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IMPACT ASSESSMENT AND INSTITUTIONAL ANALYSIS

ZAMBIA AGRICULTURAL TRAINING, PLANNING AND INSTITUTIONAL DEVELOPMENT PROJECT (611-0075)

Joan Atherton, PPC/PDPR/SPD
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U.S. Agency for International Development
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EXECUTIVE SUMMARY

ZATPID IMPACT ASSESSMENT AND INSTITUTIONAL ANALYSIS

This report details the findings of a four-week assessment of the impact of the Zambia Agricultural Training, Planning and Institutional Development Project (ZATPID I, 611-0075) and an institutional analysis of Zambian policymaking for the agriculture sector. It provides a series of recommendations for the remainder of the life of the ZATPID I project and design guidance for a proposed second phase of the project (ZATPID II).

The assessment and analysis were carried out by a two-person team comprised of an agricultural economist and an anthropologist. The team followed the scope of work jointly prepared by USAID/Lusaka and AID/Washington. The team reviewed background documents and project outputs and held discussions with a number of persons associated with ZATPID I specifically and with donor assistance to Zambia more generally. Working from the scope of work, the team devised a questionaire that was used to guide its discussions with key informants in Lusaka, both Zambian and expatriate.

The current ZATPID project was authorized in September 1980 for an initial three-year life at $4.8 million. The project paper stipulated that an evaluation was to be undertaken at the end of the second year of the project to determine whether the project should be continued for an additional two years. A period of difficult relations between the U.S. and Zambian governments almost immediately followed project authorization, so that most implementation activities did not begin until 1982, and some, such as the placement of a technical advisor in NCDP, never occurred. The evaluation was thus undertaken two years into actual project implementation, in March, 1984, although the project was in its fourth year of life at the time. The evaluation was positive overall, and recommended extension of the life of the project for an additional two years, or until 1987. The project has been extended, and the completion date is now September 1987.

Overall, the team finds the concept of assisting the GRZ to strengthen indigenous policy formulation and planning processes to be a sound use of AID resources, and a necessary complement to the substantial amount of non-project assistance being provided, in order to ensure that the latter resources are well-utilized. The impact of ZATPID I has been on the whole positive and consistent with the project purpose as articulated

in the project paper. The impact is believed to justify proceeding to a follow-on project.

ZATPID I

The assessment team believes that the ZATPID I project has begun to have an impact on agricultural policies and the policy process in Zambia. This has occurred both in relation to specific policy changes, and in relation to longer-term institution-building activities that will assist in making the Zambian policy process analytically stronger and more empirically based. There have, however, been a number of implementation and management problems in the project, and there are examples of project activities that were not designed and carried out in such a way as to maximize their impact on policies or the policy process.

Evidence of positive project impact includes several studies and follow-up activities that formed the basis of specific recommendations for change in agricultural policies. Some recommendations were accepted by the GRZ and resulted in significant policy changes. Others were rejected for non-economic reasons, but nonetheless contributed to an active policy debate that is still continuing in some instances.

Longer-term activities contributing to institutional strengthening have also scored several successes, although there are areas of concern. The record so far on participant training has been outstanding, with ten out of ten returned long-term trainees filling positions from which they have the potential to affect the policy process. Other examples of successful institution-building activities include: the enhancement of an effective data processing center in the Central Statistics Office (CSO) and a computer center in the Ministry of Agriculture Planning Division (MAWD/PD); the establishment of a functioning library in MAWD; and important work in management training and information dissemination. An unanticipated side benefit of the project is the promotion of coordination among Zambian institutions. This has led to such activities as the joint undertaking of a crop forecasting survey by MAWD and CSO, whereas in the past both institutions carried out similiar activities simultaneously.

In contrast to these activities, others have not had a positive impact to date. These include complex econometric model building and other work, often directed or carried out from the Iowa State University campus, that was not sufficiently integrated into the Zambian context. Model building in

particular was undertaken without sufficient involvement of Zambian institutions, or sufficient thought regarding the precise use and sustainability of the exercises.

Regarding institution-building, the primary area of concern has been the weakness of counterpart relationships between expatriate technical assistance and Zambian staff at the working level. The problem has several causes, most notably an insufficient number of Zambian professional staff, their heavy involvement in "firefighting" activities (although this also has a positive side in that the Minister of Agriculture depends heavily on the project-supported Planning Division), the lack of formal counterpart arrangements, and insufficient emphasis on counterpart relations on the part of some, though by no means all, of the expatriate technicians.

An assessment of recurrent cost issues concluded that some of the institutions supported by the project do have serious recurrent cost problems, which are likely to become worse in future years. However, it should also be noted that project-initiated activities, including policy reforms such as subsidy reductions, have the potential to generate considerable cost savings (and eventually revenue) for the government. Although Zambia's recurrent cost problems are undeniably serious, they probably are no more severe than are those of many other African countries; nonetheless, it is important that ZATPID II be designed in such a way as to minimize recurrent cost implications.

The assessment of ZATPID I closes with specific recommendations for the remainder of the first phase of the project. The recommendations concentrate on two areas: management and communications, and institution-building issues. Lessons learned from the assessment have also contributed to the formulation of design recommendations for ZATPID II.

ZATPID II

The project identification document for ZATPID II was written in June 1985 and approved in AID/Washington in August 1985. In its approval cable, Washington requested that the assessment summarized above, and an institutional analysis, be undertaken prior to the project paper design for ZATPID II. The purpose of the institutional analysis was to "discuss and understand (a) the process by which Zambian agricultural policies are made at the national level and (b) the effect that ZATPID I has had on the process." It was intended that the analysis would

be used as a decision tool to determine the most appropriate ZATPID II project design for advancing the indigenous policymaking process even farther, having it increasingly rely on realistic data and analysis.

The second half of the report responds to these requirements by first detailing a distinction between policy formulation and policy implementation, to be used as a means of conceptualizing the purpose and parameters of ZATPID II. Policy formulation entails data collection, analysis, making recommendations, decisionmaking and monitoring the impacts for feedback. In contrast, policy implementation generally means translating decisions into practices that lead to systemic, institutionalized change. Planning for development is viewed as a forum for bringing together different government agencies and segments of society to think about national development, to help politicians mobilize public support for development programs, and to make decisions about resource allocation. As such, it is also considered an important function for ZATPID to assist.

The policy environment in Zambia was found to be relatively open and flexible, especially in comparison with other African countries. In particular, Zambia has benefitted from twenty years of political stability, which have allowed the development of some institutionalized means of discussion and dissent. However, the team noted that many policy changes that differentially affect various parts of the society have occurred with great speed in recent years. This means that many of the necessary macroeconomic reforms have been set in motion, and the government may now enter a period of consolidation and assessment of impact with regard to future reforms. Thus, the pace of policy change will likely slow down, allowing the ZATPID II project to emphasize the establishment of sustainable institutions for policy formulation and planning.

There is a basic policymaking process, with some variations on the theme. Policy issues may emanate from a number of sources, including politicians, private citizens or groups or technical ministry staff. The stages of the policy formulation process generally include long- or short-term analyses of an issue, the formation of recommendations, the vetting of the recommendations first through the civil service system and then through the political system (Cabinet, the UNIP Central Committee and the President), and finally a decision by actors within the political structure. The team found that the system may be short-circuited in several ways, but also found that

senior civil servants and politicians are coming to rely increasingly on an empirically-based process, and to generate some demand for data collection and analysis to underpin decisions. The team found a number of constraints encumbering the policymaking process. These included

- intra- and inter-organizational coordination;
- management of investment, including donor resources, in the agriculture sector;
- overall resource allocation, and allocation within the agriculture sector;
- capacity for data collection and analysis
- structures, functions and procedures of specific organizations; and
- the political dimension.

In order to address as many of the constraints as are amenable to donor assistance, the team has recommended that technical assistance, training and a limited amount of commodity support be provided to the following key policy formulation organizations:

1. Ministry of Agriculture and Water Development/Planning Division
2. Ministry of Finance
3. National Commission for Development Planning
4. Central Statistics Office

It further recommended that computer hardware, software and training be provided to the Rural Development Studies Bureau. The University of Zambia's training functions have not been recommended for support at this time (outside of the provision of advanced degree training for faculty), due to its inability to assure that the assistance provided will result in sustainable institutional development.

A series of additional recommendations, which crosscut the policy formulation organizations, and which derive, in part, from applying the lessons learned from ZATPID I, were also made. These recommendations pertain to

-institutional coordination
-monitoring and evaluation
-balancing quantitative and qualitative analysis
-the role of the private sector
-professionalism among returned trainees
-training
-in-country technical supervision of studies/analyses

-in-country thesis research
-computerization needs.

The team found several lessons from ZATPID I that should be applied to the design of ZATPID II. The emphasis to date in ZATPID I had been on short-term analysis leading to specific policy reforms, although it also noted that considerable institutional development had taken place, particularly in the first two years of the provision of technical assistance. The team concurred with the finding of the 1984 evaluation that production of analyses and studies are one means of achieving longer-term institutional objectives. However, they are only one means, and have perhaps been relied on too heavily to reach the institution-building goal. The production of the analyses has also been less collaborative than envisioned in the original project. The team believes that these findings, coupled with the likelihood that the pace of policy reform will slow down somewhat over the next few years, lead to the conclusion that the emphasis in ZATPID II should be on establishing sustainable institutions for policy formulation and planning. Although some resources should be devoted to continued production of studies and analyses, more attention should be paid to developing management systems and procedures, to training - both long- and short-term - and to institutional coordination.

ACRONYMS

AFC	Agricultural Finance Corporation
ASS	Agricultural Statistics Section (of MAWD/PD)
BAS	Budget Analysis Section (of MAWD/PD)
BUCEN	U.S. Bureau of Census
CC	Central Committee
CFB	Commercial Farmers' Bureau
CIDA	Canadian International Development Agency
CSO	Central Statistics Office
DP	Director of Planning, MAWD/Planning Division
DPB	Dairy Produce Board
DPREE	Department of Rural Economy and Extension Education, University of Zambia
GDP	Gross Domestic Product
GRZ	Government of the Republic of Zambia
HIRD	Human and Institutional Resource Development Project
IBM	International Business Machines
IMF	International Monetary Fund
IRDP	Integrated Rural Development Programme
ISU	Iowa State University
LDCs	Less Developed Countries
LINTCO	Lint Company of Zambia
MAWD/PD	Ministry of Agriculture and Water Development/Planning Division
MCI	Ministry of Commerce and Industry
MOC	Ministry of Cooperatives
MOD	Ministry of Decentralisation
MOF	Ministry of Finance
M/SER/IRM	Office of Information Resources Management, Directorate for Program and Management Services, Management Bureau, AID/Washington
NAMBoard	National Agricultural Marketing Board
NCDP	National Commission for Development Planning
OPEX	Operational Expert
P&M	Production and Marketing Section (of MAWD/PD)
PAI	Project Analysis and Implementation Section (of MAWD/PD)
PD	Planning Division (of Ministry of Agriculture and Water Development)
PEC	Project Executive Committee
PID	Project Identification Document
PP	Project Paper
PPU	Provincial Planning Units
PS	Permanent Secretary
RDSB	Rural Development Studies Bureau
SPA	Sectoral Policy Analysis Section (of MAWD/PD)
TA	Technical Assistance Section (of MAWD/PD)

TBZ	Tobacco Board of Zambia
UNIP	United National Independence Party
UNZA	University of Zambia
USAID	United States Agency for International Development
ZADB	Zambian Agricultural Development Bank
ZAMARE	Zambia Agricultural Development, Research and Extension Project
ZAMCAM	Zambia Multi-Channel Agricultural Marketing Program
ZATPID	Zambia Agricultural Training, Planning and Institutional Development Project
ZCF	Zambian Co-operative Federation

ZATPID IMPACT ASSESSMENT AND INSTITUTIONAL ANALYSIS

I. INTRODUCTION

This report details the findings of a four-week assessment of the impact of the Zambia Agricultural Training, Planning and Institutional Development Project (ZATPID I, 611-0075) and an institutional analysis of Zambian policymaking for the agriculture sector. It provides a series of recommendations for the remainder of the life of the ZATPID I project and design guidance for ZATPID II.

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II. ZATPID I

This part of the report looks at the first phase of the ZATPID project. Divided into three sections, it first assesses the impact that the project has had on agricultural policies and the policymaking process in Zambia, then presents some additional findings and conclusions, and finally makes recommendations for the remainder of ZATPID I.

A. IMPACT ASSESSMENT

This first section is a broadly-based assessment of the impact that ZATPID I has had to date, both in terms of direct influence on agricultural policies and the policy process in Zambia, and in terms of laying the groundwork for the future through institution-building. It responds directly to items A through K on the scope of work (Annex 1). In agreement with USAID/Lusaka, these items have been regrouped under three major headings: (1) Direct Impact on the Policy Process, covering items A, B, C, G, and J; (2) Institutional and Human Resource Development, covering items D, E, F, H, and I; and (3) Recurrent Costs, covering item K.

1. DIRECT IMPACT ON POLICIES AND THE POLICY PROCESS

The questions that this section addresses are the following: Are the data, studies, and analyses generated by the project relevant, usable, and consistent with Zambia's needs? Are they actively sought by GRZ decisionmakers? How have they influenced policies and the policymaking process? What are the constraints to improvements in these areas?

The assessment team believes that the ZATPID project <u>has</u> begun to have a significant impact on the agricultural policy formulation process in Zambia. There are numerous examples of project outputs in the form of studies or other activities that have been used by GRZ decisionmakers, and that have influenced policies and/or the policy process. There are other examples, however, of outputs that have not been perceived by key Zambians as relevant to their needs, have not been used to date, and probably will not be used. While the record overall is more positive than negative, examples of the latter situation are quite striking, and suggest a change of emphasis for future project activities.

The activities of ZATPID I considered most useful by key Zambians and expatriates interviewed, as well as by the assessment team itself, tend to fall into two groups. The first is specific studies initiated in response to concerns from Zambians outside the MAWD Planning Division, and the second is "process oriented" institution-building activities

such as management training and coordination efforts, development of a data processing center and library, etc. (the second set of activities are discussed in Section II.A.2.).

Those efforts judged least useful to date have been the more quantitative economic exercises (e.g. complex model building), which tend to have been carried out without full commitment from (and occasionally in the face of active opposition by) key Zambians. There may, however, be some trade-off here between long- and short-term time frames - for a fuller discussion of this point, see Section II.B.3. and Recommendation 19.

On the positive side of the equation, previous documentation has established (Lusaka cable 0035 of 1985; project quarterly reports), and the evaluation team was able to confirm, that specific studies were in fact used by GRZ decisionmakers in the policy process. Prime examples are the groundnut study, the agricultural finance markets study, the tractor hire study, and the study of integrated rural development programs (see Annex 3 for a list of ZATPID-sponsored studies reviewed). These project outputs (and follow-up activities such as Cabinet Memoranda) formed the basis of specific policy recommendations, often presented by the Minister of Agriculture to his colleagues in the Cabinet or to the Central Committee. In another example, RDSB carried out a brief study on the small farm sector under ZATPID financing. This resulted in a member of the Cabinet sending an investigation team to the Copperbelt to look into allegations of land grabbing uncovered by the study.

Some of the above examples have resulted in specific policy changes that are widely believed to have had a favorable economic impact. In other cases, policy recommendations of the studies, after due consideration, were rejected for political, social, or other reasons. The important point, however, is that the studies did contribute to active debate on significant policy issues, debate which is still continuing in some cases.

On the negative side, some specific activities have not had an impact to date, and do not appear to have been designed and carried out in such a way as to improve the likelihood of their being well used. More specifically, insufficient attention was paid to one or more of the following questions: How would the activity be used in the Zambian context? Who (i.e., what institution or individual) would use it, and how would they be involved in the process of developing the activity? Who would translate the analyses into intelligible policy recommendations? Who would sustain the activity after the departure of the expatriate? While some thought and effort was undoubtedly given to these areas, it was and is clearly inadequate in certain cases.

The most notable example concerns the activity that has now come to be called the transport model. Prior to the recently announced liberalization of maize marketing, the logical end user of this complex econometric model was NAMBoard. NAMBoard had little or no involvement in the activity, however, and hence had no input into its development or likely uses. Furthermore, the model, which was completed on the ISU campus at Ames, Iowa was too big to run on the microcomputers at MAWD/PD, was probably too complex, and had questionable support from Zambian authorities. The Zambian technician trained in its use at Ames, although interested in the model, has not been officially assigned to work on it, and finds little time after his other duties. Work is now being undertaken to modify the model so that it will run on MAWD/PD micros, but it is still not at all clear exactly who will use the model (especially given NAMBoard's recent loss of the marketing monopoly), for what purposes, or how it will be sustained after the expatriates' departure. (See Section II.B.3. and Recommendation 18.)

Another example of a project activity that was insufficiently integrated into the Zambian context (and is therefore unlikely to have significant impact) concerns the questionaire design for the rural household survey begun in the Fall of 1985. The basic questionaire was designed on campus at Ames, at the request of the Chief of Party, as he felt that the necessary expertise did not exist in country at the time (most of the current ISU team was not then in place). The draft questionaire was then presented at a workshop in Zambia, in order to elicit in-country (both Zambian and expatriate) participation. Following this, the questionaire was put into supposedly final form in country, but the ISU team continued to receive untimely instructions from campus to add additional elements to the questionaire. In some if not most cases, the additional parts of the questionaire did not respond to any felt need in Zambia, and the ISU team in-country could only speculate as to why they had been instructed to add the items. The additions appear to be more in response to felt data needs on campus at Ames than to perceived data needs in country. Given that it is not even known in Zambia who will analyze the additional data or why the instructions were received to add it, it is unlikely that this part of the survey will have an impact on Zambian policies and/or the policy process.

It should be reaffirmed, however, that such examples appear to be the minority of cases to date. As is stated above, the assessment team believes the project has begun to make a significant impact on the agricultural policy process (taking into account both the limited time that it has been operating and the fact that it operates in conjunction with other donor efforts). Evidence for this assessment comes not only from the

examples of project outputs cited previously, but also from the impressions of a number of long-term observers (both Zambian and expatriate) of the policymaking process in Zambia.

The project appears to have had an additional positive impact on the agricultural policy process that is less tangible, but no less important. This is the promotion of coordination among Zambian institutions, and could be considered an unanticipated benefit of the project. Perhaps the most striking example of this is the collaboration between CSO and MAWD/PD on an agricultural survey now being undertaken, whereas in the past both organizations were independently collecting similar data. Additionally, key individuals from several ministries and institutions have been brought together regularly in Project Executive Committee (PEC) meetings in the past, which may provide one of the few opportunities for regular dialogue among them. While a great deal more needs to be done under the heading of institutional coordination (see Section III.F.1.), project progress in this direction is encouraging.

The degree to which the studies and activities have been demand-driven (i.e., initiated in response to a specific concern by GRZ policymakers) has varied, and as indicated above, has been a major factor in determining the extent to which the activity is judged to be useful and relevant. In the case of the groundnut and tractor hire studies, for example, the activity was initiated at the request of high level GRZ officials who were themselves responding to concerns that had been raised by various political constituencies.

In other cases, activities were initiated primarily within the Planning Division, in response to a perceived need by the staff and/or expatriate advisors. The assessment team believes that it <u>is</u> appropriate to have some mix in the sources from which project activities originate, as long as the undertaking of a particular activity is able to generate genuine support from key Zambians. In such cases, there is reason to hope that supply will create demand, and that GRZ policy makers will develop greater appreciation of empirically-based decisionmaking. However, if supply is to help create demand, then it is important that the studies and their policy implications receive wide distribution. It is not clear that MAWD/PD studies are being widely circulated outside the Planning Division at the present time. (See Recommendation 6.)

There are, of course, a number of constraints to more empirically-based policies, and more specifically to further improvements in data generation, analysis, and decisionmaking with respect to agricultural policy. These are only briefly

dealt with here, as a number of them are more fully explored in Section III.F. and in other sections.

One obvious constraint is that the policymaking process in any country is highly political, and there are limits to the degree to which policies will be based upon empirical evidence. Furthermore, USAID's policy agenda worldwide tends to be defined in macroeconomic terms, but there are legitimate social and other concerns which may in some cases outweigh macroeconomics (and Zambia may be more concerned with such factors than certain other countries).

In broad terms, another constraint flows from the greatly increased emphasis that has recently been placed upon the agriculture sector in Zambia. Within the last two or three years, as pressure for policy change in agriculture has mounted, there has been greatly increased demand for policy analysis. The limited structure that was previously in place has simply been unable to keep up with this new demand.

In more specific terms, this inability to keep up with new demand is manifested in such things as insufficient numbers of qualified staff, data collection constraints, data processing bottlenecks, and recurrent cost problems. Within MAWD/PD, for example, there is clearly a shortage of well qualified staff to interpret data and generally address policy analysis questions. Among the qualified staff that does exist, there are problems with job morale, and also a lack of agricultural content in their formal education and background. Quality and insufficiency of data are something of a constraint, although insufficiency of data alone is not adequate justification to mount new, large-scale collection efforts (see Tilney and Riordan, 1985; and the discussion of recurrent costs in Section II.A.3.8.) Data processing has been a major problem in some institutions, although great progress has been made in this area, particularly in CSO. Lack of coordination among Zambian institutions (and donors who continue to provide conflicting policy advice), among other problems, also remains a constraint, especially in the area of data sharing.

2. INSTITUTIONAL AND HUMAN RESOURCE DEVELOPMENT

Training and technical assistance questions are addressed in this section. More specifically, the following contains an examination of the appropriateness of the training; the retention of returned trainees in their home institutions and their ability to use their training in their present jobs, the improvements in overall analytical capability; the appropriateness of the technical assistance; and, perhaps most

important, the ways in which the technical assistance is helping to build Zambian institutional capacities.

a. Training

Training consists of formal participant training outside of Zambia, formal in-service training such as workshops and seminars, and daily on-the-job training through counterpart relationships.

Regarding formal participant training outside of Zambia, it was agreed with USAID/Lusaka that the assessment would be limited primarily to training that was at least one year in length. There was in addition a considerable amount of very short-term, very specific training undertaken, with individuals participating from a variety of Zambian institutions. This type of training appears generally to have been useful and appropriate, and the subject matter was relevant to Zambia's needs.

There are currently ten individuals who have returned from long-term training overseas (a few individuals whose training was only partially financed under ZATPID and who are not considered central to ZATPID activities have been excluded from the assessment). Annex 4 presents a list of these individuals, along with their institutions and current positions, while Annex 5 gives a complete picture of all training done under the project. Nine of the ten returned long-term participants are still with the institution from which they departed for training, and all nine of these appear to occupy positions from which they have the potential to affect one or more of the many elements of the policy process. The sole returned trainee no longer with his home institution currently works as a lecturer at the University of Zambia. This is an impressive record for participant training in African countries.

In MAWD/PD, for example, both returnees serve in the Sectoral Policy Analysis Section. While one has just returned, the other is Acting Section Head, serves as a close advisor to the Minister, and is clearly a very productive and influential staff member and policy analyst. To cite other examples, the two returned trainees at NCDP both hold the rank of Senior Economist in the Department of Sectoral Planning, while another at CSO serves as Senior Statistician in the National Accounts Section.

Regarding the subject matter of the training and its appropriateness, the bulk of long-term overseas training (both continuing and completed) is in Economics and Agricultural Economics. Eight people have or are receiving training in Agricultural Economics, six in Economics, two in Statistics,

and one each in Survey Methods, International Development Studies, Rural Sociology, Public Policy, and Regional Planning. This mix is appropriate for the purposes of the project (as defined in the Project Paper), although there was one important omission. This is the project output regarding improved procedures and management in Zambian institutions. Some participant training in fields such as public administration would have been helpful for a fuller accomplishment of this aspect of the project purpose. (See Recommendation 8.)

Within the Economics and Agricultural Economics training, there has been some difficulty with the Zambian students' ability to maintain the required grade point averages. This has not resulted in an excessive number of terminations to date, but may be cause for concern in the future. There is some feeling that the required course load in these disciplines may be too heavily tilted toward quantitative methods, and that this is causing unnecessary difficulty for the students, who tend to have weak math backgrounds. Given the lack of positive impact to date of heavily quantitative economic approaches, the assessment team feels that this issue should be examined in depth by USAID/Lusaka and the PEC before additional participants are sent for long-term Economics or Agricultural Economics training. (See Recommendation 8.)

Training selection criteria are judged to be appropriate. These include the following: fixed period of service in home institution before departure for training, work in a discipline that addresses agricultural constraints identified in the project paper, a certain level of academic achievement, and meeting the specific criteria of individual institutions.

Although individual institutions such as MAWD/PD and CSO have taken steps to develop written training plans, institutions included in ZATPID that have no such plans should be encouraged to prepare them. Also, while the criteria that were apparently used in the past were appropriate, the assessment team nonetheless believes that the PEC should put its own criteria in writing, with copies distributed to all members. This would assist to prevent possible unfairness (either real or perceived) in the allocation of training slots, and firmly establish that the training was merit-based. The assessment team does <u>not</u> have reason to believe that this has been a problem in the past, but nonetheless feels that it would be helpful for future selection of individuals for training.

A final point concerning long-term participant training is the degree to which returned trainees are able to apply their new skills upon returning to their home institutions. Although the

positions filled by the individuals are appropriate to permit application of their skills, the structure and size of their workload often allows little opportunity for engaging in medium- to longer-term analysis work. This is particularly a problem in MAWD/PD, where the best trained technicians are almost totally taken up by a barrage of daily "firefighting" activities, not the least of which is responding to requests by the Minister and Permanent Secretary. More is said on this problem in later sections.

The second major aspect of training is formal in-service training such as workshops and seminars. These activities have been an important part of the project, are considered to be a very effective institution-building tool by a number of Zambian and expatriate observers, and need to be continued. The workshops impart knowledge on specific subjects, allow for feedback and participation in policy and program/project activities, give Zambians at different levels the opportunity to interact, and serve as a motivator for staff who are often suffering from low job morale for other reasons. There appears to be less emphasis on seminars and workshops by the current technical assistance team than there was earlier in project implementation. The assessment team believes that this trend should be reversed, and greater emphasis should be given to this area. (See Recommendation 15.)

The third aspect of training concerns day-to-day activities on the job, in which Zambians have the opportunity to work closely with expatriate advisors. There have been some difficulties in this area, which is discussed in the next section under counterpart relations.

b. Technical Assistance

Insofar as they are judged against the position descriptions in the November 1984 Program of Work, the current technical assistance team appears to have appropriate credentials. A minor exception to this assessment is that some team members lack previous long-term overseas experience, and particularly experience in Africa. This is not an unusual situation for this type of project, and is somewhat offset by the fact that other team members do have strong overseas experience.

In light of the discussion in other sections, however, the evaluation team believes that the position descriptions themselves give excessive weight to quantitative economic approaches that, in most instances, have yet to demonstrate their usefulness and sustainability. Two of the four positions assigned to MAWD/PD give primary emphasis to model building. Given the assessment that the institution-building activities that have had the greatest impact have been in the areas of

management, organization, and systems and procedures that help Zambian institutions do their jobs more effectively, the assessment team believes that the project's objectives would have been better served by a technical assistance mix that placed more emphasis on these areas. (See also discussion in Section II.B.3.)

There has been a considerable amount of short-term technical assistance provided under the project. Most of this has been in the form of specific, task-oriented consultancies, such as BUCEN trips to develop the methodology for the crop forecasting survey, and ISU trips to install computer software or present the questionaire for the rural household survey. This assistance appears to have been effective.

Short-term assistance that may have been less effective, however, is that which was provided to conduct specific studies. The former Director of MAWD/PD believes that studies that were carried out mainly by short-term expatriates had less impact, because of a lack of understanding of the Zambian context into which the policy recommendations must fit. This impression is consistent with evidence from other countries (Fortmann, 1984), which indicates that to be effective, "policy option" studies require a great deal of follow up, which can best be done by nationals or long-term expatriates.

The question of how U.S. technical assistance is helping to build institutional capacities is now examined. There are a number of clear examples of positive impacts that the project has had under this heading, as well as one major area of concern.

The creation of a functioning library for MAWD is an example of an activity that appears to have had a significant institution-building impact on the Ministry and its ability to function effectively in many areas, including policy analysis. The assistance supplied by the project in helping to establish the MAWD/PD computer center is another case of a very positive impact. This computer center is being well used by both Zambian technicians and expatriate advisors. The data processing center in CSO, established with some assistance from ZATPID, is an impressive example of what can be done with the right mix of high-quality technical assistance, financial support and host country commitment. Other examples include the computerization of the methodology for recommending agricultural prices, the creation of a very informative Agricultural Planning Newsletter, and management training seminars.

The major area of concern under the heading of institution-building is the question of counterpart on-the-job training. It goes without saying that institution and human resource

building by a technical assistance team cannot occur without effective counterpart associations on a daily basis. This has been a problem in ZATPID I for a variety of reasons, with the most serious manifestation of the problem seen in MAWD/PD.

In the first place, there are simply an insufficient number of Zambian technicians. According to the head count of the CIDA team leader, there are 23 Zambian staff members at the headquarters of MAWD/PD, and 17 expatriate advisors. While not all the advisors are in job situations that necessitate counterparts, the ratio of expatriates to Zambians is nonetheless far from encouraging. It is hoped that this situation will improve as more Zambians return from long-term training.

A closely related problem is the "firefighting" issue that was raised earlier in the report. Those staff members that are most productive and highly trained, and therefore have the most to gain from working closely with expatriate advisors, are generally the same people who spend nearly all their time responding to immediate requests from the Minister or PS, attending meetings, writing speeches, and taking trips. The positive side of this should not be discounted. It is clear that decisionmakers in the Ministry of Agriculture depend heavily upon the Planning Division, including its professionals trained under the project, and this should be considered a positive project impact on the policy process. It is a serious problem for counterpart relations, however.

A partial solution to the counterpart problem is to wait for the arrival of additional returned trainees. In the meantime, a more careful structuring of the workload of the Division, approved at higher levels in the Ministry, would also be helpful. The new Director of the Division has already requested that overall work plans be drawn up, and has indicated that he wants PD to be less reactive and more forward-looking in setting its own agenda for agricultural planning and policy analysis.

The establishment of more formal counterpart relations could also be a partial solution to the overall problem. (See Recommendation 14.) At the present time, U.S. expatriates work with Zambian staff only on an ad hoc basis, based upon the interests of both parties and current work assignments. It may be advisable to look into establishing formal counterpart relations on a task basis, rather than on the basis on a fixed, long-term, one-to-one relationship between expatriates and nationals. Among other advantages, this will allow nationals to work with several different technical advisors.

Finally, there is considerable variability in the emphasis that the members of the technical assistance team place upon counterpart relations. While some members have tried to seek out and work closely with Zambian staff, others have not. Greater emphasis needs to be given to assuring that all members of the team will have left behind specific skills when they depart from Zambia.

3. Recurrent Costs

It was agreed with USAID/Lusaka upon arrival in Zambia that the recurrent cost assessment would be qualitative rather than quantitative. The justification for this includes: the fact that it is not possible to fully assess the recurrent cost implications of ZATPID II before the design is carried out; anticipated difficulties in acquiring data; and the time required to acquire data and do a quantitative analysis vis a vis the other items in the scope of work.

Nonetheless, an attempt was made to acquire the necessary data to at least assess the degree to which USAID is presently meeting the recurrent costs of the institutions it is supporting under ZATPID I. This attempt was unsuccessful, as the USAID accounting system contains only global data on the overall amount of counterpart funds given to ZATPID-supported institutions (some 3 million Kwacha in 1983 and 1984), without any breakdown as to whether they were spent for capital or recurrent items. The majority of the counterpart funds, however, did not go for usual recurrent cost items like salaries or salary supplements, fuel, office supplies etc. Neither were ZATPID I project funds used to meet the recurrent costs of the institutions, at least in so far as the assessment team was able to determine.

In broad terms, the assessment of recurrent cost problems came to the following conclusions:

1. The recurrent cost problem is most severe at UNZA, where the departments often are forced to attempt t function without basics such as paper and chalk, let alone such luxuries as textbooks. In the Department of Rural Economy and Extension Education, for example, the budget for recurrent expenditures has remained constant in nominal terms for the past three years, which has meant very large cuts in real terms. Furthermore, "stationery" items previously supplied from outside the budget now must be acquired with the increasingly meager department funds.

2. MAWD also has recurrent cost problems, although data were not available for a careful assessment of the severity of the

problem. There are periodic shortages of office supplies, and in at least one case there were insufficient funds to pay extension agents per diem for a training seminar for a project-sponsored data collection activity. The Peat, Marwick et. al. study (1985:8) points out that 80% of MAWD's recurrent budget goes to pay salaries, leaving only 20% for other operating costs, and recommends that this situation be redressed. Nonetheless, the Ministry appears to be able to pay salaries in full and on time in most cases.

3. The Director of CSO does not believe that the organization has serious recurrent cost problems. However, it is noted that USAID is paying the salaries of a number of contract employees. CSO's recurrent budget has increased about 11% annually in nominal terms in the last five years, which has meant a decrease in real terms.

4. RDSB does not have particular recurrent cost problems, since most of its activities are self-financing, with overhead costs built in.

5. Almost everyone interviewed believed that recurrent cost difficulties were likely to get worse in future years.

6. Project-initiated activities have the potential to generate considerable cost savings for the government, and have already done so in at least one case. Largely as a result of project efforts, CSO and MAWD/PD are now doing a joint crop forecasting survey rather than separate ones, which entails considerable savings. To cite another example, recently announced subsidy reductions on maize and fertilizer mean savings for the government in excess of 300 million kwacha in 1986, according to Ministry of Finance estimates (unpublished). The project-supported MAWD Planning Division had a hand in this decision to reduce subsidies. There is no assurance, however, that a portion of these savings will be passed back to project-supported institutions. In fact, this seems quite unlikely in the near term.

7. In the longer term, one can suppose that better management of the agricultural sector will mean higher production and therefore higher government revenues.

8. Current and future project activities most likely to have negative implications for recurrent costs are large-scale data collection activites. Such activities beyond those already planned should be approached with great caution. (See also section II.A.1..)

In conclusion, the recurrent cost problem in Zambia is probably no worse than it is for Africa as a whole, and may even be less

serious than it is for some of Zambia's neighbors (e.g., Zaire and Tanzania). Nonetheless, it is serious, and ZATPID II must be designed in such a way as to minimize recurrent cost implications.

B. OTHER FINDINGS AND CONCLUSIONS

This section discusses some items that were not specifically in the scope of work, but which have come to the attention of the assessment team, and which are considered important. In some cases items discussed here were mentioned previously, but are raised again for fuller discussion.

1. Small Farm Survey

This study is a key activity of the current technical assistance team, both in its own right and because a number of the other activities on the workplan depend upon its completion. Its undertaking has raised a number of issues, including the questionaire design point raised in Section II.A.1. An additional and very serious problem has been funding for the survey. As of the time of the writing of this report, funding to continue the data collection, which is being undertaken by RDSB, was more than one and one-half months late in arriving from Iowa State University. This has caused considerable difficulty, as enumerators are currently in the field without financial support, and another group of enumerators has been delayed from going to the field in spite of a rapidly advancing agricultural calendar. RDSB has been forced to borrow from other accounts, the Director has gone so far as to borrow from his personal pocket in order to meet enumerators living expenses, and is now at wit's end. The situation raises management questions as well as questions of responsiveness on the part of Iowa State. (See Recommendations 1 and 2.)

An additional problem concerns data entry for the survey, which has now grown to be considerably larger than originally anticipated. Only one microcomputer is available at RDSB for processing and analyzing the data. According to estimates by the project's data processing expert, up to two and one-half years of data entry time may be required to process the questionaires using only one keyboard. Although these estimates may be on the high side, the situation nonetheless calls for a quick resolution if a major bottleneck is to be avoided. Using computers at CSO during off hours may be a feasible solution, and if so, an agreement to do this needs to be formalized. (See Recommendation 12.) If the data are not processed in a timely fashion, there is a real danger that expensive expatriate technicians will be unable to complete their workplans (and perhaps even depart the country at the end

of their tours without ever having the data to analyze). It has been a common problem of agricultural planning and policy projects worldwide to get bogged down in such large data collection and processing efforts (Tilney & Riordan 1985:13).

2. Data Processing Technician at CSO

The assessment team would like to draw attention to the outstanding work being carried out by this individual. The CSO data processing center, largely the creation of this technician, is efficient, effective, well organized, and now staffed by well-trained Zambians. The only cause for concern is the fact that many of the staff are contract employees. To ensure the continuation of this valuable contribution to Zambia, USAID and ISU should give high priority to finding a way to make these employees permanent GRZ staff.

3. Quantitative and Qualitative Approaches to Analysis

Quantitative methods are valid and necessary tools in economic policy analysis. The degree to which they are appropriate in the African setting, however, varies from country to country and situation to situation. Complex econometric models in particular have specific limitations, and needed to be complemented with other types of analysis.

Zambia, like many other African countries, has a considerable history of complex economic models built by well-meaning expatriates that were never used after the departure of the expatriate technician. (See, for example, ZATPID Quarterly Implementation Report of April - June, 1983, submitted by Lee Fletcher of ISU, page 14.) The assessment team is concerned that some aspects of the ZATPID I project may be perpetuating this phenomenon.

This is not to say that all attempts by ISU to introduce more rigorous methods into economic policy analysis in Zambia should be abandoned. The computerization by spreadsheet model of the methodology for recommending agricultural prices, for example, appears to have been useful in raising the efficiency of operations at MAWD/PD (although this is probably an example of computerization of an inappropriate methodology). Over the longer term, as data quality improves and as the policy process becomes more empirically-based, some increased reliance on quantitative methods will occur.

To date, however, there has been insufficient planning regarding the use for and sustainability of modeling exercises. It is not enough for the expatriate technician to see the need in broad terms for a particular modeling exercise. Rather, careful thinking must be done beforehand

regarding exactly how the model will be operationalized by the end user, and how it will be sustained after the departure of the expatriate. Additionally, there must be a clear commitment of human and other resources to it by Zambians at the proper level. In the absence of these preconditions, the modeling exercise should not be undertaken. (See Recommendation 17.)

C. RECOMMENDATIONS FOR THE REMAINDER OF ZATPID I

Specific recommendations that can be implemented during the remainder of the ZATPID I project are presented here. They are grouped under two headings, management and communications issues, and institution-building issues.

MANAGEMENT AND COMMUNICATIONS ISSUES:

1. Recommendation: Regular monthly ISU team meetings, recently begun, should be continued. The USAID project manager should meet with the full team at least once every two months.

There have been a number of communications problems between USAID and the ISU team, and some within the team. There is also a perception by some team members of lack of support from USAID. Regular meetings with the full team can help to improve communications. This is particularly important given that the team is spread out over three different institutions, which exacerbates management and communication problems.

2. Recommendation: If further in-country surveys or other activities are funded from ISU/Ames, then a system should be set up to pre-position funds in Zambia before the activity begins.

This is a simple method that has been used in other countries to avoid the problems mentioned in Section II.B.1. Funds can be pre-positioned in installments if this is considered necessary.

3. Recommendation: A qualified administrative assistant should be hired for the Chief of Party. Alternatively, the Chief of Party should not be held responsible for substantive elements of the workplan if an administrative assistant is not hired.

This recommendation flows from the recognition that the ISU Chief of Party, like team leaders in other projects and countries, is overburdened by administrative responsibilities.

4. Recommendation: At the present time, the Chief of Party needs to take a stronger advocacy role vis a vis USAID and ISU in assuring that the team has the resources necessary to function effectively.

The Chief of Party has taken a deliberately low-key approach in guiding the ISU team through a period of transition, and in smoothing over troubled waters resulting from earlier periods of unhappy relations between AID and ISU. Now that this has been done to some extent, and given that there is a large new team in country embarking upon new activities, it is time to play a stronger advocacy role.

5. Recommendation: The ISU team should be encouraged to travel to the field whenever possible.

Travel to the field is an important part of conducting studies and analysis. Failure to do so increases the likelihood of missing gross data errors and misinterpreting of data results. This is particularly the case for quantitative analyses, which should not be conducted without a strong intuitive sense of the situation being analyzed.

6. Recommendation: The Chief of Party, the AID Project Manager, and the Director of MAWD/PD should review the distribution methods for Planning Division documents, and take appropriate action to ensure that they receive as wide a distribution as possible.

The assessment team received indications that key documents, some of which are ZATPID I project outputs (such as the Agricultural Planning Newsletter and the Special Studies Series), are not receiving wide distribution outside MAWD/PD. USAID should be prepared to make funding available to address this problem if necessary.

7. Recommendation: The Project Executive Committee should establish its own written training criteria before additional participants are sent for long-term training.

See the discussion in Section II.A.2.a. for the justification for this recommendation.

8. Recommendation: The selection of U.S. universities for further participant training under ZATPID I should be reviewed relative to: 1. the disciplinary mix needed to enable returned participants to have the greatest impact, and 2. the

quantitative aspects of students' courseloads in Economics and Agricultural Economics.

Given the concern that has been expressed about this (see Section II.A.2.a.), a review seems to be in order. Among other factors, the review should take into account the necessity of heavily quantitative methods in carrying out the work of the participants upon their return to Zambia.

9. Recommendation: A technical subcomittee of the PEC should be established to provide greater technical guidance to activities undertaken by the technical assistance team.

It is the impression of the assessment team that the PEC as a whole has not played a strong role in setting the substantive agenda of the workplan, and probably does not have the technical expertise to do so. A technical subcommittee could be made up of the following: the USAID agricultural economist, a Zambian professional from the SPA Section of MAWD/PD, the Zambian Senior Economist for agriculture in the Sectoral Planning Section of NCDP, the Chief or Principal Economist from the Budget Office of MOF and a social science researcher from RDSB.

10. Recommendation: USAID, the ISU Chief of Party and the long-term BUCEN technician should meet to clarify relations and supervisory arrangements as soon after the latter's arrival as possible.

It is unclear what the relationship will be between all parties regarding this long-term technical assistance, and this needs to be clarified.

11. USAID should fund a short TDY to Malawi for the data processing technician at CSO.

Computers at the CSO data processing center that were supplied with United Nations funding are not compatible with USAID-supplied IBM machines. The assessment team was told that data processors in Malawi have written a program to make the same machines compatible. This should be verified, and if found to be true, the ISU data processing technician should be funded to visit Malawi to determine how to replicate the technology in CSO/Zambia.

12. Recommendation: The use of CSO computer facilities for the data entry of the Small Farm Survey needs to be formally agreed upon as soon as possible.

See the discussion in Section II.B.1. for the justification of this recommendation.

13. Recommendation: USAID/Lusaka needs to clarify the level of support to be provided to UNZA for the remainder of ZATPID I.

The 1984 evaluation recommended against further support to UNZA under ZATPID I. In an August 1985 document written by the Mission detailing the status of the evaluation recommendations, it is stated that the recommendation was considered and rejected in favor of continued support, and a long-term advisor was placed at the University. Given the severe recurrent cost problems at UNZA, USAID will need to make a modest amount of recurrent cost support available, in order to ensure that the technical advisor has the resources necessary to work effectively. This has not been done consistently to date, and the assessment team received indications that there was less than a consensus within USAID/Lusaka regarding continuing support to UNZA. This needs to be clarified, and a USAID/Lusaka policy set with regard to UNZA for the remainder of the project that is clearly understood by all parties.

INSTITUTION-BUILDING ISSUES

14. Recommendation: Steps should now be taken by the Director of PD and the Chief of Party to more formally structure counterpart relationships.

This recommendation follows the discussion in Section I.A.2.b.

15. Recommendation: Renewed emphasis should be given to workshops and other in-service training devices.

These activities are important to the process of institution-building (see discussion in Section II.A.2.b). The assessment team is concerned that these activities are receiving less emphasis in the current work plan, and feels that this trend should be reversed.

16. Recommendation: Renewed emphasis should be given to activities related to management, organization, and systems and procedures.

These are the types of activities that have had the greatest impact on institution-building to date. They are currently receiving far less emphasis than they were in the past, and this trend should be reversed. The return of the former Chief of Party to conduct management seminars for the IRDPs is a specific activity that could be conducted under this heading.

17. Recommendation: Further work on a standardized project cycle, (i.e., MAWD/PD's role in project identification, design, monitoring and evaluation), should be encouraged by USAID and the technical assistance team.

Accomplishment of this activity would be an important contribution toward a fuller accomplishment of the project purpose (see logical framework in the original PP). It is currently de-emphasized in the workplan. Short-term technical assistance may be appropriate to address the issue, and it will be necessary to interact with the CIDA team which has also done some work on this.

18. Recommendation: A technical meeting should be convened to determine whether the ISU transport model warrants continued project effort. The Chief of Party should carefully specify in writing before the meeting exactly how the model will be utilized and sustained, if he believes that continuation is warranted.

This recommendation is justified by the discussion in Section II.A.1.

19. Recommendation: Because of lack of impact to date, future econometric modeling exercises should be preceded by an approved, written specification regarding their use, as detailed below.

The proposal should clearly spell out who will use the model, for what purposes, how end users outside MAWD/PD will be brought into the process of developing and using the model, and how the model will be sustained after departure of the expatriate advisor. The Director of the PD needs to make a clear commitment of human and other resources to any such exercises.

III. ZATPID II

A. INTRODUCTION

The purpose of ZATPID I was "to improve the GRZ's performance and strengthen its capacity for the analysis, planning and management in the agricultural sector to contribute to an increase in Zambia's per capita food production and the incomes of small farmers (ZATPID PP 1980:3)." Five aspects of GRZ socioeconomic performance were identified in the project paper as indicators of the achievement of the project purpose. These were:

- increased investment of resources in the agricultural sector;
- a more coherent and effective agricultural strategy;
- an increase in the availability and utilization of information needed for managing the agricultural sector;
- improved design and execution of agricultural projects in small farmer areas; and
- improved procedures in analysis, planning, and management in NCDP, MAWD, and other appropriate institutions.

The purpose of ZATPID II is "to help establish an effective GRZ policymaking and implementation process in the agricultural sector (ZATPID II PID 1985:5)." The purpose is to be achieved by a continuation of the ZATPID I approach of improving current policy and management while contributing to the institution building needed for improved policymaking and implementation procedures over the longer run. Although the approach remains the same, the ZATPID II PID proposes to extend the project scope to the area of policy implementation, encompassing a new and different set of organizations and activities in addition to those assisted under ZATPID I.

The assessment of ZATPID I has shown that although progress has been made on all five aspects, only two - increased availability and utilization of information and improved procedures in analysis, planning and management - have made significant progress that is directly attributable to the project. The team notes, however, that other USAID efforts, particularly the policy dialogue, has had considerable impact on all five targeted areas.

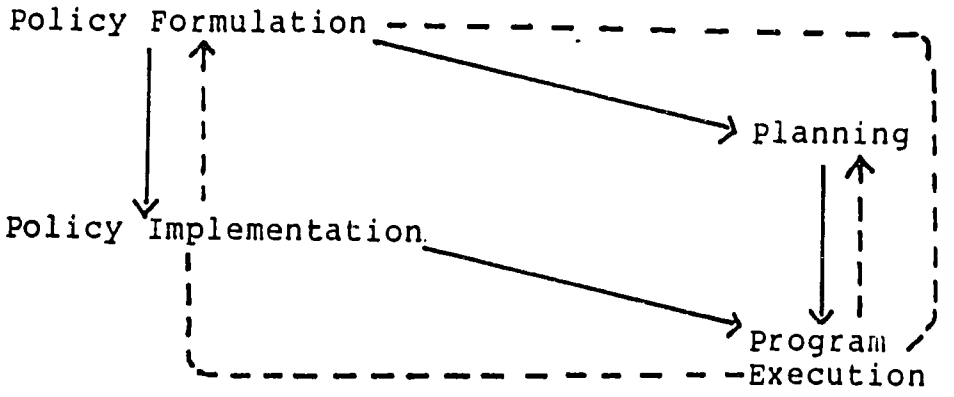
Some of the reasons for the project's more limited impact are historical, and need not be dwelt on here, but the result was less direct effect of the project on all relevant policymaking organizations than originally envisioned in ZATPID I. This limited achievement of the objectives in ZATPID I poses a question for the designers of ZATPID II. To what extent should the follow-on project emphasize a continuation and more thorough achievement of the purpose of strengthening the policy formulation process, versus broadening its scope to include policy implementation as proposed in the PID?

In an effort to respond to that question, and to provide recommendations for the follow-on project design, an analysis of the policymaking process and an assessment of the institutional requirements to achieve the ZATPID objectives have been undertaken. The following sections provide a suggested conceptualization of the policy arena; discuss the dynamics of the process and the current policymaking environment, including the constraints to empirically-based decisionmaking; and identify the needs and resource gaps that should be filled to achieve the project purposes outlined above. Recommendations for project design are then made, drawing upon the material in Sections II and III of the report, so that the lessons learned from ZATPID I will be applied to the conceptualization and information provided in preparation for ZATPID II. Annex 7 describes the relevant organizations and their roles.

B. CONCEPTUAL FRAMEWORK

The ZATPID project concept is premised on the belief that government is responsible for setting a sound macroeconomic policy environment so that economic forces can function efficiently. Further, on a sectoral level, government should be managing an economic incentive system rather than directly intervening in investment, production and consumption (World Bank 1983:64). The establishment of the environment for growth, then, involves policy formulation and planning for the agriculture sector, which is embedded in the macroeconomy. Articulated policy and plans are insufficient to achieve growth, however; policy must be implemented and plans executed, and the results fed back to affect new policy formulation in an

iterative manner. The process might be represented schematically as follows:



_____ direct effects ------ feedback

The policy formulation process entails at least five functions:

- data collection and processing
- analysis on the basis of best available information
- formulation of recommendations
- decisionmaking
- monitoring the impacts of decisions to provide better information for future analysis and decisionmaking.

In contrast, policy implementation generally means translating decisions into practices, usually leading to systemic, institutionalized change, rather than one-time exceptions to previous practices. Although there are daily choices to be made in policy implementation, the magnitude and impact of these decisions is less dramatic than in policy formulation.

According to the 1983 World Bank Development Report, planning for development in less developed countries should provide a forum for bringing together different government agencies and different sections of society to think about national development, and to help politicians mobilize public support for development programs. In addition, it should allow a strong capacity to be built for appraising public investment programs and to aggregate all such programs to assess their net financial impact in the short to medium term. Program

execution should reflect the impacts of the prior three processes, with a firm linkage between theoretical plans and budgetary realities. It is distinguished from policy implementation because its purpose is accomplishment of a specific "task," rather than institutionalizing a change in the procedure that governs the task. Program execution provides important feedback information regarding the impacts of policy formulation, planning and policy implementation (World Bank 1983:68-70).

In other words, policy formulation may be said to be devising the "rules of the game;" policy implementation is putting those rules in place; planning is forward thinking about the activity at hand within the rules of the game, and program execution is actually playing the game. However, in playing the game, it may become apparent that the rules need to be modified, because they do not lead to the desired outcome, or because circumstances have changed since they were established. For this reason, policy formulation must consciously include a monitoring and evaluation aspect. (The World Bank report notes that maintaining flexibility is a major challenge to the policy formulation process.)

The PID for ZATPID II implied an understanding of the distinction between policy formulation and policy implementation. It noted that ZATPID I had concentrated exclusively on the former, and made the deliberate choice to expand the project into the policy implementation activity. This significantly increases the proposed span of management under ZATPID II, as the agencies involved in agricultural policy implementation are not the same as those which formulate policy, particularly with respect to input supply, marketing and infrastructure development. The team recommends that ZATPID II continue the course begun under ZATPID I and stay focused on policy formulation and planning, in light of the work remaining to be done on the five original aspects, and of the span-of-management concern.

C. THE POLICY ENVIRONMENT

Beginning in 1975, Zambia's economy has experienced a significant downturn. At the same time, political events in the region, notably in Angola, Zaire and Zimbabwe increased Zambia's need for defense expenditures, disrupted access routes to the sea and the pattern and cost of importing and exporting. Copper prices and output have continued to fluctuate, and the supply of copper will decline significantly during the remainder of the century. Since the mid-1970's government's share of resource consumption grew, so that it was calculated in 1980 to be 40 percent of GDP. Inflation, fueled

by government borrowing from the banking system, has increased dramatically over the past ten years. Un- and underemployment have also grown. (World Bank 1981:i; U.S.A.I.D. 1985:3).

In 1981, the World Bank country economic memorandum (1981:ii) pointed out that "[p]erformance in key sectors was also affected by the economic and financial crisis, but a severe drought in 1979 [and subsequent years] and several persistent longer run problems have also been significant." Transport was not only affected by political instability, but by "shortages in Government revenues and foreign exchange earnings, and weaknesses in the management and coordination of transport facilities." The memorandum also noted that "[i]n the agricultural sector, producer prices still appear to be too low and not regionally differentiated. Additional problems leading to production shortfalls are the drought, inadequate flows of government resources to the sector, and recently, shortages of credit allocations for agricultural production. Manufacturing activity is most significantly affected by shortages of foreign exchange....In the longer term, however, prospects for greater production, employment and efficiency in the manufacturing sector will improve if the incentive framework is altered."

The economic memorandum concluded that in order for Zambia to regain its economic health and political stability, it would have to:

- continue pursuing macroeconomic stabilization policies;
- achieve an upsurge of growth in the medium term via increased longer-term external borrowing;
- reallocate government and parastatal resources to establish the basis for more efficient resource utilization and sustained growth and diversification in the long run.

In the agriculture sector, the report specifically recommended increases in producer prices to reflect international prices, increasing government resource allocation to the sector and encouraging greater flows of credit to agriculture by removing interest rate ceilings on loans to farmers, in addition to increasing the efficiency of agricultural parastatals (World Bank 1981:ii-iii). These recommendations accorded with those put forward by U.S.A.I.D. as early as 1979.

These recommendations represented a sizeable shift in course from the policies that had been pursued since independence in the mid-1960s. It was clear to Zambian decisionmakers, notably President Kaunda, the Central Committee and Cabinet, that dependence on copper revenues was no longer a feasible course

of action, and that economic reform would have to be taken, mitigated somewhat by a number of agreements with the IMF. Still, the initial set of reforms could be seen as donor-driven, with USAID, the World Bank and IMF playing a particularly active role. Many of the recommended macroeconomic reforms were accepted; these are discussed in ZAMCAM and other USAID/Lusaka documents.

The shift from donor-driven reform to Zambian-driven is occurring, as indicated by a number of factors, including those cited in the ZATPID I impact assessment. With respect to the agriculture sector, a 1984 World Bank report on policies and strategies for growth in that sector is an example of this shift. It was coauthored by Zambians, widely circulated, and appears to have been generally accepted, although it leveled a number of very harsh criticisms on the course of development of Zambia's agriculture since independence. These criticisms have become so widely accepted that respondents interviewed for this report cited them.

The team noted that in addition to a Zambian sense of "ownership of the process," there is also a willingness to discuss policy formulation and the environment in which it is embedded. There is, in general, an atmosphere of relatively open debate, with political imperatives clearly being weighed against economic ones. Parliamentary speeches, formal interviews and casual conversations all reflect this. The local press regularly identifies decisionmakers, analyzes decisions in commentary and covers criticisms of those decisions.

The alacrity with which major changes have occurred over the past four or five years also bespeaks a political stability that is comparatively rare in African countries. However, the reforms taken to date, and those contemplated, have their costs as well as benefits, and both technical- and political-level decisionmakers must weigh carefully the limits of tolerance, both in terms of the pace and of the magnitude of change. Some segments of the society stand to lose, at least in the near term, as the reform program continues. As the paper prepared for the Zambia Multi-Channel Agricultural Marketing (ZAMCAM) Program notes,

> Certain elements of these reforms are proving difficult to implement, due, in part, to the political opposition of adversely affected interest groups. Taken on a one-by-one basis, it is hard to demonstrate that the benefits will soon outweigh the costs, particularly for particular groups. Nevertheless, with declining copper revenues and the labor force continuing to grow at its current rate, Zambia has no choice but to restructure its

> economy to diversify exports, replace imports and to generate productive employment opportunities as fast as possible. (1985:5)

However,

> Among the major groups of households in Zambia, it is clear that the urban informal sector workers and the unemployed will be the most adversely affected, in the short run, by the reform program, since the cost of maize meal (which must rise) is thought to comprise a significant portion of their household budgets. (1985:6)

The urban poor have, in fact, recently responded to sharp increases in public transportation fares with minor incidents of protest.

The team believes that these warnings should be viewed as a signal that the pace of progress both in macroeconomic and sectoral reform must, perforce, slow as political costs rise to meet or exceed immediately perceived economic benefits. The next few years may well be a period of consolidation in which the policy changes made to date are fully absorbed by Zambian society. It is a good juncture at which to turn the ZATPID activity more firmly in the direction of long-term institutional strengthening to balance with the short-term production of studies emphasized in the first phase of the project.

D. THE POLICYMAKING PROCESS

The previous section described the general environment in which Zambian agricultural policy has been formulated over the past few years. Notwithstanding the caveats noted above, the policy environment in Zambia can be generally characterized as comparatively open and flexible. By comparison with its African neighbors, Zambia has benefitted from a stable and democratic political structure of some twenty years' duration, which is relatively rare in less developed countries.

This section will provide a composite, generalized description of the agricultural policymaking processes and the organizations (see also Annex 7) and individuals involved. There are actually two or three parallel channels for policy decisionmaking, and the various tracks converge and separate at different points in the processes. The different channels will be described separately, but cases in which steps are identical will be referenced rather than fully repeated.

The impetus for policy formulation and decisionmaking can come from three different sources: 1) internal political forces, 2)

professional technical assessments, and 3) external political forces (e.g., donor analyses and subsequent negotiation). Once a need for policy codification or change has been identified, it can be articulated by several means. A Cabinet officer or member of the Central Committee may request the study of an issue, or a professional staff member (Zambian or expatriate technical assistance) of a ministry may make a proposal, either through his annual workplan or on an ad hoc basis, for a study.

In the case of agricultural policy, MAWD will usually be the responsible ministry. A request generated from whatever source external to MAWD flows directly from the Minister or Permanent Secretary (PS). Alternatively, a proposal may be generated by Planning Division personnel. In about half the cases, requests for policy formulation coming from the Minister flow through the hierarchy to the PS to the Director of Planning (DP) to a staff officer for assignment. In the other half of the cases, the request flows directly from the Minister to an individual staff member. Most of the instances of bottom-up issue identification have been by expatriate technical assistance within MAWD/PD; these proposals for analyses are vetted with the DP without much involvement by Zambian staff, and are often pursued somewhat in isolation. (See Section II.A. for comments on utilization.)

The longer-term studies or analyses are synopsized for presentation to the Minister, and almost all flow back through the hierarchy from professional staff to the DP to the PS and then to the Minister, regardless of the source of the request. Shorter-term responses to ministerial or PS requests may bypass the bureaucratic layers and be returned directly by the PD staff member to the source of the request. Reports may take the form of executive summaries of longer studies highlighted for ease of reviewing, or special short papers or memoranda, accompanied in each case by recommended courses of action. The Minister may act on the analysis and recommendation immediately, or he may call a meeting of the PS, DP, Minister for State and other relevant parties within MAWD to discuss the matter and alternative courses of action. He may decide to take no action, or decide not to decide, in which case the matter rests. The fertilizer study carried out under ZATPID I is probably a good example of the latter.

If the Minister decides to pursue the matter, he has two courses of action open to him. The first is to take a unilateral decision, if the matter lies within his statutory authority, and proceed directly to implementation. This was the case with the reorganization of the Land Development Services and the raising of the tractor hire rates. In such cases, the Minister may choose to write an information memorandum to the Cabinet, informing his colleagues of his

decision. No ratification of that decision is required, however. The second course of action is to direct the DP to have his division prepare a Cabinet Memorandum.

A Cabinet Memorandum is generally prepared by the same individual who performed the initial analysis. An exception to this may be the expatriate technical assistance, who must have accrued substantial credibility before they are asked to write such memoranda. The groundnut study in Eastern Province is a good example of the phenomenon of an expatriate advisor writing the study and then being asked to write the memorandum. The policy memorandum from PS/MAWD to PS/NCDP and PS/Decentralisation concerning the restructuring of all IRDPs is another instance. The Cabinet Memorandum proceeds from the author through the DP to the PS and Minister, with internal MAWD comments being incorporated along the way. The extent to which other departments within MAWD, or other interested parties (e.g., the Eastern Cooperatives Union in the case of the groundnut study) have an opportunity to comment at this point is unclear, and may vary from case to case.

After the Minister's approval of the Cabinet Memorandum, it is circulated under the Minister's signature to other relevant GRZ ministers and agency heads. For the agriculture sector, reviewing entities are likely to include NCDP, MOF, NAMBoard, MOD, Ministry of Lands and Natural Resources, MOC, ZCF, ZADB and AFC, although not all would be involved in every issue. The receiving parties direct their respective professional staffs to review and comment on the memorandum. The comments are written up, and sent back to MAWD under signature of the minister or agency head. The author of the cabinet memorandum is then asked by the Minister of MAWD and the DP to revise in light of comments received.

After incorporating the comments of the professional civil service, the Minister formally presents the memorandum to his colleagues in the Cabinet and argues his position. Much of the outcome is said to be dependent on the persuasiveness of a given minister, and his/her stature among colleagues.

It is a rare occasion when Cabinet acts on a major policy issue without concurrence of the Central Committee, but on more minor policy establishment or changes, Cabinet may ratify the change. In most cases, however, the Cabinet Memorandum is submitted to the Cabinet and the Central Committee simultaneously, or nearly so. According to the Constitution, the Central Committee is to devise policy and the Cabinet to carry it out (Kaplan 1979:137).

The Central Committee has several possible options for action at this point. It may consider the proposed policy forthwith and accept it. Or it may deliberate and reject the proposal. The CC is more likely, however, to forward the proposal to the appropriate subcommittee, which in the case of agriculture is the Rural

Committee usually accepts. The Subcommittee may recommend acceptance, rejection or returning to the originating ministry for revision. A policy that is accepted by the Central Committee is then passed on to Cabinet for implementation.

Although the above describes the basic process, there are a number of variations on the theme. If a policy issue is identified via the internal political route, it may be acted upon by a Cabinet officer or member of the Central Committee through the UNIP structure rather than through the ministerial structure. The request for study may go to the UNIP Research Bureau, or a special commission of inquiry may be established. An example of this is the Commission of Inquiry into Land Matters in Southern Province, which grew out of a Cabinet officer's concern. The same data collection and analysis process as with a line ministry ensues; however, there is a considerably foreshortened bureaucracy through which the request and the completed study move. The analysis is then passed to the CC, which may take a decision that is passed to Cabinet in the same manner as described above, or it may be turned over to the relevant Cabinet minister for further analysis and action by his or her ministry. In the latter case, the full process outlined above, of analysis by the civil servants, vetting with other ministries and presentation before Cabinet and the CC may take place. Several sources noted that the Research Bureau does not have the full range of technical capacity available to a ministry; in contrast, commissions of inquiry are often made up of technical experts, so that policy recommendations made by such a body may be immediately actionable by the Central Committee. Not all such analyses lead to action; in some instances the study provides adequate information to determine that no action need be taken (as opposed to letting a study languish without any action).

After a policy has been formulated and recommended to Cabinet and the Central Committee, the President may also become involved in the decision. As a member of the Central Committee, he does, of course, enter into the process as described above, but he may also wear his hat as head of the executive branch of government. In this capacity, he is served by his economic advisors at State House. Decisions that are extremely politically sensitive appear to have the President's personal imprimatur. He may also intervene after a decision has been made by Cabinet and the CC, as in the 1985 announcement of maize prices. After a price of K45 per bag had been announced, the Commercial Farmers' Bureau sought an audience with the President, to present the case that the price did not provide adequate incentive to maize producers. It urged a price of K60. The President reopened the question with the CC and Cabinet, and the price was raised to K55. Thus, the President may support or overturn a policy decision made at any level.

E. THE BUDGET PROCESS

There is another, subtler policy process that goes on in government. This is resource allocation through the budgeting process. In accordance with the emphasis placed by the President and Central Committee on agricultural development, a larger share of the shrinking pie has been devoted to investment in agriculture over the past few years. However, priorities within the agriculture sector are determined by budget as well as by sectoral analysis. Hence, it is important to have an overview of the budgeting process.

The cycle starts with the Ministry of Finance and NCDP issuing budget guidelines, which include ceilings for expenditure by each ministry. Although NCDP was subsumed under the Ministry of Finance in 1985, budget guidelines and responsibilities are still drawn along the old lines - NCDP is responsible for planning for the capital budget and Ministry of Finance for the recurrent. The submission to Parliament is one document, however, as the capital and recurrent budgets were amalgamated into one common planning system as of 1983.

The sectoral ministries prepare their budget submissions according to the budget guidelines, which ideally are issued in July or August of each year. Within MAWD, the Budget Analysis Section (BAS) of the Planning Division has the responsibility to meld the submissions of each department into a ministry-wide budget. The BAS has the only trained budget analysis capability in the ministry - most other departments do not have a designated financial officer. The budget submission is then made to NCDP and MOF Budget Division during September/October if the process is on track. The Sectoral Planning Unit of NCDP reviews the capital submission, while the MOF/Budget Division reviews the recurrent. At the start of the cycle, Sectoral Planning and Budget do meet together to discuss submissions, but as the time grows shorter, each works without benefit of coordination with the other. Passbacks are made to the sectoral ministries, which then submit reclamas. The Sectoral Planning and Budget Divisions negotiate as necessary with the ministers of the sectoral ministries. The individual minister's stature and persuasiveness enters into the decisionmaking at this point. Ultimately, however, the Minister of Finance has the final word on any differences that may have arisen between the sectoral ministries and his own staff (both NCDP and Budget Division).

The completed budget for the current fiscal year is submitted to Cabinet on the 31st of January of that year. A "continuing resolution" is required each year to allow Parliament to debate the budget; this has a statutory limitation of three months. The net result, however, is that current expenditure, particularly on the capital side, is restrained for the first three months of each

fiscal year. The budget process is characterized by problems with timeliness, accuracy and lack of detail in information required, and by a cumbersome partnership between NCDP and MOF in national budget preparation.

F. INSTITUTIONAL CONSTRAINTS TO EMPIRICALLY-BASED DECISIONMAKING

The above discussions of the policymaking and budgeting processes are essentially descriptive, although some of the flows of power and incentives for different actors in the system are revealed. In intensive interviews with many of the Zambians involved in the policymaking and budgeting activities, and with a few expatriate observers, a series of weaknesses in the system came to light. All of these will be discussed below, although only some of them are amenable to donor assistance.

Constraints to more empirically-based decisionmaking occur in the following areas:

- intra- and inter-organizational coordination;
- management of investment, including donor resources, in the agriculture sector;
- overall resource allocation, and allocation within the agriculture sector;
- capacity for data collection and analysis
- structures, functions and procedures of specific organizations; and
- the political dimension.

1. Organizational Coordination

The need for improved coordination among departments in MAWD, and among the range of GRZ actors in rural development, was cited repeatedly as a constraint to improving the policymaking process. Although agriculture has been given priority in GRZ development efforts, a strategy for achieving the desired end requires the concurrence of a number of actors in the rural scene. There is a need for a means of prioritizing problems and establishing a common agenda across government at the senior technical level, to avoid duplicative data gathering and analysis efforts and waste of scarce human resources. At the same time, there are defunct committees and coordinating bodies littering the governmental landscape, including the Small Farm Sector Studies Committee and the National Policy Steering Committee for Rural Development Support Programs (Warren 1985:6) begun under ZATPID I. It would appear that more

than goodwill is required to ensure that everyone is pulling in the same direction.

Before meeting at an interagency level, each organization must get its own house in order. At a minimum, an internal point for coordination of all data collection efforts and studies using primary or secondary data should be established in each organization. For example, the team found that the Planning Division and Agricultural Research Division (Department of Agriculture) within MAWD are only now establishing linkages to avoid duplicative data collection exercises, and that the two divisions do not really have good access to each others' completed research results. This is being partially addressed by the establishment of the agricultural data bank in PD. It would be useful to organize documents and create computerized data banks so that reports can be easily shared across governmental organizations. A model that might be examined for intrainstitutional coordination is the University of Zambia's research committee that considers proposals for research funded in-house to ensure that duplication does not occur.

2. Management of Investment in the Agriculture Sector

The lack of ability to properly plan and manage for investment in the agriculture sector is best characterized by the criticism of the July 1985 investment plan in the recent evaluation of MAWD by Peat, Marwick et. al. (1985:15).

> The Investment Programme contains serious deficiencies. In particular, it fails to:
>
> - reflect adequately the quality and volume of the underlying sub-sector analyses or to integrate them effectively into a sectoral program;
> - present a clear view of priorities;
> - adopt consistent methodologies for economic analysis and investment criteria;
> - clearly identify overall objectives and a resource allocation programme.

At present and for the foreseeable future, capital resources for GRZ agricultural development are and will be supplied largely by donors. Not only does the GRZ need to manage better the donor resource flows it now receives, but it needs to establish sustainable systems for planning and implementing realistic development plans for the agriculture sector. With assistance from the World Bank, the GRZ is instituting a financial management system that is specifically designed to track the 30-odd streams of donor funds that flow into Zambia. The next step will be to organize the planning of donor expenditures according to Zambia's priorities and perceived needs, rather than according to the

donors' interests or mandates. Once such a system is in place, the transition from donor resource flows to Zambian resources should be a relatively easy one.

The tools for accomplishing improved investment planning are not simply computer hardware and software. As noted in the Peat, Marwick et. al. report, the ability to analyze and to learn from experience and to blend competing demands on scarce resources is required.

3. Resource Allocation

Agriculture is only one of several sectors that require infusions of government support to achieve development objectives. The 1981 World Bank country memorandum and subsequent U.S.A.I.D. documents identify transport, manufacturing and employment as areas in which the GRZ will have a financial role in the near to medium term. How is agriculture to continue to be accorded the priority it should have in order to contribute to Zambia's growth? Several aspects need attention: analytical skills development, computerization of planning models and resource flows, interorganizational coordination and better control over counterpart funds and staff demanded by each donor.

Further, as agriculture begins to generate revenues for the economy, some of these streams should be redirected to additional agricultural development. This can only happen if some institutional memory is established, time series can be constructed and trend analyses carried out to convince decisionmakers that they must stay the course and refuel the agriculture sector rather than continue to drain resources from it.

Although recognized to some extent in the section on managing investment, it should be emphasized that there is an intrasectoral element to resource allocation as well. Choosing from among alternative investment opportunities to achieve broadly-based economic growth requires development plans to be considered in conjunction with realistic assessments of available revenues. As decentralization proceeds in Zambia, this ability will have to pervade the system from the district level to the center. Such bottom-up planning should help avoid the pitfalls of an overly-planned, overly-centralized economy.

4. Data Collection and Analysis

As was pointed out on more than one occasion during interviews for this report, the GRZ emphasis on agricultural development is a fairly recent occurrence. Consequently, the available data and analyses were relatively weak and not adequate to meet the greatly increased demand caused by the need to make major decisions on agriculture sector policy. Considerable progress has been made

under ZATPID I in strengthening the CSO, MAWD/PD, and to some extent RDSB capacity to handle data collection and analytical tasks. However, the saturation point has yet to be reached. The MAWD/PD is fully staffed, but still very short on human resources with advanced training (MAWD:1984). The CSO will need to institutionalize the upcoming agricultural survey so that it can be repeated every three to five years, and will need to begin preparing for the 1990 census. The overall budget process could be greatly improved in terms of timeliness and accuracy if the analysis and liaison with sectoral ministries were computer-assisted. The Ministry of Finance mainframe cannot provide the necessary quick turnaround time, nor can data be easily shared with the sectoral ministries under the current system. Therefore, microcomupters are recommended for the MOF Budget Office. The staff there will require training to manage its move into microcomputers for budget analysis. Similar examples exist in all organizations with a role in the policy formulation process.

Two particular weaknesses emerged in the analysis of the agricultural policymaking process. The first is the shortage of policy analysts capable of taking thorough analyses and "translating" them into actionable recommendations for decisionmakers. The second is in management - of time, of financial resources, of personnel, or of programs.

5. Structures, Functions and Procedures

The dearth of management capacity noted above has often led to weaknesses in organizational structure, functions and procedures. The Peat, Marwick et. al. draft evaluation of MAWD points out that "[t]he Ministry has responsibility for organisations and functions which are not appropriate to MAWD's role of developing and managing the agricultural sector, and senior officers' time is being dissipated on activities of marginal relevance (1985:13)." Although NCDP is in a state of structural transition, it seems also to be reassessing its role in national planning. Many of the sub-units of the policy formulation process suffer in microcosm from the same problem. MAWD/PD has had no annual workplans, had not set long-range objectives and did not go through any regular exercise to systematically identify policy issues. Sustained institutional development requires that good management systems be in place, that organizational functions be clearly delineated and that procedures for accomplishing the work be in place in order for the technical assistance, training and commodities to have an impact beyond the project completion date.

6. The Political Dimension

Viewed from the widest possible optic, the entire system of policy formulation might be seen as an institution. In that case, one dimension that is a constraint to a rigorously empirical approach

to decisionmaking is the political. Although there is clear evidence that politicians in Zambia have increasing confidence in the analysis based on empirical information, and that demand for such analysis has increased since the inception of ZATPID I, it is well to keep in mind that the influence of data and analysis has its limitations. Zambia is more fortunate than many LDCs in that its political stability has allowed decisionmakers to take a longer view than those whose daily survival depends upon appeasing strong political forces. The resistance to regional pricing for agricultural commodities is a good example, however, of the fact that politicians have their own cost/benefit calculus.

G. ORGANIZATIONS RECOMMENDED FOR ASSISTANCE UNDER ZATPID II

The previous sections have presented a framework for selecting appropriate points for assistance to the policy formulation process in Zambia. First, conceptual distinctions were drawn among policy formulation, policy implementation, planning and program execution. Then the policy environment and the formulation process in Zambia were described and their weaknesses analyzed to illuminate the interrelationships among organizations involved in agricultural policy formulation, planning and implementation. The organizations themselves are described in Annex 7. Combining these sections has led to a specific set of organizations and suggested types of assistance to them.

Before turning to the specific organizations, the application of the distinction between policy formulation and policy implementation should be explained. The ZATPID II PID recommended seven organizations for approximately equal amounts of assistance (and one additional organization for a smaller amount) over a seven-year project life. Two serious feasibility considerations are raised by this recommendation: 1) span of management and 2) anticipated impact. The results of the ZATPID I assessment indicate that as the project broadened to include organizations beyond the MAWD/PD the management burden for both USAID/Lusaka and the Chief of Party grew concomitantly. The results also indicate that if the right person is put in exactly the right place at the right time, a single individual could perhaps have the desired institutional impact. However, this is a rare and serendipitous event. Other diffused inputs are equally likely to have diminished impact. Hence, some attempt to limit the number of organizations to receive assistance under ZATPID II was felt to be prudent, and the policy formulation/policy implementation dichotomy was thought to provide useful guidance for focusing the project and selecting organizations to be assisted.

The PP for ZATPID I, quoted in Section III.A., gave an excellent rationale for AID's involvement in strengthening a Zambian policy formulation and planning process. This job is not yet completed. The recommendation is, therefore, to stay the course in policy

formulation and planning and not to expand to policy implementation and program execution under the aegis of ZATPID II. Annex 7 identifies the following as policy formulation and planning agencies in the GRZ: MAWD (particularly the Planning Division), MOF/Budget and Economic Affairs Department, NCDP and CSO (both parts of the MOF as well), the Rural Development Studies Bureau at UNZA, UNZA Departments of Economics and Rural Economy and Extension Education, UNIP's Central Committee and Research Bureau, the Cabinet, the Commercial Farmers' Bureau, and the President and his State House advisors. Policy implementation organizations are considered to be the MOC, the agricultural parastatals, the Ministry of Lands and Natural Resources, the Ministry of Decentralisation and the Ministry of Commerce and Industry.

Applying two criteria, that the organization be involved in policy formulation or planning, and that the level and types of assistance be feasible in terms of management and impact, has resulted in the selection of five key organizations for assistance. The organizations and proposed assistance are suggested below.

1. Ministry of Agriculture and Water Development/Planning Division

The program of technical assistance and training should be continued. A limited number of commodities, mainly computer hardware and software, should be considered. The team recommends three long-term technical assistance personnel, one in agricultural economics,one in public administration and one in a social science discipline with emphasis on organization management. The latter person could be drawn from one of several disciplinary backgrounds, as employment experience is more important than academic training. His/her responsibilities would include monitoring and evaluation of policy impacts, rationalizing and institutionalizing an approach to managing the project cycle and working on some of the non-financial aspects of investment planning for the agriculture sector (e.g., equity effects, geographical distribution, etc.). The agricultural economist should be located in the Sectoral Planning Division, the public administration specialist in the Budget Analysis Section and the organization management specialist in the Project Analysis and Implementation Section. The provision of the organization/management specialist should be conditioned on the establishment of a formal mandate and identification of a responsible Zambian for substantive monitoring and evaluation within the PAI Section. The training should proceed according to the plan established in Planning Division Human Resources Development and Training Plan, Planning Division Special Studies No. 11. A fund should be provided under joint MAWD/PD and USAID/Lusaka control to allow studies and analyses to be contracted to private consulting firms or other, non-profit entities to enhance the analysts' capacity to manage both the studies and the Division's own scarce time. The personnel mix and training respond

to the analytical capacity, resource allocation, organizational coordination, management of investment, and the structure/function/procedure constraints noted in Section III.

2. Ministry of Finance

Assistance in the form of sufficient microcomputer equipment, and a long-term technician in the area of budget analysis, should be provided to the Budget Division of the Ministry of Finance. Some training, particularly in public administration may be provided. (The team was informed that currently all officers in the Budget Division are trained to the masters' level.) The budget analyst who serves as technical advisor to the Division should also be responsible for devising a system for closer liaison between the Budget Division and the Sectoral Planning and Investment Policy Departments of NCDP. The proposed assistance responds to the organizational coordination, analytical capacity, resource allocation, structure/function/procedure and management of investment constraints.

3. National Commission for Development Planning

The provision of training is recommended for NCDP Sectoral Planning, Regional Planning and Investment Policy staff (CSO is considered separately), but carefully selected to have the maximum impact on the agriculture policy and planning process. This should be conditioned on the development of a training plan for NCDP similar to the plans drawn up by MAWD/PD and CSO. Long-term technical assistance could be provided in the abovementioned departments, particularly to augment staff while participant trainees are away, but with some overlap on their return. Suggested mix of skills for this technical assistance would include public administration/public policy, regional planning/human geography or other social science and agricultural economics and general economics. The exact mix and specifications would depend on a more thorough needs assessment by NCDP than has been done to date.

The team believes that NCDP is the logical entity to provide interagency coordination for activities and investments for agriculture and rural development. (See also Section III.H.1. of the report.) As the national planning entity, NCDP has the mandate for such coordination, and the status required to make such a body effective. The preference is, therefore, to place a long-term technician in NCDP, most likely attached to a Zambian who reports directly to the PS or Minister to serve as the secretariat to a senior technical level committee on rural development. An OPEX position might be considered, as the role the person would play would be strategic to the agriculture sector, and as such the GRZ may wish to have a greater degree of autonomy in direction of that individual. The proposed assistance will address constraints of

organizational coordination; management of investment; analytical capacity and structures, functions and procedures.

4. Central Statistics Office

A mixture of training, technical assistance and commodities similar to the package provided under ZATPID I is recommended to continue to respond to data, analytical and structural, functional and procedural constraints.

5. Rural Development Studies Bureau

Additional microcomputing equipment and training on the equipment for all staff should be provided. Provision of advanced degree training should also be considered. RDSB will presumably continue to benefit from contractual relationships with MAWD/PD, especially if the studies fund is established. This proposal responds to the data and analysis constraint.

6. University of Zambia

The lack of movement to date on an agricultural economics concentration within the Agriculture B.Sc., the large size of the assistance package that would be needed to add a M.Sc. program in agricultural economics, and the bleak recurrent cost picture have led the team to recommend that technical assistance not be provided to UNZA under ZATPID II. A major criterion in this recommendation was the sustainability of the institutional strengthening provided through project assistance, and it was felt that UNZA lacks the means to assure this. This judgment is consistent with the 1984 ZATPID evaluation report's recommendation regarding UNZA. The project could continue to train eligible candidates from the university, or could cede the support for training to USAID/Lusaka's HIRD Project.

H. ADDITIONAL RECOMMENDATIONS FOR ZATPID II

The assistance recommended above is couched in terms of organizations and resource gaps to be filled, in fulfillment of the scope of work for this report. However, there are a number of recommendations that have emanated either from the assessment of ZATPID I or the investigations for ZATPID II that do not fit neatly into an organizational frame of reference. Therefore, additional recommendations for the design and implementation of ZATPID II are outlined in this section.

1. Institutional Coordination

Although coordination among organizations is a major theme of the constraints section, making each organization responsible for coordination internally and with other agencies does not

necessarily result in a system-wide sense of coordination. Therefore, the following steps are suggested to lead to sustainable, systemic coordination for rural development:

a. Under ZATPID I, commission

an inventory of all existing coordinating bodies (i.e., committees, commissions, etc.);

a determination as to which of these bodies is actually functioning;

a calculation of the cost to the GRZ of the continued lack of coordination.

b. Under ZATPID I or II, depending on funds availability,

send several key Zambian senior civil servants on a study tour of other African countries that have coordinating mechanisms such as the Rural Development Secretariat in Botswana.

c. Fund under ZATPID II a secretariat mechanism, ideally within NCDP, but located elsewhere if necessary (a second-best alternative would be MAWD), to coordinate among institutions concerned with agricultural development at the senior technical level. Likely representation on such a body includes MAWD, MOF (including NCDP and CSO), Ministry of Lands and Natural Resources, Ministry of Decentralisation, Ministry of Cooperatives, UNIP Research Bureau, RDSB, Zambian Cooperative Federation and ZADB/AFC. Although the U.S. can provide technical assistance to ensure smooth mechanical operation of such a body, coordination must be a perceived need on the part of the GRZ, and spearheaded by Zambian leadership. A senior Zambian, perhaps at the PS level, should be named to chair the coordinating body as his/her primary responsibility before the U.S. commits to long-term assistance to the coordination task.

2. <u>Monitoring and Evaluation</u>

There is an urgent need for increased monitoring and evaluation of the socioeconomic and political impacts of the recent spate of policy changes in Zambia. The team notes that a one-time assessment is planned under ZATPID I, but there is no clear intention to institutionalize this. Monitoring and evaluation are in the mandate of the PAI Section as conceived in the 1982 World Bank report on MAWD/PD (1982:31-32), but have not really been operationalized by assignment of staff or development of an agenda

of work. The cost of continuing to implement policy changes without assessing impact could be quite high in terms of political stability (witness Liberia, Sudan and other African countries in the past few years) and accelerated socioeconomic differentiation. Thus, attention under ZATPID II should be given to ensuring that monitoring and evaluation are understood to be a necessity, not a luxury, and implemented in a systematic, iterative manner. This will require somewhat of a reordering of priorities on the parts of both USAID and the GRZ.

3. Matching of Quantitative and Qualitative Analysis

The implementation of ZATPID I has varied in terms of the relative emphasis placed on qualitative versus quantitative analysis. The first TA team probably had a better balance between quantitative and qualitative approaches than the second TA team. The latter and ISU at Ames have placed more weight on the quantitative because both are stronger in this area. A more balanced approach should be sought under ZATPID II, with quantitative and qualitative work carefully matched. For example, the current plan is to analyze the household and benchmark survey data to assess the social impact of agricultural policy changes. This will likely reveal economic conditions at the time of the survey, and may provide some insights into emerging class differences based on differential capital accumulation. However, it is unlikely to reveal various strains in the social fabric such as the increases in violence and witchcraft accusations reported by Scudder (1983:16-19) and by a field researcher under the ZAMARE project (Cook, personal communication).

It is recommended that funds be provided to carry out in-depth anthropological fieldwork in conjunction with survey work done under ZATPID II. The most likely source of expertise in this area is the Rural Development Studies Bureau, either using its own research fellows, or supervising advanced degree candidates from the School of Humanities and Social Sciences at UNZA. In either case, adequate Zambian expertise is available in anthropology and rural sociology, so this recommendation should not be interpreted as an opening for U.S. technical assistance or graduate training. However, short-term U.S. technical assistance to MAWD in devising scopes of work and providing qualitative input into overall study design should be considered.

There is also a considerable amount of qualitative secondary data available that could inform some of the more quantitative exercises being carried out under ZATPID I and proposed for ZATPID II. For example, the assumptions used to calculate even simple production functions should be checked against qualitative descriptions of agricultural practices. This has not been done sufficiently to date, and should be a definite requirement for ZATPID II. (See Section II.B.3. discussion of quantitative analysis as well.)

4. The Role of the Private Sector in Policy

The assessment of ZATPID I showed that some of the studies had had a positive impact on the private sector by encouraging the withdrawal of government from activities such as marketing that are more appropriately handled privately. The liberalization of the pricing and marketing of groundnuts in Eastern Province is a good example of this kind of impact. The team believes that the ZATPID intervention can be most effective in encouraging the private sector by continuing to examine critically the role of government and to rationalize the retrenchment of government from functions that overburden it and impede economic growth. As indicated in Section III.B., national policymaking and planning are legitimate public sector functions, and need not have direct involvement of any interest groups, including private sector entities.

As part of its analysis of the policymaking process, the team looked at opportunities for the private sector to have an influence. It found that commercial farmers and agribusiness were well represented by the Commercial Farmers' Bureau, which has access to the highest levels of GRZ decisionmaking. Moreover, much of the data collection and analysis that has been carried out under ZATPID I has been at the level of the small-scale farm, which has provided a channel through which the effects of policy on smallholders can be determined. (As noted in Section III.H.2. above, however, that material has been underutilized in monitoring and evaluation to date.) With the lifting of the NAMBoard marketing monopoly, there will be another group - small-scale entrepreneurs - whose input should be sought in the policy formulation and planning processes. The team therefore has recommended in the illustrative list of studies that several assess this segment of the private sector and determine how best to create a channel through which their needs, opinions, etc. can be regularly monitored.

5. Professionalism Among Returned Trainees

The issues of staff retention and job satisfaction have been touched on briefly in Section II. The team believes that these are likely to become more problematic during the project life of ZATPID II. Thus, we recommend for consideration in the design of the follow-on project funding for the establishment of an association of returned trainees, probably by discipline (i.e., an association of agricultural economists), but possibly across more than one discipline (i.e., rural development specialists). This would include funding of monthly meetings, annual conferences with papers presented, occasional seminars featuring special lecturers (taking advantage of the many technical experts who visit Zambia), publication of conference proceedings, etc. The logical home for such an association would appear to be UNZA. Most of the activities could be funded from local currency. However, some

foreign exchange should be allowed for travel to international meetings such as the International Association of Agricultural Economists or the International Union of Anthropological and Ethnological Sciences.

6. Training

Another avenue for professional recognition and upgrading is in-service training and in-country short courses. All staff of institutions involved in the policy formulation process should be offered opportunities for in-service training as a non-monetary benefit of employment. In addition, returned participant trainees might be asked to conduct various training and workshop activities to enhance their standing as professionals. As stated in Section I, workshops and training related to management skills and to microcomputers were mentioned repeatedly as particularly useful activities under ZATPID I.

Regarding long-term training, a greater diversity of disciplines is recommended for ZATPID II. Under ZATPID I, most participant trainees received advanced training in agricultural economics. Although this discipline remains important, especially for MAWD/PD staff, other disciplines would appear to be necessary as well. The team recommends that participants also be sent to programs in public administration, public policy, regional planning and sociology/anthropology, depending upon the institution and position for which the individuals are designated on their return.

7. In-Country Technical Supervision of Studies/Analyses

The assessment of ZATPID I has found considerable variability in the relevance and utilization of studies and analyses carried out under the project. To address this concern in ZATPID II, the team recommends that more in-country technical supervision be planned under ZATPID II. In addition to having technical input into annual workplans for project technical assistance, the technical oversight group should review and comment on the proposed methodology and plan of work for each study. This might preclude the problems of overambitious data collection efforts as well as those cited in Section II with regard to model building. (See Recommendations 9 and 15, Section II.)

8. In-Country Thesis Research

Under ZATPID I, a number of masters' candidates either went through non-thesis degree programs, or were encouraged to complete their entire graduate studies in the United States. The team feels that it is important for participant trainees to have the opportunity to return to Zambia for thesis research. This has several potential advantages, e.g., (1) the research will contribute to the body of empirical knowledge on Zambia; (2) the students themselves will

gain familiarity with their own country, especially the agricultural sector, which is particularly important given the high rate of urbanization in Zambia (meaning many post-secondary students may not have rural backgrounds); and (3) the students will be required to conduct their research under conditions similar to those under which they will soon be working, thus easing their transition from life as a student in the U.S. to that of a bureaucrat in Zambia.

To work effectively, however, in-country thesis research must be properly structured to have the desired impact. First, the administrative arrangements (e.g., salary, allowances transportation for fieldwork, etc.) must be in place, and small grants should be provided under the project as necessary. Secondly, a thesis research supervisor should be placed in-country, either on a long-term basis or for several extended TDYs. This model was used successfully in the Zaire Agricultural Sector Studies Project.

9. Assessment of Computerization Needs

The philosophy of the ZATPID II PID appears to have been "when in doubt, computerize." However, the team finds that there is a danger of simply codifying bad management systems by this approach, and would urge considerably more caution. On the other hand, the team has found an instance in which needed computer hardware was withheld under ZATPID I in what we believe to have been false economy. As neither mission personnel nor the incoming PP team are experts in computer needs assessment and systems analysis, we recommend that before the PP is authorized, such an expert be brought in from AID/W/M/SER/IRM or elsewhere to give an independent assessment of the real needs under ZATPID II.

IV. CONCLUSION

The overall purpose of the ZATPID projects is to assist the development of an indigenous policy formulation and planning processes for the agriculture sector in Zambia. The team found that although some progress toward sustained, institutionalized and localized processes has been made during the implementation of ZATPID I, the purpose of the project has not been fully realized. The team believes the concept to be basically sound, and a necessary complement to the larger program assistance package. It thus recommended continuation of the approach under ZATPID II. In the second section of the report, the team presented its conceptualization of the policymaking process, identified systemic weaknesses - institutional coordination, management of investment, resource allocation, data collection and analysis, structures/functions/procedures - and made recommendations for addressing them in the follow-on project. Lastly, the team applied lessons learned from ZATPID I to create specific recommendations for ZATPID II, which we hope will provide useful guidance for project preparation.

REFERENCES

1983	Chella, Vincent S.S.	Production and Marketing of Maize in Zambia. M.A. Thesis, University of Wales College of Wales.
1985	Commercial Farmers' Bureau	The Commercial Farmers' Bureau. Lusaka:CFB. Mimeo.
1984	Fortmann, Louise	Turning Field Research into Government Policy. Rural Sociologist. V. 4 No. 4; p. 287-290.
1982-1985	Iowa State University	ZATPID Quarterly Implementation Reports
1979	Kaplan, Irving (ed.)	Zambia: A Country Study. Washington, D.C.: American University.
1981	Myers, Robert, W. McCleary L. Clarke, S. Velji, R. Gulliati, T.U. Ibrahim & W. Wapenhauss	Zambia Country Economic Memorandum. Washington, D.C.: World Bank
1984	Ministry of Agriculture and Water Development	Planning Division Human Resources Development and Training Plan. Special Studies No. 11 Lusaka:Government Printer
1985	Peat, Marwick, Mitchell & Co. & Booker Agriculture International Ltd.	Evaluation Study of the Ministry of Agriculture and Water Development. Main Report, Volume 1. Discussion Draft.
1985	Republic of Zambia	Census and Statistics: Chapter 425 of the Laws of Zambia Lusaka: Government Printer
1985	Rural Development Studies Bureau	Annual Report. Lusaka: University of Zambia.

1983	Scudder, Thayer	Economic Downturn and Unraveling: the Gwembe Tonga Revisited. Culture and Agriculture. 18:16-19
1985	Tilney, John S. Jr. James T. Riordan	A Summary of Two Recent Analyses of AID-Sponsored Agricultural Planning and Policy Analysis Projects. Cambridge, MA:Abt. Assoc.
1984	University of Zambia	The University of Zambia Calendar 1984-1985. Lusaka: Teresianum Press.
1980	U.S.A.I.D.	FY 1982 Country Development Strategy Statement. Lusaka: U.S.A.I.D.
1985	U.S.A.I.D.	Zambia Agricultural Training, Planning and Institutional Development Project Paper. Lusaka: U.S.A.I.D.
1985	U.S.A.I.D.	Zambia Agricultural Training, Planning and Institutional Development II: Project Identification Documents Lusaka: U.S.A.I.D.
1985	U.S.A.I.D.	Zambia Multi-Channel Agricultural Marketing Program. Lusaka: U.S.A.I.D.
1985	Warren, Dennis M.	Anthropology and Agricultural Planning in Zambia. Paper presented at the Annual Meetings of the American Anthropological Association, Washington, D.C., December 4-8, 1985.
1983	World Bank	World Development Report. New York: Oxford University Press.

1982 World Bank — Zambia Ministry of Agriculture and Water Development: An Appraisal and Suggestions for Strengthening the Planning Division. Washington, D.C.: World Bank Report No. 4092-ZA.

1984 Zegge, Barnabas K. A. Spurling, A. Zulfiqar J. Graham, F. Mwansa and S. Sichone — Zambia Policy Options and Strategies for Agricultural Growth. Washington, D. C.: World Bank.

ANNEX 1

Scope of Work

ZATPID Impact Assessment and Institutional Analysis

I. Introduction

The Government of the Republic of Zambia (GRZ) has embarked on a major policy reform program. USAID has supported this process through an integrated program of non-project and project assistance, most notably with respect to the latter, the Zambian Agricultural Training, Planning and Institutional Development Project (ZATPID I, 611-0075). The USAID needs, however, to better ascertain the impact that ZATPID I has had on the policy reform process or on the institutional capabilities of the GRZ to conduct and disseminate appropriate policy analyses. It is advisable that such an impact assessment be conducted so as to be included in any planning for a follow-on project.

II. Objectives

There are two objectives. The first is to provide USAID with an assessment of the impact of ZATPID's analytical input to the policy reform process and to the institutional development which has strengthened that analytical capability. The assessment is to provide an explanation of how the studies, training and technical assistance provided through the ZATPID I Project during the past three years have been translated into better-informed GRZ decisions and policy reforms. Specifically, the assessment will include the following:

A. Are the data generated by project studies/activities relevant and usable and, if so, by whom and for what purposes? If not, why not?

B. Are the analyses and data perceived as consistent with Zambia's real needs? By whom?

C. Is the information/data actively sought by GRZ decision-makers (i.e., are the studies demand-driven)?

D. Has staff analytical capability improved so that the information/data can be acted upon in a timely manner?

E. Are Zambians who have been trained under the project filling positions from which they can affect policy? Were the proper criteria utilized for selection of participants for training?

F. What is the capacity of the staff to bring their full technical training to bear on the work of the unit? Has their training been relevant to the needs of the unit?

G. What is the evidence that the policy-making process is improving (purpose of project) based on analyses and recommendations emanating from project activities?

H. How is the U.S. technical assistance (TA) helping to build institutional capacities?

I. Has short- and long-term TA been provided in an appropriate mix, and with the appropriate skills and expertise, to effect institutional improvements?

J. What are the constraints, if any, to improved data generation, analysis and decision-making with respect to agricultural policy, and how can a follow-on project address these constraints more effectively?

K. What are the recurrent budget implications of the institutional development which has occurred under the project, and can additional costs be covered by the GRZ by the time Phase II ends?

The second objective is to provide the mission with a description and analysis of the policy-making process and institutions in the agriculture sector as background for the preparation of ZATPID II. The institutional analysis will include:

A. The organizational structure of each GRZ institution involved in agricultural policy analysis and decision-making

B. The current policy-making environment, identifying the key institutions and explaining how they relate to and effect policy decisions

C. The critical needs and resource gaps (in staff, equipment, etc.) in each institution which should be met in order to build and strengthen an indigenous Zambian policy-making capability

D. To the extent possible, an assessment of the institutional constraints to empirically-based decision-making

III. Methods

Both team members will review AID background documents on ZATPIDs I and II, and reports, analyses, etc. produced under ZATPID I. Additional information will be collected via interviews with personnel of key organizations in the GRZ, AID and project

technical assistance, other donors and other individuals as required. Budget and financial data from the GRZ will be used for the recurrent cost analysis.

IV. Output

Based on the above analyses, the team will make and explain recommendations for project design elements of ZATPID II in order to more effectively support and improve the indigenous policy-making process, relying on realistic data and analysis. These recommendations will include suggestions as to which agricultural, other sector or macroeconomic policies related to the USAID strategy and program should be subject to further monitoring and/or continued reform efforts, the types of data and analyses required, and what criteria should be used in the selection of studies to address important policy issues.

V. Prodecures

The team will submit a draft report as indicated in Section IV. above. That report will be discussed with relevant USAID officials, and, as deemed necessary by the USAID, with ZATPID I contractors and GRZ officials. The report will be revised in light of comments made by USAID and GRZ as appropriate and completed before departure from Zambia. The team will then proceed to REDSO/ESA and brief members of the ZATPID II project paper team.

ANNEX 2

PERSONS CONTACTED

IBRD	F. I. Moreithi Peter Hansen Barnabas Zegge A. Zulfiqar
AID/W	Donald Anderson, AID/W/S&T/RD Brandon Robinson, AID/W/DSP
REDSO/EA	Jim Graham Rosalie Fanale Stuart Callison
USAID/Zambia	John A. Patterson Leslie A. Dean Fred Perry Jim Snell Marcia Ellis
ISU Team	Mike Applegate Ron Krenz Rudolph Stewart Dennis Pervis Bogale Demissie Milton Snodgrass Mike Warren
Bucen	Daniel Clay Diana Lopez-Meisel Karen Stanecki
MAWD/PD	M. Lungu Andrew Mwaba John Burton M. Soko C. Muntanga B. Johnson C. Lufumpa
UNZA	Ben Mweene W. Kunze
CSO	Godfrey Sicilima
RDSB	John Milimo

MOC	Francis Mbewe
CLUSA	Lyle Brenneman
NCDP	James Mtonga George Chivungu Ms. G.C. Ngoma
ARPT, Mt. Makulu Research Station	Stuart Kean
ARFT, Northern Province	Richard Bolt
Ministry of Finance	Peter Siwo Mr. Mwanambale Mr. Chirwa Mr. Zulu

ANNEX 3

ZATPID-PRODUCED POLICY STUDIES REVIEWED BY ASSESSMENT TEAM

1. Groundnut Production and Marketing in Eastern Province: A Market Analysis

2. Zambian Agricultural Finance Markets: Appraisal of Recent Performance and Prospects

3. Fertilizer Supply and Distribution: Issues and Constraints

4. Comparative Assessment Study of Zambian Integrated Rural Development and Area Development Programs

5. Analysis of Tractor Hire Rates Charged by Land Development Services

6. An Inventory and Assessment of MAWD Planning Division Outputs

7. Planning Division Human Resource Development and Training Plan

8. Report on Management and Planning Skills Workshop for Planning Division Staff

9. Report on the Workshop to Strengthen the IRDP District Development Plans

ANNEX 4

ZATPID Returned Long-Term Trainees as of January 1986

INSTITUTION	NAME	CURRENT POSITION
CSO	Akalulu, Y.	Head of Cartography
	Jere, A.	Senior Statistician, National Account:
	Musowafu, S.	Statistician, Agricultural Statistics
MAWD	Mwaba, A.	Acting Section Head, Sectoral Policy Analysis
	Suba, R.	Economist, Sectoral Policy Analysis
NCDP	Sichone, S.	Senior Economist, Sectoral Planning
	Sinyinza, P.	Senior Economist, Sectoral Planning
RDSB	Sipula, F.	Research Fellow Grade III
MOF	Nonde, B.	Senior Economist, Budget and Economic Affairs Department
ZCF	Nang'amba, W.	Lecturer at University of Zambia

ALL ZATPID PARTICIPANT TRAINING

RETURNEES

PIO/P NUMBER	PARTICIPANTS NAME	UNIVERSITY	DEGREE	FIELD	TRAINING COMMENCED	TRAINING COMPLETED	SEX	ADDRESS
Long-Term Degree								
611-X0037	Jere, A.	ISPC/GWU	M.S.	Statistics	May 83	Dec 84	M	CSO, Box 31980, Lusaka
611-X0041	Nonde, Boniface	Iowa State Univ.	M.Sc.	Economics	Aug 83	Jul 85	M	MoF, Box 50062, Lusaka
611-X0034	Sipula, Fred	Iowa State Univ.	M.Sc.	Ag Economics	May 83	Oct 85	M	RDSB UNZA Box 32379 Lusaka
611-X0026	Suba, Richard	Iowa State Univ	M.Sc.	Economics	Mar 83	Jan 86	M	MAWD, Box 50197, Lusaka
Short-Term Technical								
611-X0152	Akalulu, Young	ISTPC-Bucen	Diploma	Survey Methods	Dec 84	Dec 85	M	CSO, Box 31980, Lusaka
611-X0161	Chifwepa, V.	Addis Ababa	S-T	Ag Info Sem	Aug 85	Aug 85	M	MAWD, Box 50197, Lusaka
611-X0043	Kani, A.	IFDC	S-T	Fert Marketing	Aug 83	Sep 83	M	NAMBoard Box 30122 Lusaka
611-X0050	Lufumpa, C.	ISU	S-T	Comp Prog	May 84	Sep 84	M	MAWD, Box 50197, Lusaka
611-X0162	Lufumpa, C.	FRI, Stanford Univ	S-T	Micro & Dev	Aug 85	Sep 85	M	MAWD, Box 50197, Lusaka
611-X0029	Mtamboh, E.	Washington, D.C.	S-T	Prog & Contr. Neg	Mar 83	Apr 83	M	MAWD, Box 50197, Lusaka
611-X0047	Mtambo, E.	Harare	S-T	Loan Admin	Mar 84	Mar 84	M	MAWD, Box 50197, Lusaka
611-X0031	Muchindu S.	Econ. Inst.	S-T	Economics	Jun 83	Sep 83	M	MAWD, Box 50197, Lusaka
611-X0030	Mulala, M.	Georgetown Univ	S-T	Inv. Neg.	May 83	Jul 83	M	MAWD, Box 50197, Lusaka
611-X0153	Musowafu, Simasiku	ISTPC-Bucen	Diploma	Agric Statistics	Dec 84	Dec 85	M	CSO, Box 31980, Lusaka
611-X0031	Mwinga F	Econ. Inst.	S-T	Economics	Jun 83	Sep 83	M	MAWD, Box 50197, Lusaka
611-X0151	Phiri, A.	ISPC, Bucen	S-T	Ag Survey Mgmt	Nov 84	Nov 84	M	CSO, Box 31980, Lusaka
611-X0158	Phiri, Y.	ISPC, Bucen	S-T	Survey Management	Mar 85	Apr 85	M	CSO, Box 31980, Lusaka
611-X0159	Shitima, M.	ISPC, Bucen	S-T	Comp Ctr Mgmt	Jun 85	Jul 85	M	MoF, Box 50062, Lusaka
611-X0039	Sichone, S.	Colorado State	Dip.	Economics	Jun 83	Dec 84	M	NCDP, Box 50268, Lusaka
611-X0160	Sicilima, G.	ISPC, Bucen	S-T	Ag Survey Mgmt	Nov 85	Dec 85	M	CSO, Box 31980, Lusaka
Termination								
611-X0044	Sumbwanyambe, Clifford	Makerere	B.Sc.	Statistics	Sep 83	Sep 86	M	MAWD, Box 50197, Lusaka

Total:

Long-Term	4
Short-Term	16
Termination	1
	21

IN-TRAINING

PIO/P NUMBER	PARTICIPANTS NAME	UNIVERSITY	DEGREE	FIELD	TRAINING COMMENCED	TRAINING COMPLETED	SEX	ADDRESS
Long-Term Degree								
611-X0035	Chilongo, Gamaliel	Iowa State Univ.	Ph.D.	Rural Sociology	Aug 83	Aug 87	M	UNZA, Box 32379, Lusaka
611-X0157	Katepa, Perpetua	Purdue Univ	Ph.D.	Agric Economics	Sep 85	Aug 89	F	UNZA, Box 32379, Lusaka
611-X0028	Katongo, Katongo	Iowa State Univ	M.Sc.	Economics	Mar 83	Aug 86	M	MAWD, Box 50197, Lusaka
611-X0048	Mandamenda, Davison	Univ of Missouri	M.Sc.	Ag Economics	Aug 84	Aug 86	M	NCDP, Box 50268, Lusaka
611-X0033	Mudenda, Timothy	Iowa State Univ.	Ph.D.	Ag Economics	Aug 83	May 88	M	UNZA, Box 32379, Lusaka
611-X0040	Muleya, Cephas	Iowa State Univ.	M.A.	Regional Planning	Jul 83	?	M	NCDP, Box 50268, Lusaka
611-X0036	Mupimpila, Christopher	ISU Un of Illinois	Ph.D.	Economics	Aug 84	Aug 87	M	UNZA, Box 32379, Lusaka
611-X0045	Mwanaumo, Anthony	Purdue Univ.	M.Sc.	Ag Economics	Aug 84	Aug 86	M	MAWD, Box 50197, Lusaka
611-X0042	Mwanza, Winter K.	Iowa State Univ.	M.Sc.	Inter Dev Studies	Aug 83	Dec 86	M	NCDP, Box 50268, Lusaka
611-X0046	Siisii, Clara	Univ. of Missouri	M.Sc.	Ag Economics	Aug 84	Aug 86	F	MAWD, Box 50197, Lusaka
611-X0049	Zulu, Lawrence	Un of Wisconsin	M.Sc.	Devel Economics	Sep 85	Aug 87	M	NCDP, Box 50268, Lusaka
Short-Term Technical								
611-X0154	Kabumu, Samuel	ISTPC-Bucen	Diploma		Sep 85	Aug 86	M	CSO, Box 31980, Lusaka
611-X0155	Mwanza, Mark	ISTPC-Bucen	Diploma		Sep 85	Aug 86	M	CSO, Box 31980, Lusaka

Total:

Long-Term	11
Short-Term	2
Total	13

January, 1986

PIO/P NUMBER	PARTICIPANTS NAME	UNIVERSITY	DEGREE	FIELD	TRAINING COMMENCED	TRAINING COMPLETED	SEX	ADDRESS
Long-Term Degree								
611-10005	Mwaba, A	Ohio State	M.S.	Agric Economics	Sep 81	Sep 83	M	MAWD, Box 50197, Lusaka
611-10006	Nang'amba, W.	Univ of Wisconsin	M.S.	Ag Economics	Jan 82	Dec 83	M	ZCF, Box 33579, Lusaka
611-00004	Sinyinza, P.	Univ of Wisconsin	M.A.	Public Policy	May 81	Aug 83	M	NCDP, Box 50268, Lusaka
Short-Term Technical								
611-10043	Mbooma, P	Egypt	S-T	Inv Neg	Nov 82	Dec 82	M	NCDP, Box 50268, Lusaka
611-10043	Mtamboh, E	Egypt	S-T	Inv Neg	Nov 82	Dec 82	M	MAWD, Box 50197, Lusaka
611-10043	Zulu, L	Egypt	S-T	Inv Neg	Nov 82	Dec 82	M	NCDP, Box 50268, Lusaka
SAAST Continuations								
611-10036	Goma, K.H.K.	Cal. Poly	B.Sc.	Ag Engineering	Sep 80	Sep 84	M	MAWD, Box 50197, Lusaka
611-10041	Kachamba, Elizabeth	Pace Univ	B.A.	Business Admin	Sep 80	Aug 84	F	NCDP, Box 50268, Lusaka
611-00014	Lewanika, M.	U. S. Miss.	Ph.D.	Biochemistry	Jun 79	Aug 83	M	NCSR, Box CH 158, Lusaka
611-10035	Mono, D.	Utah State	B.Sc.	Ag & Irrig Eng	Sep 79	Dec 83	M	NIRS, Box 68, Mazabuka
611-20002	Sikabbubba, Ruth	U.C. Davis	B.Sc.	Food Science	Aug 82	Jun 85	F	NCSR, Box CH 158, Lusaka
Termination								
611-10040	Maitwa, Edna	Am. Univ	B.Sc.	Nursing - disc.	Aug 80	Feb 81	F	Min Health, Box 205 Lusaka
611-10039	Mulo, G.	Georgetown Univ	Ph.D.	Economics	Sep 80	Dec 85	M	Bank Zambia, 30080 Lusaka

Total:

ZATPID — Long-Term	3
ZATPID — Short-Term	3
SAAST Continuations — Long-Term	5
SAAST Terminations	2
	13

January, 1986

To: Dr. M. Aciloqate
From: Bogale Demissie

SUBJECT: [illegible]

The following estimates roughly outline [illegible] collected data from [illegible] for the Multi-purpose Rural Household [illegible]. The estimation are outlined in two [illegible]

1. The Benchmark Survey [illegible] questionnaire and
2. The Flow Survey [illegible] questionnaires.

1. The Benchmark:

1.1 The data [illegible]

The Benchmark Survey which [illegible] households have 13 data [illegible]

Entry Form No.	Main Description of Entry	Number of Entries	[illegible]
01	Household [illegible]	[illegible]	[illegible]
02	Crop Products [illegible]	[illegible]	[illegible]
[illegible]	Crop Products [illegible]	[illegible]	[illegible]
[illegible]	Crop Products [illegible]	[illegible]	[illegible]
[illegible]	Crop Products [illegible]	[illegible]	[illegible]
[illegible]	Number of [illegible]	[illegible]	[illegible]
[illegible]	Livestock [illegible]	[illegible]	[illegible]
08	Plots or Fields [illegible]	[illegible]	[illegible]
09	Marketing and Rural Services [illegible]	[illegible]	[illegible]
10	Marketing and Rural Services [illegible]	[illegible]	[illegible]
11	Marketing and Rural Services [illegible]	[illegible]	[illegible]
12	Attitudes	[illegible]	[illegible]
13	Inventory [illegible] equipment and tools	[illegible]	[illegible]
All	Entry form numbers	[illegible]	[illegible]
All	Identification number	[illegible]	[illegible]

[illegible] total number of possible [illegible] [illegible]

Note: • [illegible]

Best Available Document

- the number of households = 1000
- the maximum number of key strokes per household = 1297
- the number of key strokes for Benchmark Survey = 1000 x 1297

= 1,297,000

- the number microcomputers(probosed) in use = 2

Inorder to estimate the time to enter the data onto the microcomputers through floppy diskette,we should make some assumptions.
These are:

- 10% for a possible microcomputers idle time due to power failure or staff absenteeism or computer breakdown
- 5% for data to be reentered because of errors encountered during verification,
- 5% for manual corrections during editing, and
- 100% verification will be done.
- Average of 7000 key strokes per hour
- 5 productive hours per day

The time in terms of days to enter the Benchmark Survey into the microcomputers is the following:
Number of work days = Total key strokes / Key Strokes per work day

= (Total number of key strokes for survey x verification factor x factor for re-entering for data entry errors x factor for manual corrections for editing problems x (Number of microcomputers x factor for microcomputer operational efficiency x productive hours per day x average key strokes per hour) x

= (1,297,000 x 2 x 1.05 x 1.05)
= (2,859,885) / (2,
= 45 days

To key in 1000 household Benchmark Survey information in the microcomputers it will roughly takes a maximum of 45 days or one and half months.

This might be improved slighlty as the operators familiarize themselves on the keying exercises.

If the survey afford to pay overtime or able to utilize any other services in Lusaka,such as by requesting CSO to assist on overtime bases or as part of the job toprivate service,the data keying work can be done within few days.
That is three to seven days depending upon the number of microcomputers and data entry operators are available.

1.2 <u>The data editing and tabulation work.</u>

Assuming that most of the data checking,such as range checks and two or more variables consistency checks, accomplished during the data keying time by using data keying program, the following rough estimate has been made for further data editing and final tabulation work.

These are:

- for the data editing which includes further checking of range and consistency check of entry forms and variables and corrections will roughly be = 14 days
- the tabulation and analysis work will be difficult to estimate since it require to know:
  - the number of tables to be produced
  - how complex the tables are
  - what type of program software are going to be used
  - whether it requires to write special purpose program for the tabulation and analysis, and
  - how soon the reports are needed.
- but very optimistically, after the data get "cleaned", it will take 10 to 20 minutes to produce one table for the 1000 household records dwpending on the complexity of the tables and the type of program that is going to be used.
- therfore taking this into consideration the following estimate has been given for the tabulation work.
  - to prepare and test tabulation parameters (supposing we use SPSS or other similar tabulation program) for estimated 50 to 70 tables [illegible]
  - to produce,check,correct and re-run tables [illegible]

2. The Flow Survey

2.1 The data keying work.

The Flow Survey questionnaires are not yet finalized. [illegible] the rough draft questionnaires the following estimates [illegible]

Entry Form No	Main description of entry	Number of Entries	[illegible]	[illegible]
F2.1	Crop Production	5*	[illegible]	[illegible]
F2.2	Seeds used	5*	[illegible]	[illegible]
F2.3	Fertilizer applied	5*	[illegible]	[illegible]
F2.4	Herbicide/Pesticide	5*	[illegible]	[illegible]
F2.5	Labour flow	10*	[illegible]	[illegible]
F2.6	Animal power	1	[illegible]	[illegible]
F2.7	Mechanical power	1	[illegible]	[illegible]
F2.8	Other expenses	1	[illegible]	[illegible]
F3.1	Livestock Production	20*	[illegible]	[illegible]
F3.2	Labour flow	5*	[illegible]	[illegible]
F3.3	Feeds used	10*	[illegible]	[illegible]
F3.4	Other expenses	1	[illegible]	[illegible]
F4.1	On-farm Part 1	5	[illegible]	[illegible]
F4.2	On-farm Part 2	5	[illegible]	[illegible]
F4.3	Non-farm activities	5	[illegible]	[illegible]
F4.4	All other entries estimated	10	30	[illegible]
All	Entry form numbers	13	2	[illegible]
All	Identification number	1	11	11
	Maximum total number of possible Key strokes per houshold			1520

Note: * Taking the maximum possible entries per subject per household and visit.

- the number of households sub sample [illegible]
- the number of visits intended for [illegible]
- the maximum key strokes per household [illegible]
- the total keystrokes for the Flow Survey [illegible]
- the number of microcomputers to be used [illegible]

Taking the same assumptions as of the Benchmark Survey, [illegible] number of work days to be in the Flow Survey sub sample will [illegible] as follows:

Number of work days = (4,611,000 x 2 x 1.05 x 1.05) / [illegible] x .5 [illegible]
= (10,173,870) / (53,000)
= 192 days

To [illegible] in the 500 sub sample Flow Survey [illegible] using the two (proposed) microcomputers it will take [illegible]

As suggested above in the Benchmark Survey, the working days [illegible] minimized to few days by using other facilities, such as the [illegible] and CSO microcomputers and other services in [illegible] expenditure [illegible] funds.

2.2 [illegible] data editing and tabulation work.

Since the questionnaires are not finalized, it will be [illegible] calculate and know how complex the editing problem [illegible]

But just to give some estimate taking into [illegible] of the basic editing work will be undertaken during the [illegible] the checking, further editing and correction [illegible] work be within the region of [illegible]

The total time also [illegible] to be used. Again very roughly [illegible] will take one to two months.

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Summary.

To process the Benchmark and Flow Survey [illegible] data assuming [illegible] the two proposed micromputers will be in use will be as follows:

Work	Benchmark	Estimated Flow	Total
1. The data keying	45	[illegible]	[illegible]
2. The data editing	14	45	[illegible]
3. The program preparation	10	10	[illegible]
4. The tabulation	10	30	[illegible]
Total	79	[illegible]	[illegible]

The timing of the data keying can be reduced [illegible] other facilities as suggested above.

For example if we increased the number of [illegible] the timing as shown below:

Number of microcomputers	[illegible]	[illegible]	[illegible]
4	[illegible]	61	[illegible]
6	11	11	[illegible]
8	[illegible]	[illegible]	[illegible]

General

A. In order to minimize the timing, it will [illegible] keying program like the ENTRYPOINT [illegible] which will definetly minimize the [illegible] the number of [illegible]

B. The required tables for Benchmark and Flow [illegible] outlined very urgently so that the [illegible] microcomputers should be started now.

C. Unless specilized form of tabulation [illegible] deal of time to prepare and expert to do it will be available [illegible] identify what type of program packages is going to be used and [illegible] out its availability in time.

Boguslaw Demiszyn

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ANNEX 7

ORGANIZATIONS AFFECTING GRZ POLICY FORMULATION AND IMPLEMENTATION

The key civil service organizations involved in policy formulation and planning for the agriculture sector in Zambia are the Ministry of Agriculture and Water Development (MAWD); the Ministry of Finance (MOF), which includes the National Commission for Development Planning (NCDP) and the Central Statistics Office (CSO); the Rural Development Studies Bureau (RDSB), the School of Humanities and Social Sciences and the School of Agricultural Sciences at the University of Zambia (UNZA). Political organizations, such as the United National Independence Party's (UNIP) Central Committee and its Research Bureau, the Cabinet, the Parliament and the President and his State House advisors, also have a role in agricultural policymaking. Another powerful force is the Commercial Famers' Bureau. Finally, there are a number of government organizations that have an interest in agricultural policy. These include the Ministry of Cooperatives (MOC); the agricultural parastatals - the National Agricultural Marketing Board (NAMBoard), the Lint Company of Zambia (LINTCO), Dairy Produce Board (DPB) and Tobacco Board of Zambia (TBZ); the Ministry of Lands and Natural Resources; the Ministry of Decentralisation (MOD); the Ministry of Commerce and Industry (MCI); the Zambia Cooperative Federation and the Zambian Agricultural Development Bank and Agricultural Finance Corporation (the latter two slated for merger). The interests of this latter group of organizations ranges from consultative roles in policymaking and planning to policy implementation and program execution.

The organizations with a major role in policy formulation and planning will be described in this section of the report. Additional organizations whose structure and functions were examined in accordance with the design of the ZATPID II PID, but which were found to have peripheral roles in the policy formulation/planning processes, are also included.

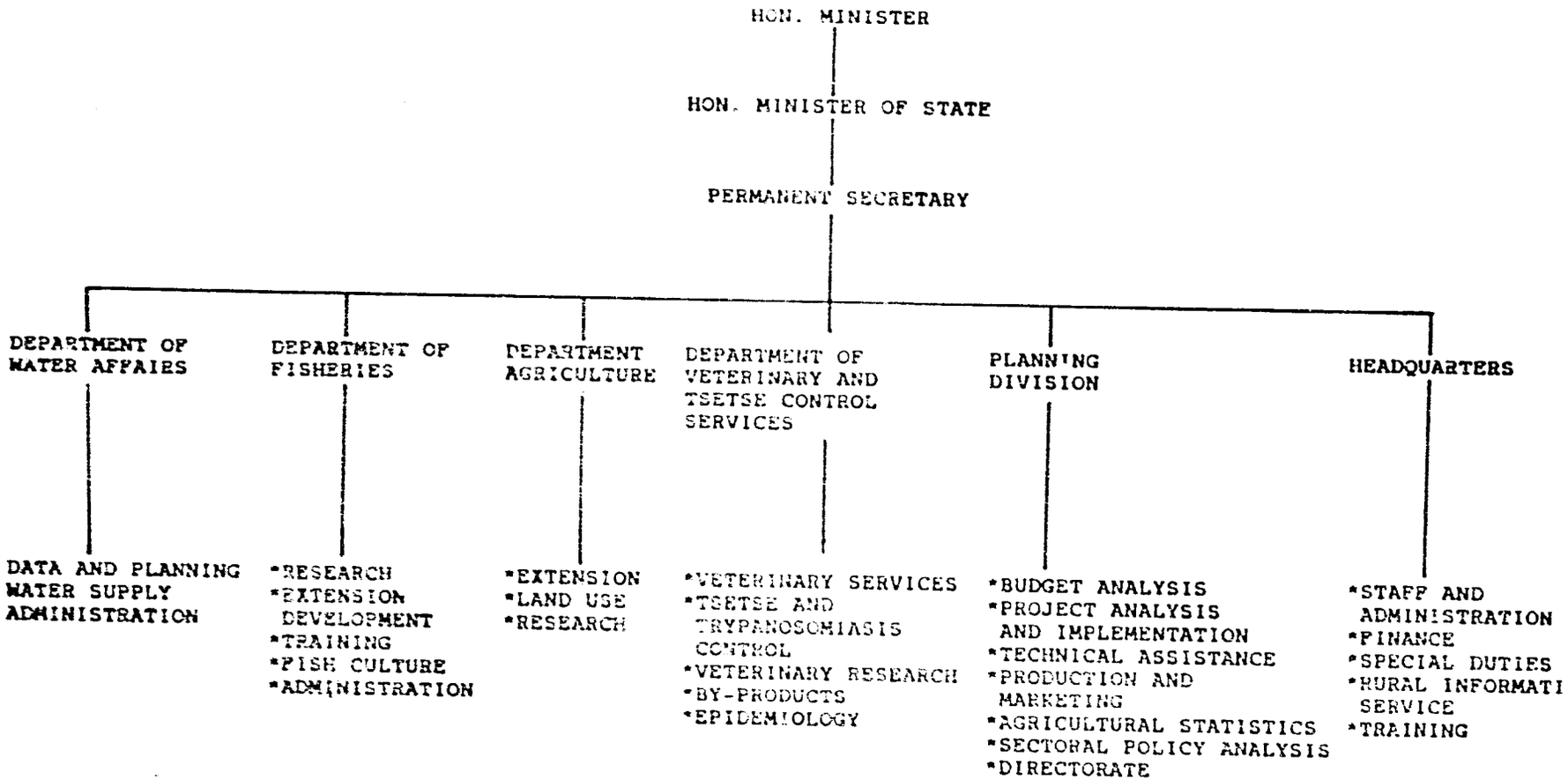
POLICY FORMULATION ORGANIZATIONS

The Ministry of Agriculture and Water Development

This ministry (See Figure 1) is the principal agency for agriculture in the GRZ. It is responsible for providing services and advice to the farming population, for managing development of the agricultural sector consistent with agricultural policy objectives and for general direction of the agricultural parastatals. The ministry employs 14,300 people (of whom 9,350 are non-civil servants), and has a recurrent

Figure 1

THE PRESENT DEPARTMENTS AND SECTIONS OF MAWD



budget of K51.5 million (with a 1985 capital budget of K63.6 million). There are four operating departments in MAWD - Agriculture, Veterinary and Tsetse Control Services, Water Affairs and Fisheries - and two central divisions, Headquarters and Planning (Peat, Marwick et. al. 1985:vi).

MAWD/Planning Division

The Planning Division (PD) is the locus of policy formulation within MAWD. It is headed by a Director who reports directly to the Permanent Secretary. Its duties include the coordination of the capital budget, planning, and project implementation; compilation of agricultural statistics and advising on sectoral policy. The overall objective of MAWD/PD, as articulated in a 1982 study of the division, is "[t]o facilitate the achievement of the [agricultural] sector objectives in the long run through (a) generation and provision of knowledge to agencies and people managing agricultural development in the country; (b) formulation of policy guidelines; and (c) design of a long-term development strategy for coordinating the planning and implementation of investment projects and programs within the agricultural sector (World Bank 1982:25)."

Specifically, the Planning Division is charged with the following functions:

1. to provide planning and evaluation of individual project proposals;

2. to liaise with the operating departments of MAWD, foreign donors, agencies and other government ministries and parastatals;

3. to perform economic and statistical analyses and other special studies within the agricultural sector such as commodity pricing studies, supply and demand projections of agricultural commodities and inputs; and

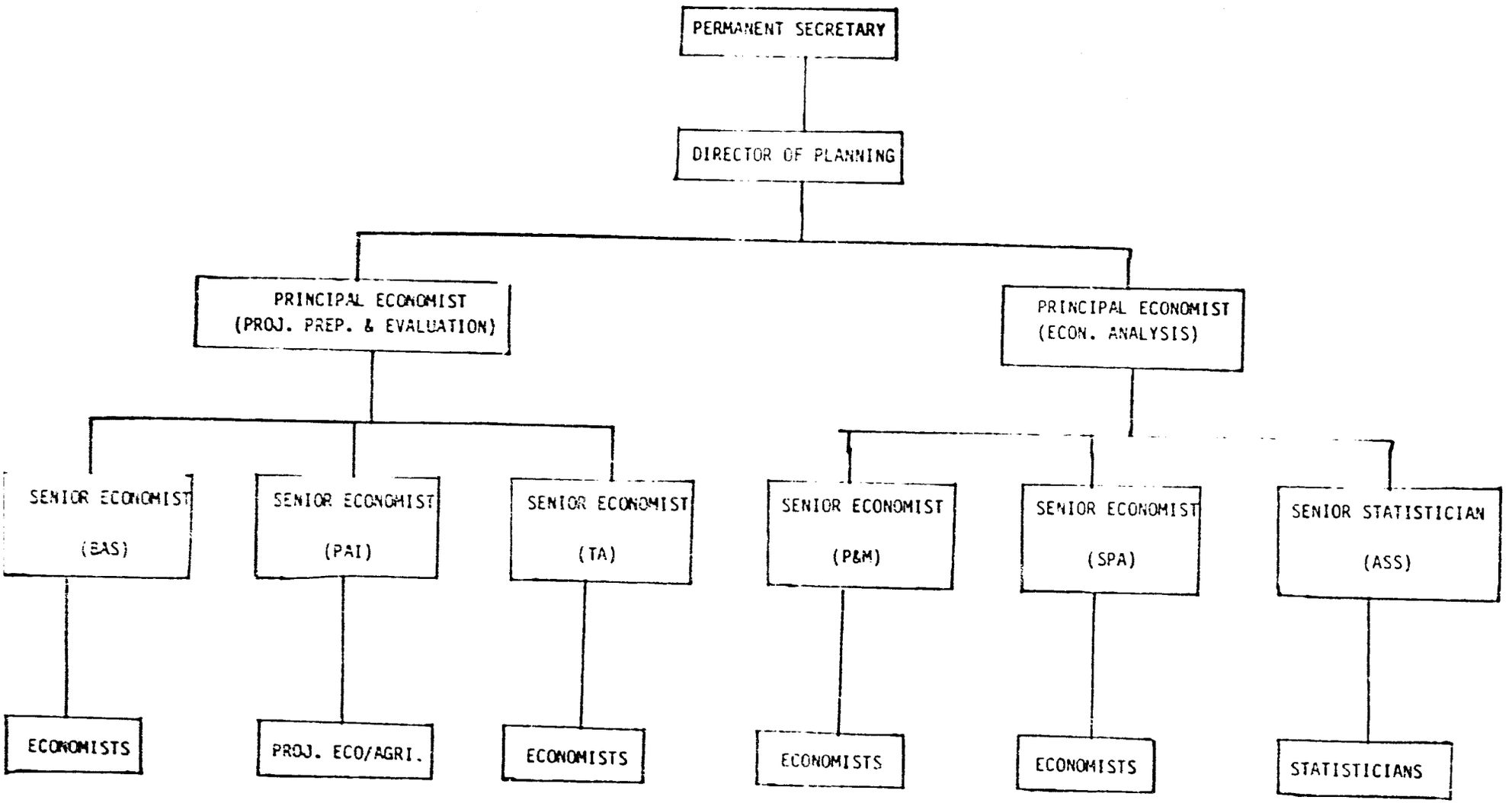
4. to coordinate MAWD-wide activities such as budget submission, annual reports, etc. (World Bank 1982:6).

The MAWD Planning Division is divided into six sections (Figure 2) - Technical Assistance (TA), Budget Analysis (BAS) Project Analysis and Implementation (PAI), Production and Marketing Section (P&M), Sectoral Policy Analysis (SPA) and Agricultural Statistics (ASS). A new Director of Planning was appointed in November 1985. He has indicated a desire to make several changes in the structure of the PD in accordance with the recommendations of a 1982 World Bank study. Acting Section Heads (senior economists) were appointed on

Figure 2

MINISTRY OF AGRICULTURE AND WATER DEVELOPMENT

PLANNING DIVISION



January 15, 1986. The post of Deputy Director has remained vacant for the past two years, but the Director has indicated his strong desire to fill the position as soon as possible. He has also indicated his intention to try to implement the two recommended, but never-established, posts of principal economists. Thus, PD is assuming a more hierarchical structure than it has in the recent past, so that it will in practice, as well as in theory, reflect the organization depicted in Figure 2. Further, the January 15 memorandum presaged some equally important procedural and substantive changes to facilitate the flow of work and to maximize the use of divisional resources.

The Ministry of Finance and National Commission for Development Planning

The Ministry of Finance (Figure 3) is responsible for the financial management of the GRZ. Its functions include both budgeting and financial accounting. In 1985, the National Commission for Development Planning was subsumed under the portfolio of the Minister of Finance. Thus, the Ministry now has a planning arm as well as a financial administration arm. For ease of discussion, however, the budget and financial aspects will be described first, and NCDP, housing the planning function, will be described subsequently.

The Ministry of Finance has three major departments, all of which are relevant to the agriculture sector. The first is the Budget and Economic Affairs Department. Within that department, the Budget Division has responsibility, along with the Sectoral Planning and Investment Policy Departments of NCDP, for preparing the annual budget submission to Parliament. It is in the Budget Division that resource allocation decisions are made for the recurrent budget, while NCDP makes decisions for the capital budget. Both of these arms of the Ministry of Finance are concerned with global allocation within the GRZ resources; that is, they do not examine agriculture in isolation, nor do they reach the level of detail of any of the sectoral ministries such as MAWD.

There are two other important sections besides the Budget Division within the Budget and Economic Affairs Department. The Loans and Investments Office in the Budget and Economic Affairs Department has approval authority for all agreements between the GRZ and donors. After the merger with NCDP, the Economic and Technical Cooperation Department of NCDP was moved under Loans and Investments Section. It has specific responsibility for liaison with the different donors. As the MOF is usually the signatory to agreements with donors, the Loans and Investments section also has responsibility for monitoring the financial flows from donors, and

Figure 3

MINISTRY OF FINANCE

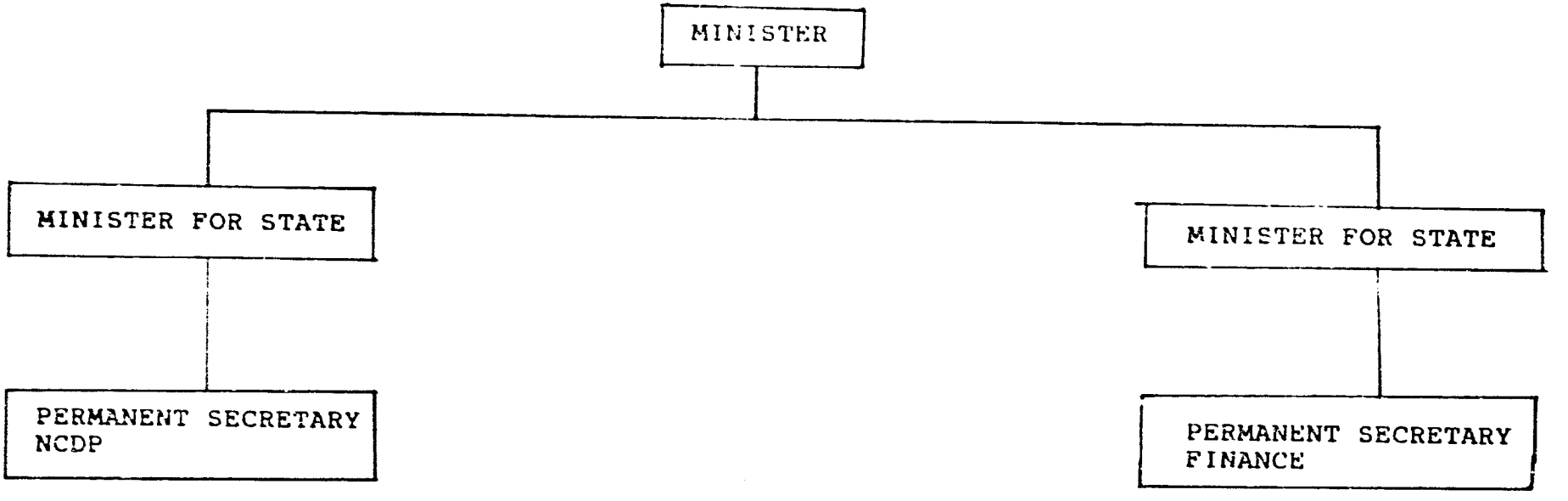
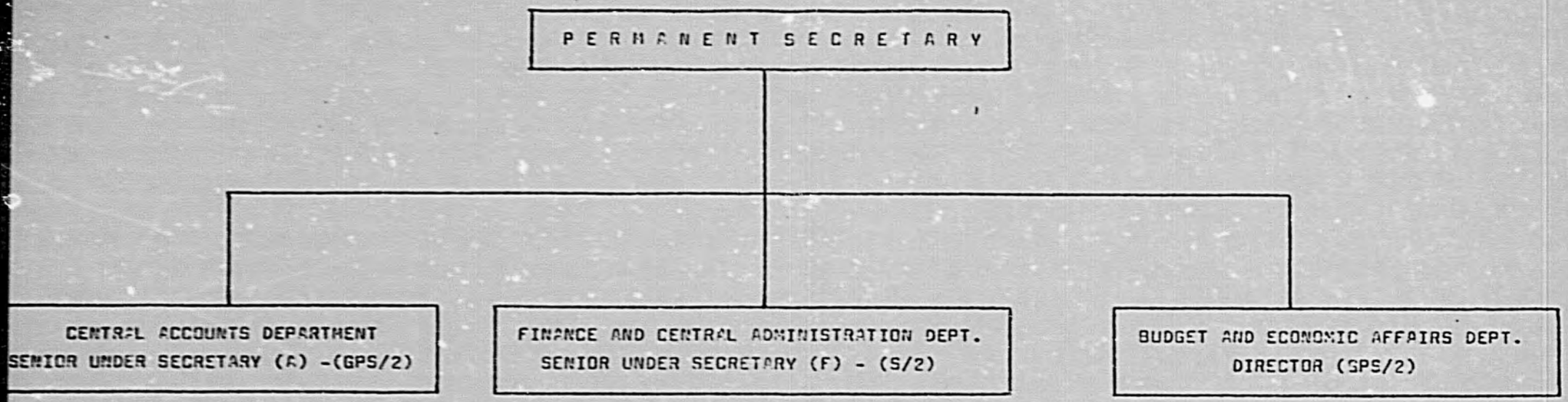


Figure 4



- Central Accounts Division
- Internal Audit Division
- Stock Verification and Losses Division
- Data Processing Unit*
- Government Stores Department*
- Central Supply and Tender Board*

- Central Administration
- Revenue Division
- Treasury Solicitor
- Customs and Excise Department*
- Taxes Department*

- Budget Division
- Economic Affairs Division
- Technical Cooperation Division
- Loans and Investments Division

* These are autonomous departments with separate fundings

(Proposed functional organisation of the Ministry of Finance)

for certifying to each donor that any conditions on which assistance is premised have been met.

The second department is Central Accounts, which is responsible for financial accounting, internal audits, the issuing of checks and so forth. The department has Senior Finance Officers, and sometimes other junior officers, seconded to each ministry to perform the financial accounting services. Technically, all such officers report to the Ministry of Finance.

The third department is Finance and Central Administration, which has sections for Taxes, Revenue, Treasury Solicitor and Customs and Excise, in addition to central administration of the MOF. Insofar as macroeconomic policies affect the agriculture sector, this Department also plays a role in encouraging or constraining sectoral growth.

National Commission for Development Planning

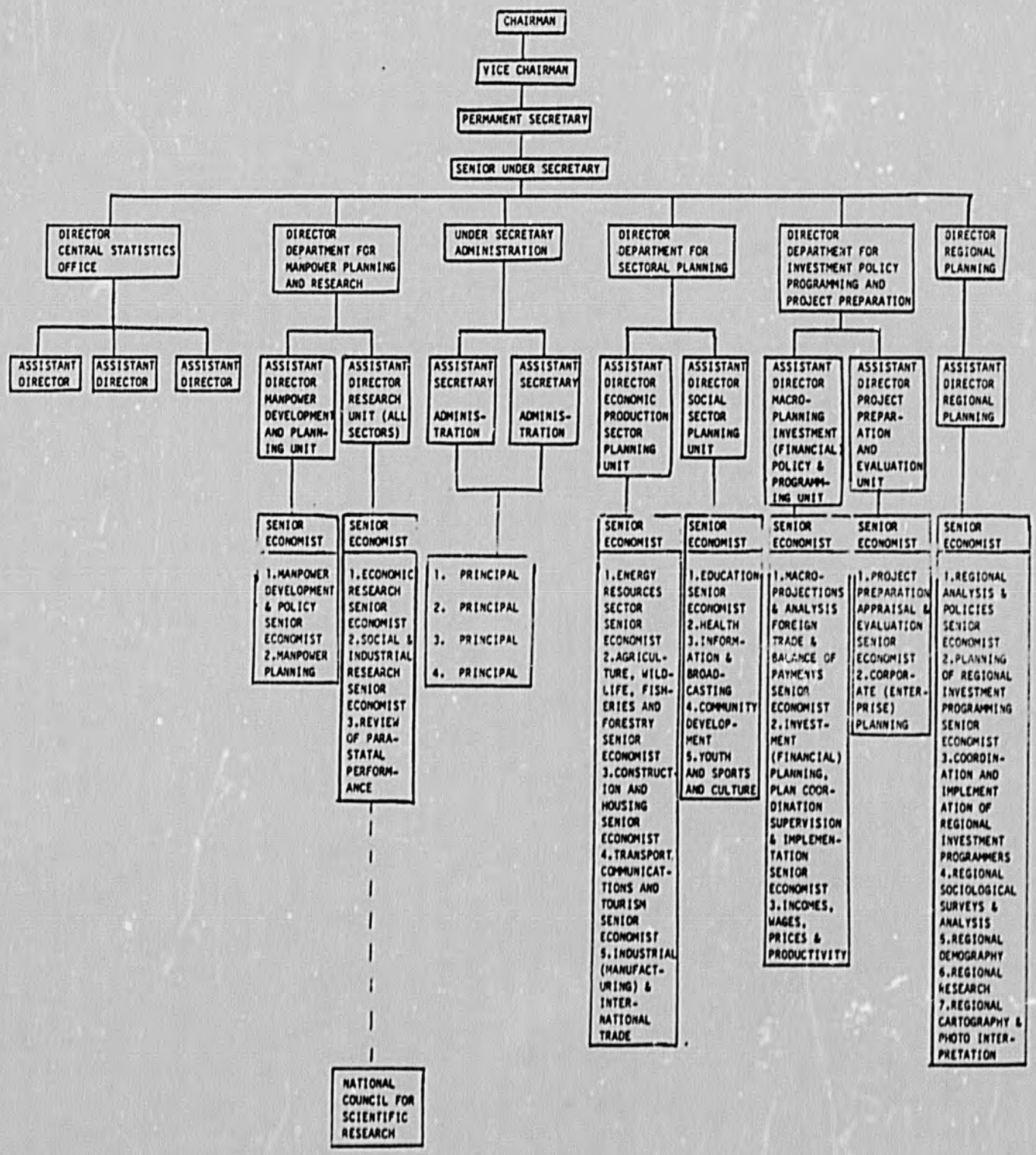
The NCDP (Figure 5) is responsible for coordinating sectoral planning across the Zambian economy, for coordinating all technical assistance, for managing the Provincial Planning Units, which have an impact on agricultural development at the regional level (Peat, Marwick et. al. 1985:8), and for national-level data collection and statistical analysis. It coordinates and has final authority over the preparation of the country's five-year development plans and the annual plans deriving therefrom. The NCDP is divided into six departments - Sectoral Planning; Investment Policy, Programming and Project Preparation; Regional Planning; Central Statistics Office; Manpower Planning and Research; and Administration. The first four departments listed are most relevant to agricultural policymaking.

In contrast to MAWD, NCDP's mandate requires it to place the agriculture sector in the context of the overall economy. Thus, in terms of investment potential, the Investment Policy Unit weighs the alternatives presented in the agriculture sector against those in other productive sectors. It analyzes non-government (donor and private sector) as well as government resource allocation. The Project Preparation and Evaluation Unit has responsibility for technical assessment of all donor project proposals, and for monitoring and evaluation. However, the Permanent Secretary stated that lack of adequately trained manpower, coupled with the high number of donor projects in the agriculture sector preclude either of these units from completely fulfilling their responsibilities.

The Sectoral Planning Department includes on its staff three professionals - two economists and a senior economist - whose specific responsibility is to liaise with MAWD. Their tasks include examination and analysis of MAWD's budget submission,

Figure 5

NATIONAL COMMISSION FOR DEVELOPMENT PLANNING



recommending alterations and negotiating with MAWD to resolve any differences.

The Regional Planning Department has central administrative responsibility for the direction of the Provincial Planning Units (PPUs). There is a PPU in each province, and each serves as technical advisory staff to its respective Provincial Development Council, the local body for development decisionmaking. Those PPUs with donor assistance appear to be taking a more active role and to be more effective in actually fulfilling their objectives.

Central Statistics Office

The Central Statistics Office (Figure 6) has statutory authority to approve and oversee all data collection efforts in Zambia. Specifically, the law requires CSO to

- carry out any census or sample survey required in Zambia;
- generally to organize a coordinated scheme of social and economic statistics related to Zambia; and
- submit an annual report to the Minister [of Finance] on the Department's activities (Republic of Zambia 1955:5).

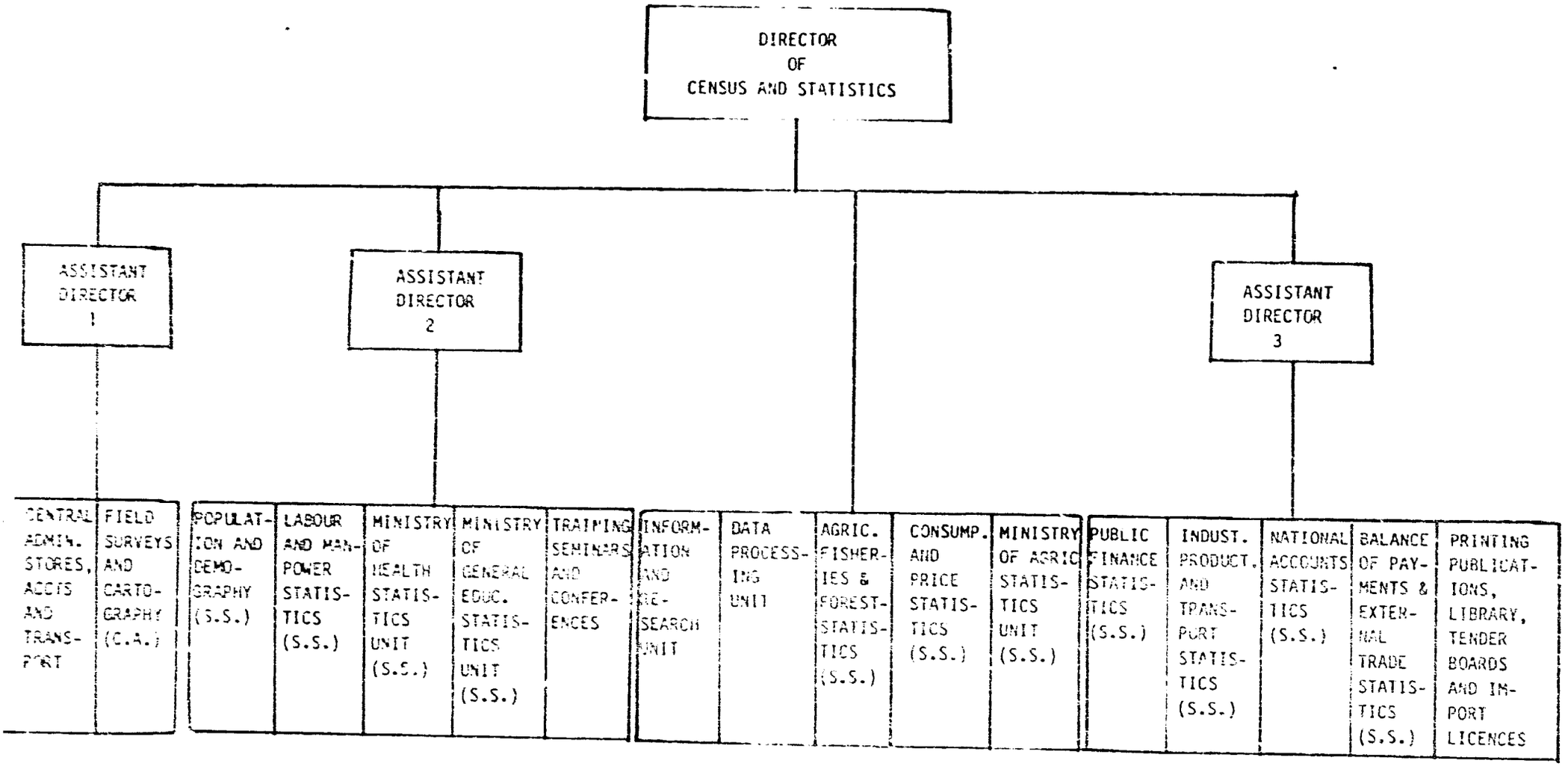
With respect to agriculture, CSO is responsible for collecting and processing national agricultural statistics and for implementing special surveys for MAWD or other ministries as required. Thus, it is the primary provider of empirical information on the agriculture sector.

The University of Zambia

Rural Development Studies Bureau

The RDSB is another source of data that is complementary to the CSO in terms of types of collection efforts, levels of analysis, methodologies and study purposes. Formerly the Rhodes-Livingston Institute, it is one of four research institutes that comprise the National Integrated Rural Development Studies Centre, which is part of the research arm of the University of Zambia. It has a Director, four senior research fellows, seven research fellows (three on study leave), three research officers and an administrative staff of six. In addition to the salary, benefit and operating cost support received from UNZA, RDSB enters into contracts to perform studies and analyses for GRZ, donor or other entities and is thus self-financing to a certain extent. This allows it some flexibility in undertaking data collection and analysis activities. In addition to his more academic role, the

Figure 6



Note: C.A. = Census Administrator
S.S. = Senior Statistician

Director is an advisory member of the UNIP Central Committee's Rural Development Subcommittee, described below and in Section III.D.

The Schools of Humanities and Social Sciences and Agricultural Sciences

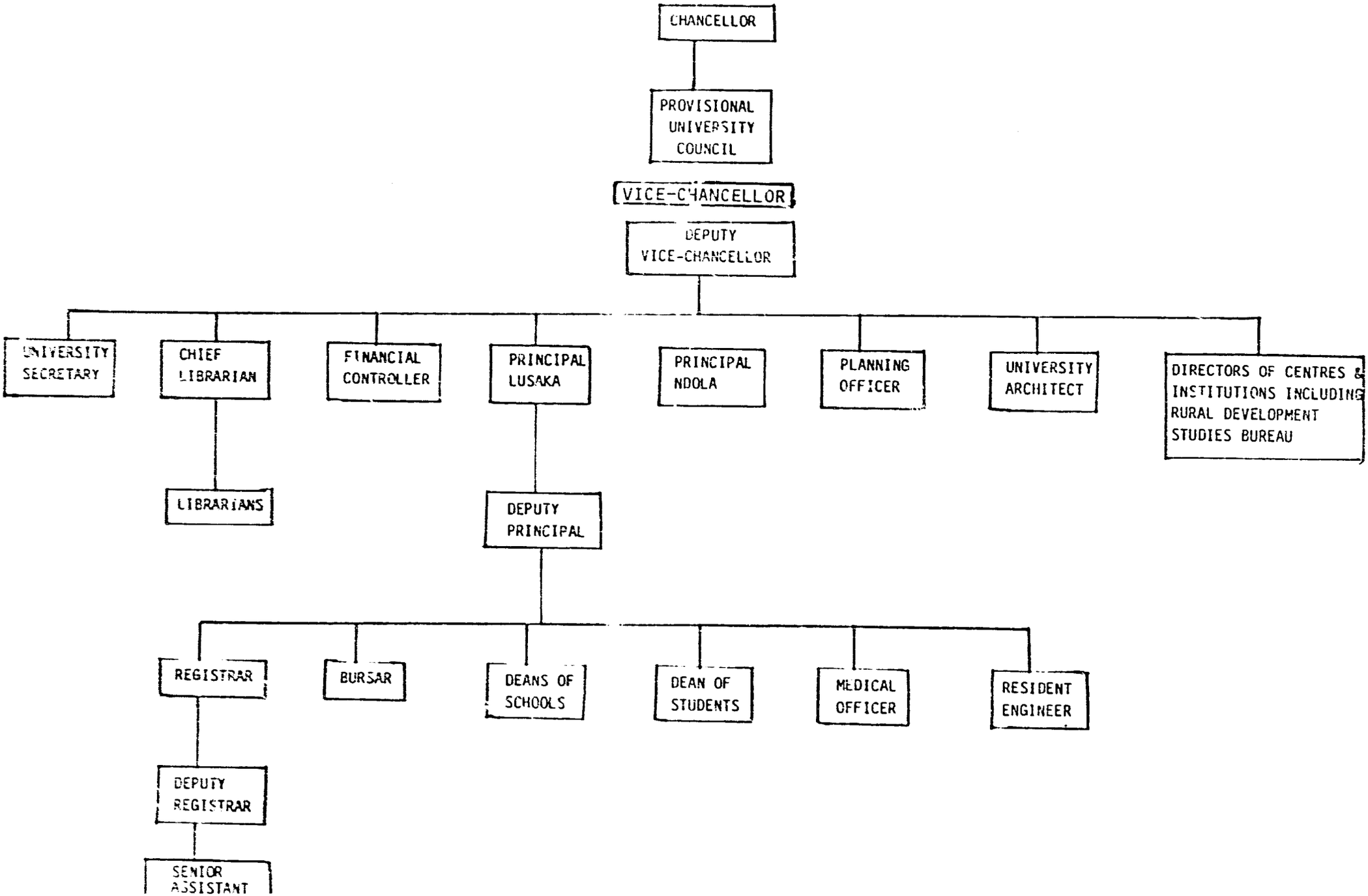
The University of Zambia (Figure 7) was established in 1965, beginning with three schools - Education, Humanities and Social Sciences, and Natural Sciences - and incorporating the former Rhodes-Livingston Institute and the Oppenheimer College of Social Service. Subsequently, Schools of Law, Engineering, Medicine, Agricultural Sciences, Mines, Business and Industrial Studies, Environmental Studies and Veterinary Medicine have been added. In 1979, a new Act of Parliament created a federated university structure with three constituent institutions in Lusaka, Ndola, and a rural location, later determined to be Solwezi. Throughout the late 1970s, as the movement for federation grew, it was expected that the School of Agricultural Sciences would be located in whatever rural location was chosen. The development of the program and physical plant lagged considerably because the site had not been selected, and resources were not devoted to what was thought to be a temporary site. In 1980 the decision was taken to permanently locate Agricultural Sciences in Lusaka. Recently, the Japanese government has undertaken construction and staffing of the School of Veterinary Medicine. The university farm exists, but it is not well developed (University of Zambia 1984).

The UNZA is the primary supplier of trained manpower to the government and political agencies responsible for policy formulation in the agriculture sector. These agencies have relied primarily on the School of Humanities and Social Sciences to provide graduates holding the Bachelor of Arts degree from the Department of Business and Economic Studies.

The School of Agricultural Sciences offers a five-year, Bachelor of Science degree in general agriculture, with a fifth year specialization in agricultural economics, under the Department of Rural Economy and Extension Education (DPREE). This specialization was established in 1984, but has not yet been fully activated. There are conflicting opinions as to whether this program is considered adequate to qualify as a B.Sc. in agricultural economics, either for immediate GRZ service in MAWD and elsewhere, or for entrance into a graduate program. According to the Deputy Vice-Chancellor, funding constraints will preclude the university from establishing a separate bachelor's degree program in agricultural economics in the foreseeable future. The DPREE faculty has an establishment of nine, of which one is encumbered by a Zambian lecturer, six are encumbered by Zambians on study leave, two are filled by expatriates (topped-up by bilateral donors).

UNIVERSITY OF ZAMBIA

Figure 7



There are two additional expatriate lecturers in the department who are not encumbering establishment posts.

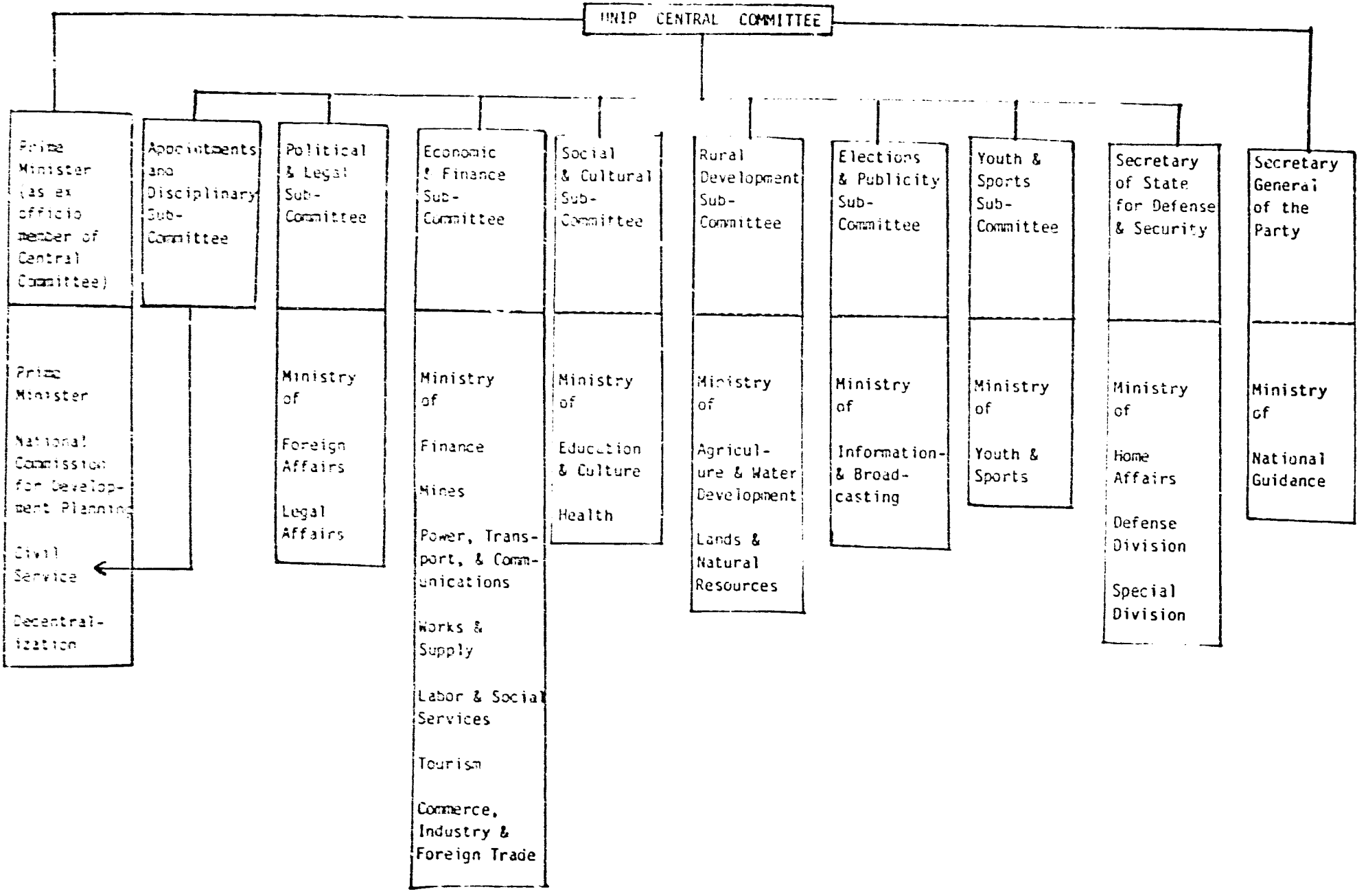
The Central Committee

The Central Committee (CC) coordinates UNIP activities (See Figure 8). It is the highest executive body of the party, and, according to the 1973 Constitution, it is to devise policies that the Cabinet is to execute. As a practical matter, the Cabinet generally recommends policies, but major policy decisions are usually taken only with the concurrence of the Central Committee. The CC has 25 members including the president, the prime minister, twenty persons elected by the party's General Conference (which meets at least annually) and three appointed by the president. Of particular importance to the agriculture sector is the Rural Development Subcommittee of the CC (Figure 9). The subcommittee is comprised of CC and Cabinet members and is staffed by both technical and political personnel.

The UNIP Research Bureau serves the Central Committee as an advisory body. There are conflicting opinions as to its access to technical expertise, but it is clear that for major policy decisions, as have been taken in the past four years, the Research Bureau does render an independent assessment of proposed policy changes to the CC in the course of the latter's deliberations. It is unlikely that the Research Bureau undertakes the same empirically-based, detailed analysis that provided the background for some of the recent policy decisions; however, it is likely that it draws on material generated by the civil service agencies and makes an assessment of the political impact of the proposed change for consideration by the CC.

The Cabinet

Cabinet members are appointed by the President from among the members of Parliament (who may be either elected or appointed). There are twenty-five Cabinet members. Cabinet posts of particular significance to agriculture include the Ministers of Agriculture and Water Development, Works and Supply, Lands and Natural Resources, Cooperatives, Commerce and Industry and Decentralisation, the president, secretary general of the Party, and prime minister (Kaplan 1979:133-4). As outlined in Section III.D., the Cabinet may take or ratify decisions on agricultural policy, depending on the magnitude and political sensitivity of the issue. The more politicized the issue, the less likely that the Cabinet will be the decision-making body.



NOTE: Appointments and disciplinary subcommittee oversees Civil Service Section in prime minister's office

Figure 8

Source: Kaplan, Irving (Ed.) Zambia: A Country Study. 1979.

Figure 9

RURAL DEVELOPMENT SUBCOMMITTEE OF CENTRAL COMMITTEE

Members:

Chair and Vice Chair RD Committee (Central Committee members)
Chairman of Youth and Sports Committee (Central Committee members)
Executive Secretary of Women's League (Central Committee members)
Minister of MAWD
Minister of Lands and Natural Resources
Minister of Cooperatives
Minister of Information and Broadcasting Services
Minister of State, Ministry of Home Affairs
Minister of State, MAWD
Minister of State, Ministry of Commerce and Industry
Minister of State, MOC
Provincial Political Secretary, Rural Development Committee
Chairman of Zambia Agricultural Development Bank
The Archbishop of The Lusaka Diocese
Minister of Youth and Sports
Minister of State, Ministry of Lands and Natural Resources
Chairman of Zambia Cooperative Federation

Advisors:

Managing Director, Rural Development Corporation
Commissioner of Lands
Co-ordinator: Fisheries Development Authority
Deputy Director of Research Bureau (Freedom House)
Director of RDSB
General Manager of NAMBoard
General Manager of Dairy Produce Board
General Manager of Cold Storage Board
General Manager, Zambia Seed Company

Secretary:

Secretary, RD Committee

Parliament

The parliament is comprised of the president and the National Assembly, which consists of 125 members - one from each constituency - elected for five-year terms, and ten members appointed by the President. All parliament members are UNIP members. Although all candidates for parliament must be UNIP members, elections are still contested at the local level between or among candidates.

Parliament may legislate, but all bills must be approved by the president before they can become law. "The National Assembly has not been an effective body, especially during the Second Republic. . . . It still [holds] the executive accountable for policies and performance, and it continue[s] to constitute and arena for vigorous debate and a forum for contact among elected politicians and between the people and their government (Kaplan 1979:132-3)."

The President and State House

The President sits at the apex of a two-pronged government structure, consisting on the one hand of the UNIP and on the other of the civil service. Directly below the president are the secretary general of UNIP, and the prime minister, who heads the government administration. Both are appointed by the president, subject to parliamentary approval. President Kaunda has received his party's nomination from the General Conference of UNIP at each of the five-year intervals in which he has run for office. There is no limitation on the President's term of office, and he has constitutional powers to act "on his own deliberate judgment and [is not] obligated to follow advice rendered by any other person or authority (Kaplan 1979:130)."

The president maintains a small staff of advisors at State House, including several with technical skills in economics and other subjects. As mentioned in Section III.D., these advisors may be asked to comment on a policy decision, particularly when the President is asked to arbitrate among his advisors.

The Commercial Farmers' Bureau

The Commercial Farmers' Bureau (CFB) is a powerful private sector lobby group, originally made up of Zambia's large-scale farmers, cooperatives and agribusiness corporations. It has now broadened its base to include emergent farmers. Constitutionally, any "bona fide farmer," whether a person, association or company, is eligible to join.

The basic components of the CFB are thirteen local Farmers' Associations. Each association's chairman is a member of the CFB Council, which in turn elects an Executive Committee comprised of a Chairman, two Vice Chairmen and two other members, for a total of five. There are also seven commodity committees designated as follows: beef cattle, dairy cattle, pigs, poultry, grain, irrigated crops and oilseeds. Each committee has a chairman who serves as an ex-officio member of the CFB Council.

The CFB raises revenue by charging a nominal (K30) annual membership fee, and by assessing each member a 0.05 percent levy on crops and livestock produced. The Executive Committee controls expenditures, and control of the Bureau's property is handled by two trustees.

Published information on the CFB states that "[t]he Bureau seeks to maintain the closest possible relationship with the authorities which frequently consult it on such matters as pricing policies, crop logistics, foreign exchange allocations, overseas aid, new legislation, etc." It also "provides support and advice for members in their dealings with the authorities in appropriate cases, and keeps them informed on matters affecting farmers,. . . [and] represents the agricultural sector on foreign exchange allocations . . . Contacts with similar organisations in other countries and international bodies dealing with agriculture are maintained (Commercial Farmers' Bureau 1985:1-2)."

POLICY IMPLEMENTATION ORGANIZATIONS

The Ministry of Cooperatives

The MOC (Figures 10 and 11) was formed in 1983 from the former Department of Cooperatives and Marketing within MAWD. This elevation to ministerial status was intended to give the cooperative movement higher visibility and better support, at a time when cooperatives were expected to rather quickly assume a larger proportion of the marketing responsibility from the heretofore parastatal monopoly. The MOC is a comparatively small ministry, with essentially one technical and one administrative department. The Marketing Section advises on the setting of commodity floor prices, but its chief role is in the analysis of the physical requirements for marketing, i.e., ensuring that the necessary stocks are in country, or that adequate foreign exchange is available in anticipation of the cooperative unions' purchase of supplies by projecting marketing flows. The Cooperatives Section provides outreach services to potential cooperatives, working closely with the Zambian Cooperative Federation. It also has responsibility for monitoring and enforcement of the Cooperative Societies Act of 1970.

Figure 10

MINISTRY OF COOPERATIVES

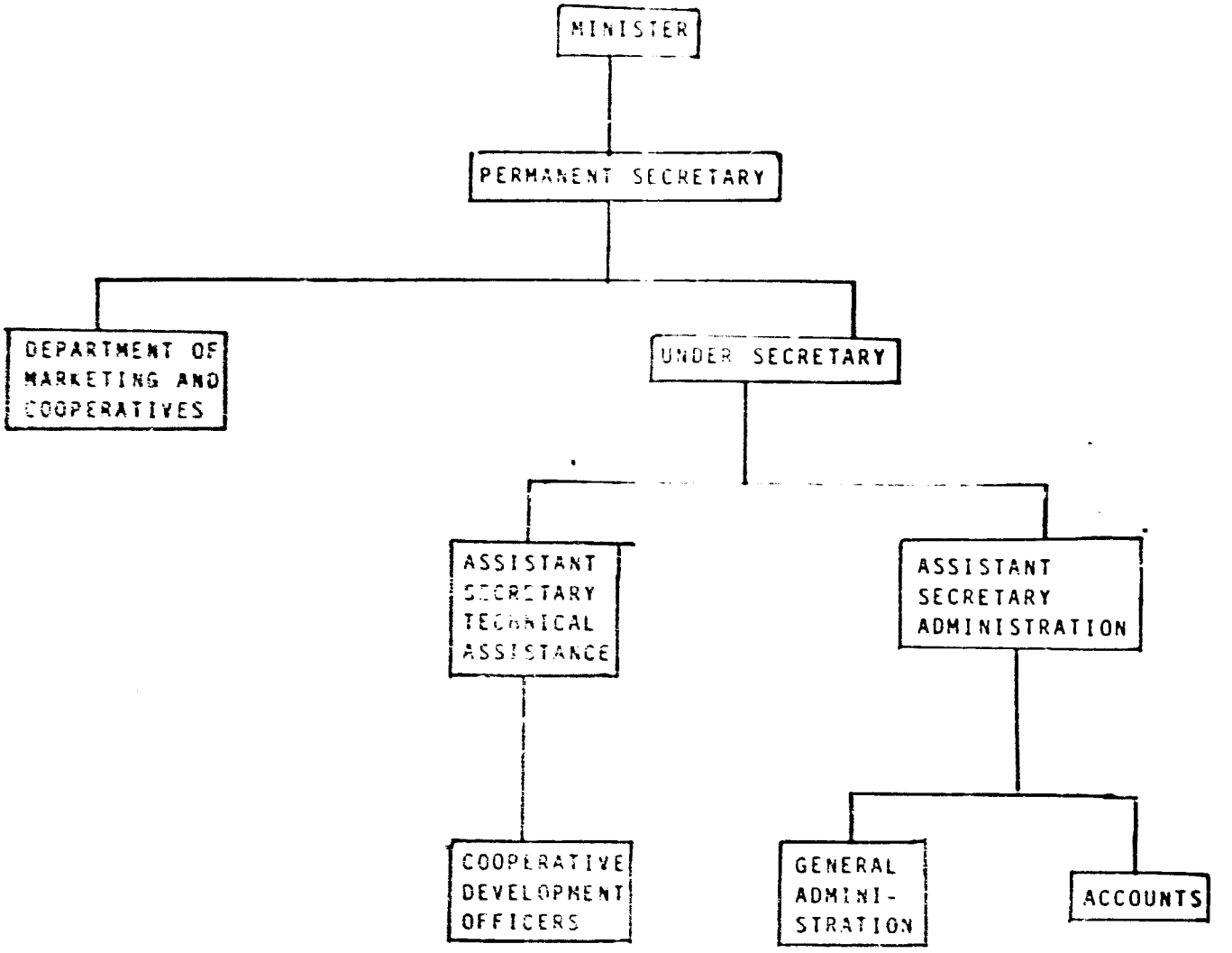
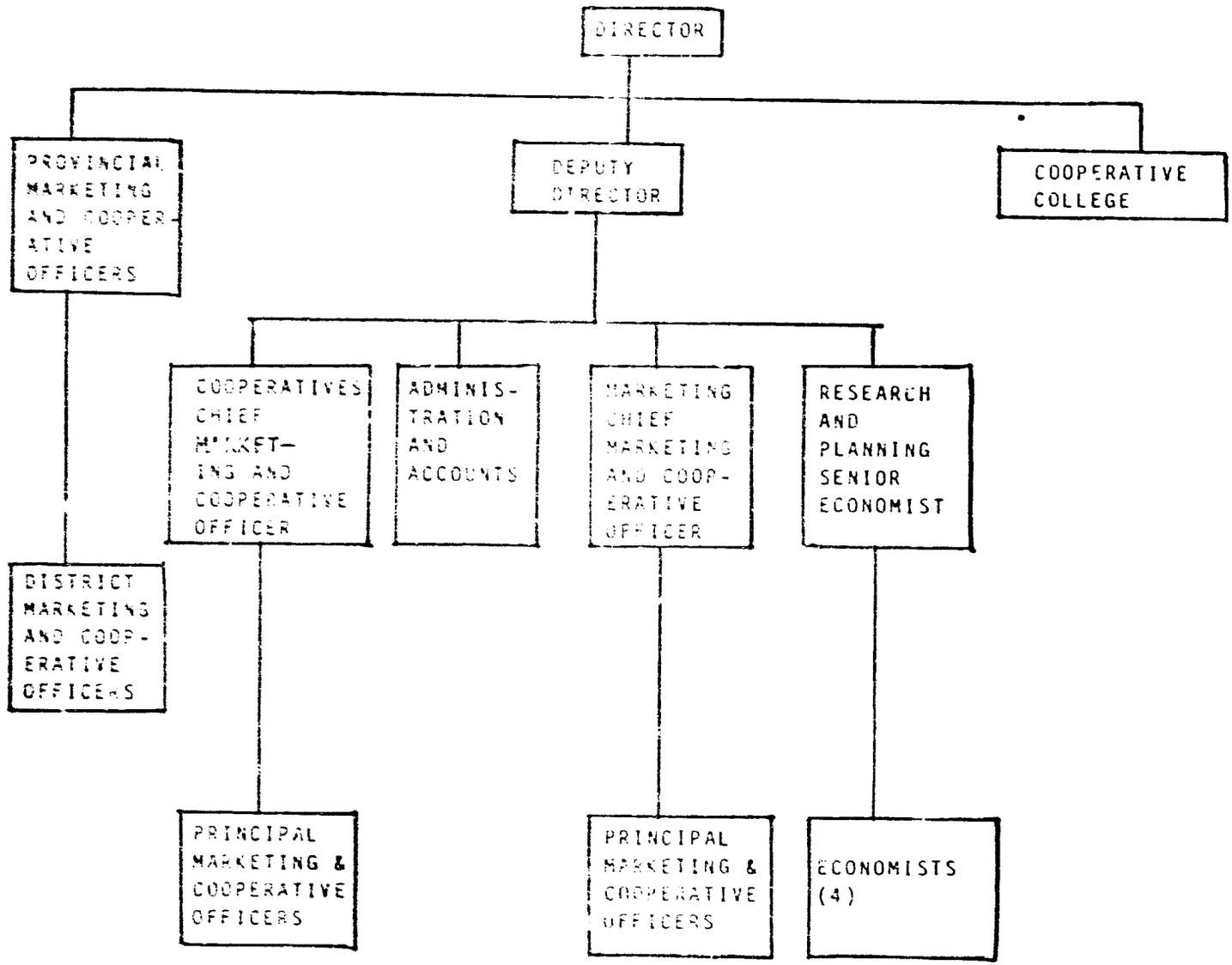


Figure 11

DEPARTMENT OF MARKETING AND COOPERATIVES



The Agricultural Parastatals

NAMBoard, until January 1986, was responsible for the marketing of maize; for transportation, storage, collection handling and distribution of maize; and for the sale and distribution of fertilizer, seeds and implements. It has now been designated as the buyer of last resort for a variety of agricultural commodities, and as the manager of a strategic grain reserve. It will still be a major supplier of fertilizer, and though the price of fertilizer was raised in January 1986, fertilizer costs remain subsidized by the GRZ. Thus, NAMBoard's budget will continue to be a drain on the overall resources available to the GRZ to devote to agriculture, although it is anticipated that the subsidy will be considerably less than the K135 (Peat, Marwick et. al. 1985:8) million expended in 1985. NAMBoard's role is that of implementor of the policy decision to diversify marketing channels for maize and to establish a national grain reserve. Analyses and formulation of these policy charges were carried out within the Planning Division of MAWD and in the Ministry of Finance, rather than directly by NAMBoard staff.

Dairy Produce Board is responsible for the importation of dairy commodities and their resale as milk by-products and groceries; and for the purchase of fresh milk from farmers for processing, treatment and sale from its own depots and retail outlets.

LINTCO is responsible for increasing cotton production to the level of self-sufficiency and for creating an export market. LINTCO has also recently become responsible for similar objectives in relation to coffee and soybeans. LINTCO has its own extension staff seconded from MAWD.

Tobacco Board of Zambia was formed to develop tobacco production. In 1985 it was reformulated into a board, which would handle marketing and sales and a company responsible for production, extension and input supply. Its mandate is to support small farmer tobacco production via extension, provision of inputs, grading and managing a packing plant and auction floors.

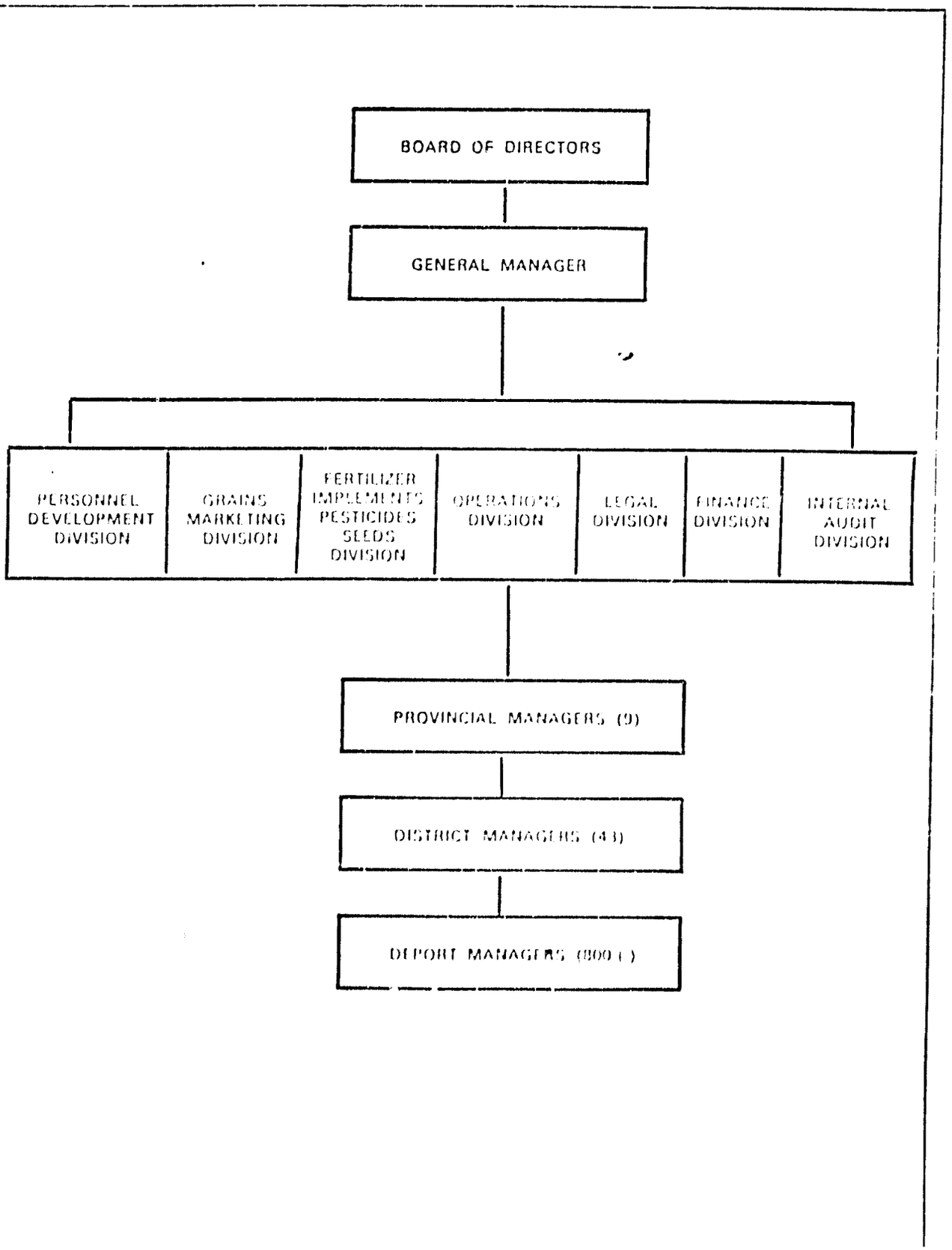
The Ministry of Lands and Natural Resources

This ministry is responsible for overseeing and formalizing all forms of tenure on agricultural land, for land titling, surveying, cadastre and so forth. It also manages the national forest resources.

Figure 12

National Agricultural Marketing Board of Zambia

ESTABLISHMENT CHART



The Ministry of Decentralisation

This ministry is responsible for implementing the 1980 Local Administration Act. It has a Rural Development Section, and supports the District Councils in their development initiatives. The linkage between MAWD's coordination of the integrated rural development and area development programs, which are now standardized on a model of devolving authority to the District Councils, should imply closer working relationships over time among MAWD, the Regional Planning Section of NCDP and MOD. At the moment, policy decisions with respect to the IRDP programs have been made in MAWD, so that MOD is considered for this study to be a policy implementor rather than formulator.

The Ministry of Commerce and Industry

The MCI must ensure that the availability of processing facilities for agricultural commodities is adequate to meet the demand, it has a consultative role in the setting of agricultural prices and subsidies and has partial responsibility for the establishment of rural industries, many of which are agriculturally-based (Peat, Marwick et. al. 1985:8-11).

UNITED STATES GOVERNMENT

memorandum

DATE: February 5, 1986

REPLY TO ATTN OF: Mike Applegate MGA

SUBJECT: ZATPID Impact Assessment and Institutional Analysis.

TO: See distribution

After reading the draft of the impact assessment I would like to make the following comments:

1. The impact assessment and recommendations reflect a bias against quantitative analysis. While some statements have been added which are intended to provide balance, the overall tone is clear. That is, that quantitative analytical analysis is not particularly useful and does not contribute to the achievement of Project objectives. To date there has been only one quantitative economic excercise which has been completed. (i.e. the transport model which was developed by LeAnn McGranahan). Because of the special circumstances surrounding that activity it is unfair to judge the "usefulness" and "sustainability" of future modeling exercises on the basis of this activity.

   The assessment correctly points out that greater focus on quantitative anlysis has been given to the project for the last phase. This has been deliberate and the position descriptions and work plan for phase II reflect this. Since the new team has been in place only seven months and the modeling exercises have not been completed, their impact will be determined at a later date and should not be prejudged in a negative way at this point.

   Finally, very rigorous tests of usefulness and sustainability are correctly applied to quantitative analysis. However I don't see the same criterion applied to management workshops, anthropological field work, etc.

2. The Project is entering a phase where technical assistance in quantitative policy analysis can bear the greatest fruits due to the following:

   (a) Increased analytical capability provided by the computer center. This is the purpose of project support for this center which has been correctly judged to be very useful. The emphasis of quantitation analysis would cause the computer center to become simply a "high tech" typing pool.

   (b) Long term trainees with analytical skills are now beginning to return. There will in the future be more Zambians with the required analytical skills to colloborate with longterm technical advisors. This will especially be true for ZATPID II. This collaboration will be important for our trainees to make the transition from an academic environment to an applied policy environment.

   (c) In the past quantitative analysis has been greatly hampered by lack of data. This is being overcome largely by project efforts.

   In sum I feel strongly that it is wrong to switch the focus of ZATPID I or II away from policy analysis. The project is just coming to the point when this activity can really bear fruit in terms of better policy.

3. On page 7 the assessment says that long term participant training may be too heavily tilted toward quantitative methods. The problem never has been with quantitative methods. Rather the first group of students had difficulty with the mathematics contained in the beginning theory courses which is an entirely different matter. These problems have already been addressed with better section criteria and placement.

Distribution:

Joan Atherton
Curt Reinstsma
Fred Perry
John Patterson
Jim Snell

ANNEX 9

SUGGESTED CRITERIA TO DETERMINE STUDY AREAS UNDER ZATPID II

Areas of study should meet all the following criteria:

1. Address the project goals and purposes, and more specifically the identified constraints to the achievement of project goals and purposes.

2. Conform to the Zambian agricultural strategy, as identified by the five year plan, annual plans, and other key documents.

3. Be of demonstrated interest to Zambian policymakers or key Zambians who feed information and analysis to policymakers. Zambian interest should be demonstrated by commitment of Zambian resources, above all else human resources (i.e., Zambian technicians committed to active participation in the study). Financial resources need not be committed in all cases.

4. Ensure that there is no duplication with similiar activities being undertaken by other donors or other Zambian institutions.

5. Be preconditioned upon a thorough review of existing work in the same area before the study is agreed to, in order to ensure that previous studies and recommendations have been taken into consideration in assessing the necessity for and design of the new studies.

NB: While the above criteria provide a general framework to guide the choice and development of studies to be undertaken during ZATPID II, they do not provide for a way to prioritize among many possible study areas. Such prioritization must of necessity flow from the documentation related to points one and two above, i.e., the specific project goals and purposes, and specific documents that define the priorities of the Zambian agricultural strategy. An additional way to prioritize among potential study areas would be to categorize studies along the lines of the policy formulation/ policy implementation dichotomy developed in Section III of this report.

ANNEX 10

ILLUSTRATIVE LIST OF STUDY AREAS FOR ZATPID II

The following is a list of possible study areas under ZATPID II. The recommended areas are not in any order of priority.

1. Policy Impact Monitoring. Monitoring the socio-economic impact of policy changes is important to assure that recent policy changes are having their desired effects, and that disproportionate benefit or cost does not accrue to any individuals or groups within the society. It allows for informed midcourse correction in policy implementation and programming. Longitudinal quantitative and qualitative data should be collected and analyzed to provide an accurate assessment of the policy impact.

2. Land Tenure Issues. The World Bank's 1984 agricultural strategies paper and other documents emphasize the importance of land tenure as an agricultural policy issue in Zambia. This is because security of tenure is rapidly becoming recognized as a second-generation policy constraint to agricultural growth. Specific areas of study could include: the relation between land tenure, incentives for investment and agricultural productivity; land valuation, land markets, and revenue generation potential; and peri-urban land tenure issues.

3. Cross-border Trade. As in many other African countries, it is becoming increasing apparent that it is economically dangerous to develop agricultural policies in Zambia in isolation from issues of cross-border trade and policies in neighboring countries. This is particularly true in relation to pricing and subsidy policies, which are key issues in Zambia at the present time.

4. Agricultural Resources and their Allocation. Agriculture is expected to become the major contributor to the Zambian GDP. Potential sources of growth in the agriculture sector, anticipated revenues and the means to capture these, and the allocation process should be examined regularly.

5. Private Sector in Agriculture Issues. Study areas under this heading should include such questions as: the ability of the private sector to meet agricultural marketing needs, and what can be done to assist it to do so; the potentials and constraints to agribusiness development; and issues related to small scale enterprise/informal sector and off-farm employment generation.

6. Agricultural Pricing and Marketing Issues not listed above. For example, such questions as regionally differentiated prices, floor and ceiling prices, and NAMBoard's role as buyer of last resort, need further study.

7. Agricultural Credit and Rural Finance. A study of this topic was undertaken under ZATPID I. Some of the major recommendations of the study were not adopted by the GRZ. Although further study in this area may be warranted, it should be preconditioned on demonstrated interest by the GRZ.

8. Fertilizer Supply, Demand and Subsidy Issues. While further study in this area is recommended by the study done under ZATPID I auspices, any action should await the outcome of the World Bank proposal for a comprehensive fertilizer study.

9. Commodity, Subsector, and Regional Comparative Advantages. As the GRZ continues to promote economic diversification, emphasize agriculture, and experience foreign exchange problems, studies of relative comparative advantages in a dynamic setting will become increasingly important (e.g., livestock vs. crop production, export vs. food crops, and relative advantages and disadvantages of various food crops).

10. Intra- and Inter-Institutional Coordination. GRZ institutions with mandates for rural sector development need closer coordination. Discussion and recommendations regarding approaches to this issue appear in Section II of the report. Studies should also extend to structures and procedures of agencies dealing with agriculture and potential for improvement; examination of organizational mandates and the ways their objectives are fulfilled to avoid duplication and improve coordination, headquarters-field relations, etc. (also see item 18 below).

11. Donor Coordination. Donors sometimes have competing objectives, only some of which conform to GRZ objectives, and they often draw heavily on limited Zambian resources, competing with each other in order to fulfill their own mandates. Studies that will improve strategies for use of donor resources in the agriculture sector and that will maximize the use of Zambian resources at the same time are required.

12. Strategic Grain Reserve. There are many conceptual and managerial issues that need study before a strategic grain reserve can be operationalized.

13. Storage of Agricultural Commodities. With the recently announced and anticipated changes in agricultural marketing and

pricing and the concern with strategic grain reserves, questions of storage will become increasingly important. Studies need to be done on storage at all levels, i.e., on-farm, village level, regional level, and national level.

14. Role for Cooperatives. The appropriate role for cooperatives in agricultural input and product marketing, storage and credit, and what impediments exist to fulfilling these roles should be investigated. Studies should include assessments of economic viability as well as organizational and management aspects.

15. Program Structures and Management in the Agriculture Sector. Less direct government involvement in agricultural development generally requires a more participatory approach with greater mobilization of local resources. Areas to be considered in this restructuring of the role of government include:

- Decentralization of decisionmaking and program implementation;
- Decentralization of revenue generation and expenditure;
- Potential for self-help activities;
- Agricultural research and extension services;
- Land and water development;
- Forestry and environmental conservation.

16. Labor Shifts Related to Economic Diversification and Recent Policy Changes. As the economy shifts from its heavy dependency on mining, there is an assumption that labor will also shift from mining into various parts of the agriculture sector. This assumption should be tested. Examples of study topics include an examination of the absorptive capacity of the agriculture sector (especially vis a vis the mining sector); employment expectations of school-leavers and skills training or retraining required.

17. Staff Motivation. Staff motivation in MAWD/PD and other institutions receiving substantial assistance from ZATPID II should be examined. Staff retention was identified as an emerging problem for government service in the report. Recommended study areas include career development potentials, private sector opportunities, demand and supply of trained personnel and incentives (monetary and nonmonetary) for retention.

18. Other Organization and Management Issues. These issues need to be examined within MAWD and other key institutions engaged in policy formulation for the agriculture sector. The Peat, Marwick et. al. study o November 1985 recommended changes in structures and objectives for certain parts of MAWD. NCDP's merger MOF will likely necessitate some changes in both organizations. Assistance should be supplied as need examining options and making recommendations re: organizational objectives and concomitant structure required. Other possible studies can be similar to t undertaken under ZATPID I for management of the MAWD/ computer center and organization of the library.

19. Investments in Water Management. Water manageme will likely be required to enhance growth in the agriculture sector. Studies could include economic a social analyses of alternatives in irrigation, marsh drainage, water storage, and stock watering, for exam