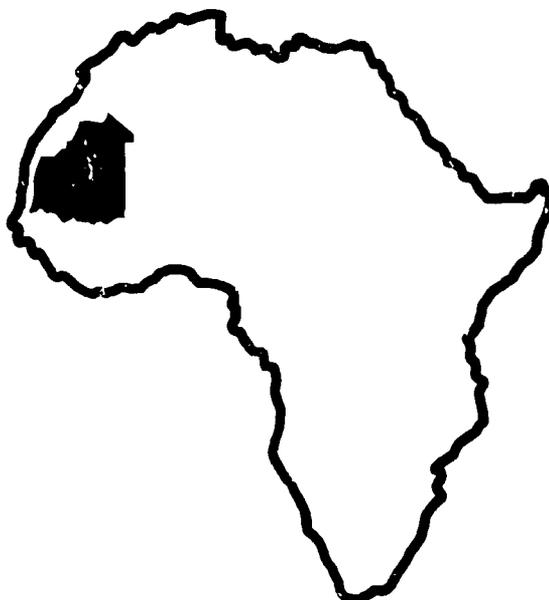
PROJET **RAMS**

**Mission d'Etudes et d'Evaluation
du Secteur Rural et des Ressources Humaines**

Final Report

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August 1981



Financé par l'Agence des Etats-Unis pour le Développement International (USAID)

Avec le concours de:

Cecchi and Company, Washington, D.C. 20036

Louis Berger International, Inc., East Orange, New Jersey 07019

Action Programs International, Santa Monica, California 90406

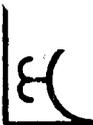


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1. Introduction

The terms of reference for the preparation of this Final Report are derived basically from the Project Agreement, the binding contract between the Government of the Islamic Republic of Mauritania (GIRM) and the United States Government which was signed on March 28, 1978, governing the operation of RAMS. The Project Agreement stated that the Final Report would provide a detailed description of the project's activities and would include a section on the institutionalization of the planning process initiated by the project.

The content of this report will go well beyond the requirements set forth in the Project Agreement. Each major segment of the project will be dissected and reviewed; graphics and charts will lend an added statistical dimension.

The tone of the report will essentially be critical in terms of lessons learned, both in the design and the execution of the project. This is done to benefit programmers and planners in the formulation of future similar large-scale projects. Further, in the interest of facilitating any possible future full-scale evaluation of the project, it is deemed essential at this stage to provide as full an accounting as possible.

For this reason, the report is organized first to introduce the setting of the project, to give the reader a full appreciation of the environment within which it was formulated, launched and carried out; second, to set forth the project's specific terms of reference as provided for in the Project Agreement; third, to review in detail the project's operation in relation to these terms of reference; fourth, to examine other program activities; fifth, to analyze the administrative aspects of the project; sixth, to provide analytic comment on the institutionalization process; and seventh and lastly, to provide a candid appraisal of the project's impact on the GIRM's planning process and on the GIRM's and the international community's prospective use of RAMS reports. An Annex of tables and charts is provided at the end of the report.

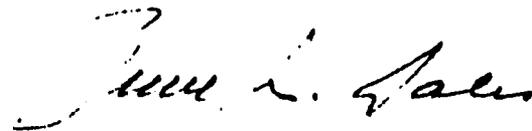
It will be seen that from every perspective the objectives of the project were fully met. In some respects even more was achieved, and a more complete set of reports has been provided than were called for.

Credit for the achievement of the project's objectives must, of course, be given to a wide circle of participants well beyond those whose names will appear in the following pages. As in any major endeavor, it has taken a large number of people with a wide range of responsibilities to have made it all possible. Nonetheless, special tribute is paid to those officials whose association with and support to the project have been indispensable:

Mr. Assane Diop, the project's National Director
and Director of Studies and
Programming in the Ministry of
Economy and Finance

Mr. John Hoskins, USAID Director

Mr. John Grayzel, USAID Project Director



Pierre L. Sales
Chief of Party

2. The Project's Setting

The project's raison d'être resided in the GIRM's recognition that its development planning process was seriously deficient. Three national plans had been issued by the time the project was conceived, the last being the Third Economic and Social Development Plan, 1976-1980. Their content was vague and their objectives, ambitiously set, had no specific direction; they could be characterized essentially as project inventories. The plans were conceived at the national level of government with no regional or local participation.

The planning function had historically been shunted from one administrative layer and from one ministry to another. It rarely operated as part of a broader, integrated process involving budgeting, programming and evaluation.

The World Bank, a prospective major donor at the time, recognized the GIRM's shortcomings and in 1967 despatched a consultant (Richard Westebbe) to analyze the situation. In brief, he found that:

"The (planning) organization had no authority to coordinate the development activities of the various parts of the government, nor could it supervise the execution of projects. Even the process of studying, gaining approval, and finding finances for new projects often escaped its control, since individual ministries frequently dealt directly with higher authorities and external sources of financing. Finally, the organization was inadequately staffed to perform real planning functions. There were neither qualified personnel to draw up new plans, which involves examining the alternatives and selecting the optimum way of using scarce resources to achieve objectives, nor people capable of evaluating the economic impact of programs under way."

The outcome of Westebbe's report initially was short-term technical assistance to formulate the Second Plan. UNDP subsequently helped prepare the institutional framework for the Third Plan in 1977. It was not until September 1977 that the World Bank provided an IDA credit in the amount of \$2.7 million to finance a technical assistance team of five members over a three-year period. The purpose was to identify, evaluate and monitor capital projects. The life of the project has since been extended to June 1982.

Despite this valuable assistance, however, the GIRM's fundamental problems remained unchanged -- there was an urgent need for basic data of all kinds: manpower, employment, food production,

farm practices, consumption patterns, rural incomes, migration, social systems and organizations ad infinitum. There was also a deficiency in macro data and projections.

At first, the conceptualization of the RAMS project in 1976 took two forms: a National Manpower and Employment Study, and a Rural Sector Assessment. Each was discussed and reviewed between the GIRM and AID's Country Development Office as separate, though related, activities. Each was evaluated by different U.S. institutions (University of Minnesota and Harvard University) in the early stages of examination by AID. The decision to merge the two activities was not officially taken by AID/Washington until August 1977. The GIRM and USAID recognized in the Project Agreement that the combined project was "vast and complex".

A major delay of several months occurred in the project's execution after the project was virtually negotiated and agreed to between the GIRM and USAID. A single, but important, point was at issue: the GIRM refused to allow contract personnel one-time duty-free privileges. (Note: The question had never been raised before by AID in Mauritania since, prior to the Checchi contract, no private group had been brought into the country under the AID program.) The GIRM subsequently relented and agreed to the duty-free provision. (It was to arise again, however, during the course of the project's execution.) Concurrently, AID/Washington had initiated the time-consuming process of RFP (request for proposals) and selection of a contractor to execute the project.

The AID Africa Bureau at the time saw the RAMS operation as a possible prototype for similar planning efforts in other parts of the continent. The project's evaluation that was foreseen in the Project Agreement was to provide the litmus test to the project's conceptual and operational feasibility.

The timing of the overall research and study effort, to be undertaken over a two-year period, was to coincide with the formulation of the Fourth National Economic and Social Development Plan which was scheduled to be issued in January 1980.

The Project Agreement, it should be noted, was not executed until late March 1978 and the signature of the Checchi and Company contract did not take place until March 1979. The two-year effort could not, therefore, have been completed before the end of 1980; hence the project was already out of phase with the GIRM's scheduled planning timetable unless the latter was delayed. It was not until the first half of 1980 that the GIRM decided officially to defer the preparation of the Fourth Plan until later in the year, although it had become apparent in late 1979 that a postponement of some sort

was inevitable. While planning commissions were organized and set the planning process in motion in September 1980, everything came to an abrupt halt by the end of 1980. Changes in the government caused further delays, and it was not until June 1981, with the total completion of the RAMS Phase I reports, as well as the Phase II Option Papers, that discussions of the Fourth Plan were once again under way. Mr Diop, taking advantage of the delays inherent in any major political change in the government, managed to time the completion of RAMS studies with the resumption of activity of the Fourth Plan. As it turned out, therefore, RAMS' output was appropriately phased in with the GIRM's planning process.

The project's planners had appropriately foreseen the need to accomplish two important tasks before the project became operational: the undertaking of an international literature search (in the United States, Paris, Dakar and Nouakchott) to assemble as complete a collection as possible of background and reference material which would need to be consulted by RAMS experts, as well as to constitute an embryo Documentation Center which eventually would become accessible to the GIRM's planning organization. This activity was subsequently undertaken over a three-month period, May-July 1978. The second task was the collection of basic data on land classification and utilization which was to be generated under a separate AID-funded project, Renewable Resources. This project, however, did not become operational until RAMS was well under way and never, in fact, was in a position to provide any raw data to RAMS during its research phase. As a result, RAMS had to do more extensive field work on environmental and agricultural aspects.

At the time of the project's executive review by AID/Washington in August 1977, a decision was taken which presaged funding complications at a later date. It was decided to limit overall AID financing to the project at \$4 million, several hundred thousand dollars less than the amount originally estimated (see section below on Other Program Aspects - Funding).

Functionally RAMS was an arm of the planning unit (Directorate of Studies and Programming) of the GIRM. The project's National Director was the head of this unit and, in accordance with the terms of the Project Agreement, he was to provide "daily" guidance to RAMS. In addition, a member of the planning unit was to be assigned full-time to RAMS.

RAMS' relations with the AID Development Office (subsequently up-graded to USAID) were never defined in writing. It was obviously essential to maintain continuing contacts with AID officials on both substantive and administrative matters. Close relations were maintained at all times.

Operationally, RAMS was set up as an autonomous administrative entity, responsible for all operational matters which were funded from a local currency account. The AID Mission, on the other hand, managed the logistic support which was funded from a separate account. RAMS, therefore, found itself dependent on the AID Mission for certain actions, such as procurement of U.S. and other off-shore items, as well as for the replenishment of the local currency account.

In all, RAMS had three separate general accounts: the dollar account which covered all contractor expenses, which was managed by the prime contractor, Checchi and Company; the local currency account and the logistics account. The latter two were funded from a single source held by USAID.

AID exonerated the GIRM from paying the normal 25% of all local currency costs. The Project Agreement stipulated a GIRM contribution only for the payment of 570 man/months for Mauritanian surveyors over a three-year period. This was to cost an estimated \$376,200. The GIRM subsequently found it impossible to recruit the surveyors from within the government, as a result of which RAMS was asked to assume this responsibility. Costs were ultimately met from the overall RAMS budget.

GIRM and AID planners originally foresaw a two-phase research and study operation: the first was the two-year operation covered in the Project Agreement that was signed in March 1978, and a second, in accordance with the terms of that Agreement, a follow-on activity made subject to an evaluation of the results of the earlier phase. AID has since decided that there is to be no such second phase.

Key Dates in Project History

- July 13, 1976 Proposal for an agricultural assessment initially broached with AID/Washington.
- January 10-28, 1977 Harvard University team visits Mauritania to establish terms of reference for education and manpower training (2 1/2 year project recommended).
- April 1977 PIO/T in the amount of \$875,000 drafted to cover education and manpower training sectors.
- April-May 1977 University of Minnesota team visits Mauritania to establish terms of reference for an evaluation of the rural sector (\$2,281,750 recommended over a two-year period).
- August 1977 Project proposal reviewed by AID/Washington and funding set at \$4 million.
- December 1977 AID/Washington Project Committee finds proposed project "technically-sound".
- January 23, 1978 Congressional Notification forwarded stating that project was not to be funded under the Planning Management and Research Project and would be a separate project.
- February 8, 1978 Congressional inquiry received by AID expressing concern about the relatively low proportion (25%) of project funds to be used for substantive as opposed to 75% proposed for technical assistance.
- February 22, 1978 AID responds justifying large technical assistance component on the grounds that funding was necessitated as a means of developing GIRM's capability to formulate workable rural development strategy and to undertake development planning generally.
- February 23-26, 1978 AID informed by Congress of acceptability of rationale.
- February 27, 1978 Project Authorization and Request for Allotment of Funds signed for initial \$2 million U.S. contribution.
- March 28, 1978 Project Agreement between GIRM and AID signed.

June 29, 1978 Request for Proposal (RFP) issued by AID.

August 29, 1978 RFP response by Checchi and Company in association with Louis Berger International, Inc., and Action Programs International.

September 14, 1978 Checchi and Company (in a consortium with LBI and API) selected by AID/Washington Contract Committee.

March 14, 1979 Contract between Checchi and Company and AID signed (\$3,331,593).

May 7, 1979 Arrival of RAMS Chief of Party (COP) in Nouakchott -- project becomes operational (Phase I).

July-November, 1980 Project amendment review in AID/Washington.

November, 1980 Phase II of project initiated.

May 21, 1981 Contract amendment signed (additional \$573,641).

August 14, 1981 Distribution of final reports.

August 27, 1981 Departure of COP from Nouakchott.

August 31, 1981 Official closing date of project.

3. Project Activities

This section is divided into two parts: the first describes the project's framework as provided in the Project Agreement; the second, following the same format, comments on the manner in which the project was executed.

A. Framework: Provisions of the Project Agreement

(1) Project Justification

The Project Agreement sets forth the background of the project in terms of the lack of basic data for development planning. The specific objectives of the Third Economic and Social Development Plan for 1976-1980 are identified in a general sense, e.g., attaining economic independence, and within this broad framework citing "immediate" priorities, e.g., self-sufficiency in food production, regeneration of the environment, etc. There is, however, a frank admission by the government that the achievement of these objectives is rendered difficult in the absence of specific technical data. There is recognition that without a more finite knowledge of the rural setting, the employment situation, sectoral data, macro projections, social characteristics, etc., the planning process can not go beyond vague generalities and be given real substance.

(2) Role of RAMS

The Project Agreement thereupon establishes the broad objectives of RAMS as a research and study unit attached to the Directorate of Studies and Programming of the Ministry of Economy and Finance, the GIRM's central planning unit:

- i. To collect available economic and social data and assess their usefulness,
- ii. To undertake special efforts, such as field surveys, to complement available information, and
- iii. To analyze the data in terms of agro-ecologic zones to be defined and by administrative region.

The Project Agreement readily admits that the scope of the venture is "definitely vast and complex". A two-year effort was pronounced.

In more specific terms the Project Agreement outlines RAMS' five objectives:

1. To present a minimum of two social and economic development strategies and policy options for the integrated development of the rural sector and the improvement of the employment and manpower situation, taking into account such factors as equity, productivity and profitability.
2. To formulate proposed action prospects/programs for both the rural sector and for the improvement of manpower and employment based on the development options and the development strategy proposed.
3. To involve the national ministries and interested regional administrations in a continuing dialogue on the development process.
4. To present, additionally, policy options on such subjects as (a) organizational structures for rural development activities, (b) use of the private sector as a major instrument of rural development, and (c) formulation of strategies for the regeneration of the environment.
5. To evaluate integrated rural development activities in a general sense.

(3) Organization of RAMS

The internal organization of RAMS is set out in the Project Agreement in the following terms: five research units, ecology/environment, demography, agricultural production and income, sociology (combined with health and nutrition), and human resources; and two service units, one for statistics (including surveys) and the other for training (including the seminars) and documentation. A separate administrative office was also foreseen. This organization was intended to apply for the entire life of the project. Headed by a Chief of Party (COP), RAMS was to consist of a fixed number of long-term personnel assisted by short- and medium-term expatriate experts and Mauritanian nationals recruited locally.

(a) RAMS Relationship to GIRM

RAMS was seen as an arm of the GIRM and, therefore, directly responsible to Mauritanian authorities. The Director of the Directorate of Studies and Programming of the Ministry of Economy and Finance was designated as the National Director of the RAMS, responsible not only for guiding the work of the project but also to oversee its daily operations. A member of the ministry was to be designated to work full-time on the project.

Two other major channels of communication were established for RAMS in the Project Agreement: an Inter-Ministerial Policy Committee, consisting of representatives of the Ministries of Economy and Finance, Rural Development, Labor, Health and Social Affairs, Education and Civil Service, and presided over by the Minister of Economy and Finance, and an Inter-Ministerial Technical Committee, made up of the Directors of the foregoing ministries and headed by RAMS' National Director. The latter was created as the main link to the government, following the progress of RAMS' technical research and study efforts on a continuing basis.

In addition, each ministry and directorate was called upon to designate a permanent contact with RAMS. The Project Agreement went so far as to designate RAMS' Training and Documentation Officer as the chief contact between RAMS and elements of the GIRM.

Regional and Departmental officials are also mentioned in the Project Agreement as points of contact with RAMS in the field.

(b) RAMS Relationship to USAID

The Project Agreement does not contain any specific language with regard to RAMS' relationship to USAID.

(4) Training and Institutional Development

Running parallel with the research and study aspects of the project, the Project Agreement envisioned a training element that was to take two forms: (1) the selection of a number of Mauritanian officials, drawn from the ranks of the government at large but especially from two inter-ministerial committees, to receive advanced training under an AID-sponsored African training program (SMDP: Sahelian Manpower Development Program). Activity fields of interest were identified particularly in research methodology and data gathering and management. (2) A program of seminars, designed especially for GIRM officials associated with the project. While the specific subjects were to be set forth in a subsequent letter from USAID to the GIRM, the Project Agreement mentioned a number of illustrative subjects: research techniques, review of projects listed in the Third National Development Plan and review of CILSS and OMVS projects. The seminars were to be conducted in Nouakchott and in regional capitals every three months during the course of the project. In all, 8 seminars were specified.

Specific coverage of the institutionalization process is to be reported upon in this Final Report, according to the Project Agreement. The institutionalization process is to relate to the planning process.

(5) Calendar of Activities

The Project Agreement set forth two phases for the execution of the project:

Phase I (April 1979 - July 1980):

A total of 14 studies, broken down into 3 categories, were to be completed in this 15-month time frame:

<u>Baseline Studies</u>	<u>Sectoral Studies</u>	<u>Functional Studies</u>
1. Definition of Agro-Ecological zones.	1. Irrigated Agriculture	1. Nutritional Requirements and Health
2. Population	2. Dryland Agriculture	2. Social System and Social Change
3. Food and Non-Food Demand	3. Oasis Agriculture	
4. Rural Production and Income	4. Livestock	
5. Sociological Profiles	5. Fisheries (Continental and subsequently Traditional Maritime)	
6. Manpower		
7. Employment and Training:		

The character of the studies was defined as "diagnostic" and was intended to form the basis of the reports to follow under Phase II. However, no maritime fisheries technician was listed in either the Project Agreement or the contract.

Phase II (August 1980 - August 1981):

Nine months were allotted to the formulation of policy options and two alternative development strategies, as well as for the formulation of proposed projects which would flow from the option papers, plus a final report on RAMS' activities. It was envisaged that the option and strategy papers would be submitted to the GIRM for review, comment and decision.

The policy options, 19 in number, were identified as follows:

- Irrigated Agriculture
- Fisheries (Continental)
- Dryland Agriculture
- Livestock
- Oasis Agriculture
- Rural Health
- Nutrition in Rural Areas
- Implementation Modalities
- Manpower
- Employment
- Regeneration of Environment
- Private Sector
- Appropriate Rural Organizations
- Marketing
- Agricultural Extension
- Food Policy for Food Products
- Agricultural Research
- Project Priorities
- Development Strategies

As a means of launching the research effort, the Project Agreement recognizes the need for some preliminary work, viz., the desirability, if not the necessity, of having a literature search of available reference material in the United States, Nouakchott, Paris and Dakar, and having a collection of materials on hand in a RAMS Documentation Center before the project became operational. The collection of data was to include computerized print-outs of the Mauritanian 1977 national census.

The need for organizing household and business surveys were foreseen to gain a better appreciation of food and non-food consumption, rural incomes, employment and manpower, rural skills and agricultural production.

B. Execution: Per Provisions of the Project Agreement

(1) Project Justification

In the course of the life of the project RAMS published and distributed a total of 44 reports:

- 13 baseline studies
- 7 production studies
- 9 functional studies
- 8 development options
- 2 project identification
- 1 seminar evaluation
- 1 regional profiles
- 1 synthesis
- 1 annotated statistical compendium
- 1 final report (this document)

Virtually all these have been reproduced in both English and French* The exceptions are the regional profiles (only in French), the seminar evaluation (only in French), and the final report (only in English). The first two are of relevance to the Mauritanian Government; hence, English publication did not make sense. The Final Report, regarded essentially as an "internal AID" report was considered of only marginal interest to the GIRM, and was not translated into French with USAID's concurrence.

It should be noted that several of the reports were not called for in the Project Agreement but were produced nonetheless because they were adjudged as necessary:

- Synthesis - to pull together the broad range of studies and explain their relevance. This is regarded as the project's single most important report, intended for policy-level readership in the GIRM.
- Compendium - a collection of annotated data including bibliographic references on a broad range of subjects.
- Seminar Evaluation - a summation, as well as a review, of the seminar programs conducted by RAMS. It includes, in addition, a list of recommendations for follow-on activities by the GIRM.
- Regional Profiles - Basic data for 10 of the 12 administrative regions of Mauritania, for use as a basic planning guide.

* 24 of the 44 were drafted in French, 19 in English and 1 both in French and English.

The 44 reports constitute an impressive collection of data on human resources and the rural sector. A system of internal review was established to discuss the content of each report while it was still in preliminary form, with all RAMS expatriate staff present participating. (They are described more fully in Reports Table 3.) They can be considered as basic references for use in programming and planning not only by the GIRM but also by multilateral and bilateral aid organizations.

Clearly, they should not, on the other hand, be considered as definitive in character. Research is a continuing process and, with this in mind, the RAMS reports should properly be regarded as a phase in an overall research process - surveys should be continued, gaps should be filled, data at the regional and departmental levels should be collected and (above all) evaluated, etc. RAMS can rightly be credited with having instituted an organized collection of selected data.

(2) Role of RAMS

As noted above, RAMS successfully concluded a large number of reports. Their quality must, of course, be judged by the ones who are to make use of them. Many of the reports, such as the ones on agro-ecological zones, sociology, non-formal education, etc., are the first of their kind in Mauritania and, therefore, lay the basis for further field work and analysis.

Data collection and analysis, as previously noted, are a longer-term process. Whereas a two-year effort was foreseen in the Project Agreement, this was modestly extended by four additional months. In effect, the entire endeavor should have been programmed over a five-year period, following the World Bank's practice in selected LDC countries. (Realistically, however, it is recognized that AID funding limitations would prevent such a long commitment.) The foregoing observation is, nonetheless, made to reflect the opinion that RAMS undertook a medium-term effort over a short-term period.

In terms of the five broad objectives cited in the Project Agreement, RAMS accomplished the following:

RAMS Reports In Terms of Broad Objectives

<u>Objectives</u>	<u>Related RAMS Reports</u>
1. To present a minimum of two social and economic development strategies and policy options for the integrated development of the rural sector and	1. Consolidated Statement on Overall Development Strategies 2. Macro-Economic Simulation Model for Assessing Development Priorities

Objectives

Related RAMS Reports

- | | |
|--|---|
| <p>the improvement of the employment and manpower situation, taking into account such factors as equity, productivity and profitability.</p> | <p>3. Framework for Calculating Rural GDP from Basic Production Data</p> <p>4. Basic Human Needs as a Concept in the Formulation of a Development Strategy</p> <p>5. Rural Production</p> <p>6. Agricultural Institutional Framework</p> <p>7. Employment Implications of Alternative Development Strategies</p> <p>8. Health/Nutrition</p> |
| <p>2. To formulate proposed action projects/programs for both the rural sector and for the improvement of manpower and employment based on the development options and the development strategy proposed.</p> | <p>1. Basic Human Needs as a Concept in the Formulation of a Development Strategy</p> <p>2. Rural Production</p> <p>3. Agricultural Institutional Framework</p> <p>4. Employment Implications of Alternative Development Strategies</p> <p>5. Health/Nutrition</p> <p>6. Project Dossier</p> <p>7. Education as a Development Tool</p> |
| <p>3. To involve the national ministries and interested regional administrations in a continuing dialogue on the development process.</p> | <p>1. Continued dialogue with GIRM officials during the research phase.</p> <p>2. Seminar Program.</p> |
| <p>4. To present, additionally, policy options on such subjects as: (a) organizational structures for rural development activities, (b) use of the private sector as a major instrument of rural development, and (c) formulation of strategies for the regeneration of the environment.</p> | <p>1. Rural Production</p> <p>2. Agricultural Institutional Framework</p> <p>3. Health/Nutrition</p> <p>4. Economic Activities of the Rural Private Sector</p> <p>5. The Public Sector: Organization and Operation of Rural Development Activities</p> <p>6. Regeneration of the Southern Third of Mauritania.</p> |
| <p>5. To evaluate integrated rural development activities in a general sense.</p> | <p>1. Rural Production</p> <p>2. Agricultural Institutional Framework</p> <p>3. Agricultural Production</p> |

(3) Organization of RAMS

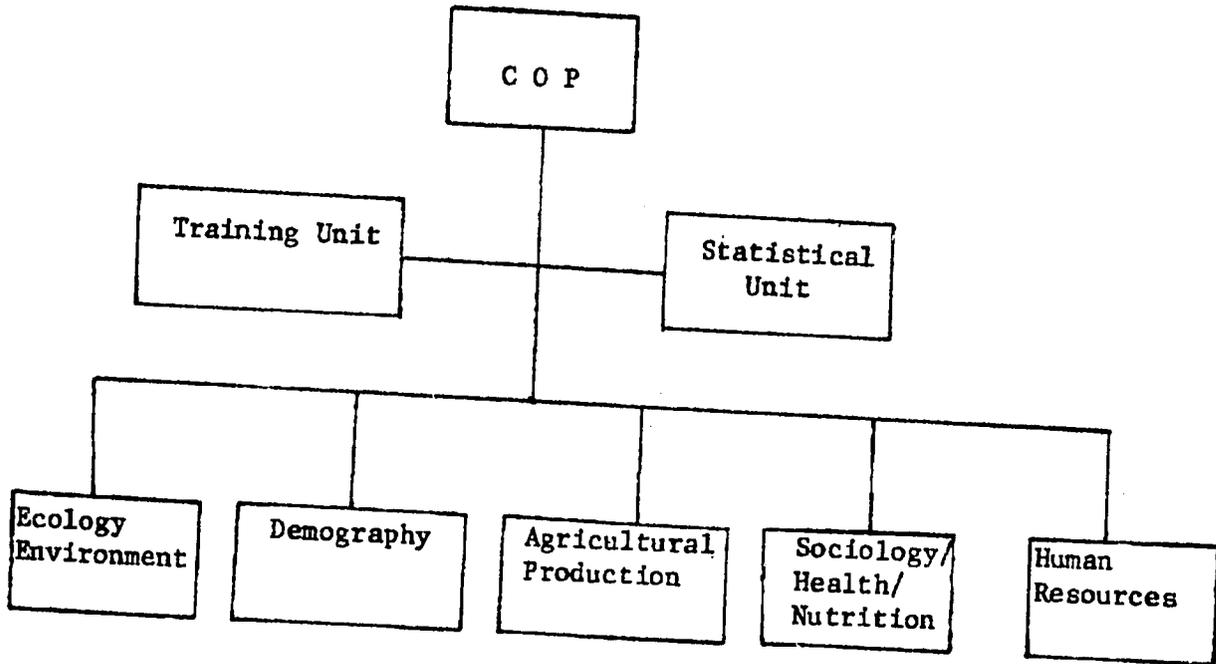
Whereas the Project Agreement foresaw a single organizational set-up for RAMS over the entire life of the project, RAMS actually went through basically three organizational changes, as shown in the charts below.

The first came about in October 1979 and was intended (a) to strengthen internal coordination of technical activities, and (b) to add an "administrator" to handle administrative matters. (This position, while foreseen in the Project Agreement, was subsequently deleted by AID, as a result of which the COP found it necessary to take care of administrative, as well as program activities.)

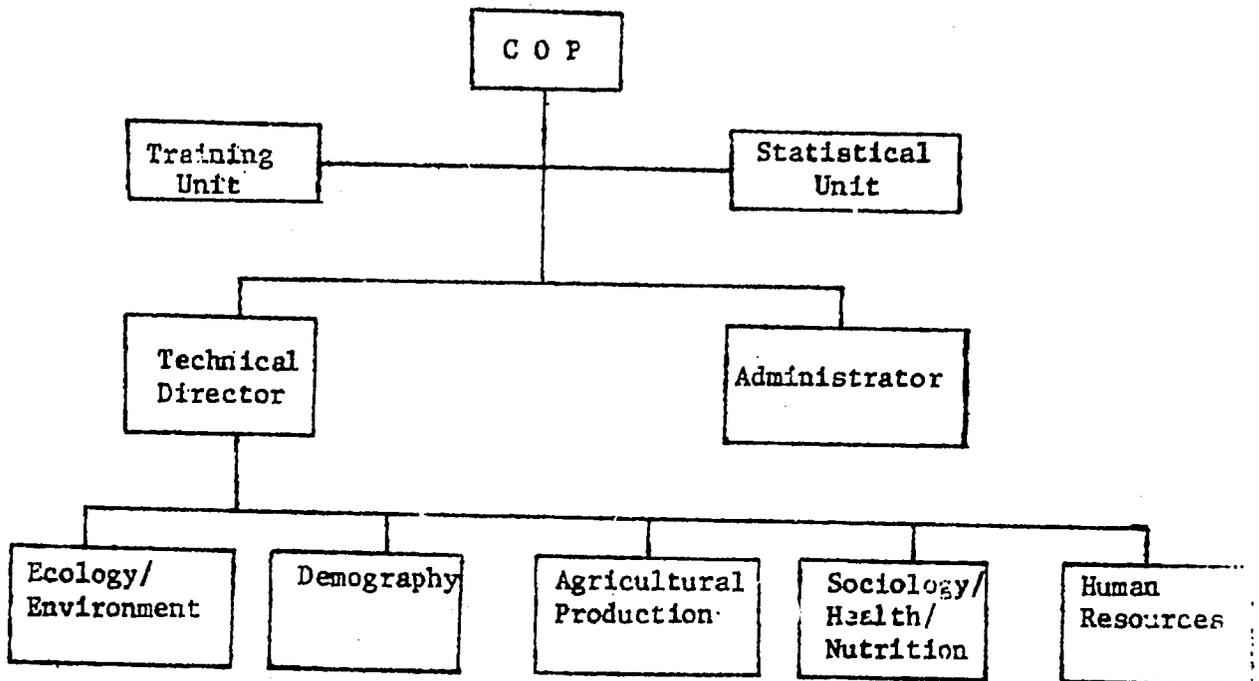
The second restructuring created a more centralized operation, while maintaining the same basic internal organization. For all intents and purposes, the Technical Director functioned as a Deputy COP, under the direct supervision of the COP. In addition, an economic unit was established in anticipation of the recruitment of a development economist.

The third and final organizational modification occurred in February 1981 at the time the Option Papers were being formulated. As a means of enhancing a fully integrated, multi-disciplinary operation, the organization took still another form (see page 21). In all, there were five major research units, chiefly agricultural, economic, human resources and health. Sociology and environment, together with training and statistical units, became support units, functioning closely with each of the primary research units. The Technical Director's position was gradually phased out. This organization lasted until the project began to phase out at the end of June 1981.

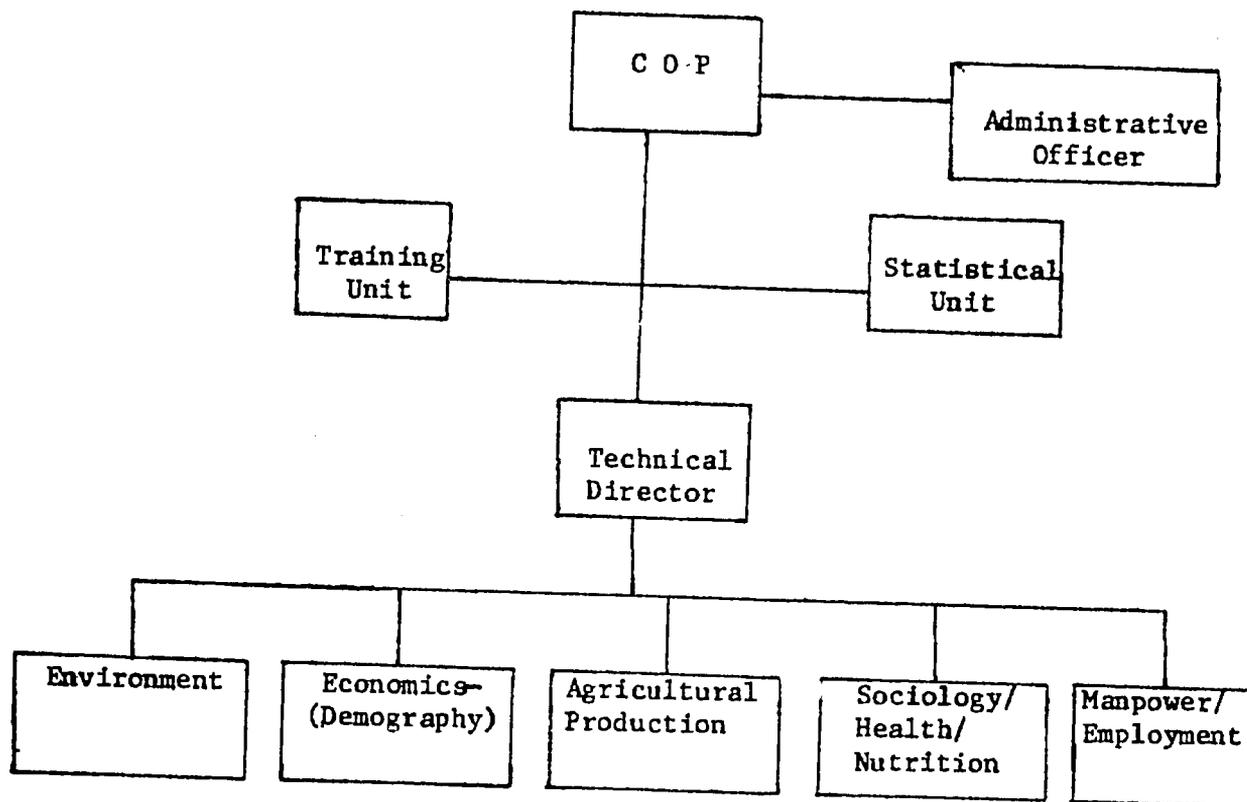
Original RAMS Organization
(May 1979)



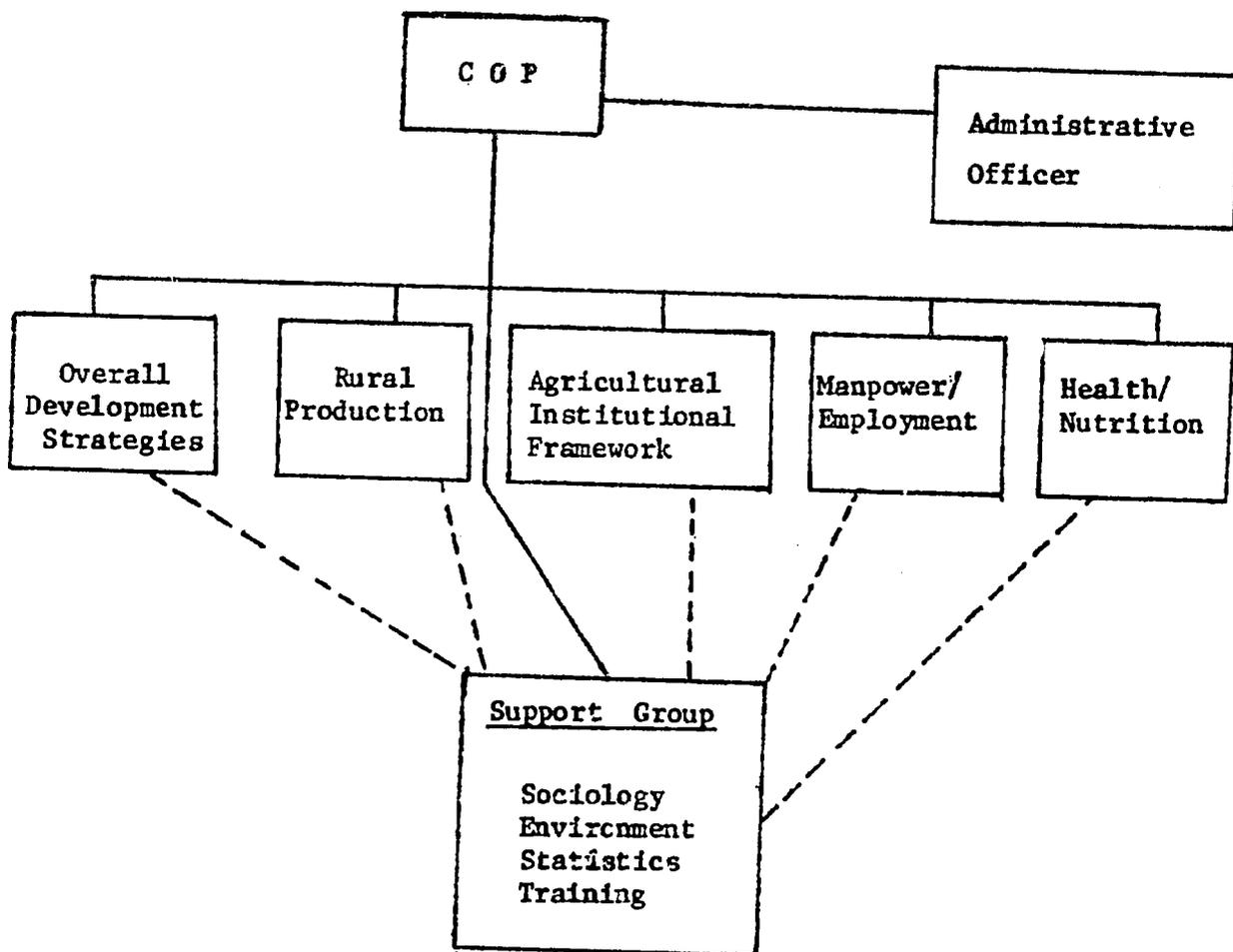
Restructuring of RAMS Organization
(October 1979)



RAMS Organization
(March 1980)



RAMS Organization
(February 1981)



(a) RAMS Relationship to GIRM

Constituted as part of GIRM's planning office, RAMS worked hand-in-hand with its National Director, Mr. Assane Diop. While, eschewing any desire to become involved in the project's daily operations and administrative problems, Mr. Diop was constantly consulted with regard to the approval of consultants, the scheduling of studies, the initiation of surveys, the organization of seminars, etc. He reviewed draft reports and offered critical comments that improved their content. In all program reports, he guided the project with a fine, deft hand.

The project's character, therefore, bears Mr. Diop's imprint. RAMS' acceptance within the GIRM is, as a consequence, a mirror image of his own standing and respect among his peers and his superiors.

A Ministerial-level RAMS counterpart may have given RAMS greater élan and authority but, at the same time, RAMS would have been subject to the vagaries of the GIRM's political system. There were about six different Ministers of Economy and Finance during RAMS' life span, and the break in continuity could have disrupted RAMS' work. Also, ministers are notoriously absent from their desks and oftentimes, advice and consultation become matters of operational urgency.

It was deemed important, while respecting Mr. Diop's role as the project's National Director, to maintain as wide a circle of contacts as possible. The COP, therefore, met regularly with officials at the ministerial and other senior levels, as well as with members of the international community.

The two formal committees that were created as working and policy levels for RAMS were, regrettably, a fiasco. The Interministerial Committee was convened twice and at the second meeting was attended by less than half of those invited. Those who did participate had clearly not prepared themselves for the meeting and went into individual monologues when given the floor. After four hours, only about one-half of the agenda had been covered. The meeting adjourned and never resumed. Mr. Diop, with the COP's concurrence, never convened another Committee meeting. In post-mortem sessions with Mr. Diop and others, the COP came to the conclusion that Mr. Diop's peers had unfortunately distanced themselves from RAMS because they had never been briefed regularly on the status of the project. Moreover, internal bureaucratic jealousies within the GIRM also were an important factor in the disinterest shown.

With respect to the Policy Committee, the one time formal action was taken by the USAID Director and the U.S. Chargé d'Affaires to convene it, there was no follow-up action by the GIRM. At the time, the Minister of Economy and Finance paid polite attention to the request made but nothing further was heard. (The occasion was a hoped-for briefing to discuss the Options Papers.)

The timing of the request for a meeting was, unfortunately, not the best because of political circumstances. There had been a ministerial reshuffle and rumors abounded at the time about further changes by the military leaders. It is entirely possible that the minister was unwilling to go out on a RAMS limb and associate himself with the project without knowing the reaction of his superiors.

In any event, it is believed that the establishment of the two committees was ill-advised. As a rule, it is better to work within an established framework and with existing institutions. Planning commissions had been established for the preparation of the Third Plan and, although they were ad hoc, they were a recognized body and had functioned. It would have been preferable to work through the Rural Development Commission and the Human Resources Commission at the working level and the Synthesis Commission at the policy level, rather than create two special committees strictly for RAMS.

(b) RAMS Relationship with USAID

RAMS has had two working-level contacts with USAID: for program matters through the Project Director, and for financial matters through the Controller's Office. While there were periods of tenuous rapport, especially at the outset, relationships evolved satisfactorily and continuing, regular contacts were maintained.

In the final year of the project's operation, the COP attended periodic project review meetings with the USAID Mission Director and his staff. Problems were frankly discussed and solutions mutually arrived at.

Overall, USAID's role was encouraging and supportive. The Mission Director, John Hoskins, clearly set the affirmative tone and was always accessible. Technically, the Project Director, John Grayzel, played a positive role. The Acting Controller, Jerry Hensley, gave helpful counsel; because of the very limited professional staff in his office, audits and requests for local currency allotments at times took inordinately long to process.

(4) Training and Institutional Development

Section 5 of this report covers this subject matter fully.

(5) Calendar of Activities

The two time frames established in the Project Agreement were reasonable: two phases, one of 15 months for the basic studies, and the second of 9 months for the policy options. In overall terms, the time allocations could have been met. But several factors intervened with the result that the two phases finally merged and of necessity, overlapped. Sequentially, the following occurred:

1. Field activity did not get off to a swift start. The delay between RFP and contract signature upset the recruitment timetable. Persons who had been recruited for certain positions were no longer available, and replacements had to be found.
2. In his first six months in Nouakchott the COP who had no administrative officer, lost valuable time in attending to mundane administrative chores.
3. Preparations for the various surveys took an inordinate amount of time in the absence of a professional data survey specialist. The AID Country Development Office rejected the COP's plea for such assistance, as a result of which all RAMS' experts in the field at the time participated in some way or another in the survey preparation, thereby interrupting their own research schedule.
4. The GIRM could not satisfy its commitment to provide the surveyors for the field surveys. RAMS, therefore, had to recruit and train the surveyors, again at a loss of time to the project. (The unforeseen costs of the surveyors were subsequently subsumed by the RAMS budget.)
5. There were delays in recruitment in a number of expert positions, delaying the start of research in some fields.
6. The project was beset by an inordinate number of accidents, illnesses and disabilities starting with the office stabbings of the Technical Director and COP on July 1, 1980.
7. The initial hand-tabulation of summary data took an inordinate amount of time.
8. USAID delayed by several weeks the approval of the HP-85 micro computer and the data analyst.
9. AID/Washington delayed approval of several experts in the latter part of 1980 pending approval of a project amendment.
10. A number of baseline studies including Rural Income, Rural Consumption, Agricultural Production and Nutrition could not be completed until all of the survey data had been analyzed.

11. Some RAMS personnel had multiple responsibilities and could not complete their studies in a timely fashion. The Private Sector report, drafted by the statistician who supervised the Household Revenue/Consumption/Nutrition and nomad surveys, could not be completed before March 1981. The Public Sector study was finished a month later, due to the Training Officer's other functions.
12. In one case, in the up-grading of the Continental Fisheries study, the consultant's re-write did not reach RAMS until July 31, 1981, only a month before the project's closure. (The original re-write had been sent to the office of one of the sub-contractors rather than to RAMS directly.)

In summary, the dynamics of project execution are not altogether predictable and they seriously affect the meeting of scheduled deadlines.

As a result of the foregoing, Phase I actually carried on until the end of the project rather than come to a neat, complete finish months earlier.

The Table below compares the titles of the Phase I studies with those that were finally produced.

For Phase II, the first RAMS internal organizational meetings were started in the latter part of November 1980. The COP's unavoidable absence immediately thereafter, the 10-day visit of an AID Assessment Team, and finally the Xmas and New Year holidays intervened to create delays. The intellectual process of synthesizing the results of Phase I studies (especially in the absence of some other studies that had not been completed, e.g., Agricultural Production), formulating matrices to highlight the constraints and potentials in the development process as they affect certain sectors, harmonizing inter-sectoral views, allowing for consultations between experts, building options, supporting them, consulting with Mr. Diop, etc. -- all required an inordinate amount of time.

At first, it was thought that the Option Papers should be brief, no more than 50 pages, but as the original list of options was consolidated and as it became subsequently clear that each paper had to be self-contained, the size grew and some are more than double what had initially been thought desirable. Some papers went through as many as five drafts. It was not until June 15, 1981 that the first Option Paper was completed.

RAMS Studies As Compared With Those Cited In Project Agreement

<u>Title As Cited In Project Agreement</u>	<u>Title of RAMS Study</u>
<u>Phase I:</u>	
<u>Baseline Studies:</u>	
Definition of Agro- Ecological Zones	Agro-Ecological Zones in Mauritania Environmental Regeneration of the Southern Third of Mauritania
Population	Population Projections
Food and Non-Food Demand	Rural Sector Consumption Patterns in Mauritania
Rural Production and Income	Agricultural Production: Analysis of Selected Aspects of Mauritanian Agriculture Rural Income in Mauritania.
Sociological Profiles	Black Africans Mauritania The Moors
Manpower	Manpower Skills Evaluation of the Formal Education System in Relation to Development Objectives Non-Formal Education
Employment and Training	Employment Situation Employment Supplement
<u>Sectoral Studies:</u>	
Irrigated Agriculture	Irrigated Agriculture
Dryland Agriculture	Dryland Agriculture
Oasis Agriculture	Oasis Agriculture
Livestock	Livestock Subsector Study Livestock Subsector Study Supplement Rangeland Management and Development
Fisheries (Continental and Maritime Traditional)*	Fisheries (including both Continental and Maritime Traditional)

* It will be seen below that only Continental Fisheries was intended to be treated throughout the project.

Title As Cited In
Project Agreement

Title Of RAMS Study

Functional Studies:

Nutritional Requirements
and Health

Food and Nutritional Situation in
Mauritania

Rural Health: Outline of the
Mauritanian Health Sector

Social System and Social
Change

The Future of Pastoralism

Social Organization of Agricultural
Production

Population Movements and Migration
in Mauritania

Evolution of Modes and Accumulation
of Social Change in Mauritania

Overall Synthesis of Sociological
Studies

Phase II:

Option Papers:

Irrigated Agriculture

Fisheries

Dryland Agriculture

Livestock

Oasis Agriculture

Implementation Modalities

Regeneration of Environment

Private Sector

Rural Organizations

Marketing

Food Policy for Food Products

Agricultural Extension

Agricultural Research

Rural Health

Consolidated under:

Rural Production

Agricultural Institutional Framework

Health System in Mauritania:
Analysis of Problems and
Alternative Solutions

<u>Title As Cited in Project Agreement</u>	<u>Title Of Rams Study</u>
Nutrition in Rural Areas	Food Requirements and Nutritional Strategy - Estimates for year 2000
Manpower Employment	Employment Implications of Alternative Development Strategies
Project Priorities	Consolidated Statement on Overall Development Strategies Project Dossier
Development Strategies	Consolidated Statement on Overall Development Strategies Macro-Economic Simulation Model for Assessing Development Priorities Framework for Calculating Rural GDP from Basic Production Data Basic Human Needs As a Concept in the Formulation of a Development Strategy
Project Identification:	Project Dossier Education as a Development Tool
Other: -	Seminar Evaluation
-	Regional Profiles
-	Synthesis
Final Report	Final Report

A major weakness in the design of the project was to defer research in a number of fields until Phase II, whereas they should have been undertaken early on in Phase I. These included price policy, marketing, agricultural research and extension. Land reform, a key subject in Mauritania, was totally omitted. As a result, RAMS became involved in these issues as a secondary rather than primary matter.

Only once did RAMS run into any significant problem regarding the content of material it was producing. In the summer of 1980, when the study on Demographic Projections was being reproduced, the Minister of Economy and Finance instructed RAMS to delete any reference to the breakdown of the Mauritanian population by ethnic grouping. The pertinent section in the report was subsequently deleted.

With regard to the Project Agreement's provision on compiling data by agro-ecologic zones, RAMS research was for a time organized on this basis. When it became obvious that the unit by which information had to be collected was the administrative region, RAMS shifted to this basis. The Regional Profiles reflect this type of reporting. It should be noted, however, that the basic unit is the department, one administrative layer below the region. RAMS did not have time to descend to this level, and it is hoped that the regional offices will do so as they complete and up-date the information contained in the profiles.

C. Other Program Aspects

The Annex regroups a series of 25 charts and tables reporting in detail on RAMS studies, expatriate personnel and expenditures. Several aspects deserve particular mention, supplementing what already has been said on program activities and dwelling somewhat on some major administrative problems which impacted on program implementation. (The section on Administrative Activities covers different angles.)

Two particular operations stand out in sharp relief, each with particular lessons for future project design exercises: the field surveys and the printing by RAMS of all of its final products.

Field Surveys

As previously noted, one of the basic objectives of RAMS was to collect and analyze data. To fill the cavernous gaps in available information, surveys were foreseen as an essential tool, but the circumstances in which they were to be organized, executed and utilized were definitely not. A brief description of the work undertaken, abstracted from the Annex of the Annotated Statistical Compendium, which treats the subject in greater depth, will serve to illustrate the scope of the activity, the local cost of which came to around \$50,000.

RAMS Surveys

From September 1979 to November 1980, RAMS organized a series of surveys. These were to constitute one part of the data base on which sectoral analyses were to be made.

Four principal categories of surveys were conceived, some with several components:

1. Household Revenue/Consumption/Nutrition consisting of
Revenue
Consumption
Nutrition
Food Preference
Market Prices and Child Nutrition
2. Labor and Manpower including
Employment (urban and rural)
Business establishments
Non-structured sector
3. Professional Skills for
Cultivators
Herders
Fishermen
Craftsmen
Women
Shopkeepers
4. Rural Production divided between
Crop by land form and
Livestock by animal herd

Analysis plans and questionnaires were devised by the various RAMS research units to some extent in collaboration with certain government services: Agriculture, Livestock, Social Welfare, Statistics.

Questionnaires were field-tested and revised, and a preliminary set was established for a training seminar. An instruction manual for enumerators was also devised with a general explanation of survey techniques and instructions and a sampling procedure for each questionnaire.

Household Revenue/Consumption/Nutrition Survey

The objective of this survey was to collect data on income structures, modes of food and non-food consumption and budget patterns

among the rural population. Additional information sought concerned market price fluctuations, nutritional levels and foodstuff demand.

For this purpose an initial group of 32 villages had to be reduced in half; thus, one out of 2 villages was randomly selected. This procedure was necessary due to the difficult nature of the survey. It required women enumerators in the four language groups (Hassaniya, Wolof, Soninke, Poular) and it required 4 separate observations spread over the course of a year.

Sixty-four Budgetary Units (BU) were sampled recurrently during the course of a year which represented a sampling of approximately 1 in 1000 of the rural BU's.

In order to gauge fluctuations in consumption and revenue patterns, four observations at approximately 3-month intervals (December 1979, March/April, June/July and October/November 1980) were carried out within the same consumption units. Enumerators spent 6 consecutive days per observation with each unit, allowing for a total of 24 days observation period during the course of the year.

A nomad component was added to the fourth observation, surveying 34 revenue units and 12 consumption units in the Tagant, Adrar, Assaba and Hodh Charqui regions. Encampments were selected randomly from a compass reading starting from a pre-determined site in each region. Each area selected represented a distinct type of nomadism based on predominant herd composition. Adrar for camel herding (long distance nomadism), Tagant and Assaba for goat herding (short distance nomadism) and the Hodh for cattle herding (medium distance nomadism).

The Revenue/Consumption/Nutrition survey contained 5 essential components and supplementary sections. The main parts included:

1. Human Description of the Budgetary Unit
2. Meal Participants List
3. A Daily Acquisition Record
4. Meal Preparation List
5. Income

The three supplements included:

6. Food Preference Questionnaire
7. Market-Price Survey
8. Child Nutritional Level

The Labor and Manpower survey collected information from four categories of workers:

- self-employed
- non-paid family workers
- salaried non-domestic workers
- unemployed workers

The major data elements collected from each worker were:

- occupational history
- secondary economic activity
- number of job changes in the last 5 years
- urban/rural job 5 years ago
- urban/rural job now

Seven urban centers, Zouerate, Rosso, Nouakchott, Atar, Akjoujt, Kaédi and Nouadhibou, were surveyed, in addition to the 32 rural villages, this in recognition of the importance of the urban labor market in relation to rural/urban migration.

A Secondary Units Household survey consisted of a random sampling of 800 households, of which 132 were in the rural sector and 668 in urban centers.

The Employment in Business Establishments survey was a census of the 199 businesses employing 5 or more persons in the six largest cities and towns in Mauritania: Nouakchott, Nouadhibou, Zouerate, Rosso, Kaédi and Kiffa.

Information collected included:

- Number of firms by size of labor force (1-14, 15-49, 50-99 and 100+ employees)
- Employment by sector/size/% male/% Mauritanian/% other foreigner
- Salaries by occupational group and grade
- Apprentices by trade
- Actual education, training and experience by occupational group
- Total average turn-over of workers
- Forecast of manpower shortage by occupational group
- Minimum desirable education, training and experience by occupational group
- Means of recruitment by occupational group

(The Ministry of Employment and Professional Training supplied labor inspectors to assist with the distribution and collection of the questionnaires.)

The Non-Structured Sector survey consisted of a census of all business establishments in Nouakchott employing less than five workers. A total of 11,677 establishments were identified, of which 80% were located in the central portion of town and the rest in the shanty and tent peripheries.

The Professional Skills survey gathered data to help develop a strategy to improve and create employment in towns and rural areas. Most employment generation efforts to date have centered on the urban modern sector. The survey consisted of six questionnaires designed to assess skills and qualifications of the following categories:

<u>Questionnaire</u>	<u>Number In Sample</u>
Herders	107
Cultivators	389
Shopkeepers	62
Craftsmen	181
Fishermen	22
Women	318
	<hr/>
	1,079
	<hr/>

Data elements gathered for all groups (except women) were:

- Occupational shifts of father/son
- Time in occupation
- Functional description of occupation
- Manpower employed
- Duration of apprenticeship without pay
- Number of apprentices trained
- Number and reasons for trainee turn-over
- Business/work-related difficulties
- How knowledge was acquired
- Secondary activities
 - why practiced
 - how learned

Data elements analyzed for women were:

- Number of children by age/sex
- Responsibility for childrens' education
- Types of schools
- Family education
- Secondary activity
- Commercial activity
- Acquisition of trade

It was decided that approximately 1,000 individuals could be sampled within the primary units retained for this survey. Using 1977 census village figures on total individuals in the five professional groups, 867 interviews were distributed in proportion to the size of each group in the primary units. In each village the enumerator conducted an interview with the wife of every third respondent. Thus, a total of 1,079 questionnaires was processed.

The Production survey served to gather data on modes of crop and animal production. Given the multi-occupational nature of the rural Mauritanian, it was decided at the outset to combine, in one questionnaire, sections on the five basic types of crop agriculture (Oualo, Fondé, irrigated, recessional, oasis) and every type of animal farming -- cattle, camel, sheep and goat, donkey and poultry. This explains in part the complexity of the questionnaire. No single production area was found to practice all types of agriculture, although nearly 50% of the surveyed units practiced combined crop farming with some form of animal herding.

Data elements analyzed for all groups included a composite of the production unit. For animal production, key elements for each type of herd included:

- size, composition and movement
- production
- auto-consumption
- marketing
- modes and costs of herd up-keep

For crop production, key elements for each type included:

- surface cultivated and method of cultivation
- investment and tools
- labor use and costs
- auto-consumption and marketing

RAMS decided that 6 production units could be interviewed within each of the 34 sample villages. An additional 63 units were surveyed in 8 of the largest towns, giving a total of 267 surveyed production units.

General Remarks: On the whole, RAMS met little resistance by local authorities to having their area surveyed. In fact, the opposite was often the case; a village tended to feel honored at being especially selected for attention by "Nouakchott". On occasion, the village head personally demanded that his family be included as a condition for undertaking a survey in his area. In certain isolated areas, the nutrition surveyors tended to be associated with anticipated food distribution programs. This perception may have caused a few households to modify their consumption downwards during the survey period.

The generally positive attitude towards participation in surveys was evident at the individual level as well. Once people recognized their selection was entirely on a random basis, this is a traditionally familiar concept.

Nomads, however, tended to be considerably more uncertain, even apprehensive, their experience with outside elements having been generally negative. Accurate information on revenue and wealth were markedly more difficult to obtain.

The complexity of the operation is apparent. The fact that the work was undertaken without the benefit of a professional and experienced survey specialist is astounding. Yet, the proposal by RAMS in the early days of the project was rejected by the AID field office.

For the preparation of the questionnaires all other activity of RAMS was forsaken and, as a result, the first major delays in basic research work were encountered. All of the technicians present in September/October 1979 when the planning of the surveys was taking place with a vengeance, participated first in the design of the questionnaires, then in the training of the surveyors, and finally in the sampling process itself. Despite this massive and coordinated effort, the first observation, conducted in November 1979, was not an overwhelming success and major revisions in the questionnaires had to be made.

The processing of the data was another monumental effort and "enumerators", again trained by RAMS staff, hand-posted the information. The coding system, not having been perfected, required adjustment. It would not be an exaggeration to say that no less than a ton of paper was consumed in the process, with the errors inherent in any manual operation compounding the exercise. Each of the four major categories of surveys and all of their components were similarly treated.

With hindsight, one can realistically wonder how the operation was ever concluded.

As with any arithmetical process, the aggregation of data (and the analysis of the masses of information compiled) was also time-consuming. To save time and money, RAMS proposed the use of a micro-computer. Before a final decision was taken, on the data analyst who was to accompany the micro-computer as well, nearly three months elapsed. It was not until November 1980 that both arrived in Nouakchott. Several Phase I reports (rural income and consumption, agricultural production, nutrition) had to await the aggregation of data.

"All's well that ends well" is an oft-repeated phrase. The real miracle is that the data amassed proved to be valid in the light of corollary data, cross-checking, etc. As the Synthesis Report correctly notes, while, the RAMS data collection process was by no means model to be repeated, the data base which finally resulted lays a firm foundation for successive survey stages. The GIRM will hopefully have benefitted, to the extent it participated. Regretably, the surveyors and enumerators the GIRM was to have provided never materialized, but the participation of labor inspectors and others greatly facilitated the survey effort.

Report Reproduction

AID can be faulted on still another horrendous decision: it insisted that RAMS itself produce all of its final reports rather than have the printing job done commercially (and professionally). Cost was the primary consideration.

The amount of professional time lost in the reproduction process has been incalculable. Not only was the proofreading and reproofing of drafts involved but the work was doubled as a result of the translations that had to be checked and rechecked for accuracy. A summary list of the problems encountered will provide an idea of what was involved. (See also the discussion below under Administrative Matters - Report Preparation.)

1. There was never any assurance that needed supplies could be obtained locally. Dakar was the primary source. Massive supplies of certain items (quality scotch tape and white-out, as but examples) were air freighted from Washington.
2. Some materials were faulty -- 10 boxes of stencils had to be exchanged at one point, after an entire report had to be retyped.
3. Not all services could be found in Mauritania, e.g., photo reduction (which had to be done in Dakar).
4. Prices of paper, stencils, paper clips, et. al., when available, were exorbitant in Nouakchott. Spare parts of certain types of equipment were not available at any price.
5. The breakdown of equipment, especially the electric typewriters, was frequent, and service repair facilities, when available, were imperfect.
6. The search for qualified translators in Nouakchott was frustrating and not terribly satisfactory. (Many translator candidates were interviewed and tested, but few qualified.) The LBI office in Dakar handled a significant share of the burden of searching and recruiting for

both English and French translators, but a courier run had to be organized between Nouakchott and Dakar to pick up translations. The LBI office in Paris also assisted on occasion.

7. As a result of the lack of any central control, some translations were submitted in incomplete fashion; others had to be re-edited in Nouakchott; at least one report was lost -- all impinging on what otherwise might have been an orderly scheduling of report preparation.
8. The so-called equipment used by RAMS consisted of a Gestetner hand-operated reproduction machine. (An Off-set machine made available by the Ministry of Economy Finance could never be repaired, despite repeated and costly attempts to do so.)
9. Everything prepared in final form had to be proof-read before reproduction took place. Corrections again required proof-reading. Usually, the author would recheck his own work.

The reproduction involved 44 final reports, with another 41 translated -- total of 85. In all, over 1,200,000 pages were reproduced.

From the standpoint of financial cost, as previously indicated this was the sole criterion established, it is estimated that each report cost an average of about \$15 to reproduce (not counting the time of the author). $85 \times \$15 = \$1,275$. There is no doubt that the job could have been handled cheaper elsewhere -- and more professionally and without having wasted the professional time of both technical and administrative RAMS personnel.

Still another point should be made: all of the reports were produced without the benefit of a professional editor. Given the volume of material prepared, it is regrettable that such a position was not included in the staffing pattern. The quality of the reports would certainly have been enhanced. The readers will, therefore, have to excuse the lack of uniformity in the outline of the reports, in the organizational format, in the presentation of charts and tables, in the spellings of geographic names, etc.

Recruitment and Staffing

It is axiomatic that the quality of the final product is dependent on the quality of the individual preparing it. It would be presumptuous to provide a grading of the work accomplished by RAMS; in all candor final judgement rests with the end-users of the reports

that have been turned out, the extent to which data generated, observations made, analyses presented have been accepted, either in part or in whole, by the GIRM, the international community, researchers, planners, etc.

The COP is on record as having been generally satisfied with the quality of recruitment effected by the three contractors. As in any major endeavor, and RAMS involved a total of 44 professionals (see Personnel Table 1 in the Annex), a wide range of talent was involved in the execution of the RAMS project. Most of the technicians were of high quality and worked enthusiastically and with a sense of commitment; some were mediocre, and a handful were duds who had to be replaced.

Of the 44 professionals recruited by RAMS, 12 were classified as long-term (over one year), 7 as medium-term (over six months but under one year) and 25 as short-term (less than six months). (See Personnel Table 1 for details.) The original contract schedule called for an even higher number of short-term consultants, but this was scaled-down with AID/Washington's concurrence. For purposes of continuity, the COP extended the period of assignment of several medium-term technicians who had drafted Phase I reports in order that they could participate in the formulation of the option papers, rather than bring in a new set of specialists.

One area of recruitment that posed a problem was in the timely search for a qualified development economist. It would have been extremely useful for the project to have benefited from such talent from day-one, but it was not until November 1980 that one appeared on the scene. Importantly, all of the necessary economic talent was on hand for the formulation of the option papers (when they were most needed), together with the micro-computer and the data analyst.

The fact that there was a consortium of three companies rather than one helped, not hindered, the execution of the project. The subject matter responsibilities of each company permitted each one to focus on specific areas** and, when one company needed a helping hand, another one stepped in. For example, LBI recruited agricultural talent and Checchi found a development economist in the last few months of the project. It is important to emphasize at this point that the internal organization of RAMS was in no way affected by company affiliation, and the different organizational arrangements that emerged in the course of project implementation (see below) were devised strictly on the basis of program requirements.

Significantly, the transition from Phase I (the basic research period) to Phase II (the synthesis period) was the most wrenching of all. The shifting of mental gears did not come easily. More than any other

** Checchi and Company: project management, statistics and agriculture.
LBI: sociology, environment, health, nutrition, economics and data analysis.
API: manpower, employment and training.

time in the life of the project, the inter-disciplinary process, the melding of thoughts and action, came to a head. It was obviously easier to research one's own technical field and consult with colleagues than to analyze every finding and conclusion and integrate it into a model and projection. What seemed like eternal, and occasionally repetitious, meetings had to be organized. The "story-board" technique, introduced over a one-week period in February 1981, was helpful and served to break mental barriers. But the drafting of the option papers took longer than anticipated. Portions of the papers were still being re-edited as late as July 1981, just weeks before the project came to a close.

The original contract between AID and Checchi and Company provided for an estimated level of effort of 342.5 man-months, exclusive of contract coordinators at their home office. The contract amendment signed on May 21, 1981, raised this level to 380 man-months. The actual level amounted to 387.5 (see Personnel Table 5 in the Annex for details), funded within the budgetary ceiling of the contract.

In the course of implementation, AID/Washington approved a multitude of requests for the substitution and amalgamation of posts, not always expeditiously and with consequent delays in recruitment. The most flagrant case of non-action on AID's part was its refusal to have converted the status of the statistician from short-term to long-term status. (He served a total of 23 months.) The overall effect was a higher charge against the budget.

Project Evaluation

On the assumption that RAMS would be extended to cover yet another phase of operation, the project agreement provided for an evaluation. The decision was, however, taken by USAID in 1980 not to extend RAMS beyond its current terms of reference. (The extension of time approved under the 1981 amended project document did not go beyond these terms.) The project, therefore, never went through a full evaluation.

Two general reviews of sorts were, nonetheless, conducted. The first, an in-house review was conducted by USAID in April 1980 over a two-week period, resulting in some useful observations that were subsequently taken into account by RAMS. The Project Director, John Grayzel, organized and coordinated the meetings.

In December 1980, an independent three-person team visited the project over a 10-day period. First conceived by AID as an evaluation mission, the team leader rightfully objected to the terms of reference and the mission was transformed into an "assessment". Recruitment of the agricultural economist and the administrative specialist was completed only on the eve of the team leader's departure from Washington. He arrived alone, followed separately

by each of his two colleagues, one of whom took ill shortly after his arrival in Nouakchott. Internal team dissension did not help the final report which was issued in January 1981. Each team member independently prepared his own section of the report; there was no coordination of team views; and it was left to the team leader to pull the report together. So much for the organization of the team.

Its assignment was, unfortunately, mistimed, coming just as Phase II was beginning and in the absence of the COP who, at the time had to absent himself on urgent personal matters.

The team failed totally to grasp the dynamics of the project, of changing priorities in the GIRM (on-again, off-again plan formulation process), of Phase I reporting continuing while Phase II was being discussed, of the RAMS internal reorganization that was concurrently taking place, etc. The end result was that the report had no impact at all on the project's execution. (The idea for the consolidation of the option papers, which was the major recommendation of the final report, actually originated within RAMS.) Nor, as far as is known, did the report influence AID/Washington's or USAID's thinking about the manner in which the project was being implemented.

Project Funding

Inevitably, the course of a project from the inception to the execution stage changes from time to time depending on modified requirements, revised time frames, availability of funds, etc. RAMS was certainly no exception. One could facetiously compare the cost of the two university teams that formulated the project's terms of reference with the final cost of the project to look at the two extremes, and reason that about \$50,000 grew ultimately to \$5,600,000 but this could be misleading.

In late 1977, AID/Washington decided to impose a \$4 million ceiling on the project, as a result of which all costs (contract, local currency and logistics) were compressed within this amount. The original project document came up with the following estimates:

<u>Dollar</u>	<u>Local Currency</u>	<u>Logistics</u>
\$2,720,000	\$230,000	\$1,050,000

These figures were modified by the time the contract was signed, as follows:

\$3,331,593	\$432,000	\$ 236,407
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The arbitrary reduction of the logistics budget clearly presaged the need for supplementary funds at a later date. With the addition also of 37.5 man-months, the final figures came to:

\$3,902,141	\$692,000	\$ 976,100
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for a total of \$5.6 million, including under \$40,000 for pre-project activity (see Expenditure Table 1).

4. Administrative Activities

A. General

Project Start-up

Throughout the life of the project, the RAMS operation was relatively autonomous of USAID, maintaining separate personnel, budgetary and logistics controls.

Aside from a periodic monitoring role and the authorizing of specific uses of project funds mandated by the contract and USAID regulations, the USAID project support function, particularly in the latter stages, was minimal.

A partial explanation for this arrangement may be found in the USAID/Mauritania Mission's relative lack of initial experience and established infrastructure having only very recently been up-graded to full mission status. The RAMS was the first development project of any complexity attempted under these auspices and hence was forced to break new ground in many areas of project logistics and administration.

This is not to imply that the preparations made prior to the contract teams' arrival were in any sense inadequate. In fact, when the first of the RAMS consultants arrived in Nouakchott in May 1979, they found that the logistical groundwork for the project had been fairly well laid. Seven houses or apartments for long-term staff members had been rented, and readied for occupancy; 13 offices and a conference/reading room were set up with office furniture, telephone and supplies (including 10 manual typewriters, a stencil and a photocopy machine); 4 "Sahara-equipped" long-chassis Land Rovers had been purchased in the Gambia and were licensed and insured and in storage at the GSO; and a transit house in the USAID compound was made available for the first wave of short- and medium-term experts who were due to arrive in the following two months.

In anticipation of the arrival of the entire contract team, the bulk of project equipment and commodities had been ordered in 1978 by the then AID Project Manager. RAMS houses and apartments were rented in 1978 and early 1979 by the mission leasing officer and prepared for occupancy by the GSO.

Start-up logistics, in fact, were so well in hand by the end of the first contract month, that 11 consultants (6 long-term and 5 short-term) were installed and working as of the time they arrived. By the end of the first six weeks, a local employee staff of 18 was in place, the first field mission to the interior effected, and a local currency account set up (see below) to meet rapidly escalating ouguiya requirements.

According to one of the first RAMS consultants to arrive in-country: "The start-up of RAMS could have served as a model USAID Project", and in his quarterly report covering this period, the Chief of Party acknowledges these accomplishments due, he said, to the "combined efforts of the AID Mission, the General Services Office of the Embassy and the RAMS staff".

This "honeymoon" period was to be brief, however, and serious logistical, budgetary and administrative problems emerged in the July-October 1979 period. These are described briefly below:

(i) Initial Logistical Problems

Above and beyond the myriad logistical obstructions encountered in the start-up of any Nouakchott-based project, RAMS seemed to be plagued with three points of contention which the project management found to be particularly vexing:

(a) Customs Problems

Mauritanian Customs officialdom refused to allow duty-free entry of personal household effects and private vehicles for RAMS long-term consultants without the payment of a cash deposit and a bank guarantee. Several RAMS experts experienced relatively long delays (2-3 months in one instance) in securing the release of their personal effects. Though in all cases the issue was eventually resolved favorably, a large amount of RAMS management time was lost in unblocking this situation.

(b) Personnel Problems

Of a more serious and lasting nature were problems concerning the recruitment and processing of locally-hired employees. In the space of two weeks (May 19-June 4, 1979) no less than 15 people were recruited and signed to long-term (life of project) contracts. The hasty nature of this operation is reflected in the fact that no uniform pay scales, job descriptions, social security or local labor inspection policies had yet been formulated. Furthermore, the screening of these employees prior to their being hired was cursory at best. No thorough check of references or past employment histories was carried out and, in fact, over the following six months nearly half of these employees, including the administrative assistant, accountant, drivers and research assistants were released. Clearly, the lack of administrative support à propos personnel recruitment and supervision placed the onus of sorting out an increasingly chaotic local employee situation squarely on the shoulders of the RAMS Chief of Party. A more detailed description of project personnel experiences follows in another section below.

(c) Space and Equipment Problems

In his report of October 15, 1979 the COP refers to a "crisis" shortage of office space as 19 local employees and 10 expatriate staff members crowded into 14 offices. With 9 additional consultants programmed to arrive in ensuing months, the issue was indeed a critical one, reflecting a lack of foresight in the AID's logistical planning. A variety of solutions proposed by the COP included converting two rooms in his house to offices, working out of hotel rooms, or renting additional office space in town.

(ii) Budgetary Problems

In the fall of 1979 it became apparent to the COP that the project had been seriously under-funded as a result of four factors: (a) a change in the level of the logistics component funding from the project proposal of \$1,050,000 to a level of \$236,407; (b) the failure of the GIRM to provide material support and personnel for the RAMS country-wide survey effort; (c) an increase in the proposed U.S. contract team in response to changes in the scope of work proposed by the Ministry of Plan; and (d) USAID's insistence that the printing and packaging of reports in two languages (the logistics of which are discussed above and in a following section) be done in Nouakchott. This had not been foreseen in the original contract and threatened to significantly add to local currency costs.

(iii) Administrative Problems

As a consequence of the lack of administrative support and a resulting management pre-occupation with daily logistical and administrative problems as they arose unchecked, the RAMS project management was criticised by the GIRM Ministry of Plan for failing to provide sufficient substantive guidance to on-going research and for devoting too much time to general project administration. (The contractor had recommended in the original proposal that a Deputy COP and an Administrative Officer be added to the staffing plan, but AID rejected this.) These and other criticisms of the RAMS operation led to certain administrative and management changes in the aftermath of a supervisory visit September 28 - October 7, 1979, Mr. Vincent Checchi, President of the prime contractor.

In order to shore up the generally perceived deficiency in administrative support, the post of Director of Administration was created and filled in September 1979. The incumbent was expected to take over supervision of the local-hire personnel, the local currency accounting and overall project logistics. His function was intended to be complementary to that of the newly-created post of Technical Director, thus completing an internal reorganization of RAMS management, the end result of which, it was hoped, would be to free the COP to concentrate his energies on substantive issues and overall project direction. (See also above discussion on RAMS internal organization.)

Among the first of the problems to be resolved by the Administrative Director was that of the office space shortage, solved by the rental in October 1979 of "Hotel California", a two-unit suite of offices about a kilometer from the RAMS main building (in the former home of Peace Corps, Mauritania).

In the months that followed the Administrative Director completed a review of the status of the local currency advance and discovered the existence of a shortfall of more than \$5,200. He was in the process of a review of past expenditures with an eye towards recovering a portion of this sum and revamping existing accounting procedures when a career post elsewhere was offered and he chose to resign.

His replacement arrived in March 1980, shortly after the arrival of a new COP. At that point the most pressing of the remaining logistical/administrative problems were (i) the institution of a better system of local currency disbursement and control; (ii) a regularization of personnel policies vis-a-vis the Mauritanian labor inspection, and an evaluation of the existing local employees; and (iii) the need to provide still more office space as the number of short- and medium-term consultants peaked. These and other related aspects of project management in 1980 and 1981 are described in detail below.

B. Logistics Support

The USAID logistics account (actually funded from the same source as the local currency account) was set up before the local currency petty cash account to pay for those goods and services purchased in-country which were not covered by the dollar contract, and which were considered to be too large for any petty-cash allotment. It was used primarily for major commodity purchases, periodic rent, guard service and utility payments and significant vehicle maintenance costs. As shown in Table 4, by far the largest expenditures made concerned rent payments for the eight RAMS houses or apartments and the two office buildings. The major commodities procured were mostly ordered in 1978 and 1979 and received before the contract team arrived. (The largest single exception being the two additional vehicles, the electronic stencil machine and the generator system.)

Procurement of commodities or the payment of services was essentially a three-step process, in which: (i) once a specific project-related need was identified and a facture-proforma drawn, the USAID staff prepared a purchase order and began the tax exoneration procedures where necessary; (ii) at that juncture the USAID Project Director certified that the expenditure was appropriate and allowable, and (iii) the Controller's shop acknowledged that funds were available and sent off a check request to RAMC/Paris. The vendor received his payment generally 10-14 days later.

The logistics system proved most appropriate for recurring expenses such as rents and guard services for which a two-week delay in payment could be anticipated and the checks ordered in advance. Most daily operating expenses and particularly those requiring immediate cash outlays continued to be met from the petty cash local currency account.

C. Local Currency Controls

The discovery of the local currency deficit in January 1980 gave impetus to a series of procedural changes intended to assure a better control of funds. It was discovered, for example, that no effective record of expenditures was being kept on a daily basis, receipts were haphazardly collected and sorted only at the time at which reimbursement requests were presented to USAID. Worse still, there was no working safe or lockbox from which local currency could be dispensed. Hence, relatively large amounts of money, gas coupons and checks were left loose in desk drawers and filing cabinets, resulting in at least one "disappearance" of monies left overnight in an unlocked desk.

Accounting procedures were as bad as the operational practices. In addition to lost receipts and stolen cash, much of the total deficit was attributed to expenditures submitted to USAID for reimbursement and disallowed for lack of justification. Cash advances made to expatriate, as well as, local staff frequently went unrecorded and several systematic accounting errors in the submission of personnel payrolls were detected.

To remedy this sorry state of affairs, the locally-hired accountant was dismissed, and the following measures introduced:

- a) A cash disbursements journal was kept and every transaction entered against either a column line item or accounts receivable.
- b) An accounts receivable subsidiary ledger was established for cash disbursements not directly reimbursable by USAID (e.g., travel advances), describing the debts and showing collections against them.
- c) A simple daily audit procedure was worked out to reconcile the disbursements journal with actual cash on hand.
- d) Separate line-item files were kept where receipts were itemized and held pending submission.
- e) A large metal safe was installed in the Administrative Officer's office to insure the safekeeping of cash and other valuables.

- f) Numerous meetings were held with the USAID Controller's Office personnel to fine-tune submission procedures and ensure that all project expenditures would be allowable.
- g) A dollar checking account was opened by the prime contractor to provide a secondary source of funds for those Nouakchott-incurred expenses which were not billable to USAID or were more properly billed against the dollar contract.
- h) A local hire administrative assistant was brought on staff to help in the implementation of these new procedures and in sorting out the equally chaotic personnel situation.

In the weeks that followed, by painstakingly reviewing past vouchers, recreating expenditure records, resubmitting disallowed receipts with appropriate rectifications and reworking past payroll claims, much of the original deficit was eventually accounted for. And, as the new control and accounting procedures were implemented, subsequent audits revealed no further shortfalls.

Though local currency expenditures would fluctuate repeatedly in the remaining life of project and overall far exceed original estimates, the two USAID mechanisms for disbursement, the local currency fund and the logistics account proved workable. Though on several occasions delayed mail delivery from the Paris RAMC disbursement office or unforeseen local currency requirements caused disruptive and potentially embarrassing cash liquidity problems. USAID's flexibility in providing exceptional adjustments to the cash advance during such periods of unanticipated need helped to allow for a generally smooth cash flow and a successful local currency operation. A review of local currency expenditures via the local currency and logistics funds follows.

D. Local Currency Expenditures

1. Local Currency Account

In May 1979, as the project began to employ local personnel and accrue considerable local currency expenses, an accounting structure was established. Initially, ouguiya requirements were relatively insignificant and expenses were met with individual USAID-issued purchase orders -- a clumsy and complicated system necessitating a minimum two-week delay in each payment as checks were routed through the Paris RAMC disbursement office.

The new structure called for itemizing expenditures by six-column line items each representing a major area of operating costs. A cash advance was deposited in an operating account and cash expenditures were henceforth made on the spot, drawing upon this fund. A monthly accounting accompanied by estimates of the following month's expenditures allowed for periodic replenishments in accordance with RAMS anticipated local currency requirements.

This new structure, though an improvement on the Purchase Order route, was found to be incomplete, and four new line items were appended in succeeding months. A final "seminar" line item was added in 1981.

A description of each of the eleven line items and an examination of the expenditure fluctuations over time provides a good insight into the local currency operation as a whole and into the evolution of the project through its various phases.

It will be seen, for example, that by far the largest areas of local currency expenditures were for local employee salaries (including both contractual and casual labor personnel), office supplies, and report preparation costs. The latter two line items came to dominate local currency costs in the final months of the project as large sums were required to pay for translators, proofreaders, editors and typists and large amounts of supplies were necessary to meet the final production deadlines.

Total expenditures through August 1, 1981 amounted to UM 29,720,098 (\$632,342), averaging UM 1,143,080 (\$24,320) monthly. The composition of expenditures across line items varied with each submission as changing patterns in local currency outlays reflected changing priorities. (Charts showing the expenditures against each line item are in the Annex.)

1. Line Item 1: Office Maintenance

Project expenses under this rubric were intended to include all physical plant and equipment repairs and installations not covered by GSO. As shown in Table 5-1, monthly office maintenance expenditures have exceeded UM 25,000 (\$530) only three times in the 28 months under consideration. Expenses were highest in November 1980 (UM 81,722 = \$1,738), when both the RAMS office generator and the OFF-SET machine were installed. In other months the bulk of the charges against this line item have been for typewriter and stencil machine repairs, amounting in all to UM 240,000 (\$5,100). This reflects the lack of competition (and expertise) available locally. Only two Nouakchott firms (Sadio and Freres and S.M.G.M.) have the capacity to repair electric typewriters and stencil machines. Both charge a "prix forfaitaire", a fixed-fee for any service, amounting often to hundreds of dollars. Neither will guarantee their work; hence, the project has occasionally been billed two or three times when the same default has recurred, shortly after the machines have been reclaimed. While it may be granted that RAMS machines - particularly the IBM typewriters - have been put to hard use in the course of typing and reproducing about 3 million pages (draft and final copy) and that certain costs must be anticipated, for routine service and maintenance, nonetheless, \$5,100 is far in excess of any predictable maintenance expenses under any but the most monopolistic of circumstances.

2. Line Item Local Employees Salaries and Benefits

By far the most costly of all single elements of the RAMS local currency operation (UM 18,099,860 = \$385,103 over 26 months) This line item includes three main components: routine bi-weekly payrolls for contractual employees, casual labor, and social security payments made quarterly. A fourth component, in the form of penalties paid for adjudged violations of the Local Labor Codes (see Personnel Sections below) amounted to UM 77,497 (\$1,650).

Fluctuations in expenditures within this line item (see Table 5-2) are due largely to the varying number of payrolls included in any given period and to quarterly social security payments. (The submission for October 1980, for example, is particularly high since it includes pay periods 19, 20 and 21 and a social security payment in the amount of UM 322,000, The December/January 1981 submission also includes three payrolls as well as the USAID/JAO annual bonus.) Payrolls themselves have remained fairly constant through April 1981, averaging approximately UM 260,000 (\$5,530). As discussed below RAMS local hire salaries were initially fixed in accordance with USAID/Embassy guidelines. However, a lack of foresight was apparent in the initial classifications resulting in salary discrepancies between employees performing similar functions. These anomalies led to wholesale renegotiations and realignments, generally raising the overall salary levels.

The final three submissions recorded in Table 5-2 are exceptionally high due to increased overtime for report reproduction personnel, an increased number of casual labor typists, and the lump-sum payments of accumulated annual leave for terminating employees.

3. Line Item Local Employee Travel

The ouguiya requirements for local employee per diem and public transport were a direct function of consultant field missions as part of the Phase I data gathering effort, the statistical units country-wide surveys, and the seminar program. Per diem rates were set at \$14 per day for those employees less than grade 7 on the JAO scale and \$15 per day for those above grade 7. All local employee travel was effected subject to a USAID travel authorization and a copy of the mission order was attached to each claim for reimbursement.

As shown in Table 5-3, per diem payments were initially grouped with local employee salaries and only broken out for accounting purposes as a separate line item in November 1979. Exceptionally high submissions in December/January, April and July 1980 correspond with the last three of the four RAMS field observations. The final six submissions averaging only UM 7,060/month reflect the completion of the Phase I data gathering and the departure of a number of consultants.

4. Line Item: POL

Through July of 1980, ouguiya expenditures for petrol, oil and lubricants (POL) like those for local employee travel, were clearly associated with the number and duration of project-sponsored field missions. At that point, however, the project was accorded the privilege of purchasing duty- and tax-free gasoline coupons at roughly half the Mauritanian pump price. These coupons could not be bought directly with a project purchase order, but were rather a part of the global USAID order and thus billed to RAMS via the logistics fund (see below).

Local currency fund expenditures dropped off accordingly to an average of less than UM 10,000 per submission for the duration, that amount being either oil or gasoline purchased up-country in the event the coupons were miscalculated or, occasionally, refused.

The purchase, in July 1980, of two additional project vehicles added somewhat to overall fuel consumption, as reflected in the quantity of coupons ordered. Quarterly allotments averaged 8,000 litres, roughly \$1,000 per month (35 cents/tax-free litre).

5. Line Item: Vehicle Maintenance

Under the terms of the Project Agreement, RAMS project vehicles were to be serviced and maintained by the GSO garage facilities. This accommodation would have resulted in high quality work at a considerable savings over local garage costs. In actuality, in late 1979 the General Services Officer repealed this agreement on the grounds that the GSO facilities would be overtaxed and official U.S. Government vehicle maintenance would suffer. RAMS was therefore obliged to seek out locally-available alternatives.

Thus, prior to November 1980 the 6 RAMS vehicles were serviced in either of two Nouakchott garages (AMG or COTEMA). Expenditures averaged UM 39000 (\$830) per submission. The quality and timeliness of the repair work done by these two firms was clearly unsatisfactory, often delaying field missions as delivery dates were not respected or repairs were found to be poorly done.

After November 1980, however, a retainer arrangement was worked out between an independent mechanic and the Project Support Division of USAID whereby all repair work exclusive of parts, would be performed on RAMS vehicles at a fixed rate of \$100/vehicle/month to be paid from the logistics budget. Subtracting out parts purchased in the aftermath of a serious accident to the RAMS towncar, combined logistics and revolving fund expenditures under this arrangement averaged \$822 per submission, roughly equivalent to those accrued in

the local garages. The significant difference however, was in the excellent quality of work performed by the contract mechanic and his willingness to adhere to tight deadlines when necessary and even to travel outside Nouakchott on several occasions to rescue stranded vehicles. The fact that the RAMS land rovers are still roadworthy, each having averaged nearly 65,000 km (40,000 miles) of extremely rough wear over the last 27 months, is testament to the quality of his work.

6. Line Item: Seminars

A total of seven seminars were conducted during the life of the RAMS project (see above). The first five of these were funded with a specific PIO/P in the amount of \$14,000. To simplify and centralize local currency accounting for the last four seminars, however, a local currency fund line item was established and seminar expenses subsumed under general local currency operations. The PIO/P was then liquidated.

Expenditures for the seminars varied according to the distance from Nouakchott and the number of participants. Aside from small quantities of writing materials and miscellaneous hardware, the bulk of these expenditures were for travel costs and per diem payments. Average dollar equivalent cost per seminar was \$2,900.

7. Line Item: Computer Services

Costs accrued under this line item are essentially mislabeled since the compilation, tabulation and analysis of RAMS' Statistical Units survey data, even when done manually, were charged to this rubric. Large outlays in January, May, August and November 1980 correlate with the processing of the survey questionnaires at the end of each observation. Additional expenditures were made in April, July, September and December 1980 for the rental of computer and card reading facilities. As many as 19 casual labor collators and tabulators were used at peak periods. RAMS did not actually possess an in-house computer facility until the November 1980 arrival of the HP-85 micro-computer.

8. Line Item: Communications

There are essentially only three types of charges against this line item: telephone billings for official calls, telexes sent through the local post office and postage for official mailings. Variations and expenditures per submission are due mainly to the sporadic receipt of telephone billings - up to four or five months after-the-fact in keeping with no perceivable pattern.

As of the last submission (July 1981) the project has had access to the USAID telex machine for official communications and local currency expenditures have declined accordingly. (See Table 5-8.)

9. Report Preparation

The report preparation processes, as defined here, began at the moment when a final copy of original text was approved for reproduction. The operations involved included: typing, translating, proofreading, correcting errors, printing, collating and binding. All considered, these successive operations represented the most difficult, time-consuming and challenging area of project logistics. (See also the discussion above under Other Program Aspects.)

As noted previously, the original contract made no provision for the processing of RAMS reports, aside from indicating various recipients. The decision to carry out such processing in Nouakchott rather than in Europe or the US was taken in late 1979 by the USAID, and a local currency "report preparations" line item included in the local currency accounting scheme.

The implications of this decision, particularly vis-a-vis translations could not have been fully realized at that time since neither the USAID nor any other international project of comparable size had ever attempted to recruit and supervise a translation team based locally. And, in fact, by mid-1980, as the bulk of the Phase I reports were being completed, it became readily apparent that sufficient competent local-hire personnel simply did not exist.

This left the RAMS project management with two immediate alternatives -- to process reports either through the LBI office in Dakar or Paris. A review of the latter option during the course of meetings between the COP and the LBI office manager in Paris established that, although the quality of the translators available there would be excellent, the cost would be untenable. Therefore, a number of brief recruiting missions to the Dakar LBI office were effected and five translators and typists lined up.

In August and September 1980 the first of these translations arrived in Nouakchott for approval and corrections. The quality was found to be highly variable, ranging from excellent to abysmal. Worse, the logistical arrangements for ferrying text north and south, proofreading and telexing corrections proved to be so clumsy and slow that the viability of the Dakar solution was put to question. Eventually, the problem was resolved by minimizing the number of reports sent down, weeding out the most incompetent and slowest from the Dakar team, and through the fortuitous acquisition of several additional Nouakchott-based translators.

By early 1981 and until the end of the project, the majority of the RAMS Phase I reports outstanding and Phase II Option Papers were able to be processed locally, at considerable savings of time and money.

With regard to the proofreading and printing operations, the former necessitated a second canvassing of local talent, in search of those able to devote the necessary time and concentration to culling out typographical and grammatical errors in the various texts. The search, particularly for native French speakers to proof the French language copies, was facilitated with the end of the school year and the sudden availability of a number of young French teachers and volunteers. On the whole, this aspect of the report processing was the easiest to carry out and by far the least expensive.

The printing operation for the Phase I reports made use of a Gestetner electric stencilling machine and later an electronic stencil maker. At the height of the Phase I press, a second Gestetner was purchased in the U.S. and airfreighted along with three spiral binding machines and a quantity of printed report cover sheets. The machines were operated and maintained by one senior local-hire printer and a number of assistants collating and binding.

For the Phase II Options Papers, it had been envisaged that all reports would be run off with a more sophisticated "Off-Set" machine loaned to RAMS by the GIRM Ministry of Economy and Finance. This machine was thoroughly tested and set in place in October 1980, and over the succeeding months a large quantity of necessary materials and provisions were procured and stocked. It was assumed at the time that the use of the Off-Set process would be advantageous because of the higher quality reproduction of tables and graphics, and because the secretaries and outside typists would no longer have to deal with the inconveniences of typing on carbon stencils.

However, a crisis situation arose when the first of the Phase II reports was put into production and the Off-Set machine quickly broke down. In spite of prolonged and repeated attempts to put it back in working order, it became apparent that an alternative solution would have to be found.

After costing out the possibilities of reproducing the texts in Dakar and transporting the finished reports back to Nouakchott, a more efficient and far less expensive option was discovered. This required the cooperation of the USAID and the American Embassy in allowing RAMS to borrow one electronic stencil machine from each and thus to reproduce on stencil all pages which had been prepared on white pages for the Off-Set. These stencils were then run off, following the same procedure as for the Phase I reports. An economy of time and effort was achieved by dropping the spiral binding for the Phase II reports

in deference to a much faster process of mechanically stapling them. Additional local-hire help to man the machines 18 hours per day, and to collate and staple were recruited and additional monies for these unforeseen expenses approved by the USAID.

Though timing was uncomfortably tight at the end of the project, all deadlines were eventually met, and reports packaged and distributed on schedule.

A word about typing: During the first 18 months of the project operation (May 1979 - November 1980) almost all of the typing required for the report processing was easily managed by a staff of local-hire secretaries under contract. As the workload increased in 1981, however, much of the work was "farmed-out" to others in the community to supplement the capacity of the staff secretaries. In general, the quality of the work and professional attitude of the six or more piece-work typists used regularly during the last nine months of the project, was superb. (Their names and contact addresses are on file with the USAID Project Director.)

Finally, a caveat. It should be well noted that under the general guise of "report preparation" falls a great deal of planning and effort not described in this brief summary. On a day-to-day basis, the procurement of supplies, supervision of various component teams, repair of equipment, planning of schedules, and general management of the overall operation was a task of great magnitude involving incalculable man (or woman) hours. The success of these diverse "report preparation" activities must be recognized in light of the overwhelming constraints to accomplishing each of the component operations in Nouakchott and given the time and financial limitations imposed.

It should be noted that 70% of the total costs were incurred since February 1981.

10. Office Supplies

An enormous quantity of office supplies were consumed during the course of the RAMS project by the time the final reports were distributed. A rough count of between 7 and 10,000 reams of paper, 12,000 stencils and uncounted writing materials, tablets and miscellaneous office supplies were purchased under this line item. A small fraction of the total was purchased in the U.S. and shipped via airpouch (see logistics section below); the bulk was bought locally either in Nouakchott or in Dakar.

It should be noted, though, that very little was purchased over-the counter at any of the recognized Nouakchott suppliers. Instead, two entrepreneurs were given alternate supplies requisitions and in all cases succeeded in bettering the retail prices by 25% or more. These two individuals have also been tapped for "crisis" supply-runs to Dakar when Nouakchott-wide stock outages threatened RAMS production schedules.

Since such entrepreneurs in general rarely require cash "up-front", the risk of dealing with less "recognized" suppliers was minimal, and from the standpoint of RAMS satisfaction, it was very fruitful.

As illustrated in Table 5-10, expenditures during the last eight submissions amounted to more than 60% of the 28-month total. This is a fair reflection of the concentrated efforts of the report reproduction team in 1981 and the priority accorded to their operations.

11. Line Item: Miscellaneous Services

The local currency "catch-all", Miscellaneous Services has been used to claim reimbursement for project expenditures that did not fall conveniently under any of the other line items. As such, it was the one category the most difficult to anticipate and by far the most varied. Past expenditures under this rubric have included: bank charges, paper cutting (from the French format to the American), photo-reduction of documents, customs storage fees, rope, washing blankets, police accident reports, water for the office cistern, vehicle infractions, aspirin, ASECNA data, postage due, report stapling, a RAMS sign, fiscal stamps, door plaques, guide services and car rentals. In short, it covers all cash outlays for logistical necessities that are essential for any on-going operation in Mauritania, but that seem to fall through the accounting "cracks". As shown in Table 5-11, expenditures for this line item did not follow any apparent patterns.

E. Local Personnel

As previously noted, RAMS local personnel procedures began on a very shaky footing. Not only were local employees hastily and somewhat haphazardly recruited at the outset, they were also brought on with virtually no coordination with host country authorities. The work agreements that were drawn up retroactively did not conform with Mauritanian law and did not provide employee benefits in accordance with the Local Labor Codes. Because of these anomalies, work permits, belatedly requested, were summarily refused.

A partial explanation for this rather awkward situation may be found in the confusion over RAMS status vis-a-vis USAID. As a quasi-diplomatic organization, in the absence of a bilateral agreement spelling out specific jurisdictions, USAID, and by extension USAID employees, were allowed to operate outside of the Mauritania judicial and administrative systems. AID employees were governed by personnel guidelines originating in Washington, and later, by JAO (Joint Activities Office) mandate. They had no recourse to Mauritanian authorities in the event of a conflict or a dispute.

Exactly where RAMS personnel fit into this structure was ambiguous at best, particularly since AID had been very active in processing RAMS local-hires and in fact had issued USAID identity cards to RAMS employees brought on in 1979. Some of the newly hired employees (particularly the drivers) were taken directly from the USAID roster, and "reassigned" to the project. RAMS being the first USAID project to employ Nouakchott-based personnel, there were no illustrative precedents to help avoid the confusions which followed.

In any event RAMS management in late 1979 attempted to pattern the project personnel policies after those in force at USAID. RAMS employees, like USAID's, were given holiday pay for U.S. holidays, paid the USAID annual bonus at Christmas, and benefited from the same tax-exempt status. Unlike USAID employees, however, RAMS personnel were very poorly classed within the AID grade and step structure. Two research assistants (or secretaries or drivers) performing virtually the same function were on occasion classed several grades apart. Each employee then felt empowered to negotiate a competitive salary and since personnel records were not kept confidential, numerous disputes ensued.

The precise moment at which the Mauritanian Inspection du Travail became apprised of the RAMS situation remains unclear. But as early as December 1979, minutes of the meeting between the COP and the head of the Service de Main d'Oeuvre are on file. Given the high unemployment rates in Nouakchott proper and the rarity of high-paying employers engaging 25 or more local employees, it is clear that the potentialities of the situation could not have escaped attention for long in any case.

As it happened, the Mauritanian Government's initial requests seemed deceptively livable. They asked that (i) RAMS employees make application for GIRM work permits, and (ii) that future recruitment be done through the government placement channels, giving preference to Mauritanian citizens.

At this point USAID management decided to disassociate itself from the RAMS' local employees and, in fact, to physically transfer the RAMS personnel files from the USAID to the RAMS administrative office. The implications of this decision were that RAMS would henceforth be expected to adhere, wherever possible, to Local Labor Codes, and that the unofficial diplomatic immunity from Local Labor Mediation enjoyed by USAID management would not be put to the test on behalf of the project.

So, in March and April 1980 the RAMS administrative office got on with the task of regularizing the status of local personnel by adopting a workable contract that would allow the issuance of work permits and somehow reconciling the liberal USAID policies enjoyed by RAMS employees to date, and the much broader and more inclusive code du travail.

The first indication that this task would be more complicated than expected came when the Inspection refused to approve the modified contracts for all local employees on the grounds that many of them were not of Mauritanian nationality. Immediately following this rejection, a number of Mauritians appeared at the RAMS office, each bearing a letter from the Inspection ordering the project to replace a specific employee (the names of whom were apparently taken from the rejected contracts) with the bearer of the note, he or she being of proper citizenship and a possessor, in the eyes of the Inspection, of equivalent skills. RAMS foreign local-hire employees who flaunted this forced "Mauritanization" were threatened with deportation.

As a stopgap measure, the RAMS response was (1) to write grossly exaggerated job descriptions for each post held by a foreign national (all foreign secretaries, for example, became "fully bilingual" and able to type 85 WPM in either language; hence irreplaceable), (2) to test each of the Inspection Candidates against these inflated standards, and (3) to find them unacceptable. At the same time, a meeting was arranged with Mr. Baba Tandia, head of the Service de la Main d'Oeuvre, to discuss a longer-term solution.

At this meeting Mr. Tandia was remarkably understanding. He accepted the idea that a premium had to be placed on staff continuity in order not to disrupt the important on-going research and report-writing in progress, and that the RAMS owed a certain loyalty to employees who had served considerable periods of time with the project. He was sympathetic to the confusion which resulted from the RAMS affiliation with USAID and in fact promised that such heavy-handed "Mauritanization" tactics as had occurred in the recent past would cease upon the satisfaction of two conditions: (i) That RAMS make a real effort to give preference to Mauritanian citizens in all future recruiting, and (ii) that RAMS hire his young brother as staff documentalist. Thus began the first of several compromises in RAMS dealings with the Inspection.

A related issue which came to light almost simultaneously had to do with the uncomfortable vulnerability of RAMS' management to subpoenas issued on behalf of disgruntled current or former employees. In such instances, a representative of the project was required by force of law to appear before a labor mediator and answer charges of the project's failing to respect various provisions of the Local Labor Code. In March 1981, RAMS asked USAID to clarify two points.

1. In the absence of a bilateral agreement, should we nonetheless assert that project personnel policies are independent of the Inspection and Code de Travail as is the case at USAID? Or, barring that:

2. Can we continue to pay large settlements to ex-employees at the discretion of the Inspection du Travail and anticipate that with sufficient documentation they will not be disallowed by the Contrôlier's office?

In retrospect, many of the personnel problems encountered by RAMS, especially those concerning the Inspection du Travail, could have been avoided by adhering to a few simple guidelines. Under the guise of expensive lessons well learned, the following may be noted for the guidance of future projects.

1. Draw up initial contracts for short terms (six months or less) in consultation with the Inspection. This will facilitate both the issuance of work permits and the separation of unsuitable employees, particularly if a three-month periode d'essai (trial period) is stipulated. Long-term contracts only serve to inflate potential penalties if an employee is dismissed and contests the grounds of dismissal.
2. Align all employees performing similar functions at the same grade. A differentiation between employee salaries can still be made by varying the steps within the grade.
3. Set up in-house personnel guidelines as soon as they can be worked out specifying per diem rates, holidays, annual bonus, sick leave, etc., using the "Code du Travail" minimums as a starting point.
4. Do not engage any casual labor employees for more than 3 months. At three months and one day they become automatic possessors of "tacit" contracts of an indetermined duration, and the employer becomes liable for a variety of premiums/penalties including retroactive payment of annual leave and public holidays.
5. Remember that fixed duration contracts can be renewed twice before they automatically become indeterminate. Hence, for a three-year project, employees can be given a six-month contract to start followed by two 15 month renewals rather than one life-of-project agreement. These shorter terms provide points at which a reassessment of the employee's ability can be made painlessly since no penalties accrue with his or her dismissal.
6. Procure a copy of the Code de Travail. Much confusion exists over its various articles and an office copy will be referred to frequently.
7. Keep detailed personnel records. Document all personnel actions with memoranda and "notes de service". Keep all such records, especially salary details, confidential.

8. Refuse to accommodate letters of salary attachments to pay off personal debts between employees. They can enormously complicate effective administration.
9. Do not count on USAID personnel policy guidance. There is essentially no existing mechanism for support of this nature.
10. Recruit well, carefully verifying the background and references of all serious candidates. It is a time-consuming chore but worth the effort in the long run.

Though RAMS personnel rolls averaged 27 contractual employees through May 1981, by July 1, the number was reduced to 10 and by August 1 to 5. For details of the personnel phase-out plan and efforts to place the local employees being released, see below under Project Close-Out.

F. Procurement

As discussed, the majority of the project equipment and commodities was ordered and received before the arrival of the RAMS contract team. On the whole these materials, particularly household furniture and office equipment, were complete and well thought out.

During the course of the project, only five major purchases were necessary: two additional vehicles, a generator and wiring for the main office building, a second Gestetner electric stencil machine, and 4 IBM electric typewriters.

At the outset, as with personal services, payments for local purchases were made with USAID-issued purchase orders. As the local currency fund became operational, however, nearly all local purchases were paid in cash or with a project-issued "bon de commande".

Concerning the supply and stock-piling of office and report production supplies, recourse was made to the Dakar market on occasions when a search of the local suppliers proved fruitless or excessively expensive. (See above section on Local Currency Accounting.)

In the summer of 1980 a fairly large order of office supplies was purchased through Checchi and Company and shipped via the Embassy air pouch. Though this proved to be by far the most efficient and least expensive means of assuring an uninterrupted stock of necessary material, RAMS was soon after informed that a later interpretation of air pouch access rules prohibited such shipments. Thus, only such quantities of U.S. origin material as could be hand-carried by Nouakchott-bound consultants or economically air freighted were received beyond that point.

It should be noted here that a significant support function was provided in the form of USAID and GSO procurement of necessary customs clearance waivers and exonerations which enabled the project to receive both air-freight materials and HHE with a minimum delay. These necessary services and others (the insuring of project vehicles and the exoneration of project gasoline, for example) were performed efficiently by the Project Support Division of USAID.

G. Project Transport

In all a total of 270 field missions to every administrative region of Mauritania were effected during the course of RAMS data gathering, surveys and seminars. These field missions necessitated complicated logistical support in terms of equipment, up-country accommodations, supplies and communications. Among the various elements which contributed to RAMS field work were the following:

a. Vehicles

Initially, four long chassis land rovers, were expected to meet all project transportation needs. In light of the wide scope of the surveys and seminar program, however, it soon became apparent that additional vehicles would have to be purchased. Thus, in June 1980 after receiving authorization from USAID, two additional vehicles were procured: a small Renault towncar to respond to Nouakchott transport exigencies, and a short-chassis land rover bought second-hand to backstop the original Land Rover fleet.

These 6 vehicles have covered more than 150,000 miles in the furtherance of project field activities. The fact that all are roadworthy in spite of the very difficult terrain "en brousse" is due in part to the excellent mechanical attention they have received (see Vehicle Maintenance Line Item above), and in part to the good fortune/skilled work of project drivers who avoided serious accident outside Nouakchott.

The only accident involving a RAMS vehicle occurred in August 1980 when the towncar driven by a project driver was struck by a pick-up truck 100 meters from the USAID compound. Though out of service for some time, it was eventually repaired. No one was injured.

b. Drivers

Project drivers were recruited in a hit-or-miss manner (figuratively speaking), since no effective test has yet been designed to simulate bush conditions that accurately reflect a candidate's driving competence, conscientiousness and mechanical abilities. Not surprisingly drivers are the one category of local employees which has seen the most frequent turnover. In one notable instance a new driver was put on a plane back to Nouakchott (at project expense) after amply demonstrating his incompetence in the field.

In spite of such incidents and out of the many who tried and failed, four veteran drivers eventually emerged and alternated field missions the last 9 months of the project. These four each proved capable of working well over long periods of time under often difficult conditions. Each was called upon at one time or another to perform a variety of functions unrelated to their job descriptions, ranging from translating to slaughtering goats to finding housing and supplies for tired surveyors. They have generally performed admirably.

c. Mission Orders

The mission orders given to each departing driver and all mission participants was originally a RAMS document prepared over the signature of the COP and the USAID Project Manager, noting the date and time of departure, the itinerary to be followed and the purpose of the mission. These documents proved useful, if not essential, in dealings with GIRM administrative and military authorities in-country. They also served the dual function of documenting each mission for per diem reimbursement submissions to the USAID Controller's office.

In March 1981, USAID 'borrowed' the RAMS mission order format as a standardized document for all project field activities, thereafter stamped and signed by the USAID Director or his delegate.

d. Supplies

The decidedly unpleasant experience of finding oneself in a deserted stretch of dunes with a flat tire and no jack, or with one jerrycan less than enough to make it to the next SNIM gas station led to the design of a vehicle supplies check list for outgoing missions. In principle, all RAMS cars leaving Nouakchott were equipped with adequate supplies to cope with all but the most unforeseeable eventualities. Though slip-ups occurred (due not infrequently to 5 AM departure times), as the least competent drivers were screened out and those that remained acquired a better sense of what to take and what to leave behind, even the longest missions covering thousands of miles were effected without incident.

i) Jerrycans/Gas bonds/Travel Advances

One frequently recurring problem throughout RAMS' field activities concerned the provisions of fuel up-country. It is not at all unusual for rural gas depots to be found "temporarily" out of gasoline. Much wasted time can thus ensue in waiting out the next tanker truck or going hat-in-hand to regional authorities or other installations.

The RAMS experience has been that such occurrences can be minimized by carefully planning refueling stops and by carefully calculating jerrycan requirements. The latter proviso involves a trade-off, however, as the cans are bulky and, when full, are particularly noxious to back seat passengers. An experienced driver will know

to the litre how much fuel is required to go from point A to point B, and one or two extra jerrycans as a measure of security should then suffice.

A note here about the Mauritanian "Code of the route". In Mauritania, as in other Sahel states, passing vehicles are expected to stop and rescue out-of-gas or otherwise stranded fellow travellers. Hence, the extra jerrycan or two referred to above may well be necessary even though personal supplies may be adequate.

In purchasing gasoline once it is found available, RAMS has opted for the gasoline coupon routine in preference to paying cash. This decision was taken before the project was allowed tax-free fuel privileges, and was based on two considerations: (1) The greater security of the coupons over cash, and (2) the ease of accountability/lesser likelihood of false receipts due to the fixed amounts per coupons and hence more complicated equations necessary to defraud. On rare occasions remote suppliers have refused the coupons and insisted on payment in cash. For that reason and to cover other unforeseen contingencies a cash advance of 10,000 ouguiyas or more was given to the head of each field mission. This money was kept apart and used only in an emergency situation. Accounts were squared upon the return of the mission.

e. Radio Communications

Though they were ordered in 1978 and received in 1979, the RAMS mobile radio units and base station were not installed until August 1980. This lapse of time (due to scheduling difficulties for the GSO technicians) meant that field missions prior to August 1980 went out without any effective means of communications outside of the regional capital. Considering the isolated nature of much of the rural road network, this break in contact presented a real risk to mission participants. Fortunately, the radio installations coincided with the third and longest survey effort. The effectiveness of the system was well demonstrated when two of the Landrovers became mired in heavy hivernage rains. Though, thankfully, no emergency interventions were necessary, the fact that a means of establishing contact existed and that help could thus be summoned was encouraging to all parties. The radio was used over a distance of more than 1,500 km, allowing the RAMS Statistical Unit to control the movements and activities of the surveyors throughout their respective missions. It therefore became standard procedure for all outgoing field missions to establish a fixed time for contact and to "check in" with Nouakchott at least once per day.

f. Nouakchott Transport/Private Use of Project Vehicles

When not involved in field activities, the project vehicles were kept in fairly constant use providing transportation for consultants and research assistants to and from the various ministries and other services based in the capital. A vehicle reservation sheet was

kept during periods of heaviest demand, but later dropped as diminishing numbers of consultants reduced the vehicle workload.

Further, as more than half of the RAMS Staff were situated outside the main office building, at "Hotel California" - or later "the desert", a constant coordination of vehicle requirements was necessary to satisfy all transport requests. Vehicles were kept on standby during peak periods, reserved for the second office use.

After working hours, to the extent possible, project vehicles were assigned to individual consultants at their request, and personal use mileage billed in accordance with USAID regulations.

H. Expatriate Staff Support

A subsidiary function of the administrative support staff was to assure that RAMS expatriate consultants were able to maximize their efficiency by relieving them of a variety of minor logistical chores including travel and hotel arrangements, foreign currency exchange, personal effects shipments, etc. These and other administrative accommodations were provided by local-hire assistants so as to allow the higher salaried consultants directly concerned to make more productive use of their time.

a. Personal Effects Shipments

In spite of the delays and frustrations experienced at the hands of customs officials when the contract team first arrived in-country, subsequent personal effects import and export operations were brought off relatively painlessly. A vote of thanks in that regard goes to the local assistant at GSO who has managed to arrange clearances for all return shipments with little or no delays, and to the JAO Director who agreed to certify the inventories of such shipments and thus expedite the administrative routine. The only hitch in the personal effects operation post-1979 was the confusion surrounding the import of vehicles for personal use, though this too was resolved in relatively short order, and no RAMS consultant experienced any hardship as a result.

b. Travel Arrangements

As can be well imagined, the arrivals and departures of 44 technicians and consultants within 28 months presented some daunting complications a propos airline routing and reservations. The Air Afrique office in Nouakchott was less than cooperative about accepting pre-paid telex-transferred tickets at face value. Still more complicated were travel arrangements for consultants holding tickets paid with a credit card, and who wished to change their previous itinerary. The fact that none of the RAMS staff was unduly delayed and that even the most complicated travel arrangements were eventually

sorted out is a testament to the patience and negotiating skills of the local hire administrative assistant who finally became on a first-name basis with everyone connected to the Nouakchott air-transport industry from the janitors on up.

c. Office Space

When the numbers of consultants and local assistants peaked in May and June 1980, the demand for office space exceeded the combined capacity of Hotel California and the RAMS main building. This situation was further complicated by the urgent need for workspace for the 15-20 tabulators and codifiers working on the RAMS Survey data.

A solution was found in the "desert office", a RAMS leased apartment with considerably more usable floorspace than Hotel California. The move was effected in early June consolidating the entire agricultural team in the one building.

Though somewhat remote from town, communications were assured via a walkie-talkie unit tying the secretarial pool "au desert" and the administrative office in the main building. Vehicles thus became available upon demand, and consultations between staff members housed in the separate buildings was simply a matter of passing the walkie-talkie from hand to hand. The end result was that no further changes in office accommodations were necessary until the wholesale exodus of "desert" dwellers allowed that office to be shut down in May 1981.

I. Project Close-Out

The closing down of RAMS was an extremely complicated operation involving: (i) the shipping out of remaining expatriate personnel, (ii) the turnover of project materials and equipment, (iii) the packaging and distribution of RAMS reports, (iv) the phase out of local-hire personnel, and ; (v) the final local currency accounting.

Fortunately, the first of the long-term consultants to complete a full term in Nouakchott left some time before the others, and in fact departures were subsequently staggered such that at no time was the administrative office overwhelmed with last minute details. As noted, the return shipment of personal effects had become well routinized and few bottlenecks of any sort were experienced in this regard.

To facilitate an orderly transfer of project equipment, a detailed inventory of both office and household material was drawn up in collaboration with USAID, translated into French, and presented to the Ministry of Economy and Finance. The subsequent GIRM decision to allow USAID continued use of the RAMS equipment greatly simplified the physical transfer process as USAID/PSD undertook to warehouse such material as was no longer being used until it could be most productively

recycled among other USAID projects. The RAMS main building was regrettably to be returned to the landlord, and no other project was to profit from the radio base station antenna as well as other capital improvements (the storage cage, the deadbolt locks) inherited from RAMS. Again, as a consequence of the orderly and well spaced departures of long termers, RAMS houses and apartments were cleared of furniture, cleaned and restored and taken off the logistics-fund books with a minimum of delay.

The packaging and distribution of RAMS reports was accomplished in August, the last contract month. First, agreement was reached on a distribution list for French and English reports. Then cardboard cartons and packaging materials were purchased, the reports were sorted and packed, one complete set of one language per carton and either distributed by land rover to Nouakchott recipients, or by USAID channels to libraries, donors and Universities overseas.

The local personnel phase out plan called for the release of contractual personnel as soon as the changing nature of the workload permitted. Thus, research assistants were among the first to leave followed by drivers, secretaries, and finally printing and report production personnel.

To aid ex-employees in finding work post-RAMS, a standardized CV format was designed and copies of the CVs of those interested in remaining within the American community were bound together and distributed to USAID, Project Directors, GSO, JAO personnel and others. Through these means several ex-RAMS employees were placed. Copies of the CVs remain on file at the JAO personnel office and with the Chief of the Projects Section at USAID. Also, in an effort to relieve the financial hardships during transitional periods of unemployment, RAMS personnel were paid a pro-rata portion of the USAID/JAO annual bonus. Though not contractually bound to do so, it was felt to be in keeping with past practices and thus an acceptable means of assuaging to some extent the phase out traumas.

A clearing of the local currency accounts including (separate) PIO/P Accounts for the surveys and seminars programs was a matter of reconciling USAID disbursements and subsequent submissions against those disbursements. As of this writing, an audit by USAID of the surveys budget PIO/P was yet to be undertaken.

The last two members of the contract team, the COP and the Administrative Officer left Nouakchott by September 1, 1981.

5. Institutionalization of the Planning Process

The process of institutionalization in whatever domain, must be considered in terms of a long-range effort. With this in mind, it would be naive to expect an inventory of specific or quantified measures for which RAMS could claim credit.

As previously indicated, the RAMS project should be considered as part of a planning process which was initiated in the early days of Mauritania's independent nationhood, and a continuum which will inexorably endure into the future.

RAMS, therefore, should be visualized as a concentrated, integrated effort to inject a measure of rationalization in a planning process which, heretofore, has been haphazard and illusory.

RAMS has provided what will hopefully be considered by GIRM officials and the international community at large as reliable basic information on the rural sector and the human resources of the country, with a set of documents casting these data in a macro-economic framework with projections until the end of the century. Different methodologies have been set forth in the expectation that GIRM officials will benefit from a set of raw analytical tools to fashion their own projections. The extent to which these methodologies will become institutionalized is clearly impossible to predict. The GIRM has already decided to follow up on the most novel approach to making projections on the basis of a framework spelled out for the rural sector. Should this methodology be effectively pursued and utilized to its fullest, the GIRM would be in possession of a unique type of macro analysis and would be in a better position to understand not only the mechanism of the rural sector but its inter-action with the rest of the economy.

The foregoing is cited only as an illustration of the potential use, and impact, of RAMS-generated thinking -- the range of which is prospectively limitless for planning purposes.

Nor is it possible to measure the influence the 44 RAMS experts who were assigned either for short- or long-term assignments during the life of the project had on GIRM officials. Working relations varied from one expert to another, and the range of contrast also differed widely. The extent to which ideas or proposals were accepted by their working-level counterparts is difficult to gauge. At least one RAMS expert (in public health) is programmed to return to Mauritania under international (UNFPA) auspices to continue work initiated. Another RAMS consultant is continuing to pursue long-range research efforts on nomads. Another is elaborating research initiated and is privately writing a doctoral thesis on informal education. These are isolated examples of different ways in which the threads of individual research are being picked up and, in some fashion or other, will ultimately benefit the continuing (and never-ending) data gathering process on sectoral aspects of the Mauritanian economy.

From the outset, when the GIRM and AID officials conceived of the scope of the RAMS project, an institutionalization aspect was wisely built in.

1. Documentation

A literature search was undertaken before the project became operational, and the materials collected constituted the first organized attempt to establish a library of available information on economic and social topics on Mauritania. The materials assembled constituted the embryo of a Documentation Center which was set up in the RAMS office. It was added to in a methodical fashion with a final collection of over 600 listings by the time the project drew to a close.

Importantly, the materials were classified, using the OECD indexing system, and the entire RAMS collection was integrated into the Documentation and Research Center of the Ministry of Economy and Finance. Before this integration took place, RAMS helped restructure the Ministry's facility and helped organize it into a functional unit. Short-term training at the OMVS at St. Louis, Senegal, as well as, in-service training, was provided by RAMS for ministry personnel in documentation analysis. The Center can now be considered as the GIRM's primary source of documentation on subjects related to economic and social development.

2. Institutional Coordination

As a means of ensuring government-wide participation in the planning process in which RAMS was partaking the GIRM legislated into existence two inter-ministerial committees as a condition precedent to the activation of RAMS. The role of these committees regrettably fell far short of expectations for reasons indicated in an earlier chapter under Program Activities. However, it should be noted, that RAMS had informal contact with the Sectoral Planning Commissions and furnished background synthesis papers which were consulted and, in some measure, utilized during their deliberations.

It can be said that RAMS had only a limited impact on the foregoing institutional bodies.

3. Institutional Linkages

RAMS studies, particularly the one on the Public Sector (with its focus on the integrated nature of the planning cycle -- planning, project identification, budgeting, program implementation, evaluation, back to planning, etc.), have revealed the imperfections in the linkages between different levels of the government and between sectoral departments of the national government. The institutional aspects have been approached in various ways by RAMS.

a. National Level

RAMS' parent agency (the Directorate of Studies and Programming) is the unit of government responsible for national planning. Its staff consists of a Director (the Project's National Director) and four professional assistants. The unit is one of 14 Directorates of the Ministry of Economy and Finance. Hence, on the grounds of effective numbers of staff and level of responsibility, the GIRM's planning function is seriously faulted.

As a means of shoring up the unit's effectiveness, a training effort was planned in the early days of RAMS. This took the form of the selection of two groups of young Mauritians who, it was hoped after specialized training abroad, would join the Directorate. These were funded under AID's Sahel Manpower Development Project (SMDP).

The first group consisted of 4 participants in the following fields:

- economic development planning (1)
- public administration (1)
- agricultural economics (2)

Of the 4, one was sent to the United Nations Institute for Economic Development and Planning in Dakar and one to Senegal's high level public administration school (ENAM). Two others were sent to a school in rural economics in Moghrane in Tunisia. Although one year programs of study were originally planned, all 4 were extended to two years.

During the 1981 summer recess, the students returned to Mauritania and RAMS assisted in placing them in short-term in-service training at the Directorate of Studies and Programming and with SONADER. This practical experience will help them to focus on certain fields of specialization during their second year of study.

A second group of 6 young Mauritians were selected by RAMS for two-year training programs, also to be funded under SMDP. Four of the 6 were RAMS research assistants, with proven experience in the field and in Nouakchott. The 6, most of whom were tentatively programmed for training in the U.S., have not as of this writing been assured either of final selection by the GIRM or of USAID funding. While favorable GIRM action on their selection seems assured, it will obviously be necessary for USAID to give their study program priority.

Some of the candidates are presently cadre of the planning directorate. Up-grading their skills as well as providing additional personnel to the Directorate through this training program will significantly strengthen its effectiveness.

USAID should continue to collaborate with the planning directorate to ensure that a full complement of Mauritanian specialists with appropriate skills are given training opportunities and are subsequently placed in relevant government positions.

b. Regional Level

A major effort through a series of seminars was envisioned in the Project Agreement as a means of indoctrinating intermediate Mauritanian cadre in techniques and methodologies employed by RAMS in the course of its research activities. The seminars were seen as an important vehicle for the transmission of thoughts and ideas not only to the national government but also the territorial levels of government. Based on feedback from Mauritanians attending the seminars, of which there were 7 in number, the impact of the seminars was very favorably regarded. First of all, the seminar technique was much appreciated; it turned out to be a novel approach involving the active participation of all of the participants. Very often sessions were lively and there was much give-and-take. The seminars also provided a forum for the encounter of national and regional staffs. The interchange of observations enriched both sides. By the time the RAMS project terminated, seminars were still being planned by the GIRM, proof of their effectiveness as a means of communication within the government.

Cost-wise, the seminar program was negligible, coming to just under \$8,200 for local costs.

Whereas integrated rural development was the principal subject of the first group of seminars, the last three focused on regional planning. This change occurred as the government initiated a concerted effort to decentralize the planning process and involve the administrative regions, an innovative approach in a highly centralized government. This practice is now an accepted part of the planning procedure, though it would be unrealistic to assume that adequate planning skills can be acquired in such brief encounters. Regional officials were found for the most part to be without any solid academic foundation and not very knowledgeable about the planning function. For many, the seminars constituted their first exposure to the subject matter. In learning something about the state of the national economy and the major problems of national development, they were given a better perspective of their own sectoral activities. The regional officials, brought together as a group, sought for what appeared to be the first time to search for new approaches to solve the problems of the rural areas.

There is another aspect to which attention must be drawn. Some of the RAMS Phase I reports, particularly those on the Public and Private Sectors and Rural Health, have underscored the importance of involving local communities in the process of development. In this connection the principal linkage to the population was an instrument created by the

national government about a year ago, the Regional Council. Although the members of the councils are selected by the government rather than elected by the people, the councils consist of groups of private citizens who, in principle, represent the population at large.

Significantly perhaps the presidents of the council in Brakna, Guidimaka and the Western Hodh El Gharbi not only were present at the seminars but played strong roles. In Guidimaka in particular it was interesting to observe the governor deferring to the council president on certain issues.

This added dimension of communication with the local populations gives greater relevance to the role that seminars can play -- a role that had not been identified at the time the RAMS project agreement was negotiated and signed.

A special Evaluation Report of the Seminars was prepared by RAMS and distributed to national and regional offices of the government. It contains a summary of the deliberations of each seminar and a copy of regional profiles (see below for a description of the latter).

A brief listing of the seminars follows:

<u>Subject</u>	<u>Dates</u>	<u>Location</u>
1. Survey Research Methodology	November 6-17, 1979	Nouakchott
2. Integrated Rural Development	February 25-28, 1980	Rosso
3. Integrated Rural Development	August 20-22, 1980	Kiffa
4. Perspectives of Agricultural Development	December 2-5, 1980	Kaedi
5. Regional Planning	February 17-19, 1981	Aleg
6. Regional Planning	May 13-16, 1981	Selibaby
7. Regional Planning	July 7-8, 1981	Aioun

4. Regional Profiles

In preparing for most of the seminars, particularly the last 5, RAMS drafted a series of profiles for each of the regions. These contained the vital statistics of the regions to the extent that RAMS had succeeded in researching them: statistics on population, agricultural production by crop, land area under cultivation, identification of health and educational institutions, etc. At the seminars they were introduced as a basic planning tool and the need to have reliable, current data was emphasized. The profiles were also presented as incomplete, and the regional authorities were encouraged to review the information and to make a determined effort to have both a complete and up-dated profile. The importance of the profiles to the planning exercises at the national level was pointed out.

RAMS' initiative in producing the regional profiles has been extremely well received at both the national and local levels of government. It is apparent that the profiles will become a standard feature in forthcoming planning deliberations and programming exercises of the government at all levels.

The special Evaluation Report on the Seminars contains copies of the profiles prepared for each of the seminars. RAMS has also prepared profiles for the seven rural-based regions in which seminars were not conducted, and these are being distributed to the respective regional capitals, as well as national offices. In all, profiles will have been drafted by RAMS for 10 of the 12 regions; the 2 for which no work has been done are scarcely populated and are essentially industrial (that is, mining) rather than rural in character.

5. Reinforcing the Institutionalization Process

In light of AID's interest in planning and institution building and its substantial investment in the RAMS project, it is recommended that USAID periodically monitor the continuing efforts of the GIRM in the various activities initiated by RAMS and lend continued support, both directly and indirectly to these efforts. Two specific actions are proposed.

a. Training

USAID should actively promote both in-country and foreign training of Mauritanian cadre involved in the planning process. In addition, bilateral and international aid agencies should be encouraged to focus their scholarship and fellowship programs on specific areas, such as (illustratively):

Archivist (2) for the Documentation Center at the
Ministry of Economy and Finance (short-term)

Technical/professional positions in the Directorate of Studies and Programming in the Ministry of Economy and Finance (short- and long-term in development economics, finance management information systems, macro economics, etc.)

Professional positions in the small planning units of the technical ministries (short- and long-term in health planning, manpower planning, education planning, etc.)

Data-gathering and storage and survey specialists in the National Statistical Office, the Computer Center and in the Census Bureau (short- and long-term)

Development planning for the Deputy Governors in charge of social and economic affairs (short- and long-term)

In addition to participant training-type grants, consideration should also be given to provide short-term in-country courses, using the IQC (Indefinite Quantity Contract) or other AID centrally-funded contracts. This form of in-service training session could be used for instruction on project design, evaluation and management.

b. Seminars

Professional assistance on a short-term basis should be provided to give continued impetus to the seminar program, also using the IQC as a vehicle. RAMS' Training Officer, for example, could be programmed to return to Mauritania to assist the Directorate for Studies and Programming to organize additional seminars and/or follow-up on the regional planning initiative.

Should foreign assistance be provided for the design and execution of future seminars, attention should be given to utilizing local resources and encouraging maximum participation of government officials. Seminar contents should focus on practical exercises linked to real government functions, never losing sight of the underlying purposes of the seminars -- to open up channels of communication between national and local levels of government, and to induce the latter to play a more dynamic role in the planning process.

6. Prospects

What honest assessment can be made of the merits of the 387.5 man-month, \$5.6 million RAMS project and especially of its prospective impact on Mauritanian thinking and its possible influence on future development policy?

Placed in the perspective of an on-going, long-term Mauritanian process, RAMS should be viewed as an interlude in the history of an evolving planning institution. RAMS neither initiated nor ended the evolutionary process. Its contribution should be seen, as previously noted, as the first concerted effort to examine and evaluate the component of Mauritania's rural sector and its human resources, and cast the data in a 20-year time-frame using various methodologies of a micro and macro nature.

These new, including some innovative, planning tools are now at the disposition of the GIRM as well as the full range of bilateral and multilateral organizations. On the basis of data and analyses presented by RAMS, the programming and planning processes should improve vastly. There is no longer the dearth of background and basic economic and social data that existed in the pre-RAMS period. Obviously, some of the data must be built upon, and further surveys and field investigations can only enhance the material RAMS has produced.

The RAMS project has unfortunately closed without any discussion of the development options with senior-level GIRM officials. Attempts to organize meetings at this level were rebuffed by the Minister of Economy and Finance. A major reason for this (and this judgement does not attempt to analyze all of its ramifications) is the apparent reluctance of the minister, new to the post, to take any initiative at a time when the military leaders of the government were tightening their grip on the administration. In this sense, it would not appear that RAMS' principal contribution to the GIRM's development effort, i.e., in the presentation of the Option Papers, was well timed. If this reasoning is correct, it will take a while before these papers and other RAMS reports are fully digested by policy-level officials of the government. More likely, major donors like the FED and the World Bank, plus the IMF and AID will have occasion to reflect on these reports and, hopefully, in their future deliberations with the GIRM, may induce government officials to pronounce themselves on RAMS' findings. The USAID should obviously pursue this line.

A more optimistic scenario might take place, given the obvious need for the GIRM to take specific decisions on the policies and strategies to be pronounced in the Fourth Development Plan. The formulation process is currently under way and is tentatively scheduled for completion by October/November 1981. The Synthesis Planning Commission will, of necessity, have to present alternative options to the cabinet before

taking the plan document before the executive military committee, the CMSN, which is the level at which policy decisions are taken. RAMS' Option Papers are known to be a primary source of information for parts of the Plan, and a RAMS economist has worked directly with the Director of Studies and Programming during parts of the drafting stage. At this writing, however, it is unclear the extent to which RAMS' projections will be used.

While there is some general acknowledgement at the intermediate level of the Mauritanian Government that drastic reform measures will have to be undertaken if living standards are to be raised and the economic performance of the productive sectors is to improve, there is little assurance that these will be accepted at the executive level. The preoccupation of the government's leaders on their own survival gives rise to serious concerns on this score.

It should be noted that RAMS' overall analysis on the future economic and social prospects of Mauritania is not dismal. Much can be achieved, and production and employment can be substantially increased. There will, however, have to be very conscious and methodical decisions on basic issues: restructuring of the social services (especially education and health), protection of the fragile ecological system, positive steps to properly develop and manage the rangelands to enhance livestock-raising, review of agricultural price policy and land tenancy, decentralization of government administration (including the development planning process), providing incentives to increase agricultural production -- just to mention a few. These, and many others, will constitute courageous acts, but they are necessary.

Inaction, conscious or otherwise, will inevitably lead to disastrous social and economic repercussions. The ranks of the unemployed are already large and are increasing by quantum jumps, the rural-urban drift is depleting the agricultural lands of productive labor and exacerbating living conditions in the towns and cities, the population explosion continues unabated (and the growth rate might even increase in the future), literally thousands of Mauritanian youth sent for training abroad (particularly to the Arab States) will require productive outlets -- the list could be enlarged, but the point is to underscore some of the festering issues that must be faced.

The real impact RAMS will have on the Mauritanian scene will not be revealed at one time, but rather in stages. Its influence on the Fourth Development Plan will be known after it has been adopted, possibly in early 1982. The policies the GIRM will adopt may ultimately reflect RAMS' findings and conclusions -- these may become visible over time. The training programs, including the seminars initiated under RAMS, will hopefully have a long life. Meantime, the data generated by RAMS will prove to be useful for bilateral and multilateral programs, and for USAID in the next rewrite of the CDSS. Hence, at least a year or two

will have to pass before an overall and definitive assessment can be made. To some extent, USAID monitoring and periodic follow-up may hasten the process of acceptance by the GIRM, but only if Mauritanian leadership becomes more interested in its economic and social life and its future.

ANNEX

Reports Table 2

Preparation Time

Report Title	1979		1980												1981														
	May	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	Aug	
Phase I																													
1 Agro-Eca Zones																													
2 Env. Regeneration																													
3 Demographic Proj.																													
4 Agri. Production																													
5 Rural Consumption																													
6 Rural Income																													
7 Black Africans																													
8 Moors																													
9 Pastoralism																													
10 Social Org.																													
11 Migration																													
12 Accumulation																													
13 Social Synthesis																													
14 Irrig. Agr.																													
15 Dryland Agr.																													
16 Livestock																													
17 Livestock Supple.																													
18 Oasis Agr.																													
19 Inland Fisheries																													
20 Trad. Mari. Fisheries																													
21 Food-Nutrition																													
22 Rural Health																													
23 Employment																													
24 Employment Supple.																													
25 Manpower																													
26 Formal Education																													
27 Non- Formal Education																													

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Reports Table 3

Summaries of Reports

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PHASE I REPORTS

Agro-Ecological Studies

AS 1 Agro-Ecological Zones of Mauritania. (195 pp.)

Describes the geography of the country and its environmental constraints followed by discussion of surface and underground water, soil types, vegetation groups and grazing lands, livestock zones, and cultivation zones.

The report culminates in the identification, description, and cartography of eight ecological zones comprising the entire territory of the country, of which five are designated agro-ecological zones on the basis of their suitability and usage for rural production.

AS 2 Environmental Regeneration of Southern Third of Mauritania. (370 pp.) Appendix (82 pp.)

Describes the conditions of the environment, the main causes of degradation and the present trends in the condition of the environment around towns and villages, in the pastoral areas and around pastoral wells, in the classified forests, and in date palm groves on the basis of 100 field observations.

The report goes on to discuss the carrying capacity of pastures and concludes with comments on menaced zones, well preserved zones, attitudes of people toward their environment, the process of vegetation regeneration, and the adequacy of available means to fight desertification.

AS 3 Demographic Projections. (138 pp.)

Analyzes the data and preliminary results of the 1977 census as published by the census bureau and derives a natural population growth rate. National population projections are presented for variations on the growth rate, and major aspects of historical population movements are discussed, among which are inter-regional, international, and rural-urban migration; sedentarization of nomads; and the Saharan conflict.

Regional projections are made to the year 2000 for nomadic, sedentary, and total population accompanied by a discussion of regional trends bearing on projected population changes. A statistical profile of Mauritanian social structures is elaborated in terms of family structure, the average household and the distribution of population by a gender and age. The report concludes with observations about natural population increase, urbanization and growth of Nouakchott, and the phenomenon of sedentarization.

Rural Household Studies

AS 5 Rural Sector Consumption Patterns in Mauritania. (130 pp.)

Summarizes the results of the consumption component of the RAMS Household Survey in terms of regional, ethnic group, and nomadic consumption patterns giving auto-consumption and expenditures for food and non-food items in some detail. After examining the question of demand elasticity for both food and non-food consumption, the report concludes with projections of the rural sector food and non-food demand to the year 2000 based on low, medium and high demand hypotheses related to assumptions about net increases in per capita annual income and the RAMS demographic projections. The results are presented for rural sedentary, nomadic, and total rural sector populations.

AS 6 Rural Income in Mauritania. (95 pp.)

Summarizes the results of the revenue component of the RAMS Household Survey. The report examines the sources of cash income and its structure and distribution among the rural sedentary and nomadic budgetary units by region, economic sector, and ethnic group; and aggregates the results for the entire rural population. Lorenz curves and Gini concentration indices are provided for the sedentary and nomadic components of the rural population.

Sociological Studies

AS 7-1 Sociological Profiles: Black Africans in Mauritania. (70 pp.)

Describes the major Black African ethnic groups resident in Mauritania based on published information. A historical section briefly gives the background up to the 19th century and during the period of colonization, and discusses the economic impact of colonization and the coming of independence.

The Toucouleur are discussed in terms of their similarities and differences with respect to other ethnic groups, and are described according to their family and political organization and their occupational orders and castes. The Peulh are described by their pastoral life style, social structure and concept of spaces, with special emphasis given to the effects of the drought. The social organization of the Soninke in their village and economic life is described along with the

unique character of their migration and its effect on the home group. The Wolof and the Bambara backgrounds and economic activities are reviewed and their political and social organizations are described.

AS 7-2 Sociological Profiles: The Moors. (90 pp.)

Presents a short historical overview recapitulating in broad outline the establishment of Moorish society, and analyzes the past and present structures of the society from the aspects of material resources and social organization. In the process, the report evaluates the factors of continuity and change; clarifies the tensions, dislocations, blockages, and imbalances resulting from their evolution; and measures their impact on Mauritania's current development problems. Specifically, the report examines the functioning of the Moorish economy in terms of its modes of production, consumption patterns, and distribution; and the Moorish social organization with special reference to kinship, power and social stratification.

AS 8-1 Social Change: The Future of Pastoralism. (75 pp.)

Presents the results of three RANS case studies illustrating different adaptations to changes within the pastoral way of life due to the two-decade movement toward sedentarization of nomads who once made up 65 percent of Mauritania's population. The report examines the multifaceted reasons for the movement, the apparent irreversibility of trend, and what may be done to stabilize a way of life that accounts for a major part of rural production and wealth.

AS 8-2 Social Change: Social Organization of Agricultural Production. (90 pp.)

Explores the traditional concepts of land ownership among the Moors, Toucouleur, and Soninke and their subsequent change through agricultural projects; traces the traditional agricultural labor force which fits so strictly in the various hierarchical social systems and its mutations; and explains the various impacts which agricultural development -- principally irrigation -- have had on the general picture of social change..

AS 8-3 Social Change: Population Movements and Migrations in Mauritania. (235 pp.)

Clarifies the historical and cultural aspects of migration and the current economic and social changes related to it. In the process, it examines the prevailing conditions, factors and reasons favoring migration, the spatial and social organization of migration, and the settlement of migrants in the urban areas. The report brings into sharp focus the essentially different character of the migrations of the past two decades, which represent an abandonment of a way of life, and those that preceded it representing the pursuit of a way of life; and documents the social disruption that ensued.

AS 8-4 Social Change: The Evolution of Modes of Accumulation and Social Change in Mauritania.

Traces the changes in the manner and form of accumulation of wealth in Mauritania, essentially by the Moorish majority, from the historical and traditional pastoral and agricultural systems where the source of wealth was linked with productive enterprises, to the modern evolution of the market economy from its precolonial beginnings, where wealth emanates from trade and transportation. The report examines the economic and social differentiation resulting from the new market relationships and the role these new merchant groups play in Mauritanian society today.

AS-9 Overall Synthesis of Sociological Studies.

Explains the basic premises guiding the sociological research in terms of the need to identify the specific forms of the historical evolution of the country and its people, and the need to understand the mechanisms of changes particular to each of the ethnic groups as a consequence of the historical and developmental processes that have taken place. A brief summary of each of the sociological studies is included as well as some observations on the methodology used.

Sub-sectoral Studies

SS 1 Irrigated Agriculture. (90 pp.)

Analyzes the existing situation and constraints with regard to irrigated cultivation along the Senegal River, with particular emphasis on agricultural credit, communications, infrastructures, marketing, storage facilities and processing of agricultural products. Land tenure problems and training are briefly discussed. The report goes on to explore the possibilities for irrigated agriculture in other parts of the country using both underground and surface water. Suggestions are made as to the content of a coherent policy for the promotion of irrigated agriculture in the quest for food self-sufficiency. Data are given on population and employment, irrigated areas, and production and farm budgets for various crops.

SS 2 Dryland Agriculture. (160 pp.)

Analyzes in some detail the status of dryland agriculture (recessional, rainfed, and walo) in terms of production systems (present and future by surface area and geographic distribution); crops and yields for cereals, legumes, vegetables and condiments; production methods and problems; production means (land, labor, capital and budgets); land tenure and its effects on production; and the relationship with other rural production. Past and current improvement projects are cited with a short commentary. Also discussed are the production quantities of cereals and associated crops by cultivation zone and hypotheses of good and poor climatic conditions, and the destination of the production in terms of subsistence use, storage and marketing. Training and research are treated briefly, and the report ends on a consideration of the environmental questions of degradation and conservation.

SS 3 Livestock Sub-sector Study. (117 pp.)

Reviews the current status of livestock resources, production, and marketing in Mauritania; assays the natural and man-made constraints on that production, and evaluates production potentials for cattle, sheep, goats and camels. The carrying capacity of the pastoral land is the critical restraints and since this is dependant on rainfall; the production potentials are projected to the year 2000 based on high, low, and medium rainfall hypotheses using the RAMS rainfall model which is a surrogate for carrying capacity. The analysis assumes a

Report Table 3 (Cont'd)

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continuation of livestock raising based on extensive grazing on open range. Poultry is added to economic analysis because of its contribution to GDP despite its irrelevance to demand on grazing resources.

SS 3a Supplement to Livestock Study: Range Management. (42 pp.)

Discusses the present situation of Mauritanian pastureland problems and estimates future potentials based on assumptions of various remedial measures including long-term range management. The report details specific measures including various methods of providing additional animal water supply to dry pasturelands, methods of reducing and controlling range fires, and approaches to and degrees of range management with the advantages of each. It outlines a range management approach appropriate for Mauritania starting on a small scale based on essential local participation eventually building in scope to the national level, and concludes with a discussion of the elements of a good range management plan.

SS 4 Oasis Agriculture. (170 pp.)

Presents a wide-ranging detailed analysis of the current status of cultivation of date palms and other crops in the oasis environment, its problems and potentials. It covers production methods, output, social organization, labor, capital, land tenure, marketing, research and extension services and environmental impact. Current on-going projects are discussed and views are expressed concerning their appropriateness to the problems of development of the subsector with justification and suggestions for increased government intervention to save oasis agriculture from eventual extinction due to both natural and man-made threats.

SS 5 Inland Fisheries. (78 pp.)

Describes the human, natural, and institutional resources for fishing in the Senegal River valley, and analyzes present production and human and fishing potentials taking into account catches, equipment, processing and storage, marketing, and the costs of production. The constraints of infrastructure, supervision, training, financing, management, and the environment are identified and analyzed, and the development possibilities are discussed on the regional, national and international levels.

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SS 6 Maritime Fisheries. (112 pp.)

Describes the traditional coastal fishing subsector in the same framework as applied to the report on inland fisheries, above, with the addition of a discussion of the existing pre-cooperatives, especially those of the Imraguen, and the development of the subsector in the direction of industrial fishing.

AS 4 Agricultural Production: Analysis of Selected Aspects of Mauritanian Agriculture. (75 pp.)

Summarizes the rural subsector studies and presents in summary form the findings of the RAMS Production Survey conducted in 1979/1980. Comparative budgets for crop and livestock enterprises are presented, and some of the issues in the livestock and crop subsector are discussed including questions of pricing and marketing of cereals.

Functional Studies

FS 1-1 Food and Nutritional Situation in Mauritania. (94 pp.)

Analyzes the available data existing at the time of the start of RAMS project and presents summaries of the past nutritional studies; the cereal situation; food and dietary habits; and nutritional programs in Mauritania. In view of the age of the previous studies (latest in 1958) RAMS conducted a brief food consumption survey in 1980, the results of which are presented in this report, with special sections on dietary habits and the diet of young children.

FS 1-2 Rural Health: Outline of the Mauritanian Health Sector. (84 pp.)

Outlines the national health system with regard to administrative structure, facilities, population coverage, and budget, and diagnoses the health situation in terms of morbidity, mortality, fertility, population growth, and nutrition. The objective and means of health sector of the Fourth Plan (1981-1985) are analyzed and the internal and external constraints affecting the system are discussed. Recommendations are presented concerning the priority actions needed to reorient the health system toward preventive health care and to place the Ministry of Health in a better position to plan, administer, and execute its program.

FS 2-1 Employment Situation. (98 pp.)

Analyzes population and manpower characteristics derived from the 1977 census with distribution by age, gender, and geographic location presented separately for urban/rural areas and sedentary/nomad groups. The existing labor force is described in terms of the components sedentary, nomad, government, modern business, and traditional urban based on data obtained from the RAMS Employment Survey. A perspective is given for future employment and under-employment based on projections of population, labor, and assumed participation rates.

FS 2-2 Supplement to the Employment Situation. (66 pp.)

Summarizes and analyzes data and information on employment and unemployment obtained from the RAMS Employment Survey (1979/1980) with broad coverage but concentration in major population centers.

FS 3-1 Manpower Skills.

Documents the literacy level of the population and labor force and describes the educational level of the population as a whole with additional detail on the sedentary and nomad portions and the entire labor force by occupation and economic sector. The civil service is described from the manpower and employment perspective. A detailed description is given of the RAMS survey enumerating over 110 non-structured business activities. Current school population figures are briefly summarized and projected to the year 2000 demonstrating the major effect of the graduates on the structure of the work force. The basis for a Human Resources Planning System is described along with actions to make a start in that direction.

FS 3-2 Evaluation of the Formal Education System in Relation to Development Objectives. (215 pp.) Appendix (30 pp.)

Evaluates the educational components of the three past national plans for economic and social development and finds formal education out of tune with overall goals and objectives. Viewing the role of the system as the provider of an appropriately prepared labor force, the report provides an exhaustive in-depth analysis of the structure and performance of the Mauritanian formal education system and its adequacy for fulfilling that role. Includes primary, secondary, technical, and vocational education.

Report Table 3 (Cont'd)

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FS 3-3 Non-Formal Education. (240 pp.)

Describes and analyzes the institutions and programs in non-formal education and discusses their relation to production and development with regard to traditional and modern agriculture, herding, fishing, management, crafts, health, literacy, and culture. Also summarizes and analyzes the results of the RAMS Skill Qualification Survey of farmers, herdsmen, fishermen, artisans, shopkeepers, and women.

AE 4-1 Economic Activity of the Rural Private Sector. (81 pp.)

Analyzes and discusses the role and activities of private and parastatal business organizations operating in the rural sector with emphasis on cooperatives. The constraints and potentials of these forms of ownership and operation are examined and illustrated by several case studies and hypothetical examples. Operating budgets of typical small scale family enterprises are presented for shopkeepers, bread making, butchering and restaurants. Road transport patterns, operations and costs are discussed in some detail.

AE 4-2 The Public Sector: Organization and Operation of Rural Development Activities. (139 pp.)

Analyzes selected government departments and public sector institutions concerned with rural development. Examines the historical evolution of the government's organizational composition and how it functions with regard to policy formulation, planning, budgeting, and implementation activities. Project case studies are presented illustrating two different approaches to rural development -- irrigation works and an integrated development project.

AE 4-3 Annotated Statistical Compendium.

Distills data from RAMS studies, presenting them in annotated form. Also includes information obtained from census, and information available on geology and climatology.

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PHASE II REPORTS

(a) Option Papers.

OP 1 Consolidated Statement on Overall Development Strategies

Draws on the analysis of the other seven Phase II RAMS papers and describes within the Mauritanian setting the methodology followed in reviewing rural development and manpower options and the major development alternatives that emerge for the GIMM's consideration. A listing of general issues for decision and action is provided if the development options presented are to be pursued.

OP 2 Macro-Economic Simulation Model for Assessing Development Priorities.

Describes and demonstrates a macro-economic simulation model which establishes the relationship between the financial constraints to development, particularly the debt service ratio, the government budget and the balance of payments, and investment and output. The Mauritanian experience since independence is analyzed in these terms and Gross Domestic Product by major sector is projected on the basis of three sets of output/investment assumptions through the year 2000.

OP 3 Framework for Calculating Rural GDP from Basic Production Data.

Gross Domestic Product for the rural sector for the period 1967 through 1980 is derived by aggregating the available crop and animal production series. These data are compared with annual rainfall figures and three 20-year rainfall production patterns are selected. These patterns are then used to project three rural production possibilities through the year 2000. In addition, the disaggregate production series are used to compile and demonstrate a modified input-output table for the Mauritanian rural sector. This innovation should prove useful in helping to identify and analyze specific investment decisions in the rural sector.

OP 4 Basic Human Needs.

Discusses the need and desirability of incorporating the BHN concept into Mauritanian development planning, while at the same time emphasizing the growth required to finance BHN. The major individual needs, including health and nutrition, education, shelter and energy, are analyzed in light of the

Report Table 3 (Cont'd)

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Mauritanian scene. In addition, estimates are given of the costs that would be required to provide the lower 20% of the population with the basic minimum BHN.

OP 5 Rural Production Options.

Presents the rural setting in Mauritania and examines production/investment possibilities for the various subsectors of the rural sector: rainfall, recessional, irrigated and oasis agricultural, livestock, inland (river and pond), and maritime (artisanal/and semi industrial) fishing. Options are presented for maximizing output, tracing current trends, and finding intermediate possibilities to achieve food self-sufficiency. Rainfall is explicitly examined as a constraint, as is manpower. From these components three options are compiled for the entire sector showing investment, production, value-added and manpower for each. This paper is the keystone to the other rural sector Option Papers.

OP 6 Agricultural Institutional Framework.

Describes the need for State-supported service institutions to help remove the constraints and bottle-necks to increased agricultural production and income. It examines both the physical and human constraints. On the basis of this analysis, costs are derived and manpower and organizational requirements are compiled. The options range from a nationwide coverage of a full integrated system, to a series of regional centers of influence, to a continuation and growth of the present set of services now in existence.

OP 7 Employment Implications of Alternative Development Strategies.

Analyses both the supply and demand for labor, reaching the conclusion that 70,000 new jobs are needed to reach full employment without solving the problem of under-employment particularly prevalent in the rural areas. Employment opportunities are limited due to the small internal market and the lack of skills including literacy among the labor force. Projections to the year 2000 are made, indicating that if present policies do not change there could be 400,000 unemployed. The several options set forth are those which give different emphasis to the promotion of labor-intensive activities, particularly in regional centers, and to the design of an entrepreneurial code to replace the present investment code which favors capital-intensive activities. The need to organize a program to promote general educational levels and teach specific skills is emphasized.

OP 8 Public Health and Nutrition.

Part I of this paper (Health System in Mauritania: Analysis of Problems and Alternative Solutions) presents and discusses a three-stage program of providing public health care to Mauritians. It consists of reorienting the present largely curative Nouakchott-based system to future needs while meeting present commitments. Subsequently phases involved improving program management, reorientation towards preventative medicine, expanding services to rural areas and eventually making health part of an integrated rural development program. Part II (Food Requirements and Nutrition Strategy - Estimates for year 2000) examines in detail the present state of nutrition in Mauritania and sets objectives and standards which are incorporated in the public health option paper.

(b) Project Identification and Formulation

PI 1 Project Dossier.

Contains over 10 descriptions of proposed projects in environmental, including rangeland management, and employment-generation activities. These are presented as illustrative projects, some described more fully than others, using the CILSS project format. Costing is provided for most of the proposals. These projects flow from discussions in the Option Papers.

PI 2 Education as a Development Tool.

An outgrowth of the Phase I RAMS report on Evaluation of the Formal Education System in Relation to Development Activities. This special report recommends a thorough reform and decentralization of Mauritania's education system. Specific proposals range from elementary through professional and technical training. Its central theme is the need to readapt teaching to be more responsive to the development needs of the country.

(c) Other

RP 1 Seminar Evaluation.

A special report, this evaluation puts into perspective the meaning and outcome of the seven seminars organized by RAMS under the sponsorship of the GIR's planning authority. Each seminar is reviewed in relation to the objectives established by the government, with copies of each final report being enclosed. Recommendations for the continuation of the seminar program are made.

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RP 2 Regional Profiles.

In connection with the GIRM's effort to decentralize the planning process, RAMS has proposed a series of 10 regional profiles, each providing basic economic and social data collected in the course of RAMS' research. (Two of the country's 12 regions are not covered because they are considered more a part of the modern rather than rural sector.) The profiles were drafted with the intention of giving each of the 10 regions basic data to use, and to up-date periodically, as they elaborate their ideas for the Fourth Economic and Social Development Plan.

S 1 Synthesis.

As the term implies this report is intended to encapsulate RAMS' two and one-half year experience, put it into perspective and glean the results. The operation is cast in an historical perspective to provide an appreciation of the context in which the project operated. The project phases are discussed separately and integrally. The theme which emerges demonstrates that RAMS has been a part of a continuing planning process of the Mauritanian Government which will continue indefinitely. The data, findings and observations of RAMS will hopefully have provided a sounder and firmer basis of national planning for the future.

Final Report.

Provides a record of the project from the standpoint of its origins, its operation and its ending, covering essentially the manpower, and budgetary and organizational aspects. Comments are also made on project designs. A special section covers the project's institutionalization and the measures taken to continue the type of planning effort undertaken by RAMS.

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Reports Table 4

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Authors of Reports

Phase I

<u>Title of Study (Original language of text)*</u>	<u>Author</u>
<u>A. Aggregate Studies (Baseline)</u>	
1. Agro-Ecological Zones in Mauritania (F)	Patrick Hauser
2. Environmental Regeneration of the Southern Third of Mauritania (F)	Patrick Hauser
3. Demographic Projections (E)	Susan Waltz
4. Agricultural Production: Analysis of Selected Aspects of Agriculture (E)	Robert Brown
5. Rural Sector Consumption Patterns in Mauritania (F)	Quan X. Dinh
6. Rural Income in Mauritania (F)	Quan X. Dinh
<u>Sociological Profiles</u>	
7. Black Africans - Mauritania (F)	Thiam Bocar
8. The Moors (F)	Ould Cheikh Abdel Wedoud
<u>Social Change</u>	
9. The Future of Pastoralism (F)	Mona Fikry
10. Social Organization of Agricultural Production (E)	Mona Fikry
11. Population Movements and Migration in Mauritania (F)	Pierre Bonte
12. Evolution of Modes of Accumulation and Social Change in Mauritania (F)	Pierre Bonte
13. Overall Synthesis of Sociological Studies (E)	Mona Fikry
<u>B. Sub-Sectoral (Micro) Studies</u>	
<u>Production Studies</u>	
14. Irrigated Agriculture (F)	Youssef Nasri
15. Dryland Agriculture (F)	Habib Kraiem
16. Livestock Subsector Study (E)	Clyde Wilder
17. Livestock Study Supplement: Rangeland Management and Development (E)	Kay Wilkes
18. Oasis Agriculture (F)	Habib Kraiem
19. Inland Fisheries (F)	Lamine Soumah
20. Traditional Maritime Fisheries (F)	Christian Reizer Lamine Soumah

Report Table 4 (Cont'd.)

11

<u>Title of Study (Original Language of Text)*</u>	<u>Author</u>
<u>C. Functional Studies</u>	
<u>Nutrition and Health</u>	
21. Food and Nutritional Situation in Mauritania (F)	Jacqueline Mondot
22. Rural Health: Outline of the Mauritanian Health Sector (F)	Ramiro Delgado
23. Employment Situation (E)	Bruce Heath
24. Employment Supplement (E)	Bruce Heath
<u>Manpower Skills</u>	
25. Manpower Skills (E)	Bruce Heath David Sarfaty
26. Evaluation of the Formal Education System in Relation to Development Objectives (F)	Erik Raymaekers
27. Non-Formal Education (E)	Eric Allemanno
<u>Rural Development</u>	
28. Economic Activities of the Rural Private Sector (F)	Cristian Juliard
29. The Public Sector: Organization and Operation of Rural Development Activities (E)	Louis Siegel
30. Annotated Statistical Compendium (E)	Cristian Juliard

* F = French

E = English

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Phase II

Title of Study (Original Language of Text)*

Author

Option Papers

- | | | |
|-----|---|---|
| 1. | Consolidated Statement on Overall Development Strategies (E) | Peter Cody
Lawrence Morrison |
| 2. | Macro-Economic Simulation Model for Assessing Development (E) | Firouz Vakil |
| 33. | Framework for Calculating Rural GDP from Basic Production Data (E) | Robert Manly |
| 4. | Basic Human Needs as a Concept in the Formulation of a Development Strategy (E) | Pierre L. Sales |
| 5. | Rural Production (F) | Quan X. Dinh |
| 6. | Agricultural Institutional Framework (F) | Habib Kraiem |
| 7. | Employment Implications of Alternative Development Strategies (E) | Peter Bloch |
| 8. | Health/Nutrition:
Part I -- Health System in Mauritania:
Analysis of Problems and Alternative Solutions (F)
Part II -- Food Requirements and Nutrition Strategy
Estimates for Year 2000 | Ramiro Delgado

Jacqueline Mondot |

Project Identification and Formulation

- | | | |
|----|-------------------------------------|--|
| 1. | Project Dossier (F/E) | Michel Baumer
Alexander Cunard
John Butler
Kay Wilkes |
| 2. | Education as a Development Tool (F) | Eric Raymaekers |

Other

- | | | |
|----|------------------------|------------------------------------|
| 1. | Seminar Evaluation (F) | Louis Siegel |
| 2. | Regional Profiles (F) | Louis Siegel
Erna Kerst |
| 3. | Synthesis (E) | Lawrence Morrison |
| 4. | Final Report (E) | Pierre L. Sales
Bradley Wallach |

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Personnel Table 1Names of RAMS Expatriate Personnel by Position, Employment Status
and Company Affiliation

<u>Title</u>	<u>Name</u>	<u>Status</u> *	<u>Company Affiliation</u> **
Chief of Party	Pierre L. Sales	LT	Checchi
	Frank Turner	LT	Checchi
Technical Director	René Weber	LT	API
Development Economist	Peter Cody	ST	Checchi
	Quan X. Dinh	MT	LBI
	Firouz Wakil	ST	LBI
	Bertrand Mennesson	LT	LBI
	Maxwell Klayman	ST	LBI
Agricultural Economist	Robert Brown	MT	LBI
Economist	Frank Masson	ST	Checchi
Synthesizer	Lawrence Morrison	ST	Checchi
Geographer	Patrick Hauser	LT	LBI
	Donald Vermeer	ST	LBI
	Michel Baumer	ST	LBI
Manpower Planning	Bruce Heath	LT	API
	Alan Lebel	ST	API
	Peter Bloch	ST	API
	David Sarfaty	ST	API
	Stephen Mangum	ST	API
	John Butler	ST	API
Training/Documentation Officer	Louis Siegel	LT	API
Statistician	Cristian Juliard	LT ***	Checchi
Sociologist	Mona Fikry	LT	LBI
	Pierre Bonte	ST	LBI
	Wedoudould Cheikh ****	ST	LBI
	Thiam Boker ****	ST	LBI
Administrative Officer	Bradley Wallach	LT	Checchi
	Jean-Pierre Cebron	ST	Checchi
Agronomist	Gourbachan Dhillon	LT	Checchi
	Alexander Cunard	ST	Checchi
	Habib Kraim	LT	Checchi
	Youssef Nasri	MT	Checchi

Personnel Table 1 (Cont'd)

<u>Title</u>	<u>Name</u>	<u>Status</u> *	<u>Company Affiliation</u> **
Livestock Specialist	Clyde "Hap" Wilder	MT	Checchi
	Albert Sollod	ST	Checchi
	Gary Slocombe	ST	Checchi
Rangeland Management Specialist	Kay Wilkes	ST	LBI
Fisheries Specialist	Lamine Soumah	MT	Checchi
	Cristian Reizer	ST	LBI
Public Health Specialist	Ramiro Delgado-Garcia	MT	LBI
Nutritionist	Jacqueline Mondot	ST	LBI
Demographer	Susan Waltz	ST	LBI
Data Analyst	Robert Manly	MT	Checchi
	Alf Persson	ST	LBI
Education Planning	Erik Raymaekers	ST	API
	Eric Allemanno	MT	API
Marketing	Randall Stelley	ST	Checchi

Recapitulation: LT = 12
 MT = 7
 ST = 25

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* LT = Long term, MT = Medium term, ST = Short term.

** Checchi : Checchi and Company
 LBI : Louis Berger International, Inc.
 API : Actions Programs International

*** Classified as LT since period of assignment was well over one year, although AID/W never converted position to LT status.

**** Local hire.

Personnel Table 2

RAMS Professional Positions by Employment Status

Long Term (9 Positions)

Chief of Party
Technical Director
Geographer
Manpower Planning
Training/Documentation Officer
Statistician*
Sociologist
Administrative Officer
Agronomist

Medium Term (10 positions)

Development Economist
Agricultural Economist
Economist
Livestock Specialist
Fisheries Specialist
Public Health Specialist
Data Analyst
Education Planning

Short Term (14 positions)

Development Economist
Synthesizer
Geographer
Manpower Planning
Sociologist
Agronomist
Livestock Specialist
Rangeland Management Specialist
Fisheries Specialist
Nutritionist
Demographer
Data Analyst
Education Planning
Marketing
Administrative Officer

* Classified as LT since period of assignment was well over one year although AID/W never converted position to LT status.

Personnel Table 3

1

Dates of Assignment of RAMS Expatriate Personnel by Title
of Position

<u>Titl Title</u>	<u>Name of Incumbent</u>	<u>Dates of Assignment *</u>
Chief of Party	Pierre L. Sales	February 26, 1980 - August 27, 1981
	Frank Turner	May 7, 1979 - March 2, 1980
Technical Director	Rene Weber	July 17, 1979 - April 14, 1981
Development Economist	Peter Cody	April 3, 1981 - July 31, 1981
	Quan X. Dinh	June 9, 1980 - August 25, 1981
	Firouz Vakil	intermittent between November 1980 - May 1981
	Maxwell Klayman	July 17, 1980 - December 1, 1980
	Bertrand Mennesson	May 23, 1979 - February 22, 1980
Agricultural Economist	Robert Brown	May 6, 1980 - March 31, 1981
Economist	Frank Masson	May 18, 1979 - December 8, 1980
Syntherizer	Lawrence Morrison	May 17, 1981 - August 18, 1981
Geographer	Patrick Hauser	May 11, 1979 - June 15, 1981
	Donald Vermeer	May 21, 1979 - August 2, 1979
	Michel Baumer	May 13, 1981 - June 10, 1981
Manpower Planning	Bruce Heath	May 14, 1979 - December 13, 1980
	Alan Lebel	March 22, 1980 - July 22, 1980
	Peter Bloch	June 11, 1979 - August 12, 1979; March 3, 1980 - March 22, 1980; June 8-29, 1981

Personnel Table 3

ii

<u>Title</u>	<u>Name of Incumbent</u>	<u>Dates of Assignment *</u>
Manpower Planning	David Sarfaty	November 1, 1980 - June 17, 1981
	Stephen Mangum	June 18, 1979 - December 8, 1979
	John Butler	April 3, 1981 - May 1, 1981
Training/Document Officer	Louis Siegel	June 20, 1979 - August 2, 1981
Statistician	Cristian Juliard	July 23, 1979 - June 18, 1981
Sociologist	Mona Fikry	June 14, 1979 - May 30, 1981
	Pierre Bonte	April 8, 1980 - June 10, 1980; August 1-11, 1980
	Wedoud ould Cheikh **	October 1, 1979 - April 15, 1980
	Thiam Bokar **	October 1, 1979 - April 30, 1980
	Administrative Officer	Bradley Wallach
Agronomist	Jean-Pierre Cebron	November 8, 1979 - March 31, 1980
	Gourbachen Dhillon	October 27, 1979 - July 28, 1980
	Alexander Cunard	January 25, 1981 - June 15, 1981
	Habib Kraiem	October 8, 1979 - June 18, 1981
	Youssef Nasri	June 3, 1980 - October 3, 1980; December 10-25, 1980; January 10-31, 1981; February 1-21, 1981; February 28-March 10, 1981
Livestock Specialist	Clyde "Map" Wilder	February 23, 1980 - August 19, 1980; December 5, 1980 - April 30, 1981
	Albert Solled	April 16, 1980 - May 6, 1980
	Gary Slocombe	June 16, 1979 - August 12, 1979

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Personnel Table 3

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<u>Title</u>	<u>Name of Incumbent</u>	<u>Date of Assignment</u> *
Rangeland Management Specialist	Kay Wilkes	May 14, 1981 - June 18, 1981
Fisheries Specialist	Lamine Soumah	December 15, 1979 - June 30, 1980; November 20, 1980 - April 11, 1981
	Christian Reizer	May 19-26, 1981
Public Health Specialist	Ramiro Delgado-Garcia	September 6, 1980 - October 18, 1980; February 6, 1981 - June 27, 1981
Nutritionist	Jacqueline Mondot	October 28, 1979 - November 24, 1979; May 15-June 14, 1980; March 14-31, 1981
Demographer	Susan Waltz	May 18, 1979 - August 12, 1979; November 22, 1979 - January 8, 1980
Data Analyst	Robert Manly	November 8, 1980 - June 26, 1981
	Alf Persson	March 17, 1980 - July 11, 1980; November 19, 1980 - May 2, 1981
Education Planning	Erik Ravmaekers	August 1, 1979 - October 31, 1979; February 5, 1980 - February 15, 1980; January 6, 1981; February 3, 1981
	Eric Allemano	January 28, 1980 - July 31, 1980; December 20, 1980 - February 10, 1981
Marketing Specialist	Randall Stelley	October 17, 1980 - November 14, 1980

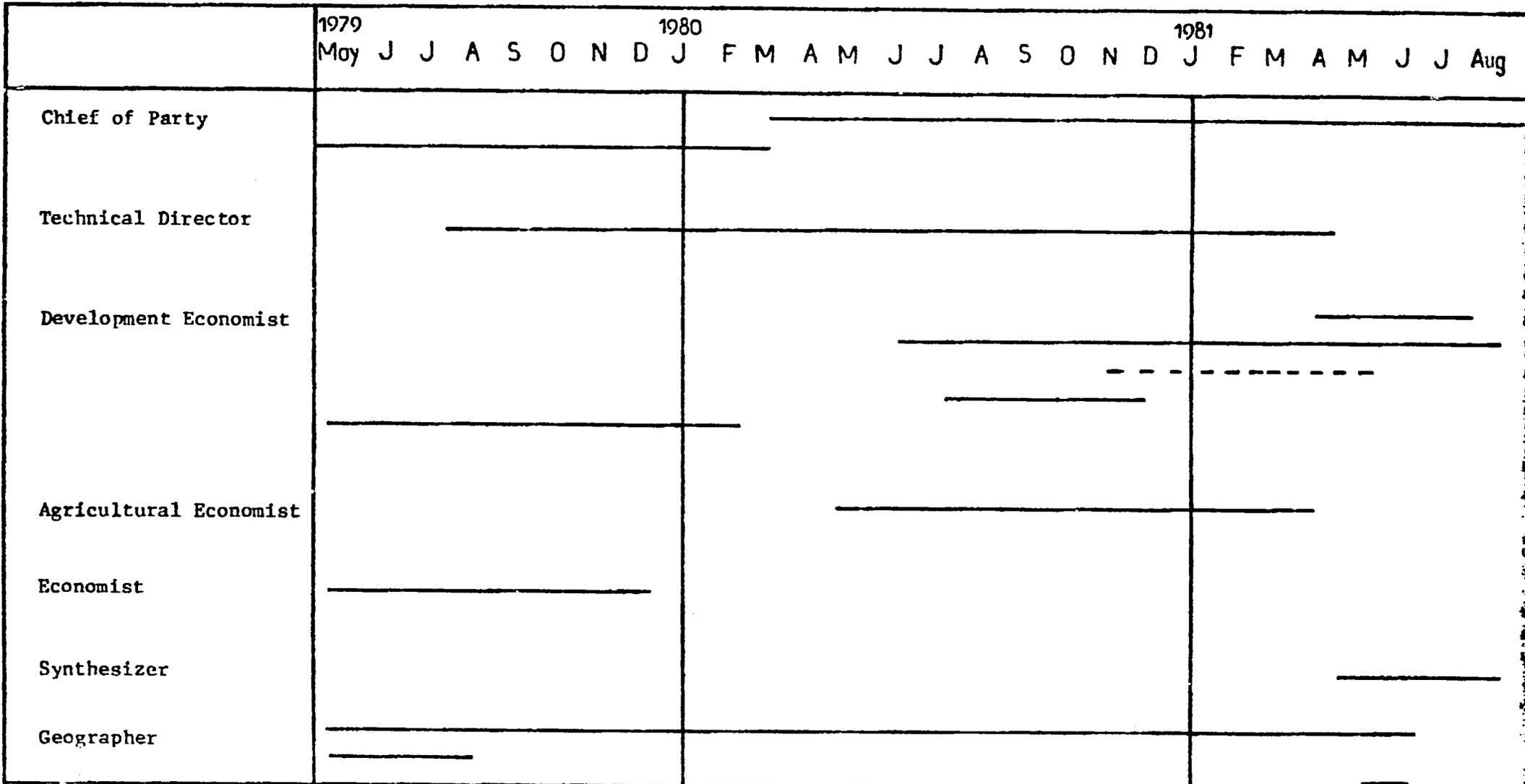
* Excludes periods of leave taken and periods authorized for work away from Mauritania.

** Local hire.

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Personnel Table 4

Bar Chart Showing Periods of Assignment of RAMS Expatriate
Personnel by Title of Position*

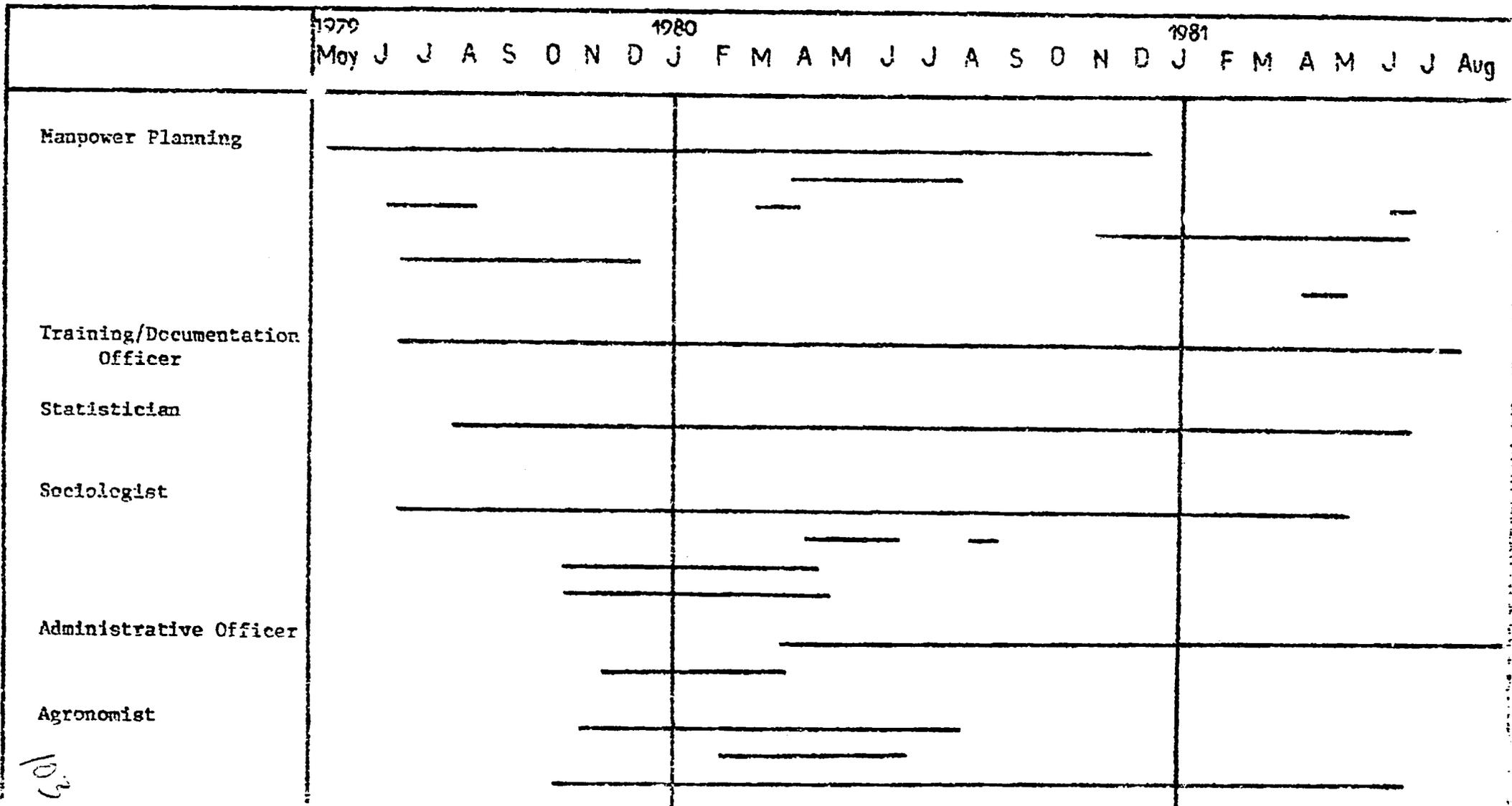


102
* Personnel in same order as shown in Table 3.

Personnel Table 4

Bar Chart Showing Periods of Assignment of RAMS Expatriate

Personnel by Title of Position*



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Personnel Table 4

Bar Chart Showing Periods of Assignment of RAMS Expatriate

nel by Title of Position*

	1979			1980												1981													
	May	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	Aug	
Livestock Specialist																													
Rangeland Management Specialist																													
Fisheries Specialist																													
Public Health Specialist																													
Nutritionist																													
Demographer																													
Data Analyst																													

100

Personnel Table 4 (Cont'd)

Bar Chart Showing Periods of Assignment of PAMS Expartiate

Personnel by Title of Position⁺

	1979 May	J	J	A	S	O	N	D	1980 J	F	M	A	M	J	J	A	S	O	N	D	1981 J	F	M	A	M	J	J	Aug	
Educational Planning																													
Marketing Specialist																													

6

Personnel Table 5

1

Man/Months by Position

<u>Title of Position</u>	<u>Man/Months*</u>
<u>Chief of Party</u>	(39)
Pierre L. Sales	29
Frank Turner	10
<u>Technical Director</u>	(21)
Rene Weber	21
<u>Development Economist</u>	(33)
Peter Cody	4
Quan X. Dinh	14
Firouz Vakil	1.5
Maxwell Klayman	4.5
Bertrand Mennesson	9
<u>Agricultural Economist</u>	(11)
Robert Brown	11
<u>Economist</u>	(6.5)
Frank Masson	6.5
<u>Synthesizer</u>	(3)
Lawrence Morrison	3
<u>Geographer</u>	(28.5)
Patrick Hauser	25
Donald Vermeer	2.5
Michel Baumer	1
<u>Manpower Planning</u>	(25)
Bruch Heath	7
Alan Lebel	2
Peter Bloch	3
David Sarfaty	6.5
Stephen Mangum	6.5
John Butler	1

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Personnel Table 5 (Cont'd)

Man/Months by Position

11

<u>Title of Position</u>	<u>Man/Months*</u>
<u>Training/Documentation Officer</u>	(25.5)
Louis Siegel	25.5
<u>Statistician</u>	(23)
Cristian Juliard	23
<u>Sociologist</u>	(39.5)
Mona Fikry	23.5
Pierre Bonte	2.5
Wedoudould Cheikh	6.5
Thiam Bokar	7
<u>Administrative Officer</u>	(22)
Bradley Wallach	17.5
Jean-Pierre Cebron	4.5
<u>Aeronomist</u>	(41)
Gourbachan Dhillon	9
Alexander Cunard	4.5
Habib Kraiem	20.5
Youssef Norri	7
<u>Livestock Specialist</u>	(13)
Clyde "Hap" Wilder	11
Albert Sollod	1
Gary Slocombe	1
<u>Rangeland Management</u>	(1)
Key Wilkes	1
<u>Fisheries Specialist</u>	(12.5)
Lamine Soumah	12
Christian Reizer	0.5
<u>Public Health Specialist</u>	(6)
Ramiro Delgado-Garcia	6
<u>Nutritionist</u>	(2.5)
Jacqueline Mondot	2.5

Personnel Table 5 (Cont'd)

iii

Man/Months by Position

<u>Title of Position</u>	<u>Man/Months</u> *
<u>Demographer</u>	(4.5)
Susan Waltz	4.5
<u>Data Analyst</u>	(17)
Robert Manly	7.5
Alf Persson	9.5
<u>Educational Planning</u>	(12)
Erik Raymaekers	4.5
Eric Allemano	7.5
<u>Marketing</u>	(1)
Randall Stelley	1
Total	<u>387.5</u>

Recapitulation

Chiefs of Party	39
Technical Director	21
Development Economists	33
Agricultural Economist	11
Economist	6.5
Synthesizer	3
Geographers	28.5
Manpower Planning	25
Training/Documentation Officer	25.5
Statistician	23
Sociologists	39.5
Administrative Officers	22
Agronomists	41
Livestock Specialists	13
Rangeland Management	1
Fisheries Specialists	12.5
Public Health Specialist	6
Nutritionist	2.5
Demographer	4.5
Data Analysts	17
Educational Planning	12
Marketing Specialist	1
Total	<u>387.5</u>

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Personnel Table 5 (Cont'd)

Man/Months by Position

iv

Title of Position

Man/Months*

Regrouping by Function

Chiefs of Party	39
Technical Director	21
Economists	50.5
Synthesizer	3
Geographers	28.5
Human Resources (Manpower Planning and Educational Planning)	37
Training/Documentation Officer	25.5
Statistician/Data Analysts	40
Sociologists	39.5
Administrative Officers	22
Agricultural Specialists (Agronomists, Livestock and Rangeland Management - Fisheries Specialists)	68.5
Public Health Specialist/Nutritionist	8.5
Demographer	4.5
	<hr/>
Total	387.5
	<hr/>

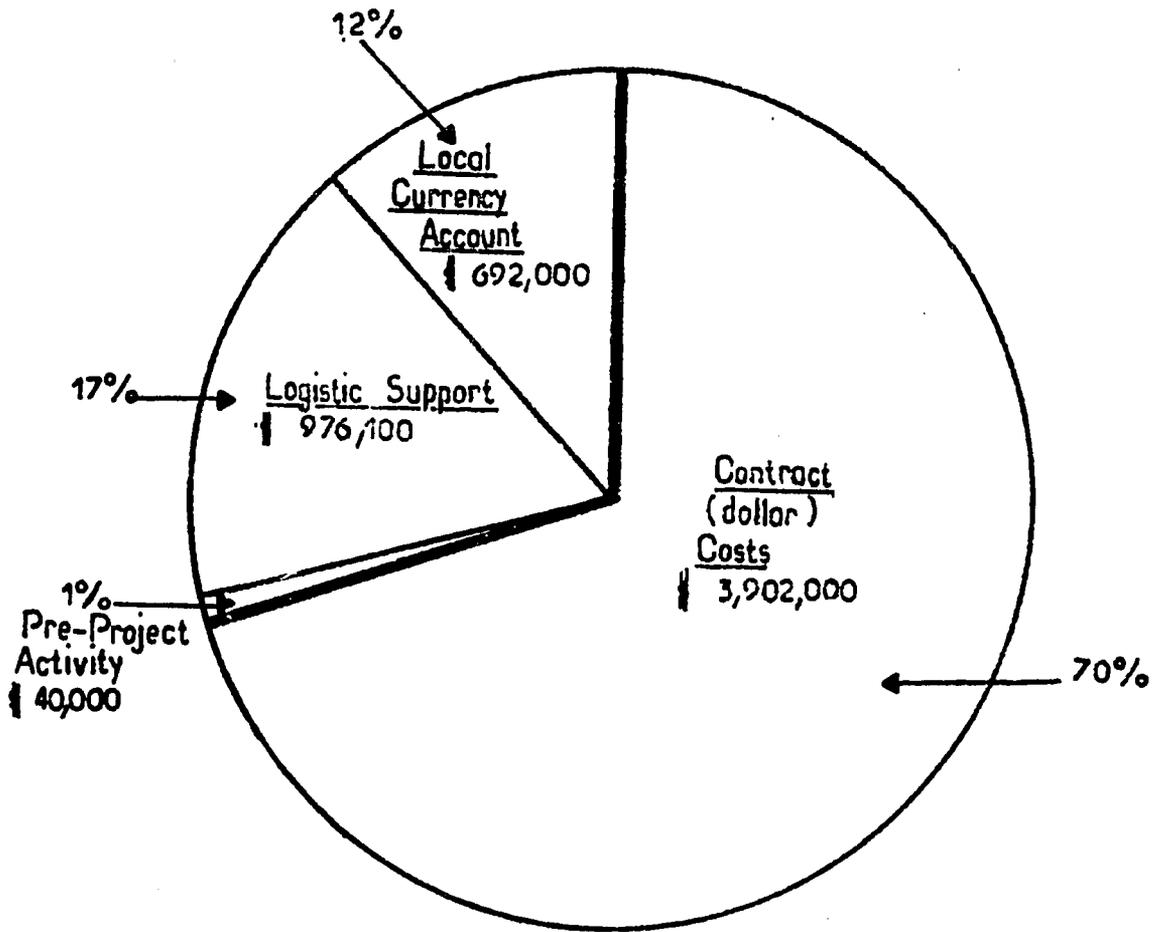
* Represents only time spent in Mauritania,
excluding leave and consultations.

Figures rounded to nearest 0.5.

Expenditure Table 1

Overall Breakdown of Project Costs*

Total: \$5.6 million



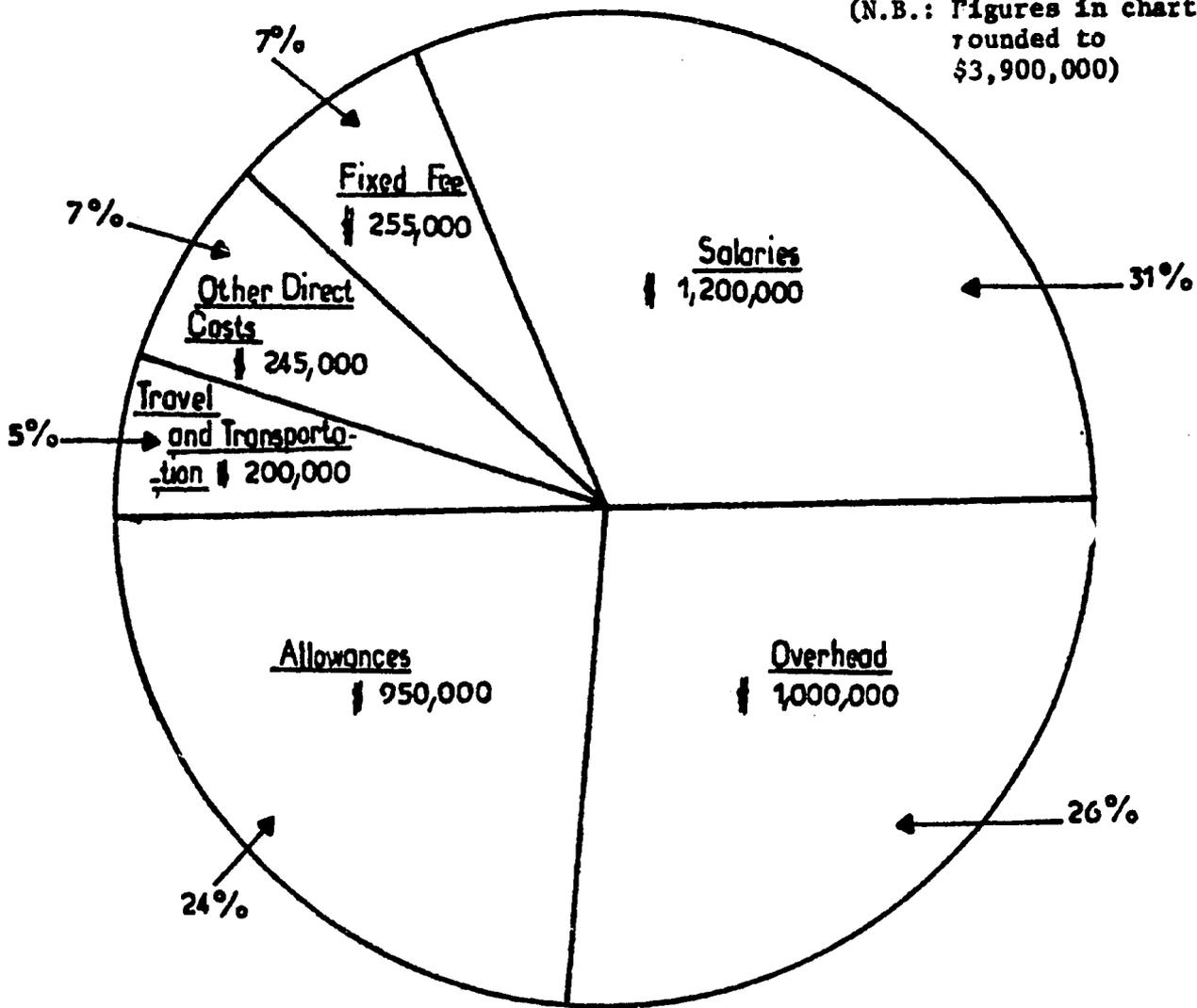
* Figures rounded and subject to final accounting and audit.

Expenditure Table 2

Breakdown of Dollar Costs by Expenditure Category*

Total: \$3,902,141

(N.B.: Figures in chart rounded to \$3,900,000)



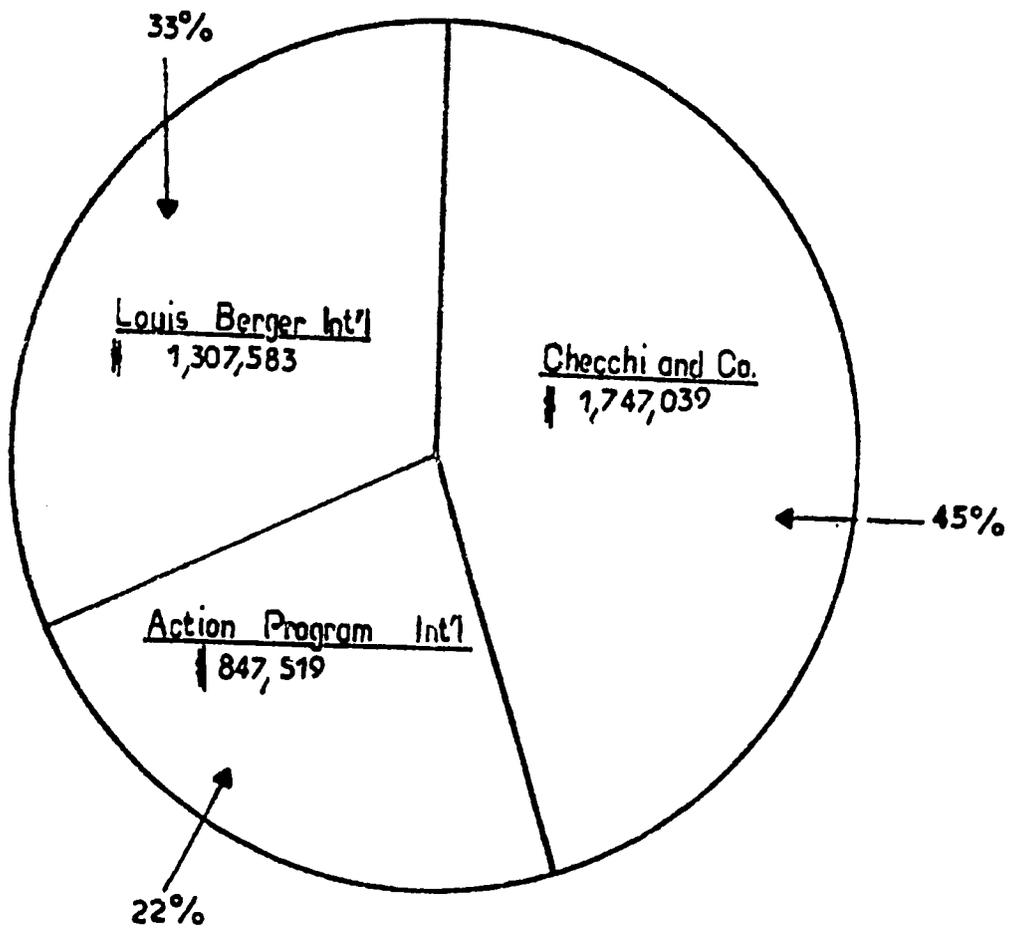
* Estimated and subject to final accounting.

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Expenditure Table 3

Breakdown of Dollar Costs by Private Contractor
and Sub-Contractors*

Total: \$3,102,141

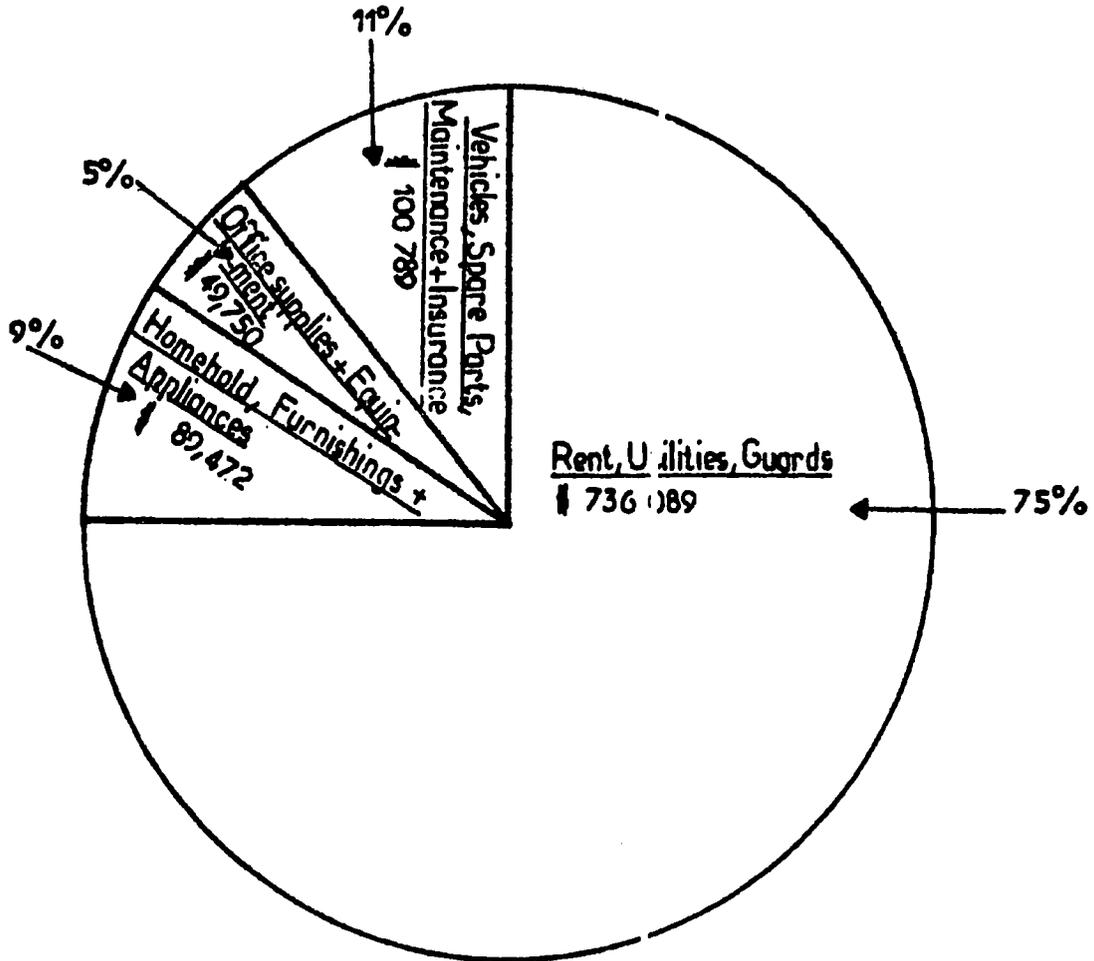


* Subject to final accounting

Expenditure Table 4

Breakdown of Logistic Support Costs

Total: \$976,100*

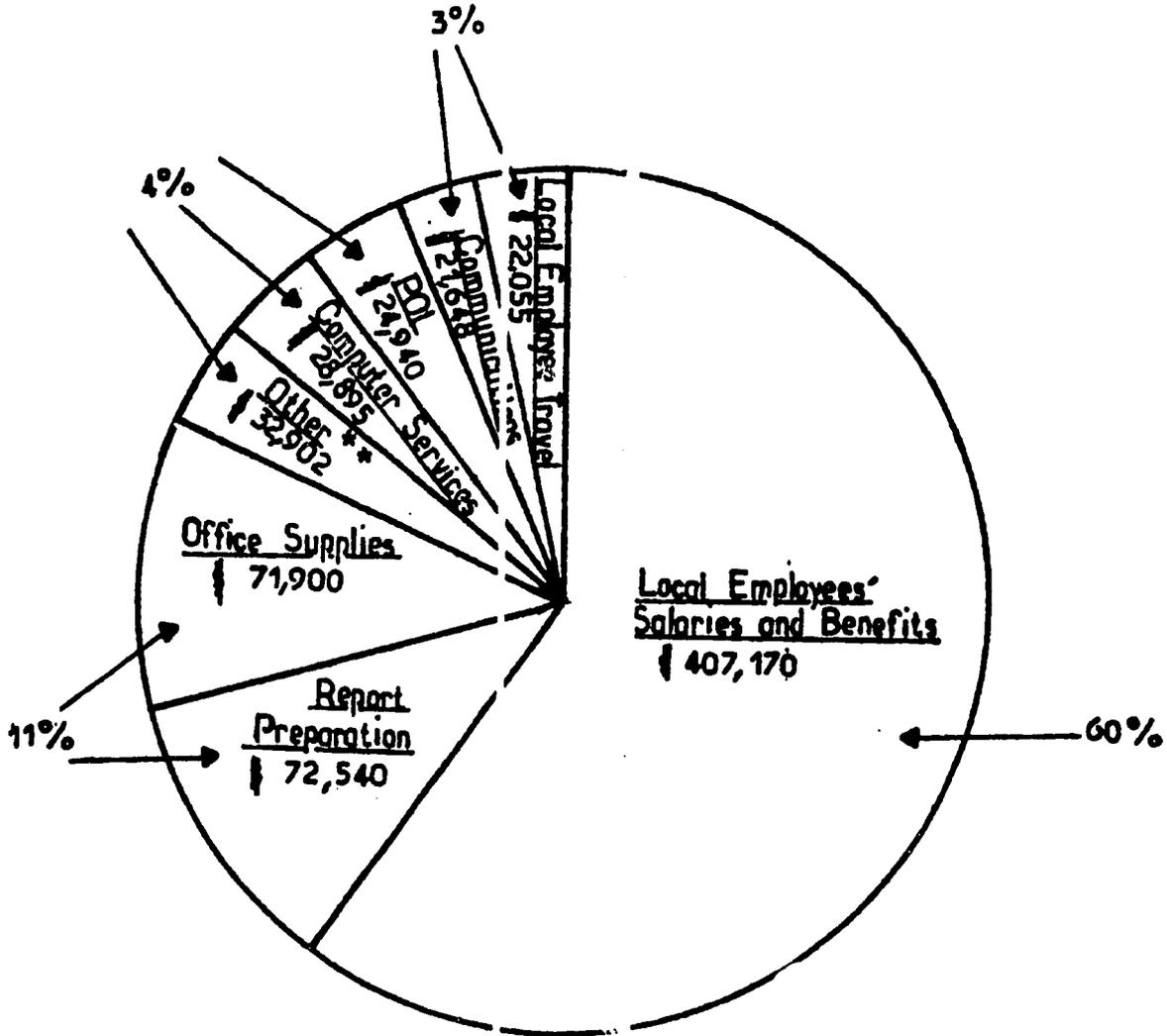


* Subject to final accounting and audit.

Expenditure Table 5

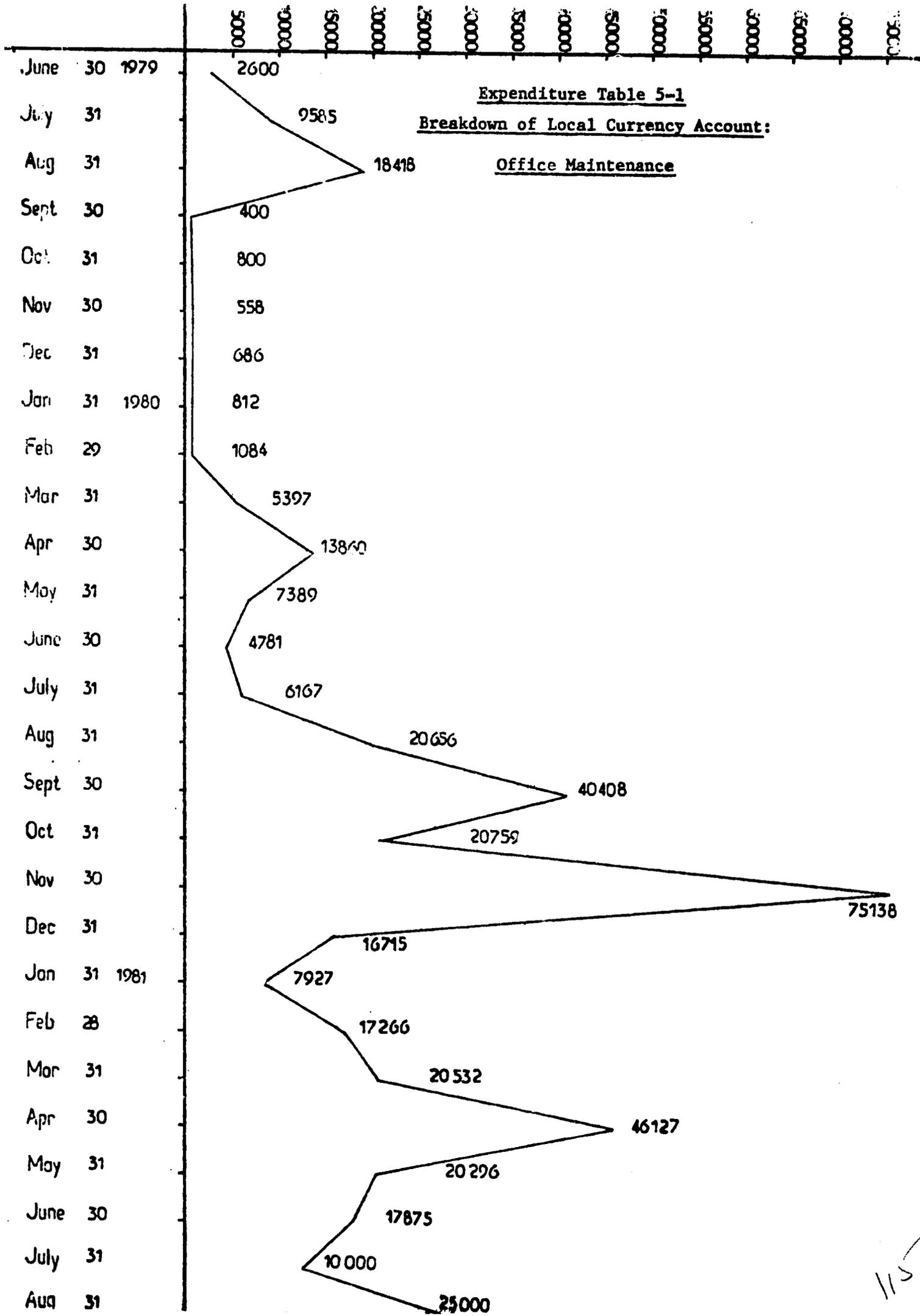
Breakdown of Local Currency Account: Overall*

Total: \$681,850*

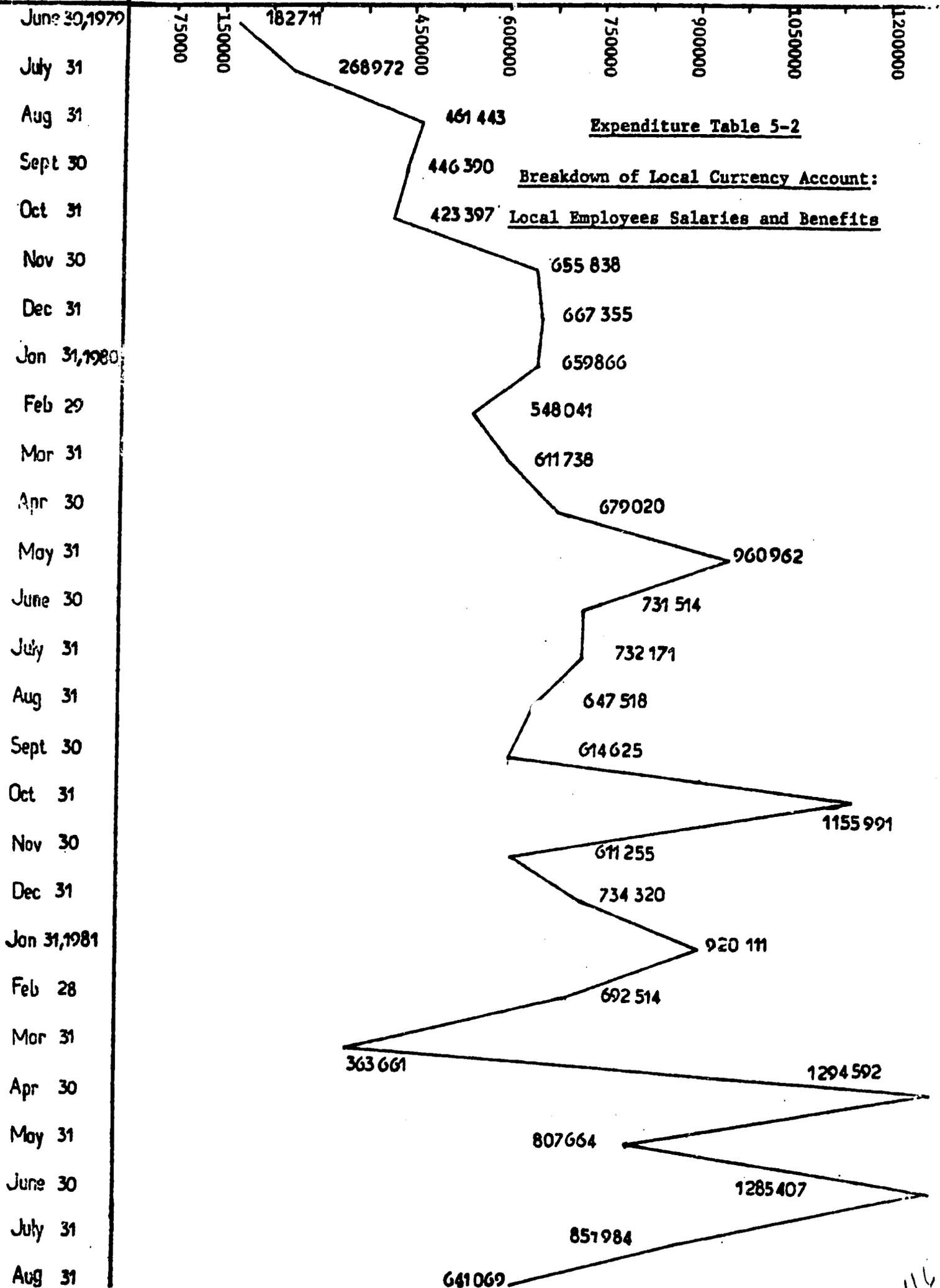


* Subject to final accounting and audit. Average exchange rate used: 4: UM = U \$1.00.

** Office Maintenance 1%, Vehicle Maintenance 2%, Miscellaneous Services 1%, Seminars .05%.



115

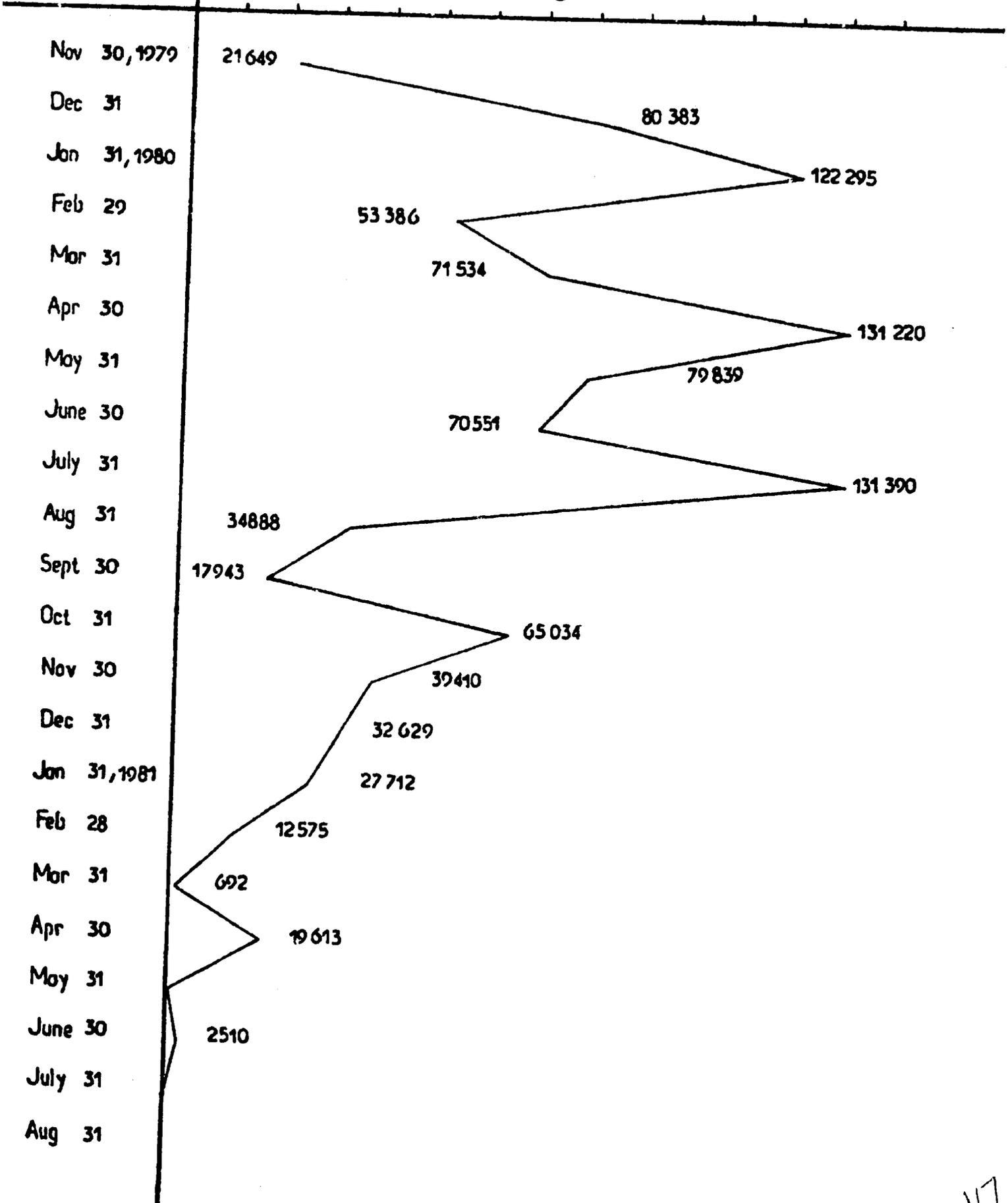


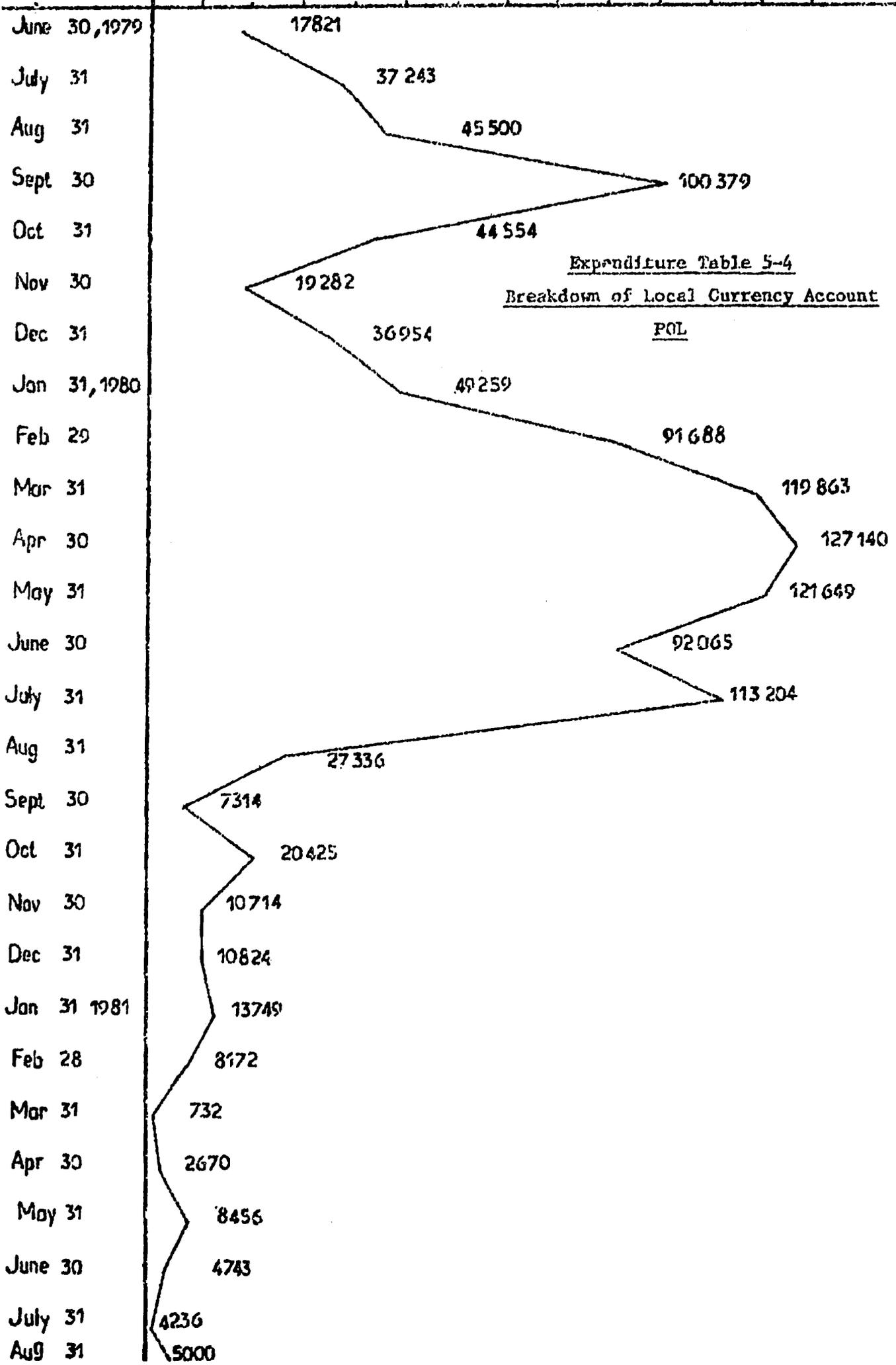
Expenditure Table 5-3

Breakdown of Local Currency Account:

Local Employee Travel

10 000 20 000 30 000 40 000 50 000 60 000 70 000 80 000 90 000 100 000 110 000 120 000 130 000 140 000





Expenditure Table 5-4
Breakdown of Local Currency Account
POL

5000 10000 15000 20000 25000 30000 35000 40000 45000 50000 55000 60000 65000

Nov 30, 1979

13329

Expenditure Table 5-5

Dec 31

14744

Breakdown of Local Currency Account:

Vehicle Maintenance

Jan 31, 1980

15438

Feb 29

32295

Mar 31

48265

Apr 30

60210

May 31

22008

June 30

12340

July 31

24348

Aug 31

4131

Sept 30

65619

Oct 31

66922

Nov 30

22874

Dec 31

8849

Jan 31 1981

14708

Feb 28

53554

Mar 31

12883

Apr 30

7887

May 31

10434

June 30

9815

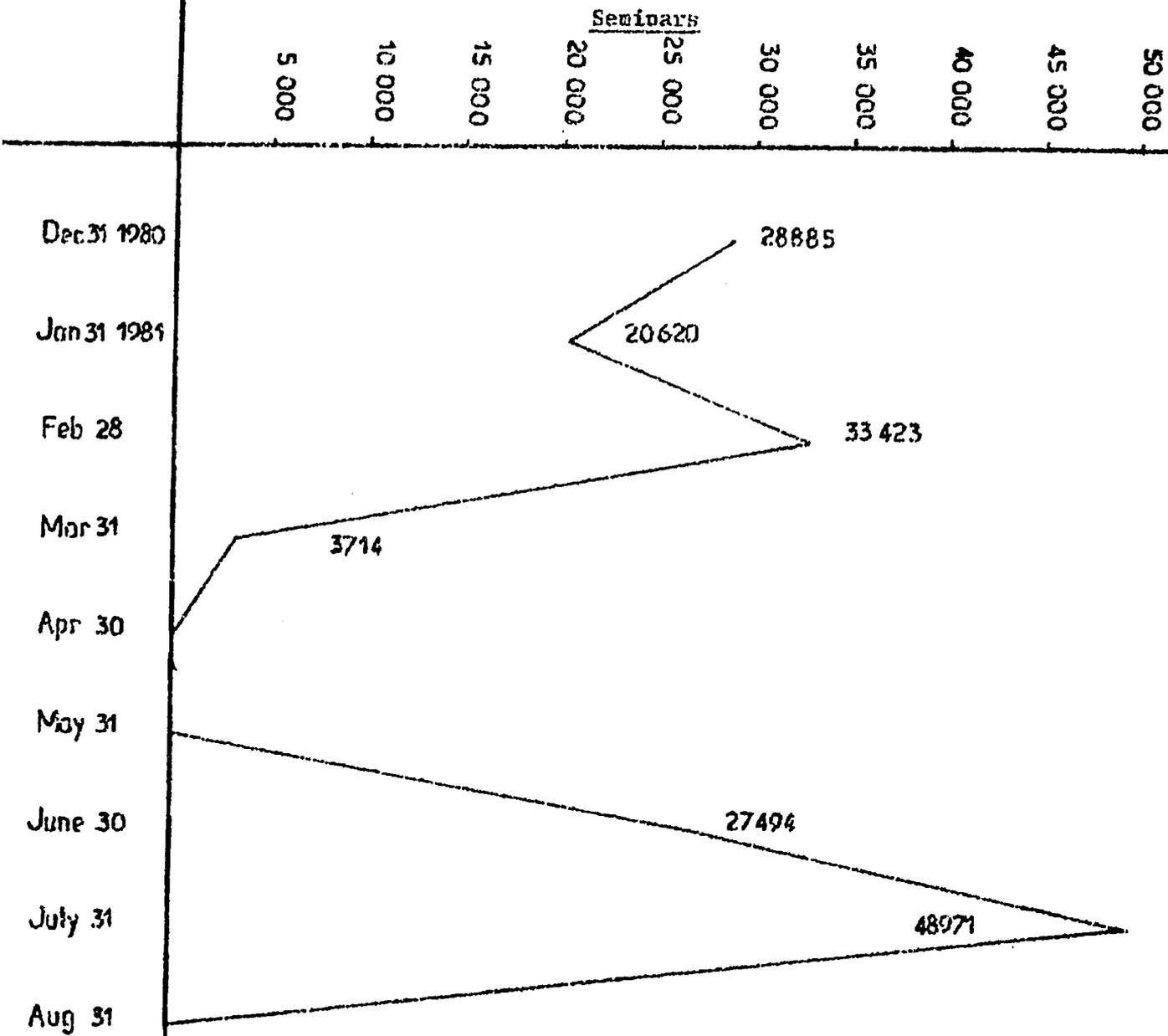
July 31

9995

Aug 31

5000

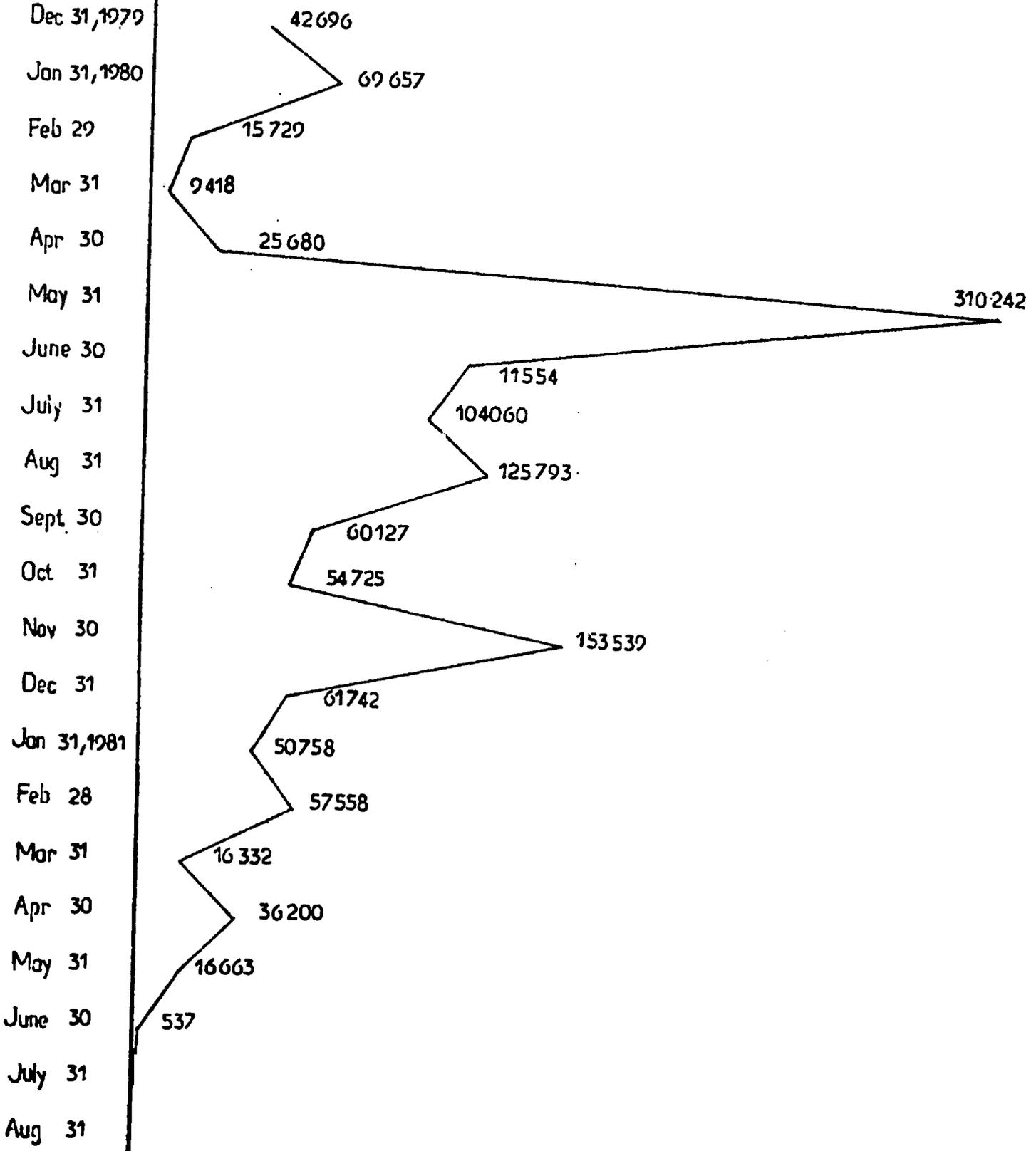
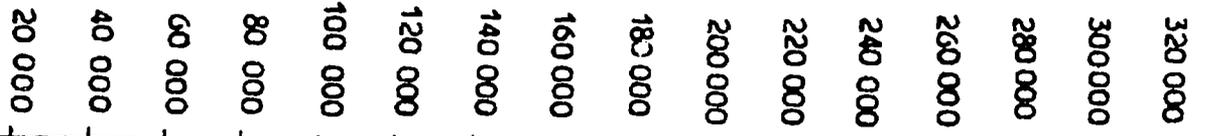
Expenditure Table 5-5
Breakdown of Local Currency Account:



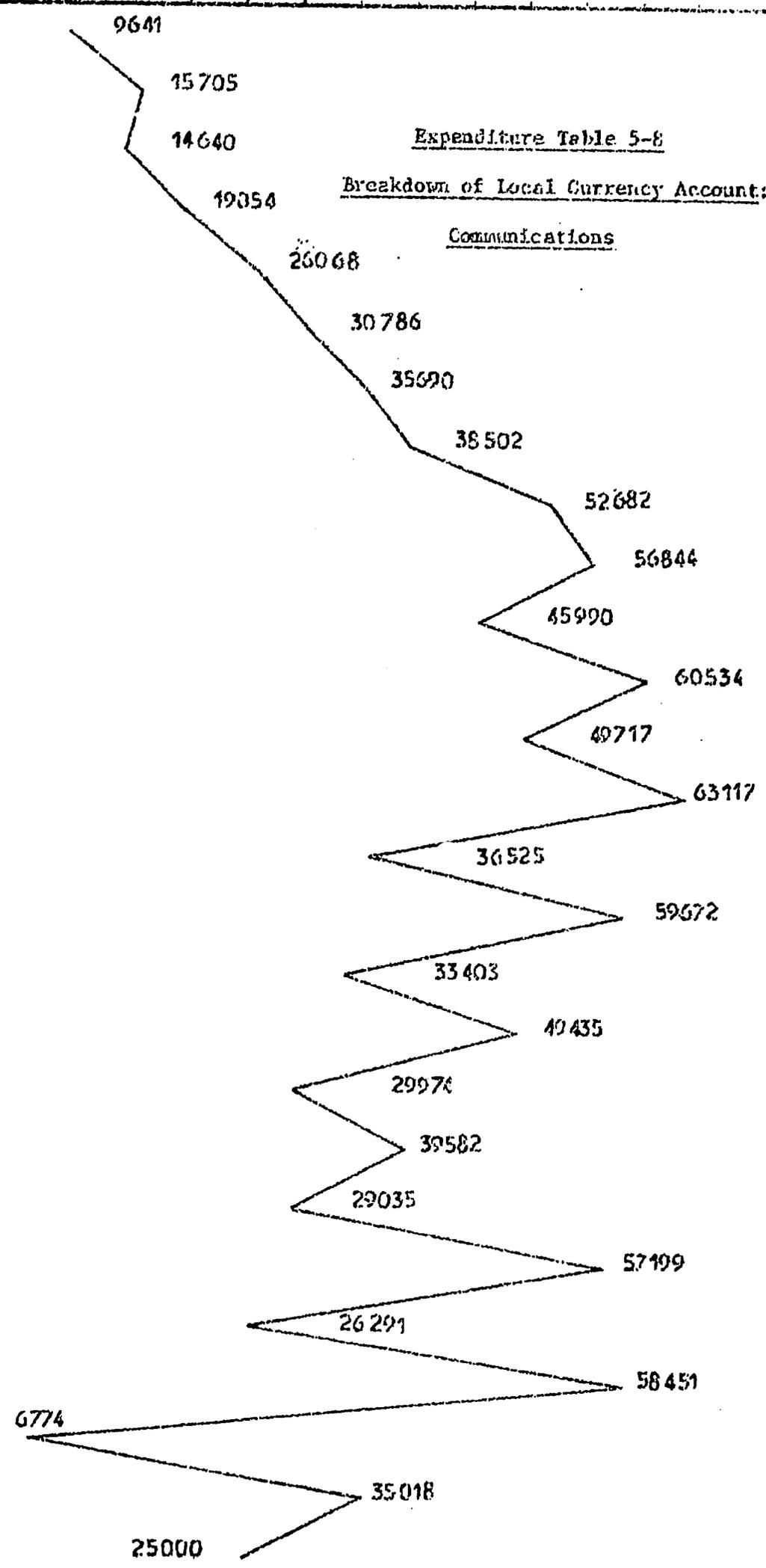
Expenditure Table 5-7

Breakdown of Local Currency Account:

Computer Services



June 30, 1979
 July 31
 Aug 31
 Sept 30
 Oct 31
 Nov 30
 Dec 31
 Jan 31, 1980
 Feb 29
 Mar 31
 Apr 30
 May 31
 June 30
 July 31
 Aug 31
 Sept 30
 Oct 31
 Nov 30
 Dec 31
 Jan 31, 1981
 Feb 28
 Mar 31
 Apr 30
 May 31
 June 30
 July 31
 Aug 31



Expenditure Table 5-8
Breakdown of Local Currency Account:
Communications

122

30 000
60 000
90 000
120 000
150 000
180 000
210 000
240 000
270 000
300 000
330 000
360 000
390 000
420 000
450 000
480 000

Aug 31, 1979 720

Sept 30

Oct 31

Nov 30

Dec 31

Jan 31, 1980

Feb 29

Mar 31

Apr 30

May 31

June 30

July 31

Aug 31

Sept 30

Oct 31

Nov 30

Dec 31

Jan 31, 1981

Feb 28

Mar 31

Apr 30

May 31

June 30

July 31

Aug 31

Expenditure Table 5-9

Breakdown of Local Currency Account:

Report Preparation

14966

19227

21917

5577

4147

9780

51146

42394

64231

52584

127023

55134

13935

54797

87400

152601

242950

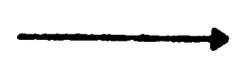
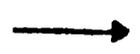
262220

410834

473231

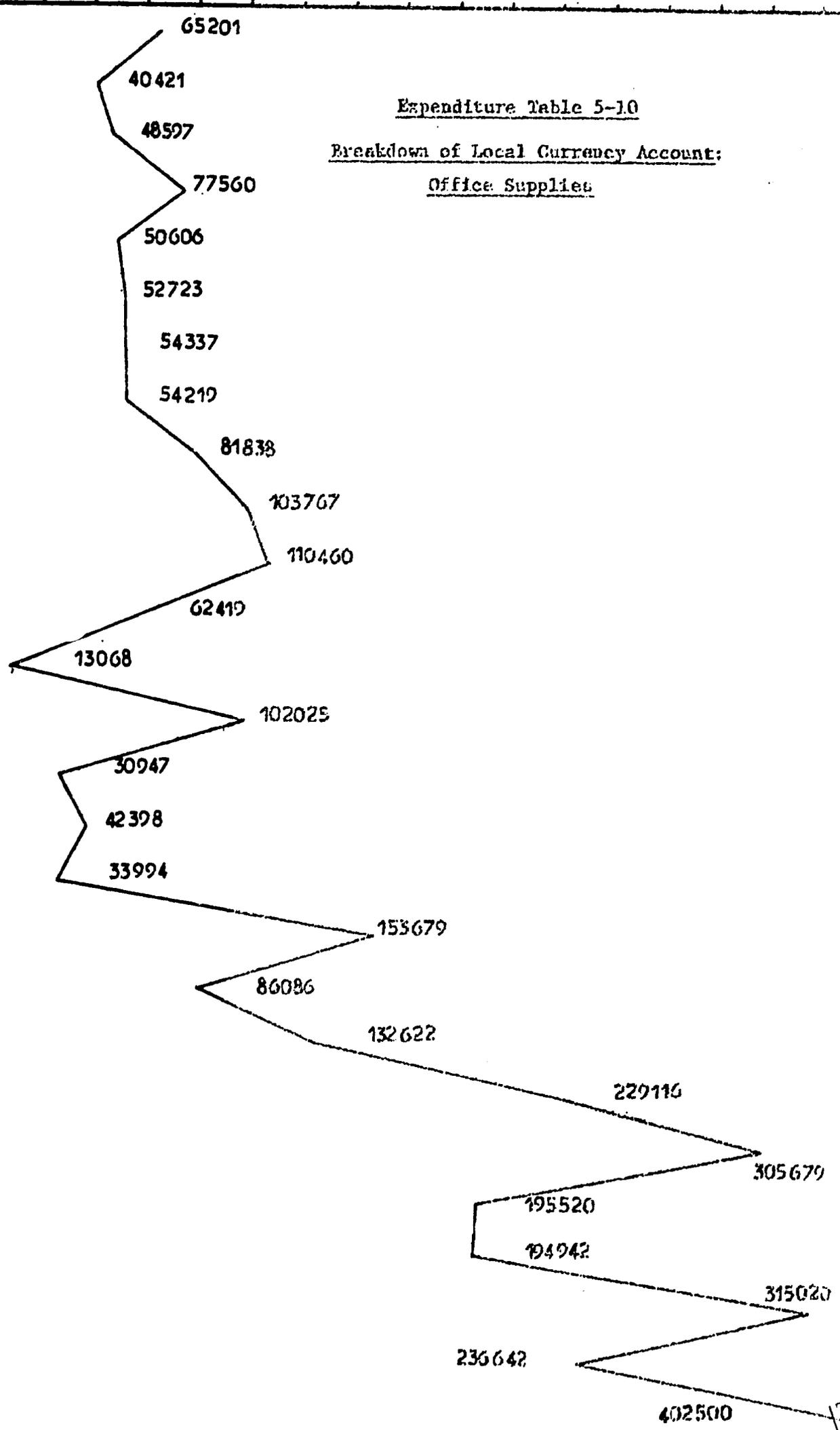
637031

535425



123

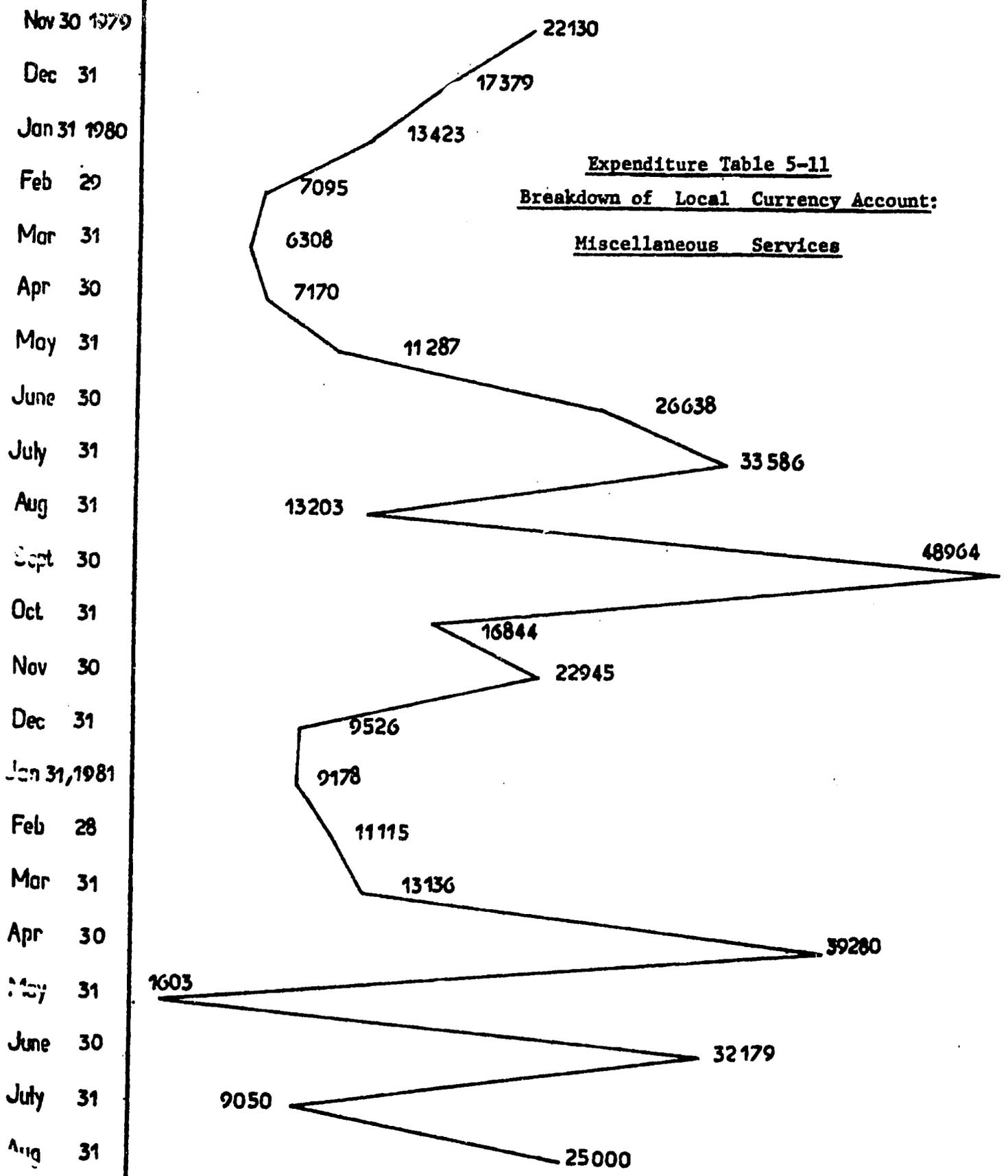
June 30, 1979
 July 31
 Aug 31
 Sept 30
 Oct 31
 Nov 30
 Dec 31
 Jan 31, 1980
 Feb 29
 Mar 31
 Apr 30
 May 31
 June 30
 July 31
 Aug 31
 Sept 30
 Oct 31
 Nov 30
 Dec 31
 Jan 31, 1981
 Feb 28
 Mar 31
 Apr 30
 May 31
 June 30
 June 31
 Aug 31



Expenditure Table 5-10
Breakdown of Local Currency Account:
Office Supplies

124

48 000
45 000
42 000
39 000
36 000
33 000
30 000
27 000
24 000
21 000
18 000
15 000
12 000
9 000
6 000
3 000



Expenditure Table 5-11
Breakdown of Local Currency Account:
Miscellaneous Services