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PN-ARF-979

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SUDAN

AGRICULTURAL PLANNING AND STATISTICS PROJECT

MANAGEMENT REPORT ON

THE PLANNING AND AGRICULTURAL ECONOMICS ADMINISTRATION

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February, 1987

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I. EXECUTIVE SUMMARY

The Consultant's assignment, undertaken within the USAID-sponsored Agriculture Planning and Statistics Project located in the Planning and Agricultural Economics Administration (PAEA), comes in the midst of major change in the administrative structure and process of the Government of Sudan (GOS) and in particular the Ministry of Agriculture and Natural Resources (MANR). The assignment is concerned with what should be the role of the PAEA in this changing environment and to recommend how the PAEA should organize and administer itself so as to fulfill its proposed role.

During the last few years, agriculture-related planning activities have become fragmented in their performance. A number of units both within the MANR and outside have been performing such work. While the PAEA's role has not kept pace with expanding planning requirements, PAEA has amassed the highest concentration of qualified manpower within the GOS to deal with agricultural planning tasks. The PAEA has established the foundation of a modern agricultural data base and a statistical capability second to none in the GOS. It has continued to develop a capability to perform agriculture economic and policy analysis studies. Other governmental units that have engaged in planning work have drawn on PAEA personnel to obtain qualified staff.

The GOS appears to be on the verge of reorganizing its planning function. Concurrently, there is an expressed desire for a strong planning unit within the MANR itself. The PAEA would seem to be the most appropriate unit to assume this role. However, in order to do so effectively, the PAEA needs to be reorganized internally, to change its work processes and improve the quality of its staff through training.

A series of recommendations have resulted from this assignment concerning the role of the PAEA, its internal organization structure, the PAEA's internal work plan development and budgeting processes, the administration of the PAEA and the support assistance necessary to implement recommendations in these foregoing areas. A careful phasing of the restructuring process should be envisioned.

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Following is a summary of the Consultant's recommendations. Section V of the report elaborates on all these.

A. The PAEA Role in the Ministry of Agriculture and Natural Resources

1. The PAEA should be designated as the central unit within the MANR for supporting, conducting and coordinating intrasectoral planning activities. The scope of these activities should include the following:

- Provide the support and staff assistance necessary to short- and long-term plan development.
- Perform and coordinate agricultural policy analysis.
- Extend PAEA sector scope to include all crop agriculture in all subsectors: irrigated, rainfed, mechanized and traditional.
- Coordinate and review development budgets of public corporations on behalf of the Minister of the MANR.
- Monitor and evaluate public corporation performance.
- Monitor and evaluate sector performance.
- Establish a comprehensive capability to gather and maintain agriculture sector statistics.
- Perform economic analyses and special studies for and among all agricultural subsectors and crop categories.
- Identify agriculture-related capital projects and prepare preliminary feasibility studies.

- Assess national and regional food requirements and their degree of fulfillment.
- Provide a regional perspective to agricultural policy analyses and plans.

2. The organizational position of the PAEA should be changed from that of another administration under the aegis of the General Undersecretary of Agriculture to that of an adjunct to the Office of the Minister of the MANR.

3. The PAEA, in its new organizational position, should act as a coordinator of all other agriculture sector-related planning activities/units located within the MANR.

B. The Internal Structure of the PAEA

The PAEA should be restructured so as to fulfill its function as a strong sectoral planning unit reporting to the Office of the Minister.

- Remove the Animal Resources Economics Administration and the Agricultural Investment Administration from under the PAEA.
- Rename the Project Formulation Administration Department and identify it as the "Policy Analysis and Planning Department."
- Expand the scope of activity of the Sector Planning Section.
- Prepare for the elevation of the Statistics Section to department status.
- Formalize responsibilities for an Administrative Support Unit reporting to the Director General's Office of the PAEA.
- Establish a Training and Personnel Management Section within the Administrative Support Unit.

- Establish a motor pool management system under the Director General's Administrative Support Unit.
- Establish a Policy Advisory Committee as an adjunct to the Director General's Office, and as a resource for and liaison with the Minister's Office.
- Establish coordinative link to other MANR (non-PAEA) planning activities, to be placed at the Policy Analysis and Planning Department Director's level.
- Develop formal relationships between the PAEA Departments and their respective Sections.

C. PAEA Internal Operations

1. Revise the work plan development and budgeting procedure with the aim of obtaining uniform formats for both.
2. Require individual PAEA section work plans to indicate extent of interrelatedness with other section's activities and relevance for sector policy making.
3. Install a process for relating the PAEA to sector policy-making and policy-makers.
4. Redefine PAEA internal management roles and relationships with a specific aim toward greater delegation and decentralization of authority and responsibility.
5. Establish an internal PAEA administrative process with accompanying procedures.

D. Support Assistance to be Provided to the PAEA

1. Provide short-term (up to one month) training in the following areas:

- Project Management
- Finance and Capital Budgeting for Parastatals (Public Corporations)
- Administrative Systems and Management
- Agricultural Policy Analysis and Planning
- Personal Computer Operations and Data Base Management
- The Use and Design of Electronic Spreadsheets
- Personnel Management/Management of Training Programs
- The Design and Operation of Monitoring and Evaluation Systems for Parastatals
- Reassessment and Design of the Administration and Policy Analysis Process in the PAEA
- Design Budgeting Procedures and Electronic Spreadsheet Templates for Use by the PAEA

2. The PAEA should be assisted in up-grading its physical facilities, notably its office equipment.

II. BACKGROUND

A. Consultant's Terms of Reference

This report is the result of a short-term consultancy under the Sudan Agricultural Planning and Statistics (APS) Project which falls within the jurisdiction of the Planning and Agricultural Economics Administration (PAEA) of the Ministry of Agricultural and Natural Resources (MANR). The overall purpose of the Project has been to improve and strengthen the policy analysis and planning capabilities for the agricultural sector as provided through the PAEA. The aim of the consulting assignment is to support the institutionalization of planning and policy analysis capabilities within the PAEA, focusing on what is and should be the role and functions of the PAEA in providing policy analysis and planning services within the MANR, and how the PAEA should be organized (both in terms of structure and administrative processes) so as to provide these services effectively.

There have been no recent efforts to define clearly the PAEA's place in agricultural sector planning activities. Moreover, even if such definition had taken place it would have needed substantial modification today. The Ministry of Agriculture along with other governmental entities is in the midst of drastic change - in their internal structures, responsibilities and purposes. Within the MANR and the agricultural sector, changes in these aforementioned areas are virtually guaranteed. The management and status of parastatal entities - public corporations and enterprises - is also being reconsidered.

A wide variety of organizational units within the GOS appear to perform some tasks associated with policy analysis, planning and control of state-related agricultural activities. Some actual and perceived overlap of functions and responsibilities occurs between the MANR and other ministries, and among various units within the MANR itself. Another important consideration is the influence of international donor agencies that have provided complementary

support for management, planning and control to the capital development projects that they themselves have funded; the World Bank is notable in this regard. The latter, for example, has made a series of major recommendations to the GOS concerning the management of public corporations that involves the creation of new organizational units in the Ministry of Finance and Economic Planning (MFEP), the MANR and others as well, such units to perform monitoring and evaluation tasks in relationship to some major agricultural public corporations.

All these factors suggest that the role of the PAEA needs to be clarified in terms of both its task responsibilities within the MANR and in relationship to other policy analysis/policy planning entities outside of this Ministry, notably within the MFEP. It is these latter relationships that must be initially determined: what is the intended and de facto allocation of responsibilities in these areas that devolves to the MANR, as well as other sectoral ministries, and that which resides within the MFEP. Once the approximate scope of planning responsibilities and relationships for the agricultural sector ministry is known, then it is possible to articulate a scope of activity for the PAEA that is consistent with the MANR's mandate in these aforementioned areas. The internal organizational structure and the individual terms of reference of departments and sections within departments of the PAEA can then be examined.

Given PAEA's current and potential role within the sector and its relationships with other ministries, it is then possible to address what ought to be the internal organization arrangements that would make the PAEA most effective. The working arrangements within the PAEA can be evaluated, particularly its internal administration and work plan development/budgeting system. Also, proposals for changes in internal operating methods can be recommended.

The Consultant's terms of reference (TOR) for this assignment included tasks concerned with these issues and were addressed in the logical sequence described above. Each task was further detailed once on-site, focusing on

specific relevant issues confronting the PAEA. These are presented in the following elaboration of the TOR (the original TOR is capitalized):

3. IDENTIFY AND DEFINE THE ROLES OF SUB-UNITS (DEPARTMENTS AND SECTIONS WITHIN DEPARTMENTS) WITH RESPECT TO THEIR INDIVIDUAL TOR AND WITH RESPECT TO THE BROADER POLICY ANALYSIS MANDATE OF THE PAEA.

- Role of the PAEA in relation to the MFEP and other related state agencies with respect to:

- sector planning generally
- policy formulation and analysis
- approval of public corporation budgets
- monitoring and control of public corporation budgets and of other agricultural entities
- capital/development project formulation, feasibility studies

- Content of PAEA function/tasks within agricultural sector:

- information/data generation role
- sector planning role/tasks
- monitoring and control of MDA activities/units

- Structure of PAEA

- assessment of overall table of organization in relation to above defined role/task content
- should Agricultural Investment Administration remain in PAEA?
- role/function of a separate Animal Resource Economics Administration; possible integration of its personnel and tasks in Agricultural Economics and Statistics.
- possible establishment of the Statistics Division as a department
- role and location of the Advisory Unit on Agricultural Corporations

- PAEA interdepartmental integration of roles/responsibilities/functions
 - assess how the various sections and departments should interact to meet the objectives of the PAEA
2. DESCRIBE THE CURRENT METHODS BY WHICH WORK PLANS AND BUDGETS ARE DEVELOPED AND IMPLEMENTED, TO SUGGEST IMPROVED METHODS FOR LONG TERM FISCAL PLANNING AND ACCOUNTABILITY

For the PAEA:

- adequacy/appropriateness of PAEA internal work plan/budget development process
 - structuring a work planning and budgeting process that ensures timely submission of budgets and encourages control/accountability of sub-units
3. WORK WITH THE DG/PAEA AND MEMBERS OF HIS STAFF TO IDENTIFY AN INSTITUTIONALLY COMPATIBLE ADMINISTRATIVE UNIT WITHIN THE PAEA AND TO FACILITATE BUDGETING, PROCUREMENT, CLEARANCE AND OTHER SUPPORT ITEMS
- Role of an administrative/support staff to DG/PAEA; relationship to other units in PAEA
 - administrative and finance unit
 - training unit
 - Budget preparation/control procedures for PAEA support activities (e.g., motor transport unit, field support)
 - identification of budgetary weaknesses/problems in specific PAEA subunits
 - procedures for and timing of budget preparation of specific subunits of PAEA (e.g., motor pool operation)

4. ASSIST THE DG/PAEA IN DEVELOPING A LONG TERM PERSONNEL MANAGEMENT TRAINING PROGRAM FOR ALL HIS STAFF

- Review the capabilities/skill acquisition levels of current professional/clerical staff
- Recommend desirable improvements in staffing capabilities
- Identify the type of training (both short and long term) professional/clerical staff to achieve desired improvements

5. CONSULTANT WILL BE EXPECTED TO LEAVE A DRAFT REPORT BEFORE HIS DEPARTURE FROM SUDAN AND TO DISCUSS MAJOR FINDINGS WITH BOTH THE PAEA AND USAID PRIOR TO HIS DEPARTURE

- Consultant estimates a need for six working days for draft report completion and discussions, i.e., report preparation should begin no later than January 10, 1987.

B. Approach to Assignment

This assignment was performed during the period December 24, 1986 - January 15, 1987, a work period equivalent to about three weeks. All tasks as identified in the consultant's terms of reference were addressed, but to varying degrees of intensity given the very short duration of the assignment. The Consultant met with the USAID officer responsible for the APS project, Ms. Sharon Fee, Assistant Agricultural Development Officer, and Dr. William Bateson, Technical Coordinator, APS Project, for an initial briefing immediately upon arrival. Thereupon, the Consultant laid out a preliminary outline of his approach to project fulfillment, identifying the approximate time requirements to be allocated to each project task. A meeting was held with Dr. A. M. El Sheikh, Director General, PAEA, to further elaborate the specific issues to be addressed in each of the tasks; the listing of tasks indicates the relative emphasis (actually translated into time allocated) to each one in descending order. Thus, it was considered essential, as indicated above, that

the PAEA's role/charter for conducting/participating in planning and control activities in relation to the agriculture sector be clarified as much as possible, as it determined the content of the subsequent tasks to be performed by the consultant.

Information necessary to accomplish the tasks set out in this assignment was derived from reviews of obtained documents and personal interviews; the latter took place mostly following review of pertinent publications, reports and memoranda emanating from GOS ministries, public corporations, foreign donor agencies, and consultancies, among others. A total of 35 interviews were conducted with individuals, mainly from the MANR, the MFEP and USAID. A complete list of those contacted is noted below.

The Consultant reviewed his findings with APS project personnel, the PAEA Director General, Directors and Section heads and USAID project officers to insure factuality. Recommendations were similarly reviewed, followed by an informal presentation of findings and recommendations to the above. A separate meeting was held with the MANR Minister, Dr. Omer El Diaem, to discuss the consultant's recommendations (the Minister had also been interviewed earlier during the data gathering phase).

During the last week of the project, the Consultant began working with APS Project and PAEA personnel to implement his recommendations; particular emphasis was placed on work plan and budget preparation and management techniques. The body of the report was written during this period and reviewed for factual content by the aforementioned and the USAID Project Officer. The Consultant modified his draft accordingly.

LIST OF INTERVIEWEES

Ministry of Agriculture and Natural Resources (MANR)

Dr. Omer Nur El Dalem, Minister of Agriculture and Natural Resources

Dr. Abdel Moneim El Sheikh, Director General, Planning and Agricultural Administration (PAEA), Ministry of Agriculture and Natural Resources (MANR)

Mr. Kamil Mansour, Policy Advisor to the Minister, MANR

Dr. Omer A. El Faruk, Director General, Project Formulation Administration, PAEA, MOA

Mr. Tagelsir Abdul Mutalib, Director General, Agricultural Economic & Statistics Dept., PAEA

Mr. Suliman Shiguery, Director of Planning and Follow-up, Office of the Minister, MANR

Mr. Omer Ismael Abdelbaggi, Director General, Agric. Investment Admin., PAEA

Mr. Fathalla Riad Sikla, Director, Animal Resources Economics Admin., MANR

Mr. Hassan El Sheikh, Director, Statistics Section, AES Dept., PAEA

Mr. Abdul Assiz Farrah, Head, Marketing Section, AES Dept., PAEA

Mr. Mahmoud El Hanan, Head, Production Economics Division, AES, PAEA

Dr. Abdul Gadir Alreftaie, Head, Food Security Section, AES, PAEA

Mr. Tahir A. Tahir, Assistant Head, Food Security Section, AES, PAEA

Mr. Abdullah Abdul Gadir, Head, Project Preparation Division, PFA, PAEA

Mr. Ali Abdel Aziz Salih, Head, Sector Planning Division, PFA, PAEA

Mr. Mohammed A. Hamza, Head, Follow-up & Evaluation Division, PFA, PAEA

Mr. A. M. Tohami, Assistant Head, Sector Planning Division, PFA, PAEA

Mrs. Maimona El Bakri, Head, Training Section, PAEA, MANR

Miss Samia Mohammed, Assistant to Head, Training Section, PAEA, MOA

Mr. Adli Hussein Mohammed, Manager, Director General's Office, PAEA, MOA

Dr. M.A.A. Dingl, Head, Advisory Unit for Agricultural Corporations, MANR

Mr. Mohammed Zein, Librarian, PAEA

Foreign Advisors

Dr. William Bateson, Macroeconomic Policy Analyst, APS Project

Dr. Surjit Sidhu, Production Economist, APS Project

Dr. M. E. Sarhan, Marketing Specialist, APS Project

Mr. Shastri, Financial Advisor, Advisory Unit for Agricultural Corporations,
MANR

Mr. Allan R. Goozner, Statistician, USDA (Department of Agriculture)

Other Sudanese Ministries and Agencies

Dr. Said Ali Zaki, Undersecretary of Planning, MFEP

Mr. Elamin M. A. Hamad, Deputy Undersecretary of Planning, MFEP

Mr. Zahir Y. Abdel Sayed, Deputy Undersecretary and Head, Project Preparation Unit, MFEP

Mr. Ali Eltom, Consultant (former Minister of Agriculture and Natural Resources)

USAID

Dr. Joseph Goodwin, Associate Director for Economic Policy Programs

Ms. Sharon Fee, Assistant Agricultural Development Office

Dr. George Ghobrial, Agronomist

C. Policy and Planning Activities in the Agriculture Sector

Although one can anticipate dramatic changes in the manner in which planning and policy analysis activities will take place in the agricultural sector, these will be influenced and limited by the current state of affairs/resources available. The following is an attempt to describe this state of affairs as objectively as possible with respect to these activities and the relevant role of the PAEA.

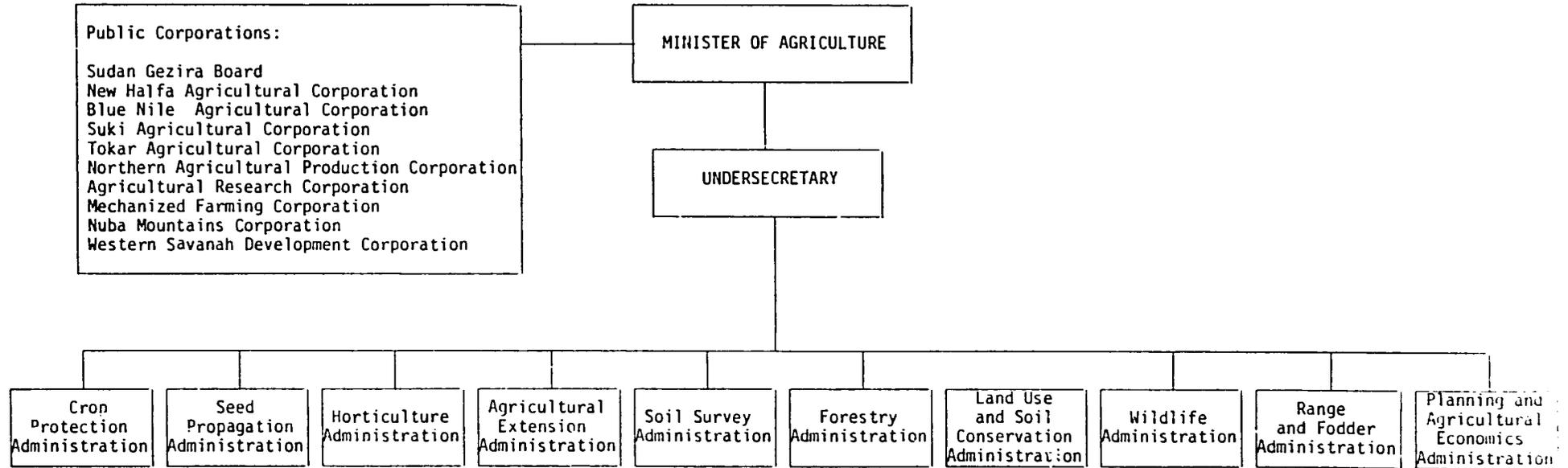
The performance of "planning activities" within the agriculture sector is somewhat defused.* The PAEA is only one unit among others responsible for agriculture sector planning activities. The Ministry of Finance and Economic Planning (MFEP) plays an important and explicit role as do a variety of "steering committees" that provide guidance/policy on commodity pricing, development project management and agricultural policy alteration among others. Composition of these steering committees is broadly based, encompassing representatives from the MANR, MFEP, public corporations and other ministries such as Irrigation, Livestock and Commerce, among others.

Organization charts of the MANR and PAEA are depicted below. Ten public corporations engaged in agricultural activities are under the jurisdiction of the MANR Minister. These corporations report directly to the Minister's Office along with one other unit -- the Advisory Unit for Agricultural Corporations; all other Ministry units report through the General Under-Secretary.

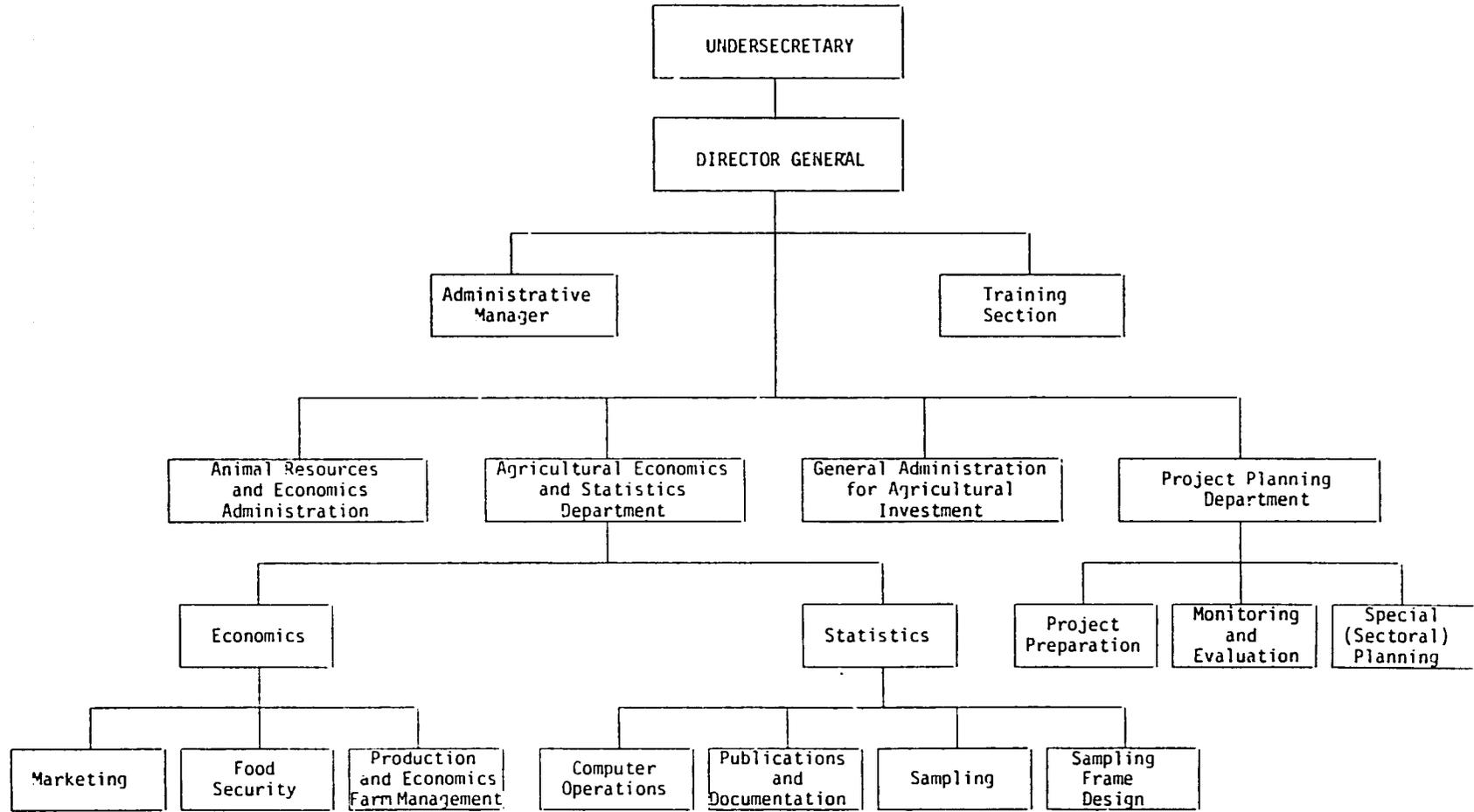
AUAC performs monitoring and evaluation of recurrent budgets for seven public corporations under World Bank-financed rehabilitation projects. Development budget expenditures for these as well as all other agriculture-related public

*"Planning activities" is herein considered a range of tasks that includes data gathering, economic and policy analysis, the development of plans, both short- and long-term, monitoring/follow-up and evaluation and project management.

MINISTRY OF AGRICULTURE AND NATURAL RESOURCES



PLANNING AND AGRICULTURE ECONOMICS ADMINISTRATION (PAEA)
EXISTING ORGANIZATION



corporations are supposed to be channeled through the PAEA before being sent on to the MFEP. Financial responsibility, however, for the performance of public corporations resides with the MFEP which also has direct responsibility for development projects incorporated in those corporations funded by foreign donors.

The organization and official role of the PAEA has not changed materially in the last decade. The recent addition of the General Administration for Agricultural Investment to the PAEA, reporting to the Director General, is only a proposal at this time and does not have official confirmation. This unit has traditionally reported to the Under-Secretary but was shifted to the PAEA in a recommendation of the transitional government under the assumption that a new Under-Secretary of Planning would be established in parallel to the General Under-Secretary of Planning, hence moving this administration simply from one Under-Secretary to another. The Animal Resources Economic Administration has been incorporated within the PAEA since 1974 when the Ministry of Livestock was merged into the MANR. Last year the Ministry of Livestock was re-established and the Animal Resources Economics Administration has been reincorporated into this Ministry.

1. The Role of the PAEA - In Concept

The "official" terms of reference (TOR) for the PAEA cannot be pinned down exactly. There is no single official document (at least in English) that sets out its mandate clearly. However, one unidentified document, perhaps ten years old, does identify the TOR for the PAEA (the main "administrations" are hereinafter referred to as "departments") These TORs coincide quite closely with those articulated by the current PAEA section heads within the two departments: Agriculture Economics and Statistics, and Project Planning. Judging from the aforementioned unidentified document describing the PAEA's role before, the current scope of activities is somewhat more circumscribed. Briefly, the respective scopes/TORs of the various sections within the two main PAEA "departments" are as follows:*

Project Planning Department: There are three sections within this department, project preparation, monitoring (follow-up) and evaluation and special (or sectoral) planning.

- The Project Preparation Section is responsible for all phases of the project initiation process up to implementation ranging from project identification through feasibility studies, their evaluation and submission to donor agencies for funding.

- The Monitoring and Evaluation Section is concerned with tracking and controlling project implementation including reviewing development budgets of the various corporations, monitoring the financial and actual performance of development projects and evaluation of completed projects.

- The Special (or Sectoral) Planning Section is supposed to deal with sectoral planning activities of a policy and long-range nature including the development of sector plans, policy analyses of specific issues responsive to the needs of policy makers and initiatives within the sector.

*The term "department" as distinct from "administrator" is used for the next level below that of the Director General.

The Agriculture Economics and Statistics Department has two branches in theory, economics and statistics; however, "Economics" has no head at the lead of the three economics sections; these report directly to the Director of the Agriculture Economics and Statistics Department. There is a head of the Statistics Section with four units within.

- The Marketing Section (formerly called the Commodities Analysis and Forecast Section) is concerned with the supply and demand patterns of agricultural commodities within the country and abroad. The Section examines historically and forecasts perspective market characteristics, prices, marketing costs and margins in addition to carrying out special studies of various individual commodities.

- The Production and Economics Farm Management Section focuses on production characteristics at the farm level. Its responsibilities are to collect and analyze cost of production data (including production function analysis), identify input use characteristics, determine farm income among the various sub-sectors and class of farmers, and examine issues concerning farm management and financing.

- The Food Security Section has been in existence less than one year. A TOR has been proposed for this Section by the U.N. Food and Agriculture Organization (FAO). A variety of tasks are recommended concerning mainly data collection and analysis in the realm of national food adequacy; other tasks recommend a role for the Section in providing policy advice to the Government of Sudan and promoting contacts with international organizations. According to the current section head, it should also play a key role in coordinating all relief efforts operating within the country.

- The Statistics Section has four sub-sections: the computer operations, publication and documentation, sampling and sampling frame design. Computer operations is concerned with the management and actual operation of its computer center with the main tasks of obtaining and installing appropriate analytical and data base management software, entry of

collected field data and statistical analysis of same; publications and documentation sub-section issues resulting statistical data series and analyses; the sampling frame design section is concerned with the design of field sampling techniques and specification of just which approach to use for particular surveys; the sampling sub-section carries out field surveys employing a variety of techniques (e.g., crop cutting, farm level interviews, eye estimation, etc.).

Additionally, the PAEA has a Training Section, also recently established, attached to the Office of the Director General. As of the inception of this assignment, this section had no approved terms of reference but appeared to be generally concerned with the selection of nominees for advanced training, allocation of training to different departments and sections, and manpower planning. A recommendation concerning terms of reference for this section is part of this assignment. The Director General also has a skeletal administrative support staff which includes a manager of administration and a librarian, both degreed, in addition to clerical staff.

2. The Current Role of the PAEA

The actual scope of activities of the PAEA is much more limited than that listed above. Indeed, no section within the PAEA addresses or attempts to address all relevant issues within its TOR, at least as perceived by current section heads. The extensiveness of activities, however, varies among the different sections but more significantly between the two departments. A number of factors account for this situation, as will be indicated below.

The division of responsibilities with respect to planning activities between the MANR and units of the MFEP also needs clarification (although this would likely not be the perception of MFEP personnel, who seem quite assured as to what are their spheres of responsibility). The particular areas that can use further clarification of roles are such tasks as project generation, monitoring and evaluation of development projects, sub-sectoral focus of activity (e.g., rainfed versus irrigated sub-sectors) and responsibility for the

conduct of agricultural policy analysis. Even within the MANR, there is a division of responsibilities in areas that ordinarily should reside in the realm of the PAEA. The Advisory Unit for Agricultural Corporation (AUAC), for example, considers the monitoring and evaluation of irrigated sector-related development projects within its domain of responsibility and insists that the comparable section within the PAEA should be concerned only with rainfed-related projects. Generally, the PAEA in all its activities has focused mainly on rainfed agriculture to the exclusion of the irrigated sub-sector (until recently, this orientation was a response to the urgings of USAID itself). This limited sub-sectoral emphasis appears to have become identified with the PAEA throughout the Ministry as well as with personnel in other Ministries concerned with agricultural activities.

Marketing Section, Agricultural Economics and Statistics Department

The Marketing Section, which includes a USAID-financed advisor, has initiated several activities necessary to establish key data series on agricultural sector performance. Most notably the initiation of the agricultural monthly Situation and Outlook Reports provides the most relevant and timely statistical data series on current agricultural activity. Additionally, an agricultural price summary is to be published annually. Additional special studies and surveys that could ultimately be established on a recurring basis and, hence, could result in continuing data series are, at this time, limited to rainfed crops and land areas. This has notably been the case in a contemplated marketing costs and margins survey and in the prospective establishment of a daily wholesale price reporting system throughout the country. The Section experiences severe resource constraints in maintaining its established ongoing activities, much less the initiation of new studies. This Section, for example, was not able to publish the December issue of the Agricultural Situation and Outlook Report due to a shortage of paper and supplies that held up printing. There is no assurance that funds will be available for the continuation of this important publication. A radio-based field reporting system for prices has no budgetary provision for equipment, maintenance and no offices in the field where equipment can be appropriately located.

Production, Economics and Farm Management Section, Agricultural Economics and Statistics Department

This unit, which includes a USAID-financed advisor, a production economist, also restricts its scope of activity mainly to crop production in the rainfed sector, both mechanized and traditional. The Section has produced a wide series of reports on production characteristics of the major commodities produced in the rainfed sector (although the studies themselves are sufficiently comprehensive to incorporate irrigated subsector production statistics as well).

The Department also maintains two regional offices for data collection by both the Marketing and Production Sections. Some farm level data are collected at the farm level and directly from public corporation field offices when the Production Section's personnel are allowed to do so. Due to both personnel and other resource limitations, the section has had little opportunity to conduct field inquiry into and analysis of farm management characteristics (e.g., farming income, farm management and farm unit financing). It also has avoided doing any dedicated studies of irrigated sub-sector crop production characteristics.

Statistics Section, Agricultural Economics and Statistics Department

This Section is on the verge of establishing a modern agricultural statistics/data collection system. Its capacity to collect data has been steadily increasing as its coverage has been extended to most of the country's productive areas. Movement toward establishment of an area frame sampling approach is evident. A good deal of sharing of resources in the field with other sections still takes place. Disagreements with other sections have occurred over sampling methodology and enumerator preparation. One result has been the fielding of survey efforts by sections other than Statistics. It is questionable whether maintenance of field survey capabilities in sections other than Statistics should be encouraged; rather, the aim should be to build up a centralized field enumeration capability for all agricultural statistics needs.

Food Security Section, Agricultural Economics and Statistics Department

As the most recently established of all functional sections within the PAEA, this unit has just begun trying to initiate activities in relation to the elaborate terms of reference proposed for it by the FAO. The unit believes that it has responsibility for coordinating food relief efforts for the country. Currently, this Section is engaged essentially in collecting historical data on a regional basis concerning demography, food consumption patterns, food prices and establishing a census of food storage facilities. The extent to which this Section can indeed play a "coordinating" role in food relief is not something that it itself can decide as other Ministries and Government of Sudan relationships with international agencies are involved. Thus, any potential role of this Section -- which would require inter-ministerial cooperation -- would likely need to be approved at higher levels, probably the Council of Ministers.

Project Preparation Section, Project Planning Department

It is generally agreed, both within and outside the MANR, that this Section should be responsible for project identification. There does not appear to be any similar agreement concerning the Section's role in performing subsequent steps in the project preparation process. Currently, this Section is not particularly active in performing the project identification task either. The Section does not have in place a process for identifying meaningful projects in relation to some agreed upon set of sectoral objectives and/or priorities. Project preparation steps subsequent to project identification are considered by the MFEP to be within the domain of its Project Preparation Unit. The Section does, however, participate in project feasibility studies conducted in the MFEP's Project Preparation Unit through membership in various study steering committees. Typically, the MFEP solicits participation of these committees from the PAEA.

Monitoring (follow-up) and Evaluation Section

This Section's role has contracted considerably over the last few years to the point where currently it does not appear to be performing any of the activities that are associated with monitoring and evaluation of capital development projects. Until about 1981, this Section coordinated annual budget submissions from the public corporations reviewing these to some extent and subsequently submitting them to the Agricultural Section of the planning wing of the MFEP. It should be noted that the current budgets of public corporations are submitted for review and approval directly from the corporations to an agricultural sector unit under the Public Corporations Section, now to be called the "Independent Budgets Section" of the financial wing of the MFEP. The Monitoring and Evaluation Section does not have and has never had an APS Project advisor attached to it.

Special (or Sectoral) Planning Section, Project Planning Department

This Section historically played a role similar to such units in many other countries, that of being the unit that might provide quick answers in response to ministerial policy questions. In effect, the Section was occupied with performing a series of ad hoc studies as the situation required. The advent of the APS Project and the installation of a USAID-financed advisor fostered the initiation of more on-going programs/studies, notably an annual wheat price policy analysis, a gum arabic sub-sector model and the initiation of an international competitiveness model (based on domestic resource cost analysis techniques). A series of other policy studies have also been undertaken. The Section, however, does not perform many studies that are directly responsive to ministerial requests, nor does the unit have in place a working procedure for deciding just which types of policy analysis ought to be performed and in what order of priority, although the elements of such a procedure have been proposed by the USAID-financed advisor.

Roles of PAEA Personnel in Activities Outside the PAEA Itself

The PAEA participates in sector policy making, decision-making and project activities through individual PAEA personnel membership in a variety of steering committees, commissions and ad hoc task forces that may be concerned with project preparation, commodity pricing decisions and resource allocations. Since much of the short-term agricultural policy implementation decisions are taken through the various committees and commissions, membership in such bodies is an important means through which the PAEA can channel its analyses, utilize the data it generates, and play a meaningful role in policy making and planning activities. There does not appear to be a uniform procedure for the selection of individuals from within the PAEA to sit on these various committees. Some PAEA personnel are solicited directly; other requests for PAEA participation comes to the PAEA Director General's office, whereupon he designates an individual to sit on these committees. Such assignments go to section heads and above. Individual section heads who sit on committees invariably are alert enough to utilize the information generated within their own units; however, there is no attempt to identify systematically all the types of participation that take place between PAEA personnel and such outside task assignments. Thus, there is no way of maximizing the utility of studies, data generated and analysis results for agricultural policy making/decisions that normally take place in the MANR or other ministries.

An important aspect of this type of extra-PAEA activity is the additional payment in the form of "incentives" that comes with such committee assignments. These provide much needed additional remuneration to PAEA personnel locked into low salaries designated by their civil service grades. There is no uniform procedure for determining to whom or when such incentives are to be paid. Practices vary from ministry to ministry and, inevitably, result in conflict and inequitable treatment of personnel.

III. SITUATION ASSESSMENT

The overall impact of the PAEA on the policy-making machinery and planning activities concerned with the agricultural sector has been somewhat diminished over the last few years. This, at least, is the impression held by essentially every individual either currently or formerly associated with the Sudanese Government who was interviewed. This condition has come about by the creation of new organizational units, by the broadening of responsibilities of existing units, and by simply by-passing existing procedures that required intervention by the PAEA. Its diminished role also occurs at a time when the PAEA is in the midst of establishing the most authoritative agricultural sector data base available in the country as well as institutionalizing a technically sound capability to do so and to perform supporting economic analysis.

PAEA Subsectoral Scope of Activity

The PAEA has generally been limiting itself in all its spheres of study activity mainly to the rainfed (as opposed to the irrigated) subsector. Recently, studies initiated in the PAEA in both departments -- in the Sectoral Planning Section as well as the Agricultural Economics Section -- encompass irrigated subsector activity and, given the nature of these studies, it would be conceptually incorrect not to do so. However, PAEA has no clear-cut mandate as to what aspects of agricultural activity are its responsibility. For example, the PAEA has not mounted any activity within its two main departments concerning livestock, a subsector integral to the agricultural sector as a whole. Even before the recreation of the Ministry of Animal Resources last year, there was little meaningful activity in this area. The APS Project team made two attempts to initiate livestock studies in collaboration with the Animal Resources Economics Administration; the latter, however, did not (or could not) provide any complementary technical contributions, and the efforts were abandoned. Limitations on PAEA's own data collection resources further restrict scope of operations mainly to the mechanized portion of the rainfed sector and the more accessible traditionally farmed

land areas. However, vast sections of the country, notably in the far south and west, are sparsely covered. In the case of the south, security problems have constrained survey activities.

Other Organizational Units Concerned with Sector Planning Activities

The PAEA is limited to widely varying degrees by other units that conduct similar or overlapping activities. In the statistical area (i.e., data collection and analysis) and basic areas of agricultural economics, the only apparent institutional limitation on its activities has been the belief held by PAEA personnel, as well as others in outside units, that PAEA should confine itself to rainfed agriculture. For the foreseeable future, however, it is more likely that resource limitations within the PAEA will act more as a constraint limiting its scope than any competing institution concerned with data collection.

PAEA's Relationship with the Advisory Unit for Agricultural Corporations (AUAC)

In agricultural planning activity, there are a number of actors. AUAC has established itself as a budget monitoring and evaluation unit for public corporation activity within the irrigated subsector. At present, it monitors the current budgets of seven major public corporations (which have World Bank support). The Unit, however, appears to be attempting to broaden its charter of activity to encompass policy analysis, focusing on cotton activities in the irrigated subsector. There is World Bank funding available for the creation of at least two more foreign advisor positions with capabilities in production and marketing economics. An additional third position that was supposed to have gone to another advisor for this unit was shifted at the behest of the MANR Minister. A newly created post of Advisor to the Minister (filled by Mr. Kamil Mansour, former Under-Secretary of Agriculture) was just put in place within the last few months. This Advisor is only peripherally related to AUAC activities. In addition to providing general policy advice to the Minister, the Advisor will oversee the performance of the public corporations with the World Bank-financed projects. Further, he will advise the Minister on major

issues of MANR organization, provide ideas for prospective projects, particularly how these might involve other donor agencies. This Advisor's position is anticipated to last between two and three years. Clearly this Advisor has a rather broad mandate and fulfills the Minister's need to obtain quick and responsive counsel concerning important policy and other organizational matters.

PAEA's Role in Project Preparation Activities

The planning-related activities of the PAEA and the MFEP join in several common areas, notably in project preparation, monitoring of public corporation activities and sector planning. PAEA's role in project preparation is supposed to be limited to project identification, from the perspective of the MFEP's Project Preparation Unit (PPU). From the latter's standpoint, however, the PAEA is not perceived as adequately performing that particular function, much less being able to engage in other project preparation tasks. In any event, there is no hard and fast rule concerning at which point in the spectrum of project preparation tasks the PPU must get involved. That is, if the PAEA were to engage in preliminary project feasibility study after the project identification step and then submit its work to the PPU, even this would be acceptable to the latter.

At the very least, the PAEA's Project Preparation Section should be able to present project ideas relevant to a set of issues/strategies/policy directions with some relative priority among these. Of course, in order to do this, one needs to have such an articulated set of long-range policies/strategies as well as a project prioritizing procedure. The Project Preparation Section has neither. Given the current state of the Section itself (its staffing and capabilities are discussed below), the MFEP is not really the constraining factor in delimiting this Section's scope of activities; rather, internal conditions appear to determine its behavior.

PAEA's Role in Monitoring and Evaluation Activities

The PAEA's activities in monitoring and evaluation of agriculture-related public corporations has ceased to exist. At no time did it ever have any responsibility for the current budget. However, the role it did play in reviewing development budgets has been effectively lost. Since the MFEP has ultimate financial responsibility for development projects and, ultimately, determines final budgetary allocations to such on-going projects, it is not surprising that corporations wish to deal with the MFEP directly.

Whether or not the MFEP through its budget preparation procedures has encouraged the corporations to bypass the PAEA's Monitoring and Evaluation Section is at this time immaterial. It is the perception of the corporations that the Section has no qualifications for assessing its prospective budgets. The Section, in recent years, has not been given much of an opportunity to demonstrate its capabilities or lack thereof to perform its functions. In fact, it is weak in budgetary and financial areas. Notifications have been issued to the public corporations by the Minister's Office that budget proposals will be channeled through the PAEA prior to submission to the MFEP. However, there is no system in place currently within the Monitoring and Evaluation Section for assessing development budgets if and when they were submitted to the Section. If a resource allocation process has to take place (i.e., prioritizing among different projects and allocating limited capital accordingly), this could not be rationally accomplished. No guidelines have been provided to the unit for the purpose of making such allocations. However, the Section is still in the best position (in terms of available and qualified manpower) to assess performance/execution against authorized and expended funds for evaluation purposes. It remains to be seen, however, whether it is less qualified than a comparable unit in the MFEP.

MFEP Involvement in Agriculture Sector Analysis Activity

The MFEP has not typically engaged in agricultural sector policy analysis and, indeed, it should be beyond its scope of responsibility. The capabilities to

perform such work reside in the PAEA's Sector Planning Section, and however limited, this Section has the best capabilities for this work within the Government of Sudan. The recent initiation of a domestic resource cost (DRC) project within the agriculture sector unit under the MFEP Under-Secretary of Planning should be considered atypical behavior. This unit has a total of nine professionals to perform all its tasks and does not have the technical capabilities to mount such a study.

In sum, it does not appear to be the case that institutional characteristics outside the PAEA's control are the main contributing cause for its diminishing role in policing and planning activities. Other organizational units outside of the PAEA concerned with agricultural policy and planning activities make use of qualified PAEA personnel, incorporating them within their activities (e.g., in steering committees), and make full use of benchmark production and marketing data generated from within the PAEA. The PAEA, notwithstanding its limitations, has the highest concentration of qualified agricultural economists in the Government of Sudan, and they are as qualified, or more so, than any other unit in the government when it comes to dealing with agriculture-related planning activities. If these characteristics of the PAEA have any validity, then the means to improve its effectiveness are to be found within the PAEA itself rather than outside of it.

PAEA Organization Structure

The PAEA organizational configuration is not quite logical: the Administration contains units that do not belong within it; it contains irrelevant hierarchical levels; and inappropriate titles. Some specific organizational issues are included in the TOR for this consulting assignment, among these: what should be done with the Animal Resources and Economics Administration and the General Administration for Agricultural Investment?

The General Administration for Agricultural Investment (GAAI)

The GAAI is an implementation agency, as described above. It does not have any policy making authority, nor does it perform in any sense a policy

analysis or data gathering function or any other staff activity. This implementing agency carries out The Development and Promotion Agricultural Investment Act of 1976 and consequently should be under the authority of the General Secretary of Agriculture and not within the domain of the PAEA.

The Animal Resources and Economics Administration (AREA)

The AREA has moved by fiat and already by spirit to the Ministry of Animal Resources. The Administration has not performed any "economics" to speak of; it has rather functioned as a data gathering organization. The Administration only resides physically within the Ministry of Agriculture because of a space problem at the Ministry of Animal Resources. If the Government of Sudan decides on such a labored division of the agriculture sector -- as it evidently has done -- then it is appropriate to have a unit comparable to the PAEA within the new Ministry of Animal Resources, at least one that can perform some of the functions for its sector than the PAEA purportedly plays within the MANR. There are currently about ten B.Sc.-level agriculturalists/economists in this Administration who will stay in the MANR when the Administration moves to the Ministry of Animal Resources and would, therefore, be available to the PAEA.

Because of the obvious interdependencies that exist between crop agriculture and livestock agriculture, the issue must inevitably be raised as to where policies and strategies developed independently within these two parts of agriculture are coordinated to ensure complementarity. Unless one of the two Ministries is given some superseding mandate over the other from a policy standpoint (and for data collection and analysis, etc.), then such coordination will have to take place within the agriculture section of the planning wing of the MFEP. (It is beyond the TOR of this report to consider the appropriateness of a separate ministry devoted to the livestock subsector.)

The Organizational Position of the Statistics Section

A basic question is whether the Statistics Section, which is currently under the Agricultural Economics and Statistics Department, should be separated and

raised to department status. Although the PAEA table of organization shows a head of economics at the same level as the head of statistics, both reporting to the Director of the Agricultural Economics and Statistics Department, there is no head of the "Agricultural Economics" Sections at this time. Therefore, the actual organization of this department puts each of the "Economics" Sections (marketing, food security and production economics) on a par with "Statistics," all reporting directly to the Director of the department. Actually, this is a reasonable span of control. If the position of head of Agricultural Economics (encompassing the three sections) were filled, there would be no need for an additional management level between it and the Director General. The resulting organization would simply have three departments: Agricultural Economics, Statistics and what is now called Project Planning Administration. This is ultimately the direction toward which the structure of the PAEA ought to evolve.

The status of Statistics as a "department" is an eventual necessity, but not necessarily advisable immediately. One criteria to use in making this determination is the degree to which the Statistics Section operates independently of (or, conversely, integrated with) the other sections within its department. One can predict that, raised to the status of a department, the statistics function will operate much more independently of sections with which it formerly had a close relationship. This will be appropriate if and when the statistics activity becomes sufficiently established, strengthens its data gathering capabilities and begins to expand its service to the sections in the Project Planning Administration and also fulfills other ministerial data gathering requirements. Right now, there are sufficient resource limitations and, hence, resource sharing between statistics and the agriculture economic sections; close collaboration between these sections is mandatory at this time. As a step toward reaching department status, the Statistics Section should be encouraged to clarify its resource "boundaries" in relation to other PAEA sections.

The Project Formulation Administration's Scope of Activity

The title "Project Formulation Administration" (or department) is inconsistent with the scope of activities of the three sections within it. Only one, the Project Preparation Section, fits logically under such a title. The notion of sector planning, within which policy analysis takes place, has a far broader scope conceptually than does "Project Formulation." Therefore, the main thrust of this department needs to be redirected. A more appropriate title for this department, one that encompasses the scope of activities of its three sections, is "Policy Analysis and Planning."

The lack of an appropriate title for this department certainly cannot have helped promote its actual activities within and outside the MANR. A title change, however, should promote more than just imagery. It should serve as a focus for changing the orientation and relationships of sections within this department within each other; furthermore, it makes it easier to determine the formal interdependencies between the PAEA's two departments.

PAEA Internal Work Processes: Interdepartmental Relationships/ Interdependencies

Each of the sections which has an APS advisor has embarked on ambitious programs, as discussed above. Each specific function has gone through a justification process and is consistent with the scope of the APS Project itself. In the case of the Agricultural Economics and Statistics Sections, much of the primary data generated on production and market characteristics would be necessary components of any agricultural data base in any country. In contrast, the relevance of particular policy studies performed within the Policy Analysis and Planning Department is never quite so obvious. Relevance here also has a time dimension; the utility of a policy study may be measured superficially by the degree to which it is responsive to policy makers' information needs at a point in time.

There is no system in place that articulates the policy study needs of decision makers/policy makers and that provides either the Sector Planning

Section or the Agricultural Economics and Statistics Sections with such guidance that might assist in prioritizing the relevant importance of different studies. Nor is there a mechanism that triggers the initiation of an activity in one section because of its beneficial impact on an existing or potential project in another section. To be sure, mainly because of the nature of their work, the sections within the Agricultural Economic and Statistics Department share resources, but there is little collaboration especially between Departments.

There have been very explicit attempts to consider the needs in subsequent policy analysis studies when engaged in the design and implementation of Agriculture Economics Section studies; this was notably the case in the mechanized sector study and the marketing margin and cost study. However, in each instance effective collaboration has bogged down over professional disagreements and are not as yet resolved. There is an apparent need for closer inter-relatedness among APS Project elements as a means of encouraging improved collaboration among sections and between departments. Improvements in PAEA's internal planning process -- how work plans and budgets are created and managed -- would help in this regard.

PAEA Internal Work Processes: Work Plan and Budget Development

An annual work plan and accompanying budget is developed by each section within the PAEA and is submitted to the directors of the respective departments. Once Department Directors have approved these, they are submitted to a general meeting chaired by the Director General and attended by Department Directors, Section Heads and APS Project Advisors (though at times Department Directors have been absent). Budgets are individually presented to this committee for its approval. Subsequent to this review, each individual section must provide a justification to its respective Director (this has been more of a pro forma step than anything else). The actual authorization for budget expenditure, however, is not obtained until such authorization is again provided by the Director General himself. Each section's budget appears to be considered by the Director General on an individual basis. Examination of

this process suggests that the two Department Directors -- the intermediate management level between the Director General and the Section Head -- play a very limited role in the budgeting and work plan review process. Section heads realize that it is the Director General's approval that is required.

Work plans and budgets are developed by each section independently. Even in those sections in which there are APS advisors, neither the advisors nor their counterparts influence another section's budget creation. No two work plan formats are alike, nor are budgets comparable with each other. There is no standard format for presenting a budget, nor is there any assurance that the budgets conform to the work plans. Some budgets indicate resource allocation throughout the year by time period and budget line item; others do not. Some disaggregate the tasks and their sequence of performance to accomplishing a particular task with accompanying time and manpower requirements; others do not. Some provide highly disaggregated cost breakdowns for project implementation; others do not. In sum, given the manner in which budgets are presented, it is exceedingly difficult to determine, at any point in time, just what and how much of each resource is required for continuing operations.

There is no procedure or system for comparatively assessing one activity against another. Work plans and budgets do not appear to be analyzed or aggregated, or reviewed at the departmental level.

Under conditions where there are no significant resource constraints, such an approach to budgeting may be barely viable. If there are resource constraints, and this situation currently exists within the PAEA, then a resource allocation system must be employed, one that is agreed upon beforehand and understood by all participants to the budgeting process. The actual lack of such a system leads inevitably to conflicts and to the introduction of patently subjective influences on resource allocations.

The PAEA Administrative System

The current management approach within the PAEA puts an excessive burden, actually an insurmountable one, on the Director General. Perhaps the most

striking feature, from an administrative standpoint, is the lack of substance (i.e., authority and responsibility) in the position of Department Director, the level immediately below the Director General. This level appears to be bypassed almost completely in the critical decision areas affecting PAEA operations. Not only are the critical budget reviews and approvals performed by the Director General himself, but he retains personal authorization approval for disbursement of funds to perform routine operations. For example, there is no systematic approach toward the allocation, operation and maintenance of the 40 or more vehicles under the control of the PAEA. This is a mundane but critical task that is made virtually impossible to perform adequately. In large part, this is due to a lack of uniform data collected from each of the sections concerning vehicle requirements per unit of time. Consequently, crises concerning vehicle use priorities and procurement of spare parts are constantly erupting.

Many of these problems can be alleviated by effectively delegating both authority and responsibility for such operational matters to the appropriate Departmental Directors. Such delegation, it will be found, is eased substantially by the use of uniform budget formats and performance-measurable work plans.

The Director General does have an administrative aide (with the title of Manager, Office of the Director General) who appears to function mainly as an office manager. The PAEA also has its own accounting section, but it does not appear to play any significant role in monitoring and/or control activities.

The PAEA administrative system creates an extreme dependency relationship between Section Heads and the Director General. It is not only a perception but a fact that little can be accomplished without the Director General's physical presence in his office. This situation tends to demoralize staff who may perceive that they do not have any significant authority. This managerial approach almost inevitably leads managers to use the same approach in their dealings with subordinates. The result at the section level is that Section Heads work significantly harder than their subordinates and a Director General

must feel overwhelmed by his responsibilities. The exception in the system appears to be the Directors whose talents and energies are assuredly under-utilized.

The question arises as to the need for an administrative office as an adjunct to the Director General "to facilitate budgeting, procurement, clearance and other support items." Such a unit, to be effective, would need to have a more rational budgeting system and such a system in all likelihood would not entail much expansion in the Administrative unit. The failure here is mainly one of not employing appropriate management control tools.

PAEA Personnel: Training Requirements

A particular issue was raised in the Consultant's TOR concerning the role of the Training Section, which is currently attached to the Director General's Office. This Section appears to be under-utilized, undoubtedly due in large part to a lack of mandate as to its responsibilities. There is an important role for this Section in the foreseeable future, given the significant training needs of the PAEA (to be discussed below).

The PAEA is currently operating with a personnel roster well under its authorized levels. With the exception of two administrators, the Director General, one Director, and the Food Security Section head, the PAEA has no Ph.D.-level trained economists. Personnel of this calibre would be needed in each of the three sections which currently have APS Project economist advisors if the work of the latter is to be carried on at high professional levels. There are ample candidates who wish to submit themselves for Ph.D. training. If selected, these very same individuals must be expected to be lost to the PAEA for at least three, perhaps five, years. Thus, since the most qualified individuals would be selected for such extensive advanced training, the PAEA will suffer the loss of its best and brightest. Also, the abysmally low civil service pay scales, coupled with the comparatively high salaries paid in neighboring countries overseas, induces many departures. It is perhaps inevitable that the more substantially advanced training made available to

PAEA personnel, the higher the turnover within that body of trained personnel. The current table of organization of the PAEA as shown on page 17 also identifies the manpower levels of each section in each degree category. On the surface, it appears that the PAEA has an adequate staff (in terms of numbers) for the most part.

The degree to which people are occupied meaningfully varies from section to section and by time of the year (e.g., the advent of field surveys as opposed to other times). There appears to be somewhat better personnel organization in the Agriculture Economics and Statistics Sections than within the Project Formulation Administration. It is in these latter sections that there is the most under-utilization of PAEA manpower and, perhaps, the most immediate need for specialized short-term training. Specifically, both the Project Preparation Section and the Monitoring and Evaluation Section need additional training in each of their respective areas.

Additionally, particularly in the sectoral planning section, there is an across-the-board lack of utilization and understanding of personal computers. PC applications abound in at least two areas: (1) in performing the project-related work in both departments, and (2) in facilitating internal administrative tasks such as work plan development and budget preparations.

Longer term training needs can only be determined in concert with the longer run objectives for the PAEA's position in the Ministry and within the framework of its intended TOR on time. A systematic approach to determining training requirements has yet to be established. The basis for doing so is in place, at least, through the installation of a Training Section attached to the Director General. This unit, currently consisting of two individuals, has yet to have an agreed upon TOR much less a system in place for determining training needs. The consultant has worked with this unit in attempting to lay out a TOR that would be the basis for the development of the longer run training needs assessment program (see below).

It should be noted here that the Consultant was not in a position in this short-term assignment to cogently evaluate the specific technical and

professional limitations of personnel in each of the sections. However, it is generally clear that, if the scope of agricultural activity covered by the PAEA is to be extended (i.e., from the rainfed subsector to include irrigated agriculture), then professional manpower levels in most sections will have to be raised, particularly in the Agricultural Economics and Statistics Sections.

Proposed Terms of Reference for the Training Section

1. To Provide and Maintain a Manpower Management System for the PAEA

Elaboration: The Section will develop a benchmark database concerning the manpower characteristics of the PAEA. This will necessitate the development of forms and procedures for collecting detailed data concerning qualifications, capabilities and backgrounds of all PAEA personnel (professional and other) for purposes of assessing individual and aggregate PAEA training requirements. Once benchmark data are obtained, periodic updates will be necessary (say, on an annual basis) from existing and all new personnel.

2. To Assess Current and Future Manpower Training Requirements for the PAEA

Elaboration: The Section will need to establish relationships with each of the PAEA departments and sections in order to obtain prospective manpower needs consistent with their respective terms of reference, as well as to identify existing deficiencies and capabilities of current PAEA staff. The Section will then assess overall section, department, administration manpower training requirements and review these with the respective heads, directors and the Director General.

3. Formulate a PAEA Manpower Training and Selection Policy

Elaboration: Consistent with overall Government of Sudan policies, the Section will devise a manpower training selection procedure that can be used by PAEA managers. This will include the articulation of selection criteria, a system for prioritizing candidates for training and estimation of available training resources for use by department directors and the Director General in making final selections for training. The Section will work with the directors and the Director General in obtaining their agreement as to establishment of selection criteria and, once designated, will administer the manpower selection process.

4. Maintaining Clearing House for Relevant Training Programs

Elaboration: The Section will identify all relevant potential sources for personnel training both domestically and outside of Sudan. The unit will then contact and establish further relationships with agencies/ organizations that provide such training directly and donor agencies that might provide funding for such training. The Section will initially build up files of different types of training currently and prospectively available classified by subjects and qualification level consistent with the types of requirements/capabilities necessary within the PAEA. The Section at its discretion may initiate contacts with prospective donor agencies as well as providers of relevant training so as to determine qualifications, adequacy of training programs offered and prospective financial support available. The unit will then provide the Director General with recommendations concerning which training programs are best suited for the particular needs of the PAEA along with assessments concerning prospective funding support, timing and availability.

5. Publicize and Disseminate Information on Appropriate Training Programs to PAEA Personnel

Elaboration: Given its knowledge about aggregate training requirements and individual personnel training needs, the Section will publicize the availability of relevant training programs both within Sudan and abroad. This will be accomplished through the issuance of periodic bulletins to all PAEA personnel and advising individuals, section heads, department directors and the Director General himself of the advisability to consider a specific training program known to the Section that could overcome a particular current manpower deficiency.

PAEA Physical Facilities and Equipment

The PAEA is now housed physically in two separate locations. The Director General with his administrative staff and the Policy Analysis and Planning Department are both located in the main MANR building; the Agricultural Economics and Statistics Department is located in a separate compound at least a ten minute automobile drive away. Obviously, this physical separation between the two departments does not enhance collaboration and interdependent activity. Under certain circumstances it would be entirely beneficial for all of the PAEA to be housed in the same location. Under current management conditions, such a physical centralization might well prove harmful. At the very least, the physical separation of the Agricultural Economics and Statistics Department from the PAEA main body provides it with some recognizable degree of autonomy and, at least, enforces some measure of delegation that might otherwise be lost if the Department were housed in the Ministry. In any case, the physical separation between the two Departments is not the constraining factor on potential interdependent activities. Perusal of both facilities indicates that currently the Agricultural Economics and Statistics Department has better facilities where it is than the PAEA's other Department. It is also important that the PAEA be housed in the Ministry building itself with close proximity to policy makers. The possible service it can render by its current location far exceeds any benefits that could be obtained by merging the two Departments physically in yet another facility outside of the Ministry building.

At both locations office arrangements and supporting equipment are exceedingly poor. Space is at a premium. Both the APS Project advisors and their counterparts work in, what must be judged to be, difficult surroundings. Two or three professionals sharing a small office is not unusual. Office equipment is at a premium. There is not a spare desk to be found literally in either of the two Departments at either location. Within the PAEA facilities at the Ministry there are actually fewer chairs available than employees. Many offices have no filing cabinets or other storage space.

These conditions make it difficult to maintain records/files/data systematically. Files are stacked on top of each other all over the place, making information retrieval at best a hit or miss proposition. Such working conditions cannot help but have a detrimental impact on work habits and morale.

There are no facilities at either location for holding meetings where, say, eight or ten people can congregate. At the Ministry location either the Director General's Office itself might be made use of if he were not present or the PAEA's library room; at the other location, the only location for such activity is the Director's Office.

The PAEA library is minimally useful in its present state -- although it can with a little effort be made into an asset. There is only a rudimentary filing system for the 2,000 or so documents distributed on cabinet shelves around the room. These are stacked in various locations according to half a dozen different major subjects, but in no particular order. Fewer than fifty documents are added to the library a year. There are only about fifteen requests per month for any information from within it. Surprisingly, the library maintains no documents, publications or reports produced by the PAEA itself. At the very least, it would seem that this is the one publication/data series that the library ought to maintain. In sum, even the most rudimentary additions of office equipment would materially improve the work environment of PAEA personnel. USAID should support this requirement.

IV. PROSPECTIVE CHANGES IN POLICY MAKING/PLANNING ACTIVITIES OF THE GOS WITH RESPECT TO THE AGRICULTURE SECTOR

The role and performance of planning activities can be expected to change -- perhaps dramatically -- over the next year or two as the GOS reorganizes. The planning function at the national level as well as for sectors of the economy will likely be restructured. A key proposal in this restructuring effort will be the partitioning of the MEFP; the planning wing, those units reporting to the Under-Secretary of Planning, is expected to be moved wholly as a unit to serve as an adjunct of the Prime Minister's Office. A National Planning Council, the exact composition of which is not known to the Consultant, is to be set up, but it can be expected to be rather broad-based (i.e., large). A subset of this Council will be the Ministerial Planning Committee headed by the Prime Minister. The Secretary of this Committee will be at the head of the Planning Unit attached to the Prime Minister's Office -- it is now known whether this individual will have minister status. At the next level, a series of sectoral committees are to be established -- drafts of this structure along with the composition of such committees have been in circulation within the GOS for several months. It is through this structural arrangement, it would appear, that the soon-to-be started four-year national planning exercise will be executed.

Although it may appear that the elevation of the planning activity to the Prime Minister's Office implies more centralized planning, the extent of central control has not yet been determined. Two other orientations of the GOS may influence the policy/planning structure: (1) more of an emphasis on decentralized regional administrations, and (2) the development of strong planning departments in each of the sectoral ministries. The extent to which the thrust of such action can and will take place in other ministries is questionable, but it is quite clear that the current Minister of the MANR is unequivocal in his desire for a strong planning entity. It has even been suggested, for example, that both the development and current budgets should be channeled through a restructured planning unit which would also coordinate the regional aspects of agriculture sector planning.

The attempt to decentralize administration, enhance regional administrative structures and coordinate this effort with strong sectoral planning thrusts is extremely ambitious. It builds an enormous complexity into the management of the system and, more importantly, increases the requirement several-fold for capable administrative and support personnel (to staff the regional government offices). The evolution of such a system would add new dimensions to sectoral planning activities.

Concurrently, the GOS has before it a World Bank proposal for an "Economic Management Reform Project" with the purpose "to enhance its (the GOS) economic planning and financial management capacity." This project appears extremely ambitious and either extends and/or enhances training and assistance in macro-economic analysis, budgetary reform and financial planning, management functions and accountancy training among other capabilities. The key element of the project is the establishment of a Central Bureau for Public Enterprises to be housed in the MFEP (in its financial wing) which ultimately would have strong monitoring and evaluative responsibilities for public corporations, though clearly not limited to this role. The Central Bureau would ultimately be advising on overall strategic direction taken by the GOS, especially concerning the retention and/or divestiture of these corporations.

An agricultural sector oversight activity, called the Enterprise Monitoring Section (Public Corporation), would be established within the MANR under this proposal. The proposed TOR for this Section clearly encompasses control over development budgets "in consultation with" the proposed Central Bureau for Public Enterprise. It should be expected that an attempt will be made to merge this proposed section into the existing Advisory Unit for Agricultural Corporations (AUAC). The Central Bureau for Public Enterprise is likely to reside in the newly named Independent Budget Section of the MFEP (which has current budget oversight responsibility for public corporations). Certainly one intent of this World Bank proposal is to develop comprehensive economic management capability to achieve long-run national objectives, a difficult task to accomplish without coordinating both the development and current budgets. Indeed, the Independent Budget Section which will likely house the

proposed Central Bureau perceives a need to include development budget oversight with its existing responsibilities for public corporation current budget review. In its initial phases, a sample of ten enterprises have been selected for inclusion in this project, with two from (crop) agriculture: Tokar Agricultural Corporation and Rahad Agricultural Corporation.

The TOR of AUAC also could change in response to these aforementioned developments. The MANR has under consideration a proposal to further enlarge the AUAC by the addition of a "policy wing" to complement the existing financial wing. Presumably the World Bank would fund an additional two economic policy advisors along with four or five Sudanese professional counterparts. It is also anticipated that the counterparts would be transferred to this Unit from the PAEA. (It should be noted that the seven counterpart Sudanese staffers in the financial wing of the AUAC were also originally transferred from the PAEA.)

Clearly, there is some inconsistency between the concept of a strong, comprehensive sector planning function in the MANR and the existence of a separate office with a TOR already encompassed within that of the Ministry's planning unit. It is questionable whether there should be a built-in redundancy in planning tasks performed by two separate units, especially in light of an extreme scarcity of qualified personnel. All this clearly adds complexity to ministerial decisions concerning the mandate for the PAEA which presumably should constitute the core of the Ministry's planning activities.

V. RECOMMENDATIONS

A series of actions are proposed herein to improve the effectiveness of the PAEA for performing policy analysis and planning activities within the agriculture sector. Recommendations are provided in four main areas: the role/functions/activities of the PAEA within the MANR, the organization structure and internal relationships of the PAEA, internal operations of the PAEA, and support assistance to be provided in the aforementioned areas.

A. The PAEA Role in the Ministry of Agriculture and Natural Resources

There is a good deal of fragmentation of responsibilities for planning activities not only between the MANR and the MFEP, but among units within the MANR itself. Different units claim responsibility for different subsectors or for monitoring activities of public corporations or for policy analysis, to name just a few. There has been, however, an expressed desire for a strong central planning unit within the MANR for the conduct and support of planning activities. This notion is quite incompatible with the fragmentation of responsibilities for such activities that currently exists; nor does a continuation of this situation encourage effective use of the limited professional resources at the disposal of the GOS.

1. RECOMMENDATION: The PAEA should be designated as the central unit within the MANR for supporting, conducting and coordinating intrasectoral planning activities. The scope of these activities should include the following:

- Provide the support and staff assistance necessary to short- and long-term plan development - The PAEA should provide the essential support to formal plan development activity. In the soon-to-be initiated four-year plan development, the PAEA should provide the staff support to the sectoral

planning committee for agriculture. A variety of PAEA sections, in addition to sector planning, are in a position to provide the data and special analyses responsive to this committee's needs. In subsequent planning exercises, the PAEA (mainly through its Sector Planning Section) should be enlisted in the design of plan preparation procedures; it can serve as a coordinator and facilitator of such efforts.

- Perform and coordinate agricultural policy analysis - The PAEA should be the central clearinghouse and resource for the performance of policy analysis studies. Again, there are several sections that currently and prospectively have capabilities in this area: sector planning, production economics, marketing and food security; all can provide inputs to policy issues and have analytical capabilities.

- Extend PAEA sector scope to include all crop agriculture in all subsectors: irrigated, rainfed, mechanized and traditional.

- Coordinate and review development budgets of public corporations on behalf of the Minister of the MANR - All public corporations that have formal reporting responsibility to the Minister of the MANR should have their budgets submitted to the PAEA, namely its Monitoring and Evaluation Section. Based on an insight into ministry priorities, past performance and near-term objectives, the PAEA will assess public corporation budgets and present the Minister with its analyses and recommendations concerning the corporation budget requests. Such work will be carried out in the Monitoring and Evaluation Section. This section should also coordinate its efforts with other non-PAEA planning activities, for example, the AUAC.

- Monitor and evaluate public corporation performance - This task would be the responsibility of the Monitoring and Evaluation Section, although inputs to its accomplishment would also come from Agricultural Economics and Statistics Sections. The focus of this task is on "performance," the measure of the corporations' operating effectiveness. This task will entail a comparison of actual operating results with stated annual goals (as derived from data developed in performance of the task above).

- Monitor and evaluate sector performance - The PAEA should be responsible for issuing periodic (at the very least, annual) reports on overall crop agriculture sector performance. The responsibility for this task should reside within what is now the Agricultural Economics and Statistics Department, with inputs coming from each of its sections.

- Establish a comprehensive capability to gather and maintain agriculture sector statistics - All primary data gathering of any consequence should be consolidated in one organizational unit, what is currently the Statistics Section. All continuing farm-level enumeration work should eventually be centralized within this Section along with responsibility for operation and maintenance of field office and reporting facilities. Data collection of enterprises and public corporations should also be channeled through the Section.

- Perform economic analyses and special studies for and among all agricultural subsectors and crop categories - These tasks are the main responsibilities of the Agricultural Economics Section -- production economics and marketing. The results of these Sections' efforts provide the essential data base and economic foundation for subsequent policy analysis studies. Therefore, it is absolutely necessary that there be complementarity of effort between work content of the Sector Planning Section (wherein policy analysis is done) and the Agricultural Economics Sections.

- Identify agriculture-related capital projects and prepare preliminary feasibility studies - These are the essential tasks of the Project Preparation Section. A system needs to be put in place for prioritizing potential projects, one that takes into account the long-range objectives and intended strategies for the sector. Hence, close coordination with the Sector Planning Section is indicated, as the latter ought to provide policy guideline inputs to the project preparation section.

- Assess national and regional food requirements and their degree of fulfillment - The Food Security Section is responsible for this task. Whether

the Section is authorized to coordinate bilateral/multilateral food relief efforts within the GOS is still a moot question. If indeed this responsibility comes to pass, the Section will need to acquire skills and a knowledge base that it does not presently have; furthermore, other ministries that interact directly with foreign donors would need to acquiesce to this transfer of responsibility.

- Provide a regional perspective to agricultural policy analyses and plans
- Most analytical efforts within the PAEA are subsectorally and crop-oriented. The regional implications of agricultural policy initiatives need to be determined. With the realization of stronger regional administrative structures, with the potential for more decentralized decision-making across sectors, the capacity to address agricultural policy issues from a regional perspective needs to be developed. Initially, it is suggested that such efforts be installed in the Sector Planning Section. As this dimension becomes more important to the GOS, the establishment of a Regional Planning and Coordination Section may well be desirable (see below).

2. RECOMMENDATION: The organizational position of the PAEA should be changed from that of another Administration under the aegis of the General Undersecretary of Agriculture to that of an adjunct to the Office of the Minister of the MANR.

Discussion: The need for a strong Sectoral Planning Unit was made manifest during the course of this assignment. If more policy initiative is to take place within the sector itself, as opposed to being superimposed upon it from outside supragovernmental councils, then the capability to generate policy initiatives needs to be at the hand of sectoral policy-makers. Complementary control over sector activities by the MANR requires strong monitoring and control staff capabilities within this sectoral planning unit. Under the most likely proposal for government reorganization, the planning function is to be separated from the MFEP and attached to the Prime Minister's Office. Thus, there would be a good deal of structural similarity as it concerned the planning functions between that proposed for the GOS level and within the

sectoral ministry, MANR. Such an organizational change also encourages more responsiveness on the part of the PAEA to the staff-support needs of the Minister and his aides. By law, the Minister has a number of oversight responsibilities concerning the public corporations that are not channeled through the Ministry itself, but directly to his person and/or office. In practice, such responsibilities are difficult to fulfill without a strong staff capability at the ministerial level. This organizational change provides just this type of staff support. Additionally, there is a symbolic importance to this change: it elevates the perception of importance attached to planning (including monitoring and control activities) both within the ministry and in its relationships with other ministries and organizational units.

3. RECOMMENDATION: The PAEA, in its new organizational position, should act as a coordinator of all other agriculture sector-related planning activities/units located within the MANR.

Discussion: Currently at least one additional unit with planning task responsibilities exists within the MANR that is outside of the PAEA. There is the prospect of additional such units being created; namely, an "Enterprise Monitoring Unit" for public corporations under a proposal submitted by the World Bank (discussed above) as part of an overall government reorganization plan concerning management of public corporations. Proliferation of planning-related units independent of each other yet all reporting to high ministerial levels leads to a confusing situation fraught with possibilities for intra-ministry conflict. The central planning unit attached to the Minister's Office is an appropriate channel through which such planning activities/units should report if these must exist outside the PAEA. Since these units, such as the AUAC, have limited scopes of activity (i.e., are not sector-wide), there is a need to integrate their findings into a comprehensive picture of sector activity.

B. The Internal Structure of the PAEA

RECOMMENDATION: The PAEA should be restructured so as to fulfill its function as a strong sectoral planning unit reporting to the Office of the Minister.

Discussion: A proposed table of organization for the PAEA is presented on page 66. The aim of this proposal is to suggest a reconfiguration of PAEA that will best support its role in the MANR as recommended above. Also, some real organizational issues have been addressed as directed by the Consultant's terms of reference. Essentially, the restructuring would entail the elimination of two departments (or "administrations") that are inconsistent with the PAEA's mission, the eventual creation of a new department, restructuring tasks and purposes of existing departments, creating units to provide administrative staff support to the Director General, establishing organizational mechanisms for facilitating policy analysis and establishing relationships with the Minister's Office. As can be seen from the proposed organization chart, the PAEA's structure is not considered static. Its structure needs to evolve consistent with its own functions and tasks which, in turn, are determined by the changes wrought to government structural change. Thus, several changes are proposed for future implementation as these become necessary; prospective organizational realignments are also shown in the chart. Specific recommendations for PAEA restructuring are described below. In each case, the reasons for making these changes have been discussed in the sections above; however, the essential rationale for these are reiterated.

Specific organizational structure change recommendations are:

- Remove the Animal Resources Economics Administration and the Agricultural Investment Administration (AREA) from under the PAEA - These units are not consistent with the PAEA's mission and scope of activities but each for different reasons. The AREA is concerned with livestock issues; it is required to provide analytical and data gathering capabilities for the rejuvenated Ministry of Animal Resources. Since livestock has been removed from the scope of the "agriculture sector," the AREA simply does not belong in

the PAEA (it is beyond the scope of the Consultant's assignment to judge the appropriateness of a separate ministry devoted to livestock concerns). The Agriculture Investment Administration should be placed under the General Undersecretary for Agriculture.

- Rename the Project Formulation Administration Department and identify it as the "Policy Analysis and Planning Department" - Only one of the sections under this department (the Project Preparation Section) is concerned with project formulation tasks. The department, however, has a much broader mandate to perform a range of policy analysis and planning tasks and, hence, should be so appropriately designated. In addition, it is recommended that its scope of activity be extended as described immediately below.

- Expand the scope of activity of the Sector Planning Section - This Section currently has responsibility for both policy analysis and plan development, though in recent times it has not done much of the latter. The increased GOS interest in strengthening regional government and encouraging decentralized decision-making inevitably will require reconciliation of sectoral and subsectoral plans with regional ones -- and vice versa. This is a formidable task and one that will demand explicit attention. Eventually, a new section dedicated to this areas can be envisaged. At this time, it is recommended that regionalization of sector plans and complementary policy analyses be conducted in the Sector Planning Section.

- Prepare for the elevation of the Statistics Section to department status - The Statistics Section currently has four subsections and 30 professional personnel. By the very nature of its function, "statistics" is important enough to merit department status. The usefulness of this designation, however, is practically dependent upon the degree to which statistics activities can be sufficiently differentiated from the work and activities of other sections in the current Agricultural Economics and Statistics Department. Field enumeration responsibilities need to be clarified between the Statistics and Agricultural Economics Sections; similarly, much resource sharing also occurs, notably of motor vehicles. Except for micro-computers

which are used in certain PAEA sections, the Statistics Section currently maintains the primary computational facility of the PAEA. These responsibilities are not sufficiently clear: to what extent does this operation service other sections within its department as well as the Policy Analysis and Planning Department? To what extent should a separate computer facility be created at the PAEA's offices at the Ministry, distinct from that in the Statistics Section? Or should there be one centralized computer facility servicing the PAEA as a whole? These issues have not been resolved as yet nor in this Consultant's assignment. During the next few months, an effort should be made to articulate as clearly as possible the Statistics Section's role, the resources it will have under its control and its relationships with and responsibilities to other PAEA sections. If these issues can be resolved, aim for the elevation of Statistics to Department status within the next six months to one year.

- Formalize responsibilities for an Administrative Support Unit reporting to the Director General's Office of the PAEA - There are a number of administrative tasks and support activities which -- if not carried out effectively -- negatively impact the PAEA's operations. Currently, a number of these activities are responsible directly on an individual basis to the Director General himself; these include administrative support, the PAEA library, the accounting group, training/personnel/management and motor pool operations. In addition, the Director General is the de facto chief budgeting officer for the PAEA (at least he functions in that role).

It is recommended that there be established an Associate Director for Administration, reporting to the Director General. This individual would have reporting to him/her the aforementioned activities and take over responsibility for the internal PAEA budgeting process. The Director General needs to be relieved of the responsibility for detailed operational management of PAEA support services.

- Establish a Training and Personnel Management Section within the Administrative Support Unit - A small Training Section currently exists

containing two individuals and no facilities or resources to speak of. This unit reports directly to the Director General. It has had no clear agreed-upon responsibilities or authority. An effective personnel unit is necessary to the continued professional growth of the PAEA, given the extensive amount of both long-term and short-term training that needs to take place. An elaborated terms of reference are proposed for the Training/Personnel Management Section, detailing the following main tasks: (1) to provide and maintain a manpower management system for the PAEA; (2) to assess current and future manpower training requirements; (3) formulate a PAEA manpower and training selection policy; (4) maintain a clearinghouse for relevant manpower training programs; and (5) publicize and disseminate information on appropriate training programs to PAEA personnel. Elaboration on each of these tasks is provided in a proposed terms of reference for the training section in the appendix.

- Establish a motor pool management system under the Director General's Administrative Support Unit - The excessive demand for vehicles over the actual supply and the varying demand conditions among the PAEA sections makes vehicle maintenance and their allocation a complex task. This situation requires a comprehensive motor pool management system to be put into place. It does not appear practical, at this time, to dedicate vehicles to individual sections per se given the extreme variability in vehicle requirements in different seasons of the year (particularly at such times when field enumeration tasks are involved). Further analysis of vehicle use patterns may indicate that vehicles can be allocated on a departmental basis -- and subsequently allocated at that level among sections. Initially, motor vehicle management (including procurement actions) needs to be tied directly to the budgeting and work plan development process and ultimately coordinated at the Director General level. It is recommended that the head of the motor pool management unit report to the Associate Director for Administration. This unit will have overall responsibility for maintaining and keeping vehicles as well as implementing the vehicle allocation decisions made at the Director General and departmental levels.

- Establish a Policy Advisory Committee as an adjunct to Director General's Office, and as a resource for and liaison with the Minister's Office - This committee should provide the key mechanism whereby high priority issues of interest to policy makers are surfaced. Such information provides guidance to policy analysts in identifying and prioritizing subjects for on-going and special studies. The committee should provide a vehicle whereby senior PAEA personnel and APS advisors gain insights directly from Ministry policy-makers so as to direct their own efforts. It is necessary that the Policy Advisory Committee not be limited to PAEA personnel; rather, this committee should also contain representatives from the Minister's Office, if not the Minister himself. The Committee should provide for two-way communications between the PAEA and the Minister's Office; that is, in addition to providing guidance for the PAEA's work itself, the Committee's meetings can serve as a forum whereby analytical study results and their implications for policy can be discussed with ministry policy-makers.

Since this should be a "working" committee, its membership should not be very large -- perhaps, limited to no more than ten or twelve individuals. The PAEA Director General, Department Directors and APS Project Advisors should sit regularly on this committee. Plus, about half of the committee membership should be from outside the PAEA. It is most desirable that policy-makers sit on this committee, perhaps individuals from the Minister's Office. The Minister should be able to view this committee as a source of policy advice, analysis and counsel; additionally, his voice and that of other policy makers will articulate those issues and questions that will provide the PAEA with direction for its economic and policy analysis activity. This formal organizational link to the policy making apparatus for the agricultural sector is no substitute for the establishment of informal direct contacts between PAEA personnel and policy-makers. The proximity of the PAEA to the Minister's Office should encourage such direct contacts and enable the PAEA to be more responsive to the policy analysis needs of decision-makers.

- Establish coordinative link to other MANR (non-PAEA) planning activities, to be placed at the Policy Analysis and Planning Department Director's level - As indicated above, there is at least one (shortly, two or more) other

unit within the MANR performing planning-related activities. It is recommended that all such existing and prospective planning and control tasks be coordinated through the PAEA as opposed to directly with the Minister's Office. Such coordination should best take place at the point where other planning, monitoring and control activities also report -- namely, the Office of the Director of the Policy Analysis and Planning Department. In this manner, monitoring results of sectoral and public corporation efforts can be reconciled with each other in comprehensive reports to be submitted to the Minister. (It is difficult to evaluate the aggregate effect of several public corporations' operations without relation to overall sector goals and other on-going agriculture activity; thus, such assessment would need to be made directly in the Minister's Office if this were not done beforehand. By channeling all planning-related data through one unit, the work load within the Minister's Office is diminished.)

If the Enterprise Monitoring Unit for public corporations comes into existence (as proposed by the World Bank), such a unit should best reside within the PAEA's Policy Analysis and Planning Department. If by some chance it is created as an entity separate from the PAEA (again, something that is not recommended here), then the results of its efforts should be channeled through the PAEA as indicated above.

- Develop formal relationships between the PAEA Departments and their respective Sections - Although such relationships cannot be forcefully depicted in an organization chart, it is imperative that these relationships exist. The efforts of the Agricultural Economics Department, the soon-to-be-established Statistics Department and the Policy Analysis and Planning Department efforts must complement each other. Participation in the Policy Advisory Committee by the APS Project Advisors and both Department Directors is one mechanism. Another, to be discussed below, is through the PAEA's own internal work plan development and budgeting process.

C. PAEA Internal Operations

A series of recommendations are proposed below with an end toward improving the effectiveness of the PAEA. Tasks 2 and 3 in the Consultant's terms of reference focus on work plans and internal operations. The PAEA works under a number of obvious resource constraints that it has little power to influence. However, there are some internal changes in several areas that can materially improve its utility. These lie in essentially three areas: the PAEA's internal planning processes (notably for work plan development and budgeting), the PAEA's internal administration and the PAEA interaction with other ministerial entities. The short time duration of this consulting assignment precluded extensive effort by the Consultant in these areas -- although it is imperative that these recommendations be implemented. In each case, the Consultant discussed the substance of each recommendation at length with the appropriate PAEA personnel and APS Project advisors.

1. RECOMMENDATION: Revise the work plan development and budgeting procedure with the aim of obtaining uniform formats for both.

Discussion: A standardized format needs to be designed for work plans and accompanying budgets for each of the PAEA's sections. Properly designed work plans and budgets can then be comparatively assessed and consolidated. Both should be submitted on an annual basis disaggregated by fiscal quarter. Prior to each quarter a detailed quarterly budget should be prepared further disaggregating the various resource requirements by project and by time period (e.g., weekly or biweekly). The availability of a number of personal computers within the PAEA and capabilities to utilize these should materially facilitate a rational budgeting and control process. The approved budget format should be built into a "template" using an available electronic spreadsheet (for example, Lotus 1-2-3). The computer-based budgeting system should be easily operated through a series of "macro" commands which can prompt the user to enter data in response to queries. Consolidation of individual resource needs aggregated for all sections for particular time periods should be posted automatically under such a system; this makes it

easier to reach resource allocations decisions. Monitoring of actual expenditures and resource usage against budget can also be easily designed into such a system. (The need for outside support in the form of consulting assistance to design such a system is addressed below.)

2. RECOMMENDATION: Require individual PAEA section work plans to indicate extent of inter-relatedness with other section's activities and relevance for sector policy making.

Discussion: The work plan format should include a place to indicate for each project/activity its relevance for other sections' activities/projects/on-going studies (if any) and relationship to immediate and/or longer-term policy issues confronting the sector. Obviously, not all activities will have such explicit connections and -- it should be emphasized -- that is not expected. However, the overall orientation of the PAEA should be focused on providing meaningful inputs to sector decision-making; indeed, much of the PAEA's work has such relevance -- but without necessarily being used effectively to this end. Articulating such relevance will assist in channeling results to appropriate offices that can use these to good purpose. And, of equal importance, this will require how the sections are interdependent. Such information also will assist in the task of evaluating the funding priorities of individual projects/studies.

3. RECOMMENDATION: Install a process for relating the PAEA to sectoral policy-making and policy-makers.

Discussion: It has been recommended above that a Policy Advisory Committee be established for the purpose of providing a mechanism whereby the PAEA relates to the Minister's Office. Thus, a structure is in place to facilitate the interaction. At issue still is just what will be the scope of activity of the Policy Advisory Committee, how ought it to function and its relationship to other planning entities and activities. For example, could the Policy Advisory Committee (if it were activated quickly) play a role in the four-year planning exercise soon to be undertaken? How should the Committee relate to

the PAEA sections themselves? Outside of the committee questions, if the PAEA is to perform and coordinate sectoral planning activities (which includes monitoring and control of both public corporations and sector performance), then its relationships with other agricultural organizations (the public corporations, for example) needs to be more clearly defined. Also, the PAEA's relationship with other planning entities; particularly, how will the sectoral planning unit (the PAEA) within the agricultural sector relate to the proposed planning unit attached to the Prime Minister's Office. The change at the national level -- the movement of the planning week from the MFEP -- of necessity will require a redefinition of the planning process and the role of the planning unit in its new context.

4. RECOMMENDATION: Redefine PAEA internal management roles and relationships with a specific aim toward greater delegation and decentralization of authority and responsibility.

Discussion: The scope of responsibilities and authority in reality vested in the Department Directors and Section Heads is not clear. There is a strong need for placing more responsibility and authority in their hands and defining such authority and responsibility clearly. Such delegation needs to complement a vastly redesigned budgeting and work plan approval process (as discussed above). Greater reliance for budgetary review and control responsibility must be placed with the Department Directors who, it should be noted, have the full confidence of the Director General. The functions of the Director General himself and his responsibilities should be made explicit as his role is bound to change given a change in PAEA internal structure and a change in its sectoral role.

5. RECOMMENDATION: Establish an internal PAEA administrative process with accompanying procedures.

Discussion: Within the Administrative Support Unit to be attached to the Director General's Office, supervised by an Associate Director, there will be administrative activities, the library, the accounting unit, the training/

personnel management unit and a motor pool management unit. Administrative systems need to be devised so that these efforts effectively support the PAEA sections' work. A series of very specific issues need to be resolved: What are the specific tasks to be assigned to the Associate Director for Administration (particularly his/her authority over and coordination responsibility for the other staff-support units; what role should the library play -- it is not now well utilized; how should the accounting personnel relate to and support the budgeting process (how should accounting and budgeting be integrated); what procedures should be installed by the training/personnel management unit to carry out its functions in relation to section heads and department directors; and how does motor pool management relate to the budgeting and work plan development process and individual section administration? It should be expected that PAEA personnel will need additional specialized training in addition to consulting assistance to carry out the above recommendations.

D. Recommendations for Support Assistance to be Provided to the PAEA

The short-term training and consulting assistance recommended below is confined wholly to the support and implementation of the other recommendations presented above. There are undoubtedly other kinds of support assistance useful in other areas not covered by the terms of reference of this consulting assignment. The most benefit could be obtained -- in terms of the number of people trained and degree of cost effectiveness -- if the training took place in Khartoum. The sections which should supply the core of course participants are indicated; however, course attendance should not be strictly limited to these individuals since assignments to specific sections as well as professional interests change frequently.

Where out-of-country training may be required, this is indicated explicitly. The consulting assistance recommended can be provided through short-term effort, all on-site in Khartoum. In all three cases of proposed consulting assistance, such assistance should be coupled with the training recommended in the same discipline/activity if at all possible.

1. RECOMMENDATION: Provide short-term (up to one month) training in the following areas:

- Project Management - This course should be held in-country. It should be attended by all professional staff in the Project Preparation Section and selected members of the Monitoring and Evaluation Section. Particular emphasis should be placed on project identification and prioritization tasks, monitoring and evaluation of on-going projects and project budgeting.

- Finance and Capital Budgeting for Parastatals (Public Corporations) - This course should be attended by all professional staff of the Monitoring and Evaluation Section and selected staff from the Project Preparation Section. In addition to the basics of finance and budgeting, this course should also include lecturers from the MFEP and various Sudanese public corporations. Participants should learn here the actual budgeting system in place in the corporations as well as concept and practices of similar institutions in other countries.

- Administrative Systems and Management - This course is appropriate for all administrative and managerial personnel in the PAEA. This course should survey basic management principles and translate concepts into implications for the PAEA operations. Specific subjects that must be covered include structuring organizations, superior/subordinate relationships, delegation of authority, management controls, planning and reward systems.

- Agricultural Policy Analysis and Planning - This course may be held in-country or selected individuals may be sent abroad to any one of a number of such courses offered. An in-country program of this type should be attended by professional staff of the Sector Planning, Marketing and Production Economics Sections; selected individuals, particularly from the Sector Planning Section, should be sent abroad to such courses.

- Personal Computer Operations and Data Base Management - All professional individuals as well as selected clerical staff within the PAEA should

attend such a course. Possibly a separate course in data base management should be provided (certainly fundamentals of this subject should be included in the basic course on PC operations). Professional staff in the Statistics Section should be provided with a course in data base management techniques (basic and advanced). Library personnel should also attend this course.

- The Use and Design of Electronic Spreadsheets - This course can be split into two parts: (1) the essentials of electronic spreadsheets and (2) the design of dedicated financial/budgeting templates requiring the use of "macro" commands. All professional staff as well as selected clerical staff should know how to use electronic spreadsheets (Lotus 1-2-3 being the prime example). A selected number of individuals who have aptitude for this work should be trained in advanced Lotus procedures, the second course. This knowledge could then be used to design dedicated systems for internal budget preparation and for performing the monitoring and control activities of the PAFA.

- Personnel Management/Management of Training Programs - This very specialized training in "training" might be obtained by sending one or two individuals abroad to a particular course (if one such could be found) or to a more generalized course in personnel management; alternatively, a short-term consultant in this area could be brought in to provide one-on-one type training and consultation in Khartoum.

RECOMMENDATION: Short-term consulting assistance be provided in the following areas:

- The Design and Operation of Monitoring and Evaluation Systems for Parastatals - The consultant should recommend procedures and formats for monitoring both the operational and financial performance of parastatals. Since the PAEA has no charter for concerning itself with the current budgets of the public corporations, the focus should be on the capital budgeting system and the assessment of public corporation performance. If possible, the consultant can combine this assignment with the training in this area recommended above.

- Reassessment and Design of the Administration and Policy Analysis Process in the PAEA - The consultant will examine the relationships between the PAEA and other sectoral planning entities/activities. In furtherance of the aims of the governmental reorganization and its desires for sector planning capabilities, the consultant will make recommendations for an on-going process that assures the Minister of the MANR of a planning, monitoring and control capability at his disposal. The consultant will also make recommendations concerning the internal work processes of the PAEA and assess on-going efforts at implementing the above recommendations concerning internal PAEA operations. If possible, the consultant should prepare and present the short-term course in administrative systems and management recommended above.

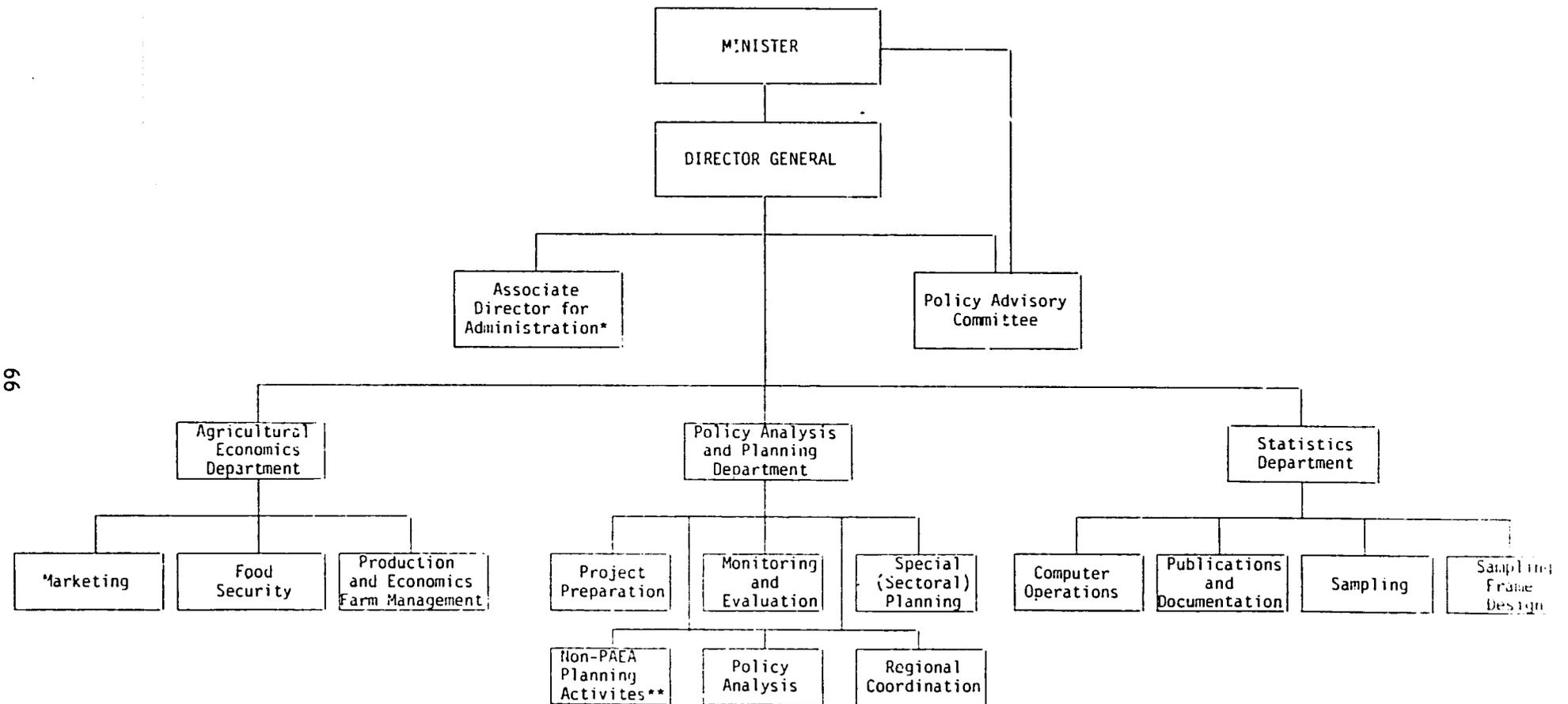
- Design Budgeting Procedures and Electronic Spreadsheet Templates for Use by the PAEA - This consultant should design and prepare the course recommended above in the use and design of electronic spreadsheets. The consultant will review the budgeting procedures recommended above and design a user-friendly system for creating PAEA section budgets and their consolidation, and a budget expenditure monitoring system.

2. RECOMMENDATION: The PAEA should be assisted in up-grading its physical facilities, notably its office equipment.

Discussion: Essential office equipment is in short supply in all PAEA offices at both its locations. At the offices in the Ministry, there are insufficient desks for all professionals and barely enough chairs. Filing and storage equipment is necessary; little such equipment exists. There are no computer work stations although there are personal computers and more are expected. It is recommended that an equipment census be made of PAEA offices with the intention of identifying their shortfalls and providing such equipment.

PLANNING AND AGRICULTURE ECONOMICS ADMINISTRATION (PAEA)

PROPOSED ORGANIZATION



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* Includes Training/Personnel Management, Accounting, Library, and Motor Pool Management.

** Includes AUAC and Agriculture-Related Public Corporations.