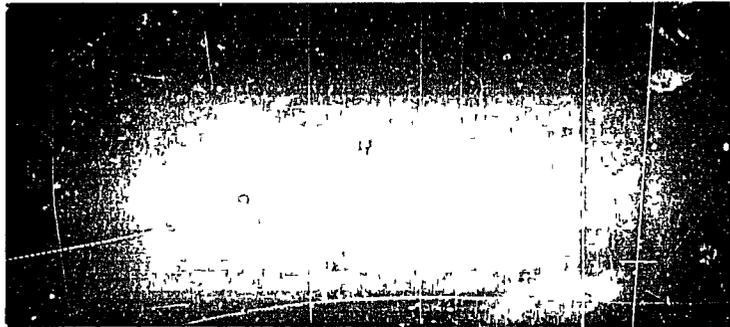


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EVALUATION OF THE KENYA  
AGRICULTURE SYSTEMS SUPPORT PROJECT (ASSP):  
FINAL REPORT  
July 1982

PREPARED FOR:

Office of Agriculture,  
U.S. Mission to Kenya  
Agency for International Development  
Under USDA PASA-0169-P-AG-2021-00

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## FOREWORD

In August 1978 the U.S.AID Mission to Kenya (USAID/Kenya) signed an agreement with the Government of Kenya (GOK) to initiate a multi-component, six and one-half year Agriculture Systems Support Project (ASSP).

The Project, with a total funding of \$61 million (USAID - \$49 million and GOK - \$12 million), at that time represented the largest single AID supported project in Africa. The ASSP was designed to support Kenya's development strategy aimed at alleviating rural poverty and meeting basic human needs by: (1) upgrading agricultural manpower; (2) improving smallholder/pastoralist access to institutional services such as individual or cooperative credit and storage; and (3) creating a viable system of adaptive smallholder/pastoralist research.

### Purpose and Scope of the Evaluation

The PASA Agreement for the evaluation states that the ASSP "...is to be evaluated to determine the likelihood of attaining stated project objectives within the present time and resource availabilities". More specifically, after reviewing USAID's detailed Scope of Work, the evaluation team and USAID personnel agreed that the review should focus on several major issues as follows:

- Is the basic rationale still valid given current GOK and USAID policies, priorities and other circumstances?
- Is the present and planned configuration of the project components still valid given an assessment of constraints on expanded smallholder and pastoralist production?
- What is the progress to date, and the factors instrumental to it towards the achievement of the stated project outputs and purposes?
- How effective and appropriate have the AID and GOK inputs been, directly and through contractors?
- How satisfactory, are linkages both within ASSP and between ASSP and other related development efforts?
- What impact has inflation/devaluation/budgetary constraints had on the project?

- Based on the evaluation findings and conclusions, what recommendations can be made for improving ASSP performance?

The team also reached an agreement with USAID on evaluation priorities. The larger components of ASSP--namely the Egerton College Expansion (grant portion), support for the National Range Research Station (NRRS) at Kiboko, and the Agriculture, Cooperative and AFC Training Funds -- were to receive the most attention. The remaining components were to receive medium to low priority depending on the issues that arose during the review.

### Evaluation Methodology

The evaluation, as the acknowledgements suggest, included the extensive participation of GOK Officials, USAID Officers, and Contract Personnel. Prior to the evaluation team's arrival in Kenya, the core members met in Washington for a week with a representative of the USAID Mission to develop the evaluation plan and orient the team. The DPMC, given its previous familiarity with ASSP's objectives and implementation plans, was selected to direct the evaluation effort and orient the team.

The team spent five weeks in Kenya -- although the time in Kenya for individual core members was actually 2, 3, 4, and 5 weeks respectively -- conducting the evaluation and preparing a draft report. While in Kenya, the team was supplemented with a full-time program analyst, a budget analyst, a short-term cooperative specialist and several support staff.

USAID and GOK reviewed and commented on a draft of this report during the team's final week in Kenya. Mission suggestions, along with recommended modifications by AID Washington and U.S. based contract personnel, were incorporated into the report after the team returned to the U.S. A detailed description of the Methodology is contained in Appendix F and deserves special attention.

### Organization of the Report

The report has three major sections in addition to the Appendices. The Executive Summary provides a concise overview of the evaluation effort, states the findings and conclusions, and presents the major recommendations. The Introduction section provides the background for the evaluation by describing the Kenya agriculture setting and overviewing the rationale and objectives of the ASSP. The Evaluation Results section begins by presenting our in-depth assessment of ASSP components. Following that, the major cross-cutting issues of validity, linkages, and USAID management are considered. The Appendices contain tables and other supporting materials used in substantiating the team's conclusions and recommendations.

## ACKNOWLEDGEMENTS

The ASSP Evaluation is the result of the work of many individuals and organizations.

The first acknowledgement, and unfortunately one engulfed by tragedy, must be accorded to the individual who was directly responsible for designing and nurturing the ASSP effort from its inception. David Christenson, who was killed in an accident just prior to the start of this evaluation, should receive special recognition for managing and overseeing this project in USAID during the difficult start-up phase. He would, we believe, be extremely proud of the progress made to date as reflected in this report and we are extremely sorry to have missed the opportunity to work with him during the course of the first in-depth evaluation of ASSP.

The following persons merit special acknowledgement for their hard work and commitment.

### The Orientation Phase in Washington, D.C.

Marcus Ingle, (DPMC staff) -- Evaluation Director/Orientation Leader

Elon Gilbert, (DPMC contractor) -- Team Leader

Ian Mayo-Smith, (DPMC contractor) -- Manpower Specialist

Carlton Herbel, (DPMC contractor) -- Range Research Specialist

Satish Shah, (USAID/Kenya) -- USAID Representative

Christina Schoux, (AID/AFR) -- AID Setting and Support

Henry Miles (AID/AFR) -- Evaluation Guidelines

Junko Olson (DPMC staff) -- Support

### The Evaluation Conduct Phase

Elon Gilbert, (DPMC contractor) -- Team Leader/Report Preparation

Ian Mayo-Smith, (DPMC contractor) -- Manpower Specialist

Carlton Herbel, (DPMC contractor) -- Range Research Specialist

Marcus Ingle, (DPMC staff) -- Management Evaluation Specialist  
and Report Integration

Alice Slattery, (Contractor) -- Program Analyst and Editor

Janine Finnell, (USAID/Kenya) -- Program/Budget Analyst  
Michael Schluter, (Contractor) -- Cooperative Specialist  
Violet Nissly (Contractor) -- Manuscript Preparation  
Farzana Hudda (USAID/Kenya) -- Manuscript Preparation  
Ellen Bisson (Contractor) -- Manuscript Preparation  
Grace Wambui (USAID/Kenya) -- Manuscript Preparation  
Paula Gember (Contractor) -- Final Manuscript Processing

Those in Kenya deserving a special thanks for their support and assistance to the team include:

Allison Herrick, (USAID/Kenya) -- Director  
Charles E. Costello, (USAID/Kenya) -- Deputy Director  
Charles Hash, (USAID/Kenya) -- ASSP Director and Acting  
Head, Agriculture Office  
Frederick Holmes, (USAID/Kenya) -- ASSP Officer  
Tom Worrick, (USAID/Kenya) -- ASSP Officer  
Gary Lewis, (USAID/Kenya) -- ASSP Officer  
Richard Greene, (USAID/Kenya) -- Program Officer  
Satish Shah, (USAID/Kenya) -- Projects Office  
George Kimani (GOK) -- Deputy Director of Agriculture, MOA  
Richard Musangi, (GOK) -- Principal, Egerton College  
Charles Whyte, (SECID and Virginia State University)  
-- Team Leader, Egerton  
Jon Norris, (Winrock) -- Team Leader, NRRS Kiboko  
David Leonard, (HIID) -- Advisor, MOA  
Chama, S. (GOK) -- Deputy Director (Research), MOLD  
A. E. Chambada (GOK) -- Assistant Director (Research), MOLD  
Barbara Grindin, (ILCA) -- Anthropologist

Richard Saunders (PAS/SGV) -- Team Leader/Credit Appraisal  
Advisor, AFC

J. J. Guderyon (ACDI) -- Training Advisor, MOCD

Elizabeth Orye (SECID) -- Secretary to Team Leader,  
Egerton

In addition, many others made important contributions that unfortunately cannot be formally acknowledged. A complete list of evaluation contacts is contained in Appendix G.

## GLOSSARY

AA	Agricultural Assistants
ACDI	American Cooperative Development International
AFC	Agricultural Finance Corporation
AFR/DR	Africa/Development Resources
AHITI	Animal Health and Industry Training Institute
AO	Agricultural Officers
ATAC	American Technical Assistance Corporation
ASSP	Agricultural Systems Support Project
CAI	Coast Agricultural Institute
CDSS	Country Development Strategy Statement
CIMMYT	Centro Internacional De Mejoramiento de Maiz Y Trigo
DPMC/OICD	Development Project Management Center/Office of International Cooperation and Development of USDA)
DPRA	Development Planning and Resources Associates, Inc.
D.V.M.	Doctor of Veterinary Medicine
EOPS	End of Project Status
FAO	Food and Agriculture Organization (of the United Nations)
G&A	General and Administrative
GDP	Gross Domestic Product
GOK	Government of Kenya
HIID	Harvard Institute of International Development
IADP	Integrated Agricultural Development Project
IBRD	International Bank for Reconstruction and Development (World Bank)
ILCA	International Livestock Center for Africa
IQC	Indefinite Quantity Contract
IPAL	Integrated Project in Arid Lands
JAA	Junior Agricultural Assistant
KSU	Kansas State University
MIS	Management Information Systems
MOA	Ministry of Agriculture
MOCD	Ministry of Cooperative Development
MOLD	Ministry of Livestock Development
MOW	Ministry of Works
NRRS	National Range Research Station (Kiboko)
NSF	National Science Foundation
PACD	Project Activities Completion Date
PAS	Public Administration Services, Inc.
PIO/T	Project Implementation Order for Technical Assistance
PP	Project Paper
SECID	South-east Consortuim for International Development
SGV	SGV Incorporated (The Philippines)
SRDP	Special Rural Development Program
S & T/RAD	Science and Technology Bureau/Office of Rural Development and Development Administration (of USAID)
TA	Technical Assistance
TO	Technical Officer
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

## EXECUTIVE SUMMARY

### A. Overview of the Evaluation

The present evaluation represents the first comprehensive assessment of ASSP since its inception in 1978. The evaluation was carried out between January and April 1982 by a seven-person team. The team included USDA and USAID/Nairobi staff and consultants recruited in the US and Kenya for varying lengths of time. The four members of the team from the US participated in a briefing in Washington D.C. in early February followed by periods of up to five weeks in Kenya during February/March. A draft report was prepared before departure from Kenya and discussed with USAID, GOK and ASSP personnel. The report was revised and finalized in the US.

Given the broad scope of ASSP which contains nine rather distinct components, and the short period of time available for the evaluation, the team in consultation with USAID/Nairobi found it necessary to emphasize high-priority components and issues. These included Egerton College, particularly the Technical Assistance and Training elements; Range Research Support (Nairobi Range Research Station--Kiboko); and the training funds operated by the Ministries of Agriculture, Livestock Development, Cooperative Development and the Agricultural Finance Corporation. The assessment of these three components collectively consumed more than 80% of the time of the evaluation effort. The remaining components which included technical assistance, consultancy services and special studies for the Agricultural Finance Corporation, the Ministry of Cooperative Development, and the Ministry of Agriculture (in the areas of crop storage, the Coastal Agricultural Institute, and the extension services) were treated briefly and less comprehensively.

Even this somewhat uneven coverage would not have been possible without i) the consultants who were engaged in Nairobi (Alice Slattery and Michael Schluter); ii) considerable assistance from the USAID/Nairobi mission (including the full-time services of Janine Finnell who among other things made it possible to take a first cut at the financial status of ASSP); and

iii) the cooperation and substantive participation by ASSP technical assistance staff from various ASSP components and GOK representatives which routinely surpassed the call of duty. The tragic death of David Christenson who perhaps possessed the most comprehensive and detailed perspective of ASSP on the eve of the evaluation created a major void in the mission which was already extremely constrained in terms of time and resources relative to the extent of their tasks. The most useful evaluations are often those that involve the participants themselves, particularly those that are in the best positions to implement any recommendations. In the case of ASSP evaluation, such participation was the child of necessity and the report would have been far less comprehensive without the considerable contributions of time by those most directly concerned with ASSP.

Time and resource constraints placed on the evaluation made it impossible to adequately review drafts and discuss recommendations with the Mission, GOK representatives and technical assistance staff prior to the departure of the team from Kenya. Although drafts of individual components were discussed as they emerged, a more or less complete draft was available only mid-way through the final week of the evaluation. The team is of the view that an additional week in Kenya by the evaluation team (as had been originally proposed) would have been a net benefit to the mission and ASSP. Given the controversial nature of some of the recommendations, notably with regard to SECID's role in the Egerton College expansion component, the linkages between NRRS--Kiboko and its various client groups; and the implications of David Leonard's studies of the extension services for several components of ASSP, further time for discussions might have facilitated better understanding on all sides and aided those responsible for implementing the recommendations that are accepted. More time and resources would probably not have produced agreement on all sides--that is not the intention of an evaluation in any event--but we all share in the frustration of less than complete communication and understanding that these constraints have imposed upon us.

Despite inevitable shortcomings, we take pride in what we have been able to accomplish, particularly in regard to the considerable discussion that elements of the evaluation report have generated. As a general observation, it is far more important that the various parties most directly involved

(GOK, USAID and the various contractors) understand the issues and one another better as a result of an evaluation exercise than to have the evaluation team achieve a perfect understanding which is impossible in any event. This evaluation can play a catalytic role in improving the effectiveness and ultimate contribution of ASSP; but the utility of the evaluation will be a function of the wisdom and hard work that those in Kenya apply to screening, refining, and where appropriate, implementing the various recommendations.

## B. The Setting and Objectives of ASSP

Despite a continued high level of commitment to development, Kenya has faced increasing difficulty in matching the rapid progress experienced during the first ten years of independence in 1963. From 1964 to 1973 real GOP grew on the average at 6.6% per year and per capita income increased at an average rate of nearly 3% despite one of the world's highest population growth rates. Overall growth has slowed in recent years despite increases in domestic and external investments in development and the pattern of growth has benefited some groups, particularly wage earners and farmers in the high potential areas, far more than the urban and rural poor including inhabitants of the arid and semi-arid areas.

ASSP grew out of a series of technical studies on agricultural manpower, research, credit and storage designed to illuminate the key constraints to the continued expansion of the Kenyan agricultural sector. In addition, USAID's emphasis on targeting assistance to the poor was a factor in designing a project whose ultimate beneficiaries were small scale farmers and pastoralists; a focus consistent with the GOK goal of alleviating poverty as expressed in the Fourth Development Plan (1979-84). Four major constraints were identified and formed the setting for the project: insufficient trained agricultural manpower; limited smallholder/pastoralist access to credit institutions, services and infrastructure; lack of adaptive research; and inappropriate macro-economic policies. A principal ASSP objective was the substantial alleviation or reduction of the first three of these constraints.

The resulting project, with a total funding of \$61 million (USAID - \$49 million and GOK - \$12 million), at that time represented the largest single USAID project in Africa and encompassed support to five agricultural systems: (1) agricultural manpower (training, technical assistance, construction, equipment, and consultancy services for Egerton College, the proposed new Coastal Agricultural Institute; the Faculty of Agricultural, University of Nairobi; and the Ministry of Agriculture); (2) range research (including technical assistance, training, equipment and construction (from the GOK) for the rehabilitation and expansion of the NRRS--Kiboko); (3) credit (including technical assistance and training for the Agricultural Finance Corporation); (4) cooperatives (including training, technical assistance, and consultancy services for the MOCD); and (5) storage and marketing (restricted to studies of storage food crops and some training). In addition, ASSP included provision for several in-depth and component evaluations and various special studies.

At a strategic level ASSP was conceived of as a broad-based institution building effort which concentrated on strengthening various services to producers primarily through more and better trained staff for these services. In terms of broad, general objectives USAID and GOK viewed ASSP as one project which "supports directly the GOK decision to re-orient various agricultural service systems .... so that they can reach the large proportion of smallholders not now being served. While the project has five components, these are complementary, interdependent and mutually reinforcing....The programmatic and implementational interactions between various components of this project argue for their inclusion into one overall project package."

The evaluation team had some difficulty disentangling the authors' intent with regard to these specific "programmatic and implementational interactions "As noted by the Implementation System Team in 1979, "The higher level objectives of the project concern improving the lot of small farmers and pastoralists. However, the linkages between the various project elements and these overall objectives are complex and sometimes tenuous....it appears to us that it will be extremely difficult to ever ascertain the impact of the various project elements on the higher order objectives. When projects

cannot be evaluated effectively, experience shows that they are equally difficult to implement creatively."<sup>1/</sup>

### C. Evaluation Results: Conclusions and Recommendations

With some exceptions, ASSP has been implemented primarily as a series of relatively distinct components or sub-projects both by GOK and USAID, and this perspective necessarily dominated during the evaluation period. It was clear from the onset that both GOK and USAID looked to the evaluation to address a number of fairly specific questions on individual components which would be of assistance in reaching decisions about future directions. Accordingly, this section is primarily devoted to summaries of the major conclusions for each component. This is followed by an overall project. Finally, the key recommendations emerging from the evaluation are presented.

#### 1. Individual Component Assessments

##### a. Egerton College Expansion

In accordance with the findings of the ATAC manpower study, ASSP included provision for the expansion of Egerton College enrollment from 686 (in 1978) to 1632 (in 1985). A loan was provided for the construction of physical facilities and the purchase of equipment. Grant funds were included for technical assistance and participant training to upgrade Kenyan staff and reorient the curriculum. The assistance was intended to result in better extension services from smallholders/pastoralists and thus increased food production and rural incomes. This evaluation focuses on the grant funded component of the Egerton Expansion.

Technical assistance and training are being implemented under the terms of a contract with the Southeast Consortium for International Development

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<sup>1/</sup>Memorandum to K. Eubanks and D. Christenson, USAID/Kenya from the Implementation Consultancy Team, Subject: Special Issues the ASSP Implementation System, Sept. 13, 1979.

(SECID) (involving subcontracts with Virginia State and Mississippi State Universities for the training and technical assistance activities respectively.) Twenty-eight TA staff are now at post at Egerton, though this number will soon begin to decline as individuals complete their contracts. The team is well regarded by both Kenyan staff and students in all areas except after hours social relations, but there was no suggestion that this has had an adverse effect on the work performance of the TA team.

The SECID TA team is more than adequately qualified for their primary task of providing instruction while Kenyan faculty are being trained in the US. Until recently and in accordance with GOK desires, TA staff had not been involved in the curriculum revision, but that situation is now changing. Several TA staff have played important roles in starting practically oriented research projects and have been involved in student activities and extension work. However, we consider that a somewhat less qualified TA team (the majority have Ph.D.s) would have been adequate and could have been provided at less cost.

The PP calls for 43 Egerton faculty members to be trained in B.Sc., M.Sc. and Ph.D. programs in US universities. Thirty nine have commenced their programs and five have already returned after successfully completing their degrees (one returned without completing his program). We are generally satisfied with the progress of the training effort to date, but question the continued need to train staff to the Ph.D. level and the emphasis on selection of heads of department for Ph.D. programs. In the future it is understood that Ph.D. programs will be given less emphasis and that those other than Department Heads will be considered for the Ph.D.'s that are deemed to be necessary. Further, we suggest that short-term and non-degree training of maintenance staff be given special attention in the use of remaining training funds. Finally, we feel that an improvement in the conditions of service of Egerton staff will assist in reducing attrition of upgraded staff.

In general we found SECID's contract performance to be at more than a satisfactory level. In fact many of those interviewed in Kenya praised the work done by both SECID institutions, Mississippi State and Virginia State

University. Improvements in project management are evident over the past year.

The construction aspect of the Egerton College Expansion has involved the engagement of architects and contractors by Egerton with substantive advice from USAID/Nairobi and the SECID Procurement Officer. The work has proceeded on schedule and it is projected that this component of the project will be completed well within the original budget partially as a consequence of the devaluation of the Kenya shilling. Increased attention needs to be given to upgrading maintenance procedures and personnel.

During the initial years of the project, curriculum improvement only received minor attention. Under the able leadership of the new Principal, this is now changing and several TA staff are actively involved in discussions of possible curriculum revisions. Attention is also being given to an out-reach extension program aimed at bringing Egerton more directly in contact with agricultural producers and extension services. In relation to this, we suggest that efforts be made to maintain contact with Egerton graduates through an alumni association which would provide feedback needed for curriculum improvement. Egerton has submitted a proposal to USAID requesting assistance for the extension outreach center as well as for the continuation of staff training and technical assistance. This proposal requires further refinement, but a project extension for Egerton is needed and deserving of USAID support.

The Egerton effort is already contributing to the expansion of enrollment, and the College should reach its goal of 1632 students--with an annual output of 500--by 1985. The project is also assisting in the upgrading of a fairly large percentage of existing staff, and new staff is being recruited. Egerton may raise conditions of service for its staff to levels roughly comparable to those of university faculty which should improve chances of retaining staff (notably those trained with USAID support, whose marketability has improved as a consequence). As long as the projections in the ATAC study remain valid, there seems little reason to doubt that the increased supply of Egerton diplomates can be absorbed. However, given the current restrictions on increases in GOK recurrent expenditures and a

relatively stagnant private agricultural sector, the projections may no longer be valid, specifically the effective demand may have decreased considerably. We recommend that a comprehensive review of agricultural manpower in Kenya, similar in intent to the ATAC manpower study, be undertaken. Such a study has already been formally requested by the MOA.

b. Agriculture, Cooperative and AFC Training Funds

The ASSP set up three training funds with similar characteristics in MOA, MOCD and AFC to improve the performance of operation personnel in each of these institutions. The funds were designed not only to improve absolutely the amount of training which could be undertaken, but also to improve the flexibility of training efforts since heretofore training funds tended to be tied to specific projects. In all, the training funds provided for more than 182 person years of training and a total allocation of \$7,262,900. USDA was engaged to assist with the placement of trainees and it was anticipated that most shorter training would consist of USDA administered courses.

Despite some problems in the selection procedures and the processing of applications, particularly in the MOCD, a total of 249 participants have been sent for long, medium and shorter training with support from the training funds. Predictably, the assessments of returned trainees interviewed was quite varied in view of the number involved and the wide variety of training programs, but reactions appeared to be generally favorable. It is still too early to assess the impact of the training upon the various institutions involved, but efforts should be made on regular basis to evaluate these programs through interviews with returned trainees and the "tracking" of former trainees in the years following the training which would greatly facilitate future efforts to evaluate the training funds.

Overall, it seems doubtful that US training contributes anything towards inculcating a smallholder orientation. What training can do is to give the participants skills and knowledge to be more effective in their jobs so that more and better services are available to farmers. Very few of those trained interact with farmers on a day to day basis. However, many of the returned participants are involved in policy work, in planning and implementing

projects or in managing the work of others--activities that do directly impact on farmers and pastoralists.

According to current projections, it is unlikely that the AFC and the MOCD will be able to fully program the available training funds before the PACD, but given the major emphasis placed on training by the GOK and other institutions involved in ASSP there seems little question that the funds can be usefully absorbed. At the same time efforts are needed to i) improve the selection procedures; ii) speed up processing of training plans; iii) increase the relevance and efficiency of training, possibly through the provision of more in-country and third country training; and iv) possibly extend the training effort to include lower levels of staff in the cooperative movement and extension services who are more directly in contact with farmers and pastoralists.

c. Range Research System Support - Kiboko

The ASSP Project Paper identifies the lack of research results suitable for use by smallholders and pastoralists as a major constraint to the achievement of Kenya's agricultural development goals. The range research system support component was designed to address this constraint by strengthening the National Range Research Station (NRRS) at Kiboko through the provision of technical assistance, training and equipment. Accordingly, a host country contract was signed with Winrock International Livestock Research and Training Center in 1979 for the training, technical assistance and equipment. The GOK agreed to provide support for the construction and operational expenses involved in this effort.

Delays in the construction channeled through MOW has placed the project more than a year behind schedule. Most of the TA team could not arrive until late 1980 because of delays in the completion of GOK-constructed housing at the station. Activities have been seriously hampered by shortages of fuel and electricity. However, a research program is now well underway which aims at both providing in-service training experiences for Kenyan staff in applied research skills as well as establishing the reputation of the station. Further, 13 trainee participants have been sent for training in range science

at Texas A&M University under the terms of a sub-contract with that institution. An additional six will be sent soon, and if all complete their programs on schedule, it will be possible to achieve the training objectives of this component just prior to the PACD.

The project has made significant progress in rehabilitating the NRRS in terms of physical facilities, staff and a research program from the serious state of decline which followed the termination of the FAO support in the early 1970s. In so doing, the Winrock team has drawn heavily upon US models of range research of an applied/basic nature reflecting the experience and orientation of most of the team members. The team members are highly regarded by their Kenyan colleagues who are unquestionably the major beneficiaries of the project to date in terms of training and research experience.

The evaluation team is concerned about i) the limited overseas experience represented on the Winrock team (with the notable exception of the Chief of Party); ii) the focus on on-station research to the near exclusion of off-station contacts with client groups at the present time; and iii) the quite limited resources devoted to social science research. Underlying these specific concerns are questions about i) whether the research program is "adaptive" enough to effectively reflect client needs, particularly smallholders and pastoralists; and ii) the sustainability of the current research program upon the conclusion of the Winrock contract in 1985.

Winrock is clearly to be guided by the terms of its contract with the GOK and (specifically MOLD) as to the research directions and priorities of NRRS which do not currently reflect any special focus on pastoralists or smallholders. Rather the mandate of NRRS is concerned more with the optimal utilization of the range in ecological zones four and five for meat production. Given the state of knowledge about many of the basic biological relationships in these environments there is a need for extensive studies of a basic and applied nature. Whether NRRS has a comparative advantage in carrying out such research is another question. The mandate and the contract also envisage eventual extension of research results to various producer groups as results become available.

When and if research results are likely to impact upon the principal target group of ASSP, namely pastoralist and smallholders, is a hotly debated issue which could not be resolved within the time frame of the evaluation. We have suggested several possible approaches aimed at refining research priorities including procedures for screening research proposals; an increased social science and multidisciplinary orientation in the research activities; and an increase in off-station activities--all of which could serve to strengthen the rather limited linkages which NRRS currently has with other programs concerned with range utilization and livestock production and, most important, with the various client groups. We further propose an immediate shift of the research program more in the direction of adaptive research which would include the design and testing of improvement strategies in various locations throughout Kenya in collaboration with extension services and livestock producers.

MOLD and Winrock have expressed serious reservations about the feasibility and desirability of the above suggestions especially in the current stage of the rehabilitation of NRRS. Primary emphasis is being placed on the development of a coherent research program which can provide Kenyan scientists with experience in applied and basic research skills and complimentary efforts to improve station management. The prevailing view seems to be that NRRS must first develop its research base and reputation after which results can be transmitted to producers via the extension services as they become available. The NRRS notes that it does not currently have the staff and resources (notably adequate supplies of fuel) to engage in any significant amount of off-station work at the present time. Further, it is argued that adaptive research as defined above is primarily the responsibility of the extension services.

The debate between advocates of various research approaches is not new and has accompanied the rise of farming systems research activities in several parts of the developing world over the past ten years. Suffice it to say that we believe that contacts with client groups, whether they be pastoralist or large scale commercial ranches, is necessary and desirable throughout the entire research process beginning with procedures for determining research priorities. Weak contacts run the risk of having the

research results not relevant and thus not acceptable to clients on an initial and sustained basis. The examples of this in Africa alone are too numerous to mention.

With regard to the sustainability of the research program after the conclusion of the current Winrock contract in 1985, the Winrock team is optimistic that the basic objectives in their contract can be achieved. With continuity and strength in station leadership, sufficient financial and moral support from MOLD and other GOK agencies, the continuance of a high quality technical assistance team, and adequate amenities in Kiboko, NRRS may be able to retain most of the current cadre of Kenyan staff and build a sustainable research program. Whether it is realistic to expect those conditions to be met and even if they are, whether the research will proceed in directions which are relevant to the needs of various client groups, must be seriously questioned. If the GOK is able to make major progress in living up to its commitments with regard to construction and fuel supplies, we feel that consideration should be given to an extension of the PACD and/or and extension of the project into a second phase. If not, USAID should consider commencing an orderly phase down of activities beginning in March 1983.

d. Agricultural Finance Corporation and Ministry of Cooperative Development

The AFC and MOCD have important similarities (although they are treated in separate sections of the main report) as far as ASSP is concerned. ASSP provided technical assistance, consultancy services and training in both cases with a view to improving credit services to smallholders and pastoralists. Provision of training in-country is also a major theme of the TA and consultancy services provided under both components. The AFC TA component is being implemented under the term of a contract with PAS/SGV to provide services in training, loan and credit appraisal, budgeting and financial management. The TA team has been in Kenya less than a year and some modifications in the original scope of work of team members may be required in some instances, but generally the team appears to have been well integrated into the AFC structure and operations. The TA activities are being synchronized with the activities envisaged under World Bank Fourth Credit Project which will start this year.

The services provided by ACDI to MOCD focused primarily on the preparation of three reports dealing with curriculum and expansion plans for the cooperative college and manpower requirements. The studies on the cooperative college and curriculum were well prepared and generally acceptable to the GOK. The manpower projections appear deficient in several respects and need revision. ACDI has also provided a limited amount of long term TA in credit administration and training.

TA staff in MOCD and AFC are given high marks by their Kenyan colleagues and appear to be effectively utilized, partially as a result of the strong leadership in both institutions. The General Manager of AFC and the new Commissioner of Cooperatives are in the process of instituting far reaching reforms in the operations of their respective institutions and enjoy strong support from the Office of the President. Although further USAID involvement (beyond possible extensions for selected TA staff) is not being given serious consideration by USAID at the present time, the evaluation team feels that the efforts of the current leadership in AFC and MOCD are deserving of moral if not financial support.

e. Coastal Agricultural Institute, Faculty of Agriculture (University of Nairobi) and Storage/Marketing

These three components all involved support for feasibility studies for the creation or expansion of extension worker training and services to smallholders. The ATAC study called for an expansion of the output of certificate level training institutions and agricultural degree holders from the University of Nairobi. A study of crop storage in Kenya by the Food Grain Institute identified opportunities for increased services for small producers in crop storage. It was envisaged that these studies would lead to possible support by USAID or other donors.

Accordingly, an academic and construction feasibility study for a new Coastal Agricultural Institute was carried out in 1980 and provided an input into the IBRD Fifth Education Project which includes support for the construction of the Institute.

DPRA of Manhattan, Kansas, carried out a detailed study of crop storage and designed a project for various services to design and promote the use of improved form level storage techniques. This study formed the basis of an USAID On Farm Crop Storage project which will commence activity this year.

The feasibility studies for the Faculty of Agriculture, University of Nairobi have not yet been carried out, since the need for such studies has been superseded by the provision of support for the expansion of the Faculty of Agriculture in the current IBRD Fifth Evaluation Project.

f. Evaluation/Special Studies

In addition to the current evaluation, the ASSP included support for the design and installation of a detailed implementation system and for studies related to various aspects of ASSP. The activities that have been completed to date relate to the implementation system and to research on the extension services by David Leonard and colleagues.

USAID engaged the services of PCI in 1979 to develop an implementation system and assist USAID/Kenya, GOK, and contract personnel in mastering its operation. During their initial visit in 1979 the PCI team found that ASSP was off to a slow start for a variety of reasons including major underestimates of the time required by all parties to formalize contracts for each component and initiate construction training and technical assistance activities. PCI held a series of workshop sessions with key ASSP staff in August of 1979 to clarify ASSP objectives. An ASSP Objective Tree and component Implementation Logical Frameworks were developed and critiqued. Schedules and budgets were revised with bar charts and a Master ASSP Physical and Financial Implementation Schedule. Throughout, an attempt was made to develop an ASSP team and subteams that could continue to function effectively and respond to implementation changes as they occurred. A follow-up visit took place in February 1980 which further modified the implementation plan.

The ASSP project staff assessment of the implementation plan is mixed, but generally favorable. Since 1980 ASSP has had fewer implementation difficulties than other USAID efforts despite its complexity.

The only study supported by this component consisted of the research of Dr. David Leonard of the University of California (Berkeley) and colleagues on the extension services for agriculture and livestock. This work commenced in 1980 and was being finalized at the time of the evaluation. The results which include specific suggestions for the improvement of the extension services appear directly relevant to the overall objectives of ASSP and might prove useful to those concerned with other ASSP components. Portions of the research is in fact being incorporated into an IBRD Rural Development Project. Unfortunately there appeared to be limited knowledge of the research at the time of the evaluation.

## 2. Overall ASSP Assessment

The Evaluation team found the underlying rationale for ASSP to be valid in three respects:

- a) the smallholder/pastoralist focus is still minimally appropriate;
- b) a targetted institutional strengthening strategy is still feasible;  
and
- c) there are very few suitable alternatives to the current approach (particularly those where U.S. institutions have a clear comparative advantage for providing technical assistance).

If additional changes occur in the policy context--to significantly reduce the desirability of a smallholder/pastoralist focus or further alter the US comparative advantage, then the rationale of the project should be reassessed.

After a slow and difficult start, most components of the project are now on schedule and within budget projections. A continuing degree of ambiguity is apparent in expected performance expectations for the project, but progress is being made in this regard. For several components, the team observed that the actual intent of the project designers was not adequately reflected in contract documents. Internal and external ASSP linkages appear satisfactory to date, but now deserve additional attention.

The USAID management is to be commended, given the project start-up circumstances, for its ASSP implementation role to date. The start-up phase of the project has now concluded, and most components are into the "operations" or "institutionalization" phase. Correspondingly, the USAID staff should now need to spend less time on contracting and participant placement actions, and more time on actively monitoring developments to assure the outputs are of high quality and that they contribute to the smallholder/pastoralist improvement objectives of the project.

#### D. Recommendations

##### Egerton College Expansion

1. SECID/Virginia State/Mississippi State and USAID should focus future training and technical assistance for Egerton upon training/credentials at the Masters degree level combined with practical experience relevant to smallholder/pastoralist in Kenya. Recruitment of Ph.D.s for TA positions and Ph.D. level training for Egerton staff should be confined to a small number of positions where a compelling case can be made for a Ph.D. This should result in significant economics in the provision of both TA and training. As a high priority, participant training funds should be allocated for in country maintenance staff training at Egerton.
2. USAID in consultation with appropriate GOK institutions should continue to press for:
  - i) recognition of work done at Egerton toward bachelors degree programs at the University of Nairobi; and
  - ii) credit for work certificate level work at Agricultural Institutes and AHITI towards Egerton diplomas.
3. Egerton College should expand its efforts to revise and improve the curriculum with special attention to the needs of pastoralist and smallholder development. The revision exercise should also include measures to reduce student contact hours to not more than 32 hours per week and to reduce class sizes. This might be facilitated through the expansion of Egerton's outreach in-service training and resource center and the development of an alumni association to enable Egerton to maintain contact with its graduates. USAID should consider supporting these efforts via some version of the proposal submitted by Egerton for an extension of the current project.

##### Training Funds

4. USAID should initiate discussions with AFC, MOLD, MOA and MOCD aimed at:

- i) further improving the selection of participants and the processing of training plans;
- ii) instituting on-going evaluation procedures of training received and utilization of trainees;
- iii) identify/designing in-country and the third-country training opportunities which may better meet training needs and be accomplished at a lower price per participant; and
- iv) effectively using uncommitted training funds before PACD.

#### NRRS-Kiboko

5. USAID should consider extending PACD for one year to complete training activities, if necessary, conditional upon substantive progress by GOK in completing construction and providing adequate fuel supplies. USAID might assist to the extent of funding a station hook-up to the electricity transmission line, but recurrent expenditures for NRRS should remain the responsibility of the GOK. If major progress is not made by March 1983, USAID should proceed with an orderly phase down of project activities.
6. The focus of the research program should be partially and gradually shifted towards meeting the needs of smallholder and pastoralist systems and should be more adaptive in nature. This shift should be reflected in:
  - i) procedures for reviewing research proposals;
  - ii) future staffing of the Winrock TA team;
  - iii) a strengthening of the social science and multidisciplinary research activities; and
  - iv) increased contacts with client groups through more off-station work. Winrock and NRRS should prepare a report detailing how and if the proposed shift might be implemented for review by a joint USAID/GOK team in the fall of 1982.
7. Subject to the conditions indicated in Recommendation 5 and 6, all parties should give consideration to an extension of the Kiboko project beyond 1985.

#### MOCD & AFC (TA Components)

8. USAID should give favorable consideration to possible requests from AFC and MOCD for the extension of selected TA staff if continued progress is made in implementing the current policies being pursued by the leadership of those institutions. Linkages between the TA activities in AFC and MOCD should be explored at the initiation of USAID project officers.

## Evaluations

9. USAID should schedule a second in-depth evaluation for 1984 by which time detailed assessments of selected individual components should have been carried out in connection with decisions about possible extensions and modifications of existing activities.
10. USAID should determine how to make best use of the findings of David Leonard and colleagues on the extension services in order to improve ASSP linkages.

## Overall ASSP Project

11. USAID should take steps to assure that a smallholder/pastoralist focus is more fully integrated into all components of the project.
12. USAID should shift its internal project management mode toward a more proactive stance. This will involve more frequent field visits and an orientation toward actual project accomplishments.
13. USAID should respond positively to the MOA's request for a comprehensive review of agricultural manpower in Kenya.

## Section I: Introduction

### I.A. Kenya Development Setting<sup>1/</sup>

Kenya is often described as one of the success stories of Africa. While it shares many of the characteristics of other low income countries, Kenya's economy has grown remarkably in the years since Independence in 1963. Although it has one of the world's highest rates of population growth, Kenya still managed to increase per capita income at an average rate of 2.5 percent per year from the mid 1960's to present.

Despite a continued high level of commitment to development, Kenya has found it increasingly difficult to maintain the rapid growth experienced during the first ten years after Independence. From 1964 to 1973 real Gross Domestic Product (GDP) grew at an average rate of 6.6 percent per year, and per capita GDP rose at an average rate of nearly 3 percent. More recent developments are less promising reflecting both internal problems and Kenya's vulnerability to external events: the collapse of the East African Community in 1977, the end of the coffee boom in 1978, international recessions (1974/75 and 1980/81), continuing increases in petroleum and other import prices (especially in 1974, 1975, 1979, 1980), and periodic drought (1974/75, 1979/80).

The slowdown in Kenya's overall rate of economic growth in recent years has occurred in spite of a general increase in the availability of both internal and external development resources. Investment in Kenya has risen from 12.4 percent of GDP in 1964 to an average of just over 19 percent during the period 1974-80. Another disturbing trend is that the pattern of growth has been uneven resulting in strong gains for some groups, particularly wage earners and farmers in the high potential areas. Fewer benefits have accrued to others including most of the inhabitants of the arid and semi-arid areas (roughly eighty percent of the country), the urban poor, low income farmers and the landless. The GOK and others have emphasized that poverty, both relative and absolute, still persists for many Kenyans.

This growing awareness of the problem of maldistribution of wealth comes unfortunately at a time of decreasing growth potential for much of the economy. It will be a particularly difficult task for Kenya to meet its ambitious development objectives within the current national and world economic climate.

### I.B. The Agriculture Sector

Agriculture still dominates the Kenyan economy, both in providing employment and as a source of foreign exchange. Of the 6 million persons in

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<sup>1/</sup>Section I.A and I.B have made extensive use of USAID/Kenya Country Development Strategy Statements (CDSS).

the labor force in 1978, the largest portion (2.8 million) were small scale farmers and 0.4 million were pastoralists. Rural nonformal employment accounted for another 1.1 million. In terms of monetary GDP, the role of agriculture is somewhat less, although it is still the most important sector. Commercial agriculture combined with small scale agriculture provides roughly one-third of GDP. In the 1980's, agriculture is expected to continue contributing the largest share of the nation's GDP.

Kenya's critical development issues are rooted in two sets of circumstances: a pattern of land, life and economy greatly influenced by 80 years of colonial rule and a limited endowment of natural resources. Part of the Kenyan economy consists of export oriented estate and small farm production; part is a relatively modern industrial sector; and a large part is the more traditional agriculture and pastoralist sector.

The majority of Kenyans, living in rural areas, confronts severe resource constraints, aggravated by a high population growth rate. As a result, many have migrated to overcrowded urban 'squatter' settlements. This underlying dualism creates critical development dilemmas in the productive sectors: agriculture, irrigation, semi-arid land development, industry, tourism, energy, and transport. Kenya, as acknowledged in recent government papers, is at a turning point in its development history. A period of steady growth in export-oriented agriculture, helped by price increases in coffee appears to be over and much concern is being expressed over improvement of productivity in other parts of the economy and in the less well endowed parts of the country. A population growth rate of about four percent, a shortage of extra good quality land and the prospect of some slow growth in industry and services, all point to difficult times ahead.

#### I.C. The ASSP: Rationale and Scope

ASSP, originally called Agriculture Sector Loan II, grew out of a series of technical studies <sup>1/</sup> which investigated agricultural manpower, research, credit and storage. The findings and recommendations of these studies form the basis of the multifaceted ASSP. USAID's experience with other projects such as Agriculture Sector Loan I and the Agriculture Credit Project also served as an impetus for ASSP. In addition, USAID's emphasis on targeting assistance to the poor was a factor in designing a project whose ultimate beneficiaries were small scale farmers and pastoralists.

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1/American Technical Assistance Corporation (ATAC). Professional and Sub-professional Agricultural Manpower in Kenya March 1978. AID/Afr-C-1142. W.O. 52.

ATAC. Agriculture Research in Kenya, November 1977. AID/Afr-C-1142. W.O. 52.

ATAC. Evaluation of the Smallholder Production and Credit Program (SPSCP). October, 1977. AID/Afr-C-1213.

Dimpex Associates. Kenya: Agricultural Credit Evaluation. December 1977. AID/Afr-C-1269. W.O. 7.

Research Triangle Institute. Management Study of the Agricultural Finance Corporation. June 1977. AID/Afr-C-1144. W.O. 7.

Anderson D. and D. Pfost, "Smallholder Grain Storage Problems in Kenya" and "Some Parting Thoughts", Food and Feed Grain Institute, Kansas State University, 1978.

While ASSP was being designed, the GOK was drafting its Fourth Development Plan (1979-1984) around the single goal of alleviating poverty with considerable emphasis being given to increasing smallholder agricultural production and income. At that time, four major constraints were identified as inhibiting the achievement of Kenya's agricultural development goal: insufficient trained agricultural manpower; limited smallholder/pastoralist access to credit institutions, services, and infrastructure; lack of adaptive research; and, inappropriate macro-economic policies. As stated in the PP, The ASSP purpose, as stated in the Project Paper (PP), "... is the substantial alleviation or reduction of, the first three of, these constraints."

In attempting to address each of these three constraints, the ASSP was designed to focus on several related agriculture subsystems. The basic rationale of the project can be summarized as follows:

Agriculture Development Constraint

ASSP Components

- |  |   |
|--|---|
| (1) Insufficient trained agricultural manpower                   | Egerton College expansion; Studies of the Faculty of Agriculture (University of Nairobi), the Cooperative College and the Coastal Agricultural Institute; Agriculture and Cooperative Training Funds. |
| (2) Limited smallholder access to credit/services/infrastructure | Assistance to the Agricultural Finance Corporation and to cooperative institutions; Studies of storage needs and training.  |
| (3) Lack of adaptive research                                    | Kiboko Range Research Component; MOA Training Fund  |

A key concern integrating the major ASSP components is the development of agricultural manpower as derived primarily from the findings of the 1978 ATAC report on Agricultural Manpower in Kenya. This report investigated the needs for additional trained personnel at the university graduate, the Egerton diploma holder and the Agricultural Institute certificate holder levels, and calculated the effective demand for manpower from both public and private sectors. The public sector demands were constrained by GOK probable ability to absorb new staff. Two sets of figures were calculated using a high and low estimates of annual personnel budget growth (8.5% and 7% respectively compounded annually).

The ATAC report recommended:

- i) The expansion of Egerton College to increase its enrollment to about 1500 students and increase the number of specializations offered;
- ii) The upgrading of the Faculty of Agriculture, University of Nairobi and development of means whereby Egerton diplomates could complete a B.Sc. degree in less than 3 years; and

- iii) The development of a plan whereby certificate holders could complete a diploma at Egerton in less than three years.

Other recommendations concerned the revision of the Egerton curriculum; the expansion of certificate institutes, including creation of one which would specialize in coastal zone agriculture; the improvement of Farm Training Centers; the rationalization and expansion of arrangements for in-service training; the need for programs to train trainers and provide in-service management training; and measures to ensure proper utilization of available manpower.

At a strategic level, ASSP was conceived of as a broad-based institution building effort. In contrast to projects such as SRDP and IADP which attempted to administratively integrate the various sectors into one package, ASSP concentrated on strengthening various services to producers primarily through more and better trained staff for these services.

At the level of broad, general objectives USAID and GOK viewed ASSP as one project as described in the PP:

"ASSP is a broad approach toward meeting the sector-wide constraints of manpower, smallholder access and adaptive research. It supports directly the GOK decision to reorient various agriculture service systems essential to reaching and serving smallholders and to extend the systems' outreach so that they can reach the large proportion of smallholders not now being served. While the project has five components, these are complementary, interdependent and mutually reinforcing. ASSP training institutions produce extension personnel who serve cooperatives members; they also train staff for research facilities. The cooperatives and credit systems serve different segments of smallholders with credit, and cooperatives provide other services as well, including storage. For smallholders to raise their production they will need improved technologies (generated by research and transmitted by the extension system), inputs (some financed by credit and/or provided by cooperatives) and a better economic return on their produce (cooperatives marketing services and storage). . . . . The programmatic and implementational interactions between various components of this project argue for their inclusion into one overall project package. Component interrelationships can be strengthened through specific implementation steps over which AID has control or has a significant input."

During the evaluation, it has been difficult to disentangle the original authors' intent with regard to these specific "programmatic and implementational interactions" referred to above. Our assessment is similar to that reported by the ASSP Implementation System Consultancy Team late in 1979:

"The higher level objectives of the project concern improving the lot of small farmers and pastoralists. However, the linkages between the various project elements and these overall objectives are complex and sometimes tenuous. To further complicate matters, certain of the elements interact with one another and some are substantially more removed than others from the ultimate objectives.

We have attempted in the Objective Tree and Implementation Log Frames to begin the disentangling of project elements and to provide some of the objectives intermediating between project activities and ultimate objectives. Nevertheless, we feel that further discussion of these issues within the Mission would enhance the prospects of project success. Without such further clarification, it appears to us that it will be extremely difficult to ever ascertain the impact of the various project elements on higher order objectives. When projects cannot be evaluated effectively, experience shows that they are equally difficult to implement creatively".<sup>1/</sup>

We have relied heavily on the USAID Implementation Manual for ASSP (Volume I and II, December, 1979) in interpreting the original intent of various ASSP components and developing indicators to be used in assessing progress.

The specific goal of the ASSP is to increase the real income of Kenyan smallholders and pastoralists. This is to be accomplished through production increases facilitated by support to five agricultural systems: (1) agricultural manpower; (2) range research; (3) credit; (4) cooperatives; and, (5) storage and marketing. An overview of the objectives of each ASSP component is presented below.

1. Agricultural Manpower Systems Support. The activities under this component all have the goal of bringing the supply of trained manpower into long-term equilibrium with its projected demand in order to optimize, through the provision of extension and related services, production in smallholder agriculture.

a. Egerton College Expansion

Purpose: To expand the student enrollment and upgrade the faculty and curriculum.

Activities: \$34.4 million in grant and loan funds for construction, equipment, training and technical assistance.

b. Coastal Agricultural Institute.

Purpose: To establish a new agricultural institute to be located in Coast Province.

Activity: \$150,000 to fund the academic and technical feasibility studies for the proposed institute.

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<sup>1/</sup>Memorandum to K. Eubanks and D. Christenson, USAID/Kenya from the Consultancy Team, Subject: Special Issues the ASSP Implementation System, Sept. 13, 1979 prepared by that consultancy team to gain a detailed understanding of component objectives, targets, assumptions and linkages.

c. Faculty of Agriculture, University of Nairobi.

Purpose: To expand and upgrade the Faculty of Agriculture, University of Nairobi.

Activity: \$66,000 to finance the academic and feasibility studies necessary to prepare preliminary plans.

d. Ministry of Agriculture Training Fund

Purpose: To improve the performance of institutions serving small-holders and pastoralists.

Activity: \$3.5 million for short- and long-term participant training.

2. Range Research.

Purpose: To have NRRS operating effectively disseminating relevant research findings to extension personnel.

Activities: \$5.1 million for range research including technical assistance, equipment and training.

3. Credit System Support

Purpose: To strengthen and broaden AFC's financial, management, and personnel procedures and operations.

Activity: \$2.7 million for technical assistance and staff training.

4. Cooperative System Support

Purpose: To enhance the performance of MOCD and cooperatives in serving small-holders.

Activities: \$3.1 million for studies and technical assistance.

5. Storage and Marketing Systems Support

Purpose: To improve Kenya's system of grain storage and marketing.

Activities: \$419,000 for a national storage study.

The activities associated with each of these systems forms the basis for the evaluation results presented in the next section. .

## Section II: Introduction

### II.A. Component Assessments

#### II.A.1. Egerton College Expansion

Egerton College is the sole institution in Kenya responsible for training middle level agricultural technicians and extension staff. Egerton serves primarily the Kenyan public sector, but it also has a regional role and accepts students from other African countries and the West Indies.

The 1978 ATAC agriculture manpower study provides the basic rationale for the Egerton expansion and details the needs for middle level extension staff in Kenya. Thus, the Egerton component of ASSP was designed to enable an expansion in total enrollment from 686 students (and an annual output of approximately 225) in 1978 to 1632 (and an annual output of more than 500) in 1985. In addition to the physical expansion of classrooms, laboratories, dormitories, library, workshops and other facilities through a USAID loan, the project also provides grant funding for technical assistance and participant training to upgrade Kenyan staff in the US and reorient the curriculum more towards practical agriculture extension supervision, and smallholder/pastoralist needs.

The underlying premise of Egerton expansion is that upgraded college staff and an improved curriculum will result in better extension services for smallholders and pastoralists, and thus, increase in food production and rural incomes. Many of the assumptions that underlie this premise (such as that Masters and Ph.D. training in the US can make an instructor more effective in the Kenyan context) remain untested, and are beyond the scope of this formative evaluation. We have thus accepted the basic development premise and assumptions underlying it as a working hypothesis and have only questioned it when there seems to be strong contradictory evidence.

The ASSP Project Agreement specified that support for technical assistance and training for Egerton be administered through a host-country contract. A contract was let with the South-East Consortium for International Development (SECID) in July 1979 which provided support for: i) advanced degree programs in US institutions for 50 current and future Egerton staff; and ii) a TA team of 28. The grant funding for these contract activities totals \$10,240,000 by the estimated completion date of October 1984.

#### a. Technical Assistance

The PP includes an amount of \$8,366,000 grant funds for Technical Assistance/Implementation at Egerton. (This together with the GOK contribution of \$5,864,000 makes a total funding under the heading of \$14,230,000). The PP envisaged that the TA staff would "include mostly individuals with Ph.D. training," though certain positions might require no more than a Master's degree or would require more practical experience than theoretical training.

SECID subcontracted with Mississippi State University in 1979 to recruit the TA team. Mississippi State University, assisted by SECID's home office especially during the first year of the contract, successfully recruited a

highly qualified TA staff. The TA staff at Egerton represent a total of twelve SECID member institutions. The universities who have technicians participating in the Kenya project are: Alabama A&M University, Florida A&M University, University of Kentucky, Langston University, University of Maryland, Mississippi State University, North Carolina A&T University, South Carolina State College, Pennsylvania State University, Tennessee State University, Virginia Polytechnic Institute and State University, and Virginia State University. All twenty-eight TA staff are now in post at Egerton, though within a few months the numbers will decline as individuals complete the terms of their contracts.

The TA team consists of two administrative personnel (Chief of Party and a Procurement/Administrative Officer); 25 teaching members of staff; and one librarian. Team members include fifteen Ph.D.'s (excluding one who departed), eleven with Master's degrees and two with Bachelor's degrees.

The SECID team is well regarded by both Kenyan staff and students, and their performance is more than adequate for the task of replacement teaching for which they were engaged. We interviewed a cross section of Kenyan staff members, including the Dean of Students and the Senior Executive Officer (Studies) and obtained from them their overall ratings of the SECID staff under a number of headings. A similar series of questions was asked of ten Egerton students. The results of these ratings are given in Table 1.

While the mean rating of above, three is regarded as more than adequate, it is interesting to note that the TA staff work relations received the highest rating (4.22), while their social relations received the lowest (2.64). The Kenyans perceived the TA staff as being somewhat aloof and reluctant to join Kenyan staff in after-work activities. This matter has been raised in the Academic Board, but it has not been suggested that this has had an adverse effect on the work performance of the TA group.

Among the other comments made by the Kenyan staff and students was the fact that the TA staff for the most part had very little knowledge of Kiswahili. While this did not affect their work in the College, it did place them at a disadvantage when out in the field with students visiting rural farmers, or engaging in other work related activities. The SECID Chief of Party did arrange for Kiswahili classes for the TA team, but after two terms it was not possible to continue the instruction since there was no financial provision for this in the GOK/SECID contract. Efforts are underway to secure GOK approval for the Kiswahili instruction and we recommend that this be done.

In general, the SECID TA team is more than adequately qualified for their primary task of providing instruction while Kenyan faculty are being trained in the US. Although the PP and the GOK/SECID contract provide for the TA personnel to be engaged in activities relating to curriculum development and research as well as teaching, most of the team members have been told by Egerton officials that their task was teaching and not curriculum revision. This situation has now changed and the TA staff are beginning to be more involved in curriculum development and research.

The PP specifies that most of the TA staff should be at the Ph.D. level. The evaluation team found this provision difficult to justify. Many of the

Table 1: Assessment of T.A. Staff by Kenyan Staff and Students

Category	Mean Rating by Kenyan Staff* (n = 9)	Mean Rating by Students* (n = 10)
Professional Competence and Expertise	3.75	3.60
Knowledge of Kenya**	3.50	3.50
Adaptability to Kenyan Circumstances	3.39	3.90
Quality of Teaching	3.67	3.10
Relevance of Teaching***	-	3.00
Relations with Students	3.78	3.90
Work Relations	4.22	-
Social Relations	<u>2.64</u>	<u>-</u>
OVERALL (AVERAGE)	3.56	3.57

\*Ratings given on the basis of 1 (low) to 5 (high).

\*\*This refers to knowledge acquired since arriving in Kenya. Few members of the group had prior experience in or much prior knowledge of Kenya.

\*\*\*In terms of the tasks students are expected to perform after graduation.

TA staff felt that they were being suboptimally used and that persons with fewer qualifications could have adequately coped with the substitute teaching function. Most team members feel that Egerton is running programs that equate approximately to Junior College/Community College levels and in some cases to the junior year in a four-year US college. Selected staff recruited from community colleges would probably have been able to perform many of the TA assignments, and at considerably lower cost. Unless there are very clear reasons why a doctoral degree is necessary, we conclude that any future placements could be appropriately made at the Master's degree level.

From the fact that 17 of the 28 TA staff recruited from the subcontracting universities are regular faculty members of SECID institutions, we are satisfied that the universities have acted in good faith in providing experienced faculty members, rather than, as is sometimes the case, acting as "body shops." Many of those newly hired for the contract had previous links, as graduate students or former faculty members, with the universities that hired them.<sup>1/</sup>

In most cases, we found the initial base salary levels being paid to the TA staff at Egerton to be within the range of what we would consider reasonable. Several TA staff already on regular payrolls of the subcontracting universities have had a salary increase of fifteen percent as an inducement for overseas service and many have also received a salary increase to compensate for the loss of consulting income. Also, the average base salaries for those with doctoral degrees is \$9,000 higher than for those with Master's degree. However, salaries of the TA staff have in some cases been increased to very high levels (relative to prevailing levels in US universities).

Although we have commented above on the overqualification of members of the TA staff, it should be noted that many have played important roles in starting small and practically oriented research projects and are productively involved in student activities and extension work. Overall, we consider that given a somewhat less highly qualified team, the TA staff could have been provided at substantially lower cost with little or no decrease in overall performance.

#### b. Participant Training

The PP calls for 43 Egerton faculty members to be trained in B.Sc., M.Sc. and Ph.D. programs in the US and allocates \$2,379,000 for 131 person years of training.<sup>2/</sup> SECID subcontracted with Virginia State University to manage the participant training for the contract. So far 39 participants have commenced degree programs and an estimated 95.75 years have been committed.

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<sup>1/</sup>Further details are given in Appendix A.

<sup>2/</sup>Although the PP calls for the academic training of 43 Egerton staff, the GOK/SECID objective is 50.

Five Egerton staff members have returned after successfully completing their programs and one has come back without completing his program.<sup>1/</sup>

Those sent for training include:

- i) 8 Heads of Department plus the Deputy Principal and Registrar for Ph.D.'s;
- ii) 14 Lecturers plus one Senior Executive Officer who hold Bachelor's degrees for Master's degrees;
- iii) 4 Demonstrators, with Egerton diplomas, for both Bachelor's and Master's degrees;
- iv) 2 Staff with diplomas (not from Egerton) for Bachelor's and Master's degrees;
- v) 6 Demonstrators with Egerton diplomas for Bachelor's degrees; and
- vi) 2 members of the accounts staff for Bachelor's degrees in Accounting.

Only three years have been budgeted for the completion of each of the Ph.D. programs which seems highly optimistic. Approximately five person years of training might be held in reserve so that extension can be granted (beyond the PACD if necessary) to enable all those with good chances of ultimately completing their Ph.D.'s to do so. Further, costs are increasing. Costs per participant year have averaged under \$15,000 to date, but current estimates are approaching \$18,000.

With regard to the M.Sc. and B.Sc. level training, we have few comments. Sending diplomates to the US is an expensive operation, but, until the University of Nairobi is prepared to give credit for work done at Egerton, there does not appear to be an alternative. Considerable resources have been devoted to developing graduate degree programs at the University, but output remains low. Hopefully, the advanced training of existing and prospective Egerton staff can be done in-country in the future.

During the initial phase of the project, some Egerton faculty who returned to Kenya to carry out their research were allowed to receive allowances based on their US living costs. These allowances have been suspended.

Egerton staff who return with higher degrees increase their value on the open market. Unless Egerton salaries are revised upwards to a competitive level, we foresee difficulties in retaining the upgraded staff.

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<sup>1/</sup>Returning participant trainees include one on Ph.D.; three with Master's degrees and one with a Bachelor's degree. The individual not completing his program was enrolled in a Ph.D. program.

Short-term technical training for maintenance staff was not envisaged in the PP, but is necessary in order to properly maintain the new facilities and equipment being supplied to Egerton under the Project. We strongly recommend that this technical training be given high priority in the use of the remaining training funds.

c. Project Management and Backstopping

SECID has overall responsibility for carrying out the TA and participant training activities of the Egerton College expansion under an AID "Host Country Contract." The evaluation team found that in general, the SECID subcontractors--Mississippi State and Virginia State Universities--assisted by the SECID home office have carried out their contractual obligations in a more than satisfactory manner. Particularly noteworthy is the praise that many of those interviewed in Kenya, including key project staff in the USAID and the GOK, had for the overall accomplishments to date of the two SECID subcontractors. Operating with limited resources under difficult start-up conditions, the SECID subcontractors were able to successfully recruit and staff a full contingent of TA staff and facilitate the training of participants in a manner that should allow the Egerton component of ASSP to be completed within the PACD.

The SECID home office role has changed over the contract period. Heavily involved in subcontracting and general start-up activities during the first year of the expansion, the SECID home office now plays a more supportive role which emphasizes subcontract monitoring and overall contract/financial management.

Many of those interviewed in Kenya pointed out that the early phase of the contract was accompanied by numerous administrative difficulties. Considerable effort and time was spent on dealing with a variety of communications, personnel, and financial issues (G & A, salary levels, and SECID home office staffing) that frequently accompany overseas development efforts of this size and contractual complexity. These difficulties, many of which the principal ASSP actors now report are satisfactorily resolved, were outlined in the 1981 ASSP Audit report. Consistent with this, were reports of an overall improvement in the SECID management of the contract during the past year.

Finally, the Egerton expansion component is now beyond the start-up phase and well into operations. Thus the project management attention of GOK, USAID, and SECID staff--both field and home office--should become more "proactive" in terms of accomplishing long-run project objectives, e.g., assuring that the TA and participant training to the extent possible facilitate improving smallholder and pastoralist production. This reorientation should become most evident in the areas of curriculum development, field outreach activity of the College, student follow-up, and linkages to other Kenyan agriculture development activities.

#### d. Construction and Equipment

The largest input in the Egerton College component of the ASSP is the \$23,600,000 loan for the expansion of physical facilities which include dormitory blocks, a library, classrooms, laboratories and workshops. The construction aspect of the project appears to be progressing satisfactorily and has been well administered. Work of one of the major contractors is behind schedule, but steps are being taken to improve his performance. USAID/Nairobi Engineer, the SECID Procurement Officer and the College Planning Officer have played commendable roles in keeping the construction on schedule.

Despite inflation, it should be possible to complete the Egerton construction and equipment procurement as planned plus build the continuing education/resource center and one or two lecture halls as needed within the original budget. This will be possible as a result of devaluation of the Kenya shilling relative to the US dollar. Extensive use is being made of local materials and labor intensive construction techniques.

The PP gave insufficient attention to the maintenance of the new buildings and equipment. Maintenance procedures and personnel should be upgraded if the buildings and equipment are to have long, useful lives. We earlier recommended that priority be given to the training of maintenance personnel, even though, once trained, such persons may accept employment elsewhere unless sufficient incentives can be given to keep them at Egerton.

Equipment for Egerton, funded under the loan, was ordered early in the project due to the long lead times (1-1/2 to 2 years) involved in overseas procurement. Lists of equipment for the Egerton laboratories, dining hall and kitchen were prepared by outside consultants in the first year of the project. Most of this equipment is in place and is being used. However, it is regrettable that TA staff could not have been more involved in identifying equipment needs after an appropriate period of familiarization with the Egerton curriculum and general conditions in Kenya. In retrospect, some TA staff feel specific items of equipment are very sophisticated relative to the needs of Egerton and may not be efficiently utilized or maintained. At present, equipment requests are scrutinized by the Egerton Planning Officer and the SECID Procurement Officer. The project uses two agents in the US to purchase and ship the goods. Plans for the training of maintenance staff are being formulated.

#### e. Staffing and Curriculum

In 1978 Egerton had 85 staff, of whom four were on study leave. Currently there 106, of whom 34 are on study leave under the ASSP and other donor funding.<sup>1/</sup> Thus, the actual number of Kenyan staff at post at Egerton is 72 now, as opposed to 81 in 1978. There are, in addition, 28 SECID staff currently at Egerton.

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<sup>1/</sup>Details of Egerton College staffing are presented in Appendix A.

Egerton is about to commence recruiting some 30 new staff members for the College. Of the staff currently in training overseas, nine are expected to return with Ph.D.'s and resume their posts as Heads of Department, or in the administration. Of the others on overseas training, twenty participants are expected to return with M.Sc. and ten with B.Sc.'s. The participants receiving B.Sc. training in the US can be expected to move up from Demonstrator to Lecturer status on successful completion of their studies. Unfortunately, the phasing between the return of the Kenyan participants and the departure of their SECID counterparts does not allow for much overlap in most cases.

The retention, at least on a long-term basis (by which we mean for a period considerably in excess of the three years for which they are bonded to the College), of the returning Kenyans constitutes a serious concern. Their new qualifications will enhance their value on the job market, but as we understand it, their new qualifications will not result in their rising to higher salary levels. This does not, however, apply to the Demonstrators, who can expect a significant increase in salary on promotion to Lecturers.

We understand that a general revision of terms of service for Egerton faculty, including salaries and promotion procedures, is currently under consideration. If such a revision brings the salary levels at Egerton up to University levels, the problem would be partially alleviated, but it would be naive to assume that the private and parastatal subsectors will not attempt to lure Egerton faculty with higher salaries and offers to pay off their bond obligations. All this may be to the ultimate benefit of the Kenyan economy, but we foresee problems for Egerton which should be addressed.

Egerton's admirable reputation has been built on the fact that it produces men and women with a sound theoretical basis wedded to a practical extension orientation. The Egerton diploma holder with his/her practical orientation may be for most purposes a more valuable contributor to the Kenyan agricultural scene than the more theoretically oriented Bachelor's degree holder from the University of Nairobi. Therefore, we have doubts as to the need for Heads of Departments at Egerton to have Ph.D.'s.<sup>1/</sup> The work currently being done at Egerton does not warrant the employment of a large number of Ph.D.'s, and even if Egerton begins to offer Bachelor's degrees at some future date, the need for Ph.D.'s is hardly pressing. Although most participant trainees sent for Ph.D. training so far have been Heads of Departments, the current policy is to select for Ph.D. programs the best candidates from the disciplines where the need for Ph.D.'s is considered most important.

On this matter, Prof. Musangi, the Principal of Egerton, emphasized that it is the intent of the College to develop a core, and only a core, of professional staff with Ph.D.'s. In the long-term he expects this core to represent approximately 10 percent of the academic staff, and to be distributed in those technical areas where advanced skills are required to develop and maintain Egerton's high standards. He also hopes the Ph.D. faculty will

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<sup>1/</sup>Arguments for and against this are found in Appendix A.

play an active role in overseeing the College's curriculum and research activity.

The returned Ph.D. holders, provided they can be retained at Egerton, are likely to want to use their research skills. We strongly recommend that emphasis be given to research which is in keeping with Egerton's practical orientation.

Historically, Egerton's curriculum has been geared more to the needs of the large scale commercial farm than to the smallholder and pastoralist. In keeping with the GOK's stated development priorities this orientation is now changing, albeit slowly. A comprehensive review of Egerton curriculum is now taking place with inputs from the TA team as well as from Kenyan staff. In line with ASSP objectives, the needs of the smallholder and pastoralist should be emphasized in the development of this new curriculum.

We found agreement among Egerton faculty and students that the current student load of contact hours, sometimes exceeding 40 hours per week, is unrealistically high and hinders learning. Students with such heavy schedules have limited time to assimilate lessons taught and still less time to pursue subjects of interest by private study in the library. The new curriculum may reduce the course load to a maximum of 32 contact hours per week. Changes should aim at cutting out nonessential courses and eliminating the duplication of subjects taught under different course titles. We are also concerned about the extremely large class sizes for some courses and recommend double or triple streaming where necessary in view of the increasing number of students.

We recommend that the curriculum needs identified in the ATAC report be met. We consider that a core course in general management principles and techniques should be included in all specializations. Field staff have also drawn our attention to the need for a course in the procedures and machinery of the GOK.

The College is giving consideration to providing new graduates with a small, basic, personal reference library consisting of the textbooks they received throughout their years of training. At present, Egerton graduates do not take their textbooks with them. The provision of a personal reference library could be made possible by giving a book allowance to each student, but we would prefer a system by which the cost of all books is included in the fees charged. The books issued to a student should become his/her personal property.

An outreach program has been lacking at Egerton. We recommend the early recruitment of a director and a small-core staff for the proposed continuing education/resource center so that a full program of in-service courses, conferences, seminars and workshops can commence at an early date. All Egerton faculty should be involved in the planning and conduct of the center's activities.

At present, there is no systematic follow-up of Egerton graduates. We suggest that the continuing education center keep up-to-date records of graduates, including their employers and addresses. Regular contact should be maintained so that Egerton can use feedback from its former students to

keep pace with what is going on within the extension service and other agricultural institutions. One method of keeping in touch would be through an alumni association financed by a lifetime membership fee. Members of the alumni association should, if financially feasible, receive copies of "The Egertonian" or at least an annual newsletter.

In all areas Egerton needs to strengthen its links with its clients, including students, alumni, agricultural institutions, farmers and livestock producers.

f. Egerton College Enrollment

Figures for Egerton enrollment and intake for the past three years are shown in Table 2.

Table 2. Egerton College Enrollment and Intake, 1979-1981\*.

Year	Total Enrollment	Yearly Intake				
		Number of New Students	Number of Women	Percent Women	Number of Foreign Students	Percent Foreign Students
1979	790	267	50	18.7	18	6.7
1980	790	286	51	17.8	25	8.7
1981	989	422	77	18.2	15	3.6

\*Detailed tables for each year are provided in Appendix A.

The substantial increase (nearly 50%) in enrollment which took place between 1980 and 1981 was largely made possible by the Egerton expansion effort. The 1984 graduating class of Egerton, allowing for some attrition, is currently estimated at 400 diploma holders, as compared with the target of 516 given in the PP.

The Egerton intake for 1982 is expected to be 550. This will bring the total 1982 enrollment up to 1,250, a figure which is less than 10 percent below the target. On balance, therefore, it appears that the College will reach its goal of 1,632 students and an annual output of more than 500 graduates by 1985.

The percentage of women in Egerton's annual intake has remained at approximately 18 percent since 1979. The amount of hostel accommodation for women has, up to now, been a limiting factor. When the new hostel accommodation is available next year, the percentage of women students can be increased to 20-25 percent. The fact that few girls' secondary schools offer A-level courses in the science subjects required for admission to Egerton has limited female enrollment. The introduction of the proposed changes in post-primary education should eliminate this constraint.

#### g. Validity of Key Project Assumptions

A key assumption underlying the Egerton expansion effort is that the Kenyan economy, largely through the Ministries of Agriculture, Livestock Development, and Natural Resources and Environment, will be able to absorb the increased stream of Egerton graduates. As long as the projections in the ATAC study appeared valid, there seemed little reason to doubt this. However, given the current restrictions on increases in GOK recurrent expenditures, the assumption now seems uncertain. Whether the public sector will be able to offer employment to the future Egerton graduates in the proportions foreseen in the ATAC report or whether the stagnant private agricultural sector will be able to absorb any excess output from Egerton is at best open to question. The figures for "needs" identified by the ATAC team may not have changed significantly, but the effective "demand" may have decreased considerably.<sup>1/</sup> We recommend, therefore, that a comprehensive review of agricultural manpower in Kenya be undertaken, as has been already formally requested by MOA. A draft scope of work for the survey is included in Appendix A.<sup>2/</sup>

Another questionable assumption is that, when trained and employed, the Egerton graduates will be effectively used in service of smallholder/pastoralists. Many Egerton graduates are effectively used, but others, particularly those employed in the MOA and MQLD extension services, are not being effectively used due to a lack of work incentives, infrastructure, and logistical support. These constraints are beyond the influence of Egerton staff, and thus require the attention of MOA officials and USAID personnel. A detailed analysis of the situation and suggested improvements is the subject of special studies by David Leonard and colleagues which is partially supported by ASSP. These special studies are reviewed in section II.A.9.

#### h. Future Needs for Assistance

The Principal of Egerton recently submitted a proposal on behalf of the College and the MOA for additional USAID support to provide 72 person years of technical assistance, 110 person years of long-term and 10 person years of short-term participant training, extension service equipment, training and research materials, and project evaluations. The proposal requests a total of \$13,882,000 for a five-year extension of the ASSP Egerton component beyond 1984 to begin as early as September 1983.

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<sup>1/</sup>The current annual rate of increase for public sector expenditure on personnel is limited to five percent as compared to the ATAC low estimate of seven percent.

<sup>2/</sup>The IBRD Fifth Education Project Appraisal Report includes some revised manpower projections based on significantly lower estimates of the growth of effective demand. The evaluation team was unable to examine the details of these revised projections while in Nairobi, or indeed, locate anyone who knew of their existence (beyond the references made to them in the Appraisal Report). It is suggested that MOA and/or USAID/Kenya should obtain and examine the details of the IBRD revised projections and incorporate them as appropriate into plans for the proposed comprehensive review of agricultural manpower.

The proposal addresses the following needs:

- i) Further upgrading and expansion of the Egerton faculty to comply with the greatly enlarged enrollment; and
- ii) Provision of technical assistance to fill the void while Kenyans (45 proposed) are training in the US and to help build the Research/Extension capacity of Egerton.

Subject to the reservations we expressed regarding the basic assumptions underlying the rationale for the Egerton expansion in the previous section, we regard the proposal as sound and support continued assistance to Egerton. However, we take issue with parts of the proposal. First, there is a lack of specificity with regard to the outreach/extension program and minimal field linkages between agricultural research and extension institutions. Second, we feel strongly that seven more Kenyan staff should be sent for Ph.D.'s, given Egerton's status and role for reasons already discussed.<sup>1/</sup> Third, the provision of TA staff could be done at a much lower per person cost than was the case for the current contract, inflation considerations aside.

Finally, we accept the need for a Senior Researcher Specialist and a Senior Extension Specialist as the senior members of the TA staff, but we do not believe that the Senior Research Specialist should necessarily be Chief of Party. The Chief of Party should have a broad enough view to encompass all of Egerton's teaching, research and extension activities. His or her responsibilities are likely to require major attention to administrative matters and policy concerns. Indeed, the role described for the Chief of Party in the proposal guarantees this and it may be preferable to have an entirely separate (third) person to fill this position.

We strongly support the recommendation that the two Senior Specialists should have at least four-years experience in developing countries. We would go further and suggest that experience in developing countries should be regarded as a desirable qualification for all future TA staff, and provision should be made for instruction in Kiswahili, particularly for those most concerned with outreach/extension activities.

#### i. Conclusions and Recommendations

##### Conclusion A:

The TA staff at Egerton has generally been of good quality, though some appear to be overqualified for their tasks resulting in a few cases of unnecessarily high salaries.

Recommendation 1: Persons with M.Sc. degrees and teaching experience plus, if possible, experience in developing countries should be recruited by SECID/Mississippi State for TA positions unless there is compelling need for a Ph.D. in a specific position.

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<sup>1/</sup>See section on Staffing and Curriculum and Appendix A.

## Conclusion B:

Participant planning in the US is generally proceeding satisfactorily. The training of Egerton diploma holders to the B.Sc. level abroad is expensive, but until the accreditation issue is resolved there appears to be no alternative. Training to the M.Sc. level is appropriate and sufficient for most Egerton faculty. Attention needs to be given to the training of maintenance staff.

Recommendation 2: USAID and Egerton College should continue to press for recognition of the Egerton diploma for credit purposes so that diploma holders can complete B.Sc. degrees in Kenya in not more than two years of full-time study. Similarly, Egerton should consider whether credit can be given for certificates from Agriculture Institutes and AHITI towards Egerton diplomas.

Recommendation 3: Egerton College and SECID/Virginia State should use a greater portion of participant training funds to bring Egerton faculty to the M.Sc. level. Participant training at the Ph.D. level should be limited to fields where specific needs for a Ph.D. level staff have been identified. Faculty members should be selected on the basis of their academic records, teaching and research abilities rather than their positions in the administrative hierarchy.

Recommendation 4: As a high priority, participant training funds should be allocated to Egerton and SECID/Virginia State to provide for in-country training for maintenance staff at Egerton.

## Conclusion C:

In the early stages of the SECID contract, numerous administrative and management difficulties were encountered in the field and at the home office. To a large extent these difficulties have now been resolved and do not appear to be affecting the overall performance of SECID staff. As the Egerton component is now well into the operations phase, the management concerns of SECID, the GOK, and USAID should evidence a more proactive stance with respect to assuring that the TA and participant training activities contribute to long-run agricultural production objectives.

Recommendation 5: SECID and USAID should take a more proactive management stance now that the expansion activity is into the operations phase. More time should be spent on assuring that the IA is properly engaged in curriculum design and outreach activity, and that returned participants are appropriately used.

## Conclusion D:

Egerton's practical orientation has generally resulted in the training of effective extension workers. However, the high number of classroom contact

hours encourages rote memorization and mitigates against independent studies and field trips. The planned curriculum revision started later than originally intended, but appears to be progressing rapidly and should be completed by PACD. Continuous curriculum revision is needed and should be geared more to the needs of the smallholder and pastoralist.

Recommendation 6: The process of curriculum revision should become a year round continuous function of the faculty and academic board, and it should emphasize the needs of the smallholder and pastoralist. The current revision exercise should include measures to reduce student contact hours to not more than 32 hours per week and to reduce class sizes by double or triple streaming where necessary. Courses in general management principles and in the procedures of the Kenya Government should be introduced into all specializations.

#### Conclusion E:

The retention of Egerton staff, particularly those trained in the US under the ASSP, will be difficult unless improved terms of service are introduced.

Recommendation 7: Egerton should introduce improved terms of service for staff as soon as possible. Simultaneously, Egerton should make greater efforts to recruit Kenyan staff (including Kenyans living abroad.)

#### Conclusion F:

There is a need for Egerton to maintain better contact with alumni and generally to expand its outreach/resource center activities.

Recommendation 8: Egerton should expand its outreach in-service training and resource center activities through the proposed new resource center. These outreach activities should include the creation of an alumni association which will keep the College and its graduates in touch on a continuing basis. Egerton graduates should be provided with a small, personal reference library to take with them when they graduate.

#### Conclusion G:

In order for the maximum benefit to be obtained from the Egerton component of ASSP, some further support will be needed.

Recommendation 9: USAID/Kenya should give positive consideration to the recent request submitted by Egerton College for an extension of USAID support.

## II.A.2. Agriculture, Cooperative and AFC Training Funds

### a. Background and Objectives

The ASSP set up three training funds with similar characteristics within the MOA, MOCD and AFC to improve the performance of operational personnel in each institution. The total person-years of training and allocations are summarized in Table 3.

Table 3. ASSP Training Funds (Agriculture, MOCD and AFC)

Fund	Person-years	Allocation (1000 \$/US)
Agriculture	200+	3,460.0
MOCD	120	2,412.5
AFC	<u>62+</u>	<u>1,390.4</u>
TOTAL	182+	7,262.9

The Agriculture Training Fund in MOA was created to fill a need highlighted by the ATAC research and manpower studies. The demand for in-service training in MOA was usually twice as great as what was available through donor-funded projects. In addition, training support was often limited to certain fields of donor-assisted activity and were available only on a year-to-year basis.

The MOA fund was designed to allow greater flexibility in the choice fields and to commit funds over a five year period, both of which would permit the Ministry to better fulfill its training needs in extension, research and management. It was expected that participants would be drawn from throughout MOA, but particular attention was to be given to the training of research personnel in accordance with the findings of the ATAC research report.

The PP notes that the selection process for training programs financed under this fund would be sensitive to providing skills which could impact directly or indirectly on smallholder and pastoralist production. The selection of participants was also to include a bias for women and individuals from pastoral areas.

The MOA fund provides support for up to 25 academic participants each year for an average of two years per participant. Short-term and nondegree training was also envisaged. With the creation of MOLD in 1981, remaining resources in the MOA fund were split approximately equally between MOA and MOLD. In this discussion, the team Agriculture Training Fund includes the training activities in both ministries.

The PP proposed a similar training fund for MOCD to support approximately 120 person-years of training (including 100 person-years for long-term training) <sup>1/</sup> The high priority cooperative training needs included: credit and finance; agricultural economics; produce marketing; storage and handling; cooperative education; educational technology and communications; agribusiness finance and management; and rural sociology.

Finally, the PP included support for long- and short-term US training for AFC staff. Priority areas included exposure to management methods employed by US credit institutions and sending training personnel to USDA courses in preparation for their assisting to conduct similar courses in Kenya. In addition, \$130,200 was designated for conducting USDA courses in Kenya. The number of participants and length of the USDA courses to be held in-country was not specified.

#### b. Activities of USAID and the Kenyan Institutions

The general procedure involved in selecting and placing training participants is as follows. The Ministries or AFC nominate the candidates and assemble a "training plan" for each candidate consisting of a description of the type of training desired and all relevant documents. The training plans are then forwarded to the Directorate of Personnel Management, Office of the President, for approval, and then to USAID/Kenya. After reviewing the training plans, USAID transmits the necessary information and documents to USDA, which has responsibility for placing long-term participants in universities and arranging for short-term training, primarily in the USDA-sponsored courses. USDA needs approximately nine months lead-time to appropriately place long-term participants. Thus, for September placements, the documents should reach USAID/Kenya in November or December of the previous year.

The three ministries follow the same general selection procedure. Heads of divisions submit names of candidates and types of training requested to the training division for consideration <sup>2/</sup>. In the case of AFC, the Area Managers, in consultation with their Branch Managers, recommend people for training.

Each of the three ministries now has a Ministerial Training Committee composed of division heads, a chairperson appointed by the Permanent Secretary, and other representatives including two persons from the Directorate of Personnel Management, Office of the President. These committees make the final selection of candidates from among those nominated. In the case of AFC, the General Manager approves candidates for training.

The process of nominating and approving candidates usually includes a review of some combination of the following factors:

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<sup>1/</sup>Further discussion of the MOCD Training Fund is included in section II.A.5.

<sup>2/</sup>For MOA, at least, the division heads are given a prior indication of how many candidates they can nominate at a particular time.

- length of service
- job performance
- age
- interest in training
- prior training opportunities
- whether he/she can be spared from job responsibilities
- type of job candidate presently performing
- overall training needs of the institution

At present USAID is not involved in the selection process<sup>1/</sup>, but the Project Officer does review the training plans to ascertain whether each candidate's previous academic record is of an acceptable standard and consistent with the type of training being requested. USAID also recommends areas of emphasis for candidates pursuing general degrees.

The first participants were sent for training in 1979 and their numbers have grown steadily since. In the initial stages neither USAID nor the Kenyan institutions were geared up to process a large number of participants. The significance of lead-times, and the importance of having all the materials collected for each candidate were not clearly understood. The Ministerial Training Committees, if in existence, were not functional. In the case of AFC, the training officer himself was away for training.

Over time, the USAID Project Officer was able to convey to the respective training officers the importance of lead-times (although there is some evidence either that this is still not clearly understood by some or that other factors are intervening which prevent the ministries from submitting their training plans on time). The ministries and AFC were provided with criteria for judging a candidate's academic record vis-a-vis admission requirements in US universities so that time is not wasted nominating unsuitable candidates. In addition, the training officers now submit complete training packages. The members of the Ministerial Training Committees have attended a seminar organized by the Directorate of Personnel Management to help improve their functioning. In short, most of the actors involved have become more efficient and effective.

For most people working in the GOK, opportunities for training are regarded favorably and there are usually more requests for training than places available. In such situations the selection process can be subject to factors of favoritism. However, the present selection procedure and the existence of functioning Ministerial Training Committees which screen candidates appear to be providing satisfactory safeguards.<sup>2</sup>

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<sup>1/</sup>The training funds are still drawing on 1980 funds, but as soon as 1981 begin to be expended, USAID/Washington will require that the Mission select 15 percent of the candidates.

<sup>2/</sup>Selection procedures appear to have been abused in the past in MOCD as discussed in section II.A.5.

c. Description and Assessment of Training

The training funds encompass a wide range of training in terms of the types of participants, and the duration, fields and location of training. The categories include: i) long-term graduate and undergraduate training in the US; ii) medium-term (one-year) in-country training; iii) short-term courses in the US coordinated by USDA<sup>2/</sup>; iv) short-term in-country training organized by an interministerial committee and USAID/Kenya; v) short-term third-country training; and vi) study tours of both US and third countries. Table 4 includes all participants who have undergone training or are presently enrolled under the ASSP Training Funds to date (March, 1982).

Table 4 - ASSP Training Funds: Number of Participants\*

Fund	Type of Training					TOTAL
	Short-term	Medium-term	Long-term			
			Bachelors	Masters	Ph.D.	
Agriculture	56	10**	30	13	3	112
MOCD	104		1	3	-	108
AFC	<u>23</u> ***		<u>6</u>	<u>-</u>	<u>-</u>	<u>29</u>
Total	183****	10**	37	16	3	249

\*Data obtained from the report "Summary of Training, Long-term, Short-term, Agricultural Systems Support Project" USAID/Kenya, Dec. 16, 1981, and information provided by the GOK institutions using the training funds.

\*\*One-year course in ranch management at Egerton College

\*\*\*Includes four participants sent to the Philippines and India.

\*\*\*\*Including 54 participants in two courses, one in Agricultural Training Development and one in Marketing of Agricultural Products, which were held in Mombasa and staffed by two USDA trainers and Kenyan counterpart trainers.

<sup>1/</sup> The courses offered are listed in Appendix B.

In assessing progress to date, it should be noted that the cost of training has increased by nearly 25 percent since the PP was written. Because of this factor alone, the original targets (in terms of person-years of training) cannot be met without additional funds.<sup>1/</sup>

The Agriculture Fund is roughly on target and the funds will most likely be fully used by PACD. To date, two thirds of the \$3.5 million has been spent or committed.

Only about one-fourth of the AFC Fund has been earmarked, and it is highly likely that the total amount will not be used for AFC training by PACD. AFC has a small staff (approximately 300 professionals) and cannot afford to spare too many people for training at any one time. The USAID Project Officer is aware of the situation and will ensure that funds are reprogrammed for other participants under the ASSP umbrella.

A considerable number of participants have undergone short-term training under the Cooperative Fund. However, it is unlikely that the 100 person years of long-term training provided for will be completed by PACD. The previous training officer in MOCD favored short-term training. Thus, the shortfall in long-term training will be at least partially offset by the large numbers sent for short courses. This trend is likely to continue.

MOCD has experienced recurring problems in nominating candidates and preparing training plans on time. For 1981 placement, the Ministry nominated nine candidates for long term training, but because the training plans arrived late only three have been placed so far. These three began their training in January 1982. For 1982, MOCD was late again in submitting their plans and, therefore, placement may not be accomplished on time to have long-term participants ready to begin their programs in the fall.

To summarize, it is very likely, excluding any unforeseen occurrences, that the training funds will be used by the PACD for some form of participant training, even though it will not be exactly as envisioned in the PP.

The PP states that there should be a bias for women in participant training. It does not appear that such a bias has been in operation, but on the other hand there does not appear to have been any discrimination against women.<sup>2/</sup> Of the total number of participants sent for training to date, only 11 percent have been women.<sup>3/</sup> This is partly a function of the

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<sup>1/</sup>Details of budgets and expenditures to date for the training funds are presented in Appendix E.

<sup>2/</sup> It was mentioned in an interview with one official that because of previous experiences with two single women, one of whom dropped out at the last minute and another who returned early, applications by single women are scrutinized more closely to be sure that the individual is committed to the training.

<sup>3/</sup> For the short-term, 10 percent are women; for the long-term, 16 percent.

relatively small percentage of women in the service of the four institutions involved. MOCD and MOA have sent the largest number of women for training and several of those interviewed expressed that their training programs greatly enhanced their confidence in their ability to do their jobs and to interact with coworkers and supervisors.

The PP also notes that there should be a bias towards providing training to individuals from pastoral areas.<sup>1/</sup> An examination of the list of participants reveals there are very few from pastoral areas.

The majority of long-term participants thus far have gone for Bachelor's degrees. Usually, such participants already are diploma holders. Since US universities give them credit for at least some of their previous courses, they are able to complete the degree in two years or less. As noted earlier, diplomates attending the University of Nairobi would have to take the usual three years to complete their degrees since they receive no credit for diploma courses.

The fields of study of long-term participants<sup>2/</sup> appear to be ones which are needed by the agricultural sector and which can contribute to the work of the ministries and AFC as long as the particular courses selected within these disciplines are ones which can, for the most part, be applied to the Kenyan situation. Much of the responsibility for this determination rests with the participants and their individual academic advisors and is carried out after the participant reaches the US. Little information is provided by the universities through USDA on courses or course content prior to the participant's departure from Kenya for the US.

Since only three long-term participants financed under this component have returned to date, and these only recently, it is difficult to evaluate the effectiveness of their training and the contribution they are likely to make to achievement of the project's goals. Of the two returned participants interviewed, one has not been able to make use of his training in his present position, but it is hoped that his situation can be rectified. The other returned very recently and is likely to make use of his new skills.

The majority of trainees under the funds have attended short courses, mostly sponsored by USDA.<sup>3/</sup> The USDA Catalog distributed to the ministries and AFC is the main guide used to select courses. They do, however, have the leeway to request a course not included in the catalog with the possibility that USDA will organize it or that it may be offered by another US institution. Whenever USAID/Kenya receives information on other relevant short courses, details are passed on to the ministries and AFC for their consideration. Participants are not strictly limited to USDA courses, but most of them have attended those courses as a result of their visibility and ease of access.

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<sup>1/</sup>Training funds have had some direct impact on pastoral areas as discussed in section d (Impact of Training).

<sup>2/</sup>See Appendix B for a list of the fields of study.

<sup>3/</sup>More details on these courses are found in Appendix B.

With regard to the quality and relevancy of the training provided by USDA-coordinated courses, the reaction of fourteen former participants who the team interviewed was mixed but generally favorable. Most agreed they had learned some skills which they have been able to apply in their work. Some felt their course was very general and only indirectly related to their work. In one case, the course content proved to be a repetition of what the participant had learned in his undergraduate statistics courses at the University of Nairobi. A young woman who attended the Agricultural Trainer Development Course said that in retrospect she would not have gone because the training was not at all what she expected. Another participant who attended the same course said it was not practical enough, and claimed that other participants had limited field experience. Thus, attempts to operationalize the model being taught relied too heavily on hypothetical situations. A Senior Cooperatives Officer noted that while the content of her course on Credit Policy and Administration was good, the practical aspects learning about small scale farmers in the US were not relevant because they are very advanced compared to small scale Kenyan farmers. On the other hand, a participant in a different course found the content to be relevant and timely. It included case studies from other countries on attempts to diffuse research results to farmers through appropriate extension mechanisms.

Most participants returned with some new skills and knowledge. The majority valued having had the opportunity to visit the US and to be exposed to different aspects of agriculture in the US even though many of the procedures are not directly applicable to the Kenyan situation. Also regarded positively was the opportunity to meet participants from other third world countries and to exchange ideas and experiences with them. Several of those interviewed emphasized that the success of a course not only depends on the instructors and the initiative of the individual student, but is also often affected by the mixture of participants in terms of their former education and practical experiences. Some courses appear to have suffered because many of the other participants had little if any field experience.

It is possible, upon request, for USDA to conduct established or specifically developed new courses overseas. USAID/Kenya has taken advantage of this opportunity and two in-country courses have been organized with a total of 54 participants. The instructors were two USDA personnel and two Kenyans who previously had been to a USDA course.

There are several advantages to conducting such courses in-country, besides cost effectiveness.<sup>1/</sup> A course can be made more relevant to the Kenyan situation, and, since Kenyans can participate as trainers, the experience will enhance their skills in training others. Finally, conducting

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<sup>1/</sup>Agricultural Trainer Development Course (8 weeks in the US) costs a total of \$8,508 per participant of which \$2,000 is for travel. The course organized in Kenya (1 month duration) cost \$1,921 per participant. Thus, four participants can be trained in Kenya for each one that goes to the US. It also represents a \$1,000 saving per participant on transport to the GOK which pays the fare one-way for each participant who attends overseas training.

a course in a developing country is a valuable experience to the USDA trainers.

The final type of training to be discussed is third-country training. Two officials of AFC were impressed with training opportunities in India and the Philippines while on an ASSP-funded study tour in those countries. In January 1982, two AFC employees were sent to India and two to the Philippines for training. Pending their feedback, AFC intends to request the same training for four more participants. Although sending participants to India requires special permission from the US government, this formality is not likely to deter either USAID/Kenya or the AFC.

Some evaluation procedures are in effect for participant training. USDA short courses provide for an evaluation form to be completed by participants at the end of the course. USAID/Kenya also attempts to debrief all participants when they return from overseas but this is not always possible. MOLD has a form for returned participants to complete, but to date the system has not been effectively implemented. At MOA no evaluation attempt has been made, but the training officer there would like to institute evaluation procedures if she is provided with extra staff. The 1981 in-country course was evaluated by the participants, and according to USAID there are plans to do a follow-up evaluation on the participants in several more months to determine the impact of the course on their work.

#### d. Impact of Training

The likely impact of this training on improved smallholder/pastoralist production and quality of life also needs to be considered. The PP recognized that the connection between more and better trained upper and middle level staff and increased production among smallholders was one that could be assumed but not necessarily verified. It is extremely doubtful that US training contributes very much towards inculcating a smallholder orientation. What the training can do is to give the participants skills and knowledge to be more effective in their jobs so that more and better services are available to farmers. Very few of those trained, with the exception of the MOLD technical officers trained at Egerton,<sup>1/</sup> interact with farmers on a day to day basis. However, many of the returned participants can be expected to make policy, to plan and implement projects, or to manage the field work of others--activities which do directly impact on farmers.

For trained personnel to have an impact on improving the effectiveness of their institutions and to assist in increasing agricultural production, they must be retained and they must be placed correctly. In order for subsequent evaluations of ASSP to address this point, information on these topics needs to be collected on a regular basis.

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<sup>1/</sup>Ten participants were trained in ranch management for one year at Egerton College. Two were invited to stay on at Egerton for the full diploma course and the other eight participants have recently been posted to pastoral areas in different parts of the country to assist in improving the management procedures on established group and cooperative ranches, as opposed to commercial ranches.

Most of the returned ASSP participants interviewed were in positions where they could make use of at least some of their training in their work. However, an examination of MOCD training needs strongly suggests that a focus on society managers would be far more likely to assist smallholder production than training of senior MOCD staff.<sup>1/</sup> Unfortunately, there was insufficient time and readily available information to address the question of retention of staff and only three of the long-term participants have completed their programs to date.<sup>2/</sup>

e. Conclusions and Recommendations

Conclusion 1. The activities involved in selecting and processing participants have improved greatly since the beginning of the project, attributable in part to the conscientious efforts of the USAID project officer and other USAID staff.

Recommendation 1. If there is any change of personnel, either in USAID or in the Kenyan institutions, USAID should fully orient the new officers in procedures for processing candidates.

Conclusion 2. The training funds are likely to be fully utilized by the PACD. However, disbursement rates in the AFC and the MOCD are very slow.

Recommendation 2. USAID should hold discussions with AFC and MOCD in the near future on the use of remaining funds, and intensify efforts to reduce delays in nominating and placing long-term training participants.

Conclusion 3. Women and individuals from pastoral areas have not been given preference for training as specified in the PP.

Recommendation 3. USAID staff should review selection criteria with the Kenyan institutions to ensure that increased numbers of women and people from pastoral areas are selected for training.

Conclusion 4. Not enough information is provided to long-term participants before their departure.

Recommendation 4. USAID should request USDA to ask each university which has accepted a participant to send its catalog and other information to the participant in Kenya to permit him/her to develop a tentative program before departing for the U.S.

Conclusion 5. In order to decide which courses are most beneficial for future participants, and to assess the impact of training on work performance and on the pursuit of project goals, a more rigorous form of on-going evaluation is needed.

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<sup>1/</sup>The reasons are discussed in section II.A.5.

<sup>2/</sup>In the 1970's, USAID supported the training of 35 AFC staff members under the Agricultural Credit Project (615-0148); most still work for AFC (27 of 29 short-termers and 4 of 6 long-termers).

Recommendation 5. USAID should institute a training follow-up and evaluation system involving assessments and interviews with returned participants.

Conclusion 6. There are many advantages associated with in-country training.

Recommendation 6. USAID and the interministerial committee should arrange for more in-country training programs.

Conclusion 7. The relationship between the ASSP Training Funds and the improvement of well-being of the smallholders and pastoralists is a tenuous one. More effort should be made to reinforce it.

Recommendation 7. USAID should explore ways of using some of the training funds for training lower levels of personnel. Such efforts should supplement, but not replace current GOK programs. For example, the Rural Services Coordination and Training Unit of the Ministry of Economic Planning and Development provides on-site, in-service training to district and lower level personnel across ministerial lines. In section II.A.5., it is suggested that courses for cooperative society managers are clearly needed. Expanding efforts of this type could help spread training benefits over more cadres of personnel and move them closer to the level of the smallholder. Further, the CIMMYT Economics Program in Nairobi might be able to effectively utilize some support for short courses in farmings systems research methodology.

## Section II.A.3. Range Research System Support - Kiboko

### a. Background

The ASSP Project Paper identifies the lack of smallholder and pastoralist research, "adaptive" in nature, as a major constraint to the achievement of Kenya's agricultural development goals.<sup>1</sup> The "Range Research System Support" component of ASSP was designed to directly address this constraint as it relates to pastoralists by strengthening the National Range Research Station (NRRS), Kiboko.<sup>2/</sup>

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<sup>1/</sup>For purposes of this discussion, "basic" agricultural research refers to research designed to increase understanding of the nature of plants, animals, insects, soils etc., and their relationships to one another. Immediate application in terms of improved practices which can be utilized by producers without further refinement is not a primary objective of such research. The study of the physiology of digitaria is an example of basic research. "Applied" research includes attempts at developing prototype practices or sets of practices utilizing the results of existing basic and applied research which with proper adaptation to local conditions might be applied over a broad geographic zone. The grazing management trials (GMII) and most of the research program at Kiboko are of this character. "Adaptive" research refers to the process of designing, testing and refining improvement measures in a specific location with a view to developing monitoring and improving recommended practices which can be extended directly to producers in that location. Adaptive research is thus very site specific in nature; may include farm level trials involving producer participation; and draws extensively upon applied research results from research stations. Producer acceptance is a key criteria in adaptive research. Little if any of the research currently carried out by Kiboko is adaptive in nature, using these definitions.

<sup>2/</sup>There proved to be no definition of pastoralist that was acceptable to all parties involved in the evaluation. Some advocate excluding all but the more traditional nomadic groups. This narrow definition is often used to identify groups for whom modern research and extension efforts can offer little; indeed, many feel little should even be attempted. At the other extreme, are definitions which encompass virtually all those who use the rangeland and rely primarily or exclusively on livestock production for their livelihoods. Such a definition has the advantage of defining away the problem of determining whether or not research and development efforts focus on "pastoralists". We prefer a meaning which encompasses settled pastoralists and group ranches, but excludes so-called commercial ranches; a definition which seems consistent with the intentions of the authors of the PP. How one defines pastoralist seems much less important than a recognition that there is considerable heterogeneity among the potential clients of NRRS and that the research needs may also be quite varied, as is discussed further in this section and Appendix C.

The Kiboko station was established in 1968 as a multi-disciplinary range research facility with partial funding from the FAO. During the period of FAO support from 1968 to 1973, the station's research program was oriented toward increasing marketable animal production from rangelands, bettering the subsistence of pastoralists, and improving the understanding of plant/animal relationships affecting sustained rangeland productivity. Ecological and habitat studies received special attention. After 1973, the station's staff, program and facilities received minimal support from the GOK and external donors and fell into a state of disrepair.

This section describes the initial rationale of the ASSP Range Research component and presents our analysis of the USAID assistance to and operations of NRRS to date. We conclude by listing the team's conclusions and recommendations. Supporting materials are contained in Appendix C and the budgetary situation is included in the financial analysis of ASSP in Appendix E. A description of the methodology, list of contacts and references used are contained in Appendices F, G, and H respectively.

b. Purpose and Scope of the Range Research Support Component

As stated in the ASSP Project Paper, the purpose of the Kiboko Range Research component was,

to provide grant technical assistance for a period of six and one-half years to carry out the requested range research, to develop at the National Range Research Station, Kiboko, the capacity for identifying problems both sociological and economic, which limit range productivity, and for carrying out research aimed at finding solutions to the problems as they relate to smallholders and pastoralists and to augment capabilities for disseminating results to various users (PP, p. 80).

Specifically, it was expected that NRRS would become a self-sustaining "adaptive research"<sup>1/</sup> institution by the end of ASSP in March 31, 1985, with the following conditions:

1. Eighteen Kenyan research officers, who had successfully completed training in the US, would be functioning as station staff members.
2. The results of nine initial range research studies (adaptive in nature) would be integrated into the Egerton curriculum and effectively disseminated to extension agents through direct Kiboko semiannual seminars.
3. A research utilization plan (adaptive in nature) for reaching the ultimate target group--smallholders and nomadic pastoralists 1/M/would be in operation for generating and selecting further research studies.
4. An annual research report would be prepared and disseminated.

The PP describes in detail the linkages that should be developed between this component and other USAID projects, and between the Kiboko Station and small pastoralists.

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<sup>1/</sup>During the evaluation, substantial effort was devoted to clarifying the initial research intent of the PP. Was it the intent of the project design team--using the definitions given above--to foster a station with an emphasis in basic, applied, or adaptive research, or some combination of the three? This issue was pursued with two members of the initial PP design team, and in a detailed review of project documents. What we found--in addition to a disturbing amount of inconsistency and imprecise wording--was a recurring emphasis on the need for, and feasibility of, a fully integrated applied/basic and adaptive research mode. Unfortunately, our review of the Winrock contract produced a different finding--the emphasis there is on applied/basic research. There is provision for a "research utilization plan," e.g., extending research results following their development. However, this is different than an adaptive mode which focuses on client group involvement from the outset of a research effort.

Pursuant to our scope of work, the evaluation team conducted its assessment based on the initial integrated intent of ASSP. We recognize and empathize with the fact that neither AID nor the Winrock group may be entirely satisfied with the outcome of this approach. For AID, as is argued in Section II.B. below, there appears to have been a short in the procedure for transforming initial PP design intent into the Winrock contract document. For Winrock, as discussed later in their section, it appears that they have done an outstanding job but not the job initially intended by the project designers. The evaluation team does not view this situation with despair, but rather as an opportunity for deciding on the most cost-effective and appropriate strategy given current conditions in Kenya, the AID policy setting, and experience with the Kiboko component to date. It is from this perspective that we have prepared this section of the report, including our conclusions and recommendations.

The project documents allocated grant funds of \$5,141,000 for this component and stipulated that a "host-country contract" would be negotiated to implement the institution strengthening effort.

c. Project Activities and Assessment

On June 21, 1979, a Host Country Contract was signed between the GOK, represented by MOA, and Winrock International Livestock Research and Training Center, for approximately \$5.1 million over six years. The contract provided for 31 person years of TA to the NRRS. The technicians would assist in the design and implementation of a research program and train local staff. USAID support also covered 57 years of long- and short-term training, laboratory equipment, books and vehicles. GOK contributions included provision for operating expenses for NRRS and construction of housing, laboratories and other facilities.

Delays in GOK construction channeled through the MOW placed the project more than a year behind schedule as of mid 1981. The Chief of Party arrived in July 1979 and spent most of his initial year and a half expediting construction activities while living in Nairobi. The matter was complicated by the separation of livestock research and development activities from MOA and the creation of MOLD in 1980.

The additional four TA staff members did not arrive until late 1980 because of delays in the completion of housing at the Kiboko station. As a consequence, the current research program only got underway in early 1981. Thus, some major activities under the project are still at quite early stages of implementation. It is now anticipated that all activities except training and possibly some of the construction will be completed by the PACD in 1985, but the current research program will have been in operation a year less than originally anticipated and the overlap of returning participant trainees with TA staff members will be minimal.

1. Winrock TA Team: The Winrock team of five scientists<sup>1/</sup> is currently implementing 19 range research projects<sup>2/</sup> and is also involved in many aspects of station development, including the livestock management program, maintenance and management of laboratory facilities and equipment, land use and management planning, library development, seminars, personnel management, and staff amenities (primary school, canteen, transport for shopping). Three team members will be leaving at the end of the year (1982) including the Chief of Party/Rangelands Specialist, the animal scientist and the Plant Physiologist. Winrock plans to recruit a range ecologist with a background in hydrology. A full-time hydrologist position was included in the original staffing plan, but is now thought to be too specialized for

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<sup>1/</sup>The Winrock TA team includes Dr. Jon Norris, Chief of Party/Rangelands Specialist; Dr. Don Burzlaff, Range Management Specialist; Dr. Dennis Childs, Range Ecologist; Dr. Joe Trilica, Plant Materials Specialist/Plant Physiologist; and Dr. Rodney Ward, Animal Scientist (Nutrition).

<sup>2/</sup>The research program is discussed later in this section and in Appendix C.

current needs.<sup>1/</sup> A range management specialist and a range animal scientist will also be recruited in 1982 to replace the departing TAs. The latter position may be difficult to fill given current shortages of range animal scientists.

A questionnaire guide was developed to solicit information from the Kenyan research staff at Kiboko. Specific questions included the staff's assessment of the Winrock project in terms of professional expertise of the TA staff, the TA's general understanding of Kenya, training activities and relations with administration, as well as social aspects.

All five members of the Kenyan research staff who were consulted gave the Winrock team a high ranking in the area of professional expertise. Researchers noted a marked increase in performance standards at the station since the arrival of the TA team. One Research Officer said that "the station seemed really dead before Winrock arrived" and cited drinking and absenteeism on the station as problems.

There are now frequent staff meetings and seminars and the social relationships between TA team and Kenyan staff are given high ratings. There was a general consensus that the TA team had a reasonable understanding of Kenya. However, it was noted that the way the team looks at research objectives and problems limits the potential applicability of their research to pastoralist systems.<sup>2/</sup>

The morale of the station has improved markedly with the entry of the Winrock team. Kiboko reportedly used to be a dumping ground for people who were having problems at other stations. Concern was expressed that when the Winrock team left that station would lose momentum and deteriorate. It was suggested that the TA team's return to the US should be phased rather than take place all at once.

Nearly all Kenyan staff interviewed felt that some assistance should continue after 1985 when the Winrock/USAID project is scheduled to end, so that a collapse similar to that which followed the termination of the FAO project in 1972 would not be repeated.

The evaluation team is impressed by the professional competence of the Winrock team. There is little question that the team incorporates the necessary skills to operate a high quality range research program. Further, team members have emphasized the training of Kenyan staff in basic research skills during the research program.

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<sup>1/</sup>The Audit Report (no. 3-615-81-12) of 1981 on ASSP noted this situation and suggested that a formal amendment to the contract eliminating the sixth technician might be required. GOK concurrence has been received to pursue the staffing plan described above. MOLD and Winrock may wish to use the sixth slot for a social scientist as suggested in Appendix C. Thus, formal elimination of the position may be premature.

<sup>2/</sup>The orientations of the TA team with regard to the research program are discussed below.

Without intending to detract from the abilities and accomplishments of the Winrock team, the evaluation team wishes to make the following observations regarding the TA component of the project:

First, with the exception of the Chief of Party, the overseas experience of the TA team is very limited.<sup>1/</sup> As a possible consequence, the research program appears to draw very heavily on US models of range research without due consideration of what might be appropriate and sustainable in the African context. Some efforts certainly have been made to adapt specific research projects to African conditions, such as, for example, the use of fire breaks instead of fences. The result of the current Winrock team composition and overseas experience might be a good quality research program and a cadre of Kenyan range scientists capable of continuing that program, but it is questionable whether the effort will be able to be sustained and whether the results will be useful to livestock producers in Kenya.<sup>2/</sup>

Second, the Winrock Team's interests and orientations run very strongly in the direction of on-station research that is of an applied/basic character. There is less interest and experience in off-station work of an adaptive nature and skepticism about the value of such work at this stage of the development of the research program. The prevailing view is that primary or exclusive emphasis should be put on on-station research designed primarily to strengthen the basic research skills of Kenyan scientists and enhance the reputation of the station. This work might be followed at a future date in the final stages of the project with efforts to pass the results on to the extension services for dissemination to producers.<sup>3/</sup>

Third, the team might have benefited from the inclusion of a social scientist with multidisciplinary research experience in Africa. At the present time there is only one social scientist at Kiboko, a Kenyan with a first degree in agricultural economics, who has had some experience working

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<sup>1/</sup>Winrock does not share the evaluation team's concern with regard to the limited overseas experience. Winrock argues that they have "...assembled an integrated range research team of persons with excellent credentials. All are Ph.D.s; all are recognized and experienced range scientists with the exception of perhaps one who, nevertheless, has had extensive experience with livestock production in arid rangeland areas; and all have had either resident experience overseas or involvement in research and/or training as related to overseas projects of their parent US institutions. Also, there is a decided synergism and advantage of having a blend of persons with overseas experience with younger scientists from the US who have up-to-date research and training skills." (Personal correspondence between N. Raun, Winrock and M. Ingle, DPMC, in April 1982.)

<sup>2/</sup>The evaluation team's basis for questioning the relevance and sustainability of the NRRS research program is reviewed later in this section and in Appendix C.

<sup>3/</sup>For further discussion of the issue of off-station work see section C.5 of Appendix C.

with the CIMMYT and ILCA programs in Kenya. He is having difficulty in mounting a research program in collaboration with biological scientists. The GOK has maintained that additional social science slots will be filled by Kenyans, but this has not transpired.<sup>1/</sup>

2. Kenyan Staff and Leadership: The Research Division of MOLD and administration on the station have worked continuously and effectively to increase local staffing. Recruitment of personnel at all levels has proceeded well although there have been considerable difficulties in housing new staff at Kiboko, partially because of delays in providing sewage and water supplies. The total staffing has now reached 289 employees (compared to 136 in July 1981) and an additional 87 at the Buchuma substation.<sup>2/</sup> By all appearances, the station is currently overstaffed at the lower levels, which is related to the "lumpiness" of the budgeting and establishment process. Increases in budgets and establishments may or may not relate to actual needs of the station at any given time. The current overstaffing complicates efforts to improve station management and operations.

The Station Director is currently in the US pursuing a Ph.D. program and will not return prior to the completion of the project in 1985. His duties have been assumed by another senior officer on an acting basis. Thus, the evaluation team was not able to fully assess the leadership situation and prospects at Kiboko. However, in the near term, the situation at NRRS appears quite different from that encountered in the other major ASSP components, notably Egerton College, AFC and MOCD. Those institutions currently possess strong leadership involving individuals with considerable personal and professional stature who enjoy support from the highest levels of GOK. NRRS would profit markedly over the next few years by having a stronger and more proactive senior officer, and will certainly require dynamic leadership to survive and grow in the post-Winrock period. Given the very limited supply of senior and experienced Kenyan range scientists, it seems doubtful that such leadership will be forthcoming in the near future. This is one of the major factors leading the evaluation Team to question the prospects for NRRS sustainability.

The numbers and specialities of the Kenyan research staff (including RO's, TO's and TA's) appear adequate to operate a research program following the scheduled completion of the Winrock project in 1985. With continuity and strength in station leadership, sufficient financial and moral support from MOLD and other GOK agencies, and adequate amenities in Kiboko, NRRS may be able to retain most of the current cadre of Kenyan staff (in contrast to the experience with trainees under the FAO project) and build a sustainable range research program. However, whether it is realistic to expect those conditions to be met, and even if they are, whether the research will proceed

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<sup>1/</sup>A resident TA social scientist was not included in the PP or NRRS RFP. However, provision is made in the Winrock contract for 26 person months of socioeconomic short-term technical assistance. Possibilities for strengthening the social science component of the research program are discussed in section C.4 of Appendix C.

<sup>2/</sup>For details of staffing at NRRS see Table 2, Appendix C.

in directions which are relevant to the needs of various client groups, must be seriously questioned.

3. Training: On-the-job training at NRRS increased substantially during the course of the project. A weekly seminar series includes presentations by research officers, administration and TA team members on such subjects as research proposals, methodology, professionalism, visual aids, GOK rules and regulations, and civil service employment. These seminars together with weekly staff meetings have greatly facilitated communication among those working at Kiboko. Participation of new staff in the ongoing research projects is a major feature of on-the-job training. Special attention is given to the operation of equipment and data collection/analysis.

Under the participant training component of the Winrock contract, 18 Kenyan staff were to receive a total of 54 person years of graduate training at Texas A&M in various fields of Range Science under the terms of a subcontract with that university. The training is primarily limited to masters level programs, but provision for three Ph.D. programs is included in the total. Although the Winrock contract specifies post B.Sc. participant training, it is to be noted that the PP recognized that "some participants may require one or more years to complete before M.Sc. training, which may take place in country or in the US depending upon field of study and available instruction." (p. 83)

To date thirteen participants have been sent for training to Texas A&M, of whom two have started Ph.D. programs. Of the first group of five participants (all University of Nairobi B.Sc. holders), only two are currently making satisfactory progress. One terminated after one year and the other two are on academic probation.

The second group of four participants departed a year behind schedule, in January 1981, and included Egerton diplomates who were placed in three year B.Sc./M.Sc. combination programs. Inclusion of diplomates has enlarged the pool of potential trainees and, from all reports, improved the quality of those selected. An additional six participants will be sent over the next 12 months bringing the total to 18 (excluding the one who was terminated).<sup>1/</sup> The Winrock Chief of Party believes that all 18 will complete their degree programs by PACD in early 1985. We feel this is optimistic in view of the fact that nine participants must finish exactly on time or earlier, including six who have not yet commenced their programs.

The evaluation team wishes to make the following observations on the quality and relevance of the long-term training provided under the project, keeping in mind that none of the participants has yet returned to Kiboko:

(1) The initial group of candidates was not well screened, possibly reflecting both a shortage of suitable candidates (these persons did not have undergraduate degrees in range science) and a desire by all parties to initiate the overseas training as soon as possible.

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<sup>1/</sup>For a complete list of participants and specialization see Table 2 in Appendix C.

(2) The training provided has been exclusively in the technical and biological fields of range science reflecting a shortage of suitable candidates in the social sciences.

(3) Initially the project emphasized post-B.Sc. degree training in the US. Due to a general shortage of suitable post-B.Sc. candidates, the contract was expanded to encompass joint B.Sc./M.Sc. programs in the US thus making Egerton diplomates eligible. This has significantly increased the pool of potential participant trainees, but has also increased the cost per B.Sc. participant by about 50% since an additional year and a half is required to complete the B.Sc. program prior to commencing the M.Sc. program. The lack of recognition of Egerton courses by the Faculty of Agriculture, University of Nairobi, is regrettable since otherwise it might be possible and preferable to have B.Sc. level training completed in Kenya at a fraction of the cost.<sup>1/</sup>

(4) US participants receive good quality training in range science, albeit at only one institution, Texas A&M. Texas has an institutional program for the participants as specified in the RFP, focuses on Kenyan and not Texas research problems, and includes on-site participation in research by Texas A&M staff. However, a portion of the required programs appear to be of limited relevance to Kenyan conditions. This is particularly true of the students on B.Sc./M.Sc. programs who must take a variety of courses, including US History, to fulfill first degree requirements. Further, students do not receive as much exposure to multidisciplinary research approaches in their programs as might be desirable.

4. Construction, Equipment, Power and Fuel Supplies: As discussed in the Audit Report, construction of housing and other facilities is seriously behind schedule. The first phase of construction, consisting mainly of housing for staff and an office block, has been mostly completed, but 1 1/2 years late. The sewerage system, the road network within the headquarters and housing area, and the water supply are still not completed. Construction delays are primarily attributed to MOW which has responsibility for awarding the construction contracts and monitoring the work.

A large canteen building is being constructed with NRRS funds and manpower to provide social and recreational facilities to improve staff morale.

The second construction phase, which is to include a new office/laboratory building with library space, is also behind schedule. The additional construction is unlikely to be completed by PACD in 1985.

Delays in construction of laboratory facilities resulted in over \$30,000 worth of equipment financed under the project remaining in shipping cartons for several months. Since this situation was reported in the 1981 Audit Report, space has been made available and the equipment is now in operation,

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<sup>1/</sup>One argument in favor of sending participants to the US for Bachelors degrees is that the Range Management program at the University of Nairobi has only recently commenced operation.

limited in some instances by the unreliable supply of electricity. Equipment presently on order, and badly needed, includes a livestock trailer and other equipment for handling livestock, and laboratory equipment. Some of the new equipment is quite sophisticated, given the Kiboko context, and will place substantial maintenance requirements on the permanent staff.

The evaluation team questions the desirability of handling the construction through MOW in view of this Ministry's chronic and well known implementation constraints. The placement of a MOLD staff member in MOW to expedite the processing of contracts has been of some assistance. A fair portion of the burden of efforts to move construction activities forward has fallen on the Winrock Chief of Party and the USAID Project Officer. The Nairobi Administrative Unit specified in the contract has not materialized and is not now needed. It is understood that future construction activities in USAID funded projects will not involve MOW.

Another major problem concerns the availability of petrol and diesel fuel supplies. Fuel supplied by GOK involves a complicated set of procedures seemingly designed to limit consumption and expenditure.<sup>1/</sup> The greatest hindrance to efficient laboratory operations now is the insufficient and uncertain electricity supply resulting from chronic shortages of diesel fuel for generator operation. Some laboratory procedures require 24 hour continuous operation, but large generators are run only 12-14 hours daily in the interests of fuel savings. The long-term solution is to obtain power from the high tension Nairobi-Mombasa line which is only 3 km from the work site as discussed in the Audit Report.

The problems of electricity and fuel seem likely to be a continuing constraint on NRRS's ability to function, and eventually to become institutionalized. The recent Winrock progress report states "these situations stand in the way of carrying out any sort of research and make it impossible to bring about reasonable maintenance of station operations including sensible management of livestock." Donors may find it preferable to fund all such expenditures out of project funds to circumvent these problems at least for the duration of the project. Project designers are faced with choosing between two unattractive options:

- i) risking jeopardizing the effectiveness of a project by working through the GOK systems; or
- ii) paying the additional amounts required for recurrent expenditure (thus circumventing the GOK system) and assuming operations will somehow be sustained following the termination of donor funding.

For NRRS, a compelling case can be made for at least providing support out of project funds for the electricity hookups to the main Mombasa-Nairobi

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<sup>1/</sup>These procedures include: i) release of funds by the Treasury; ii) authorization to incur expenditure by Finance and Establishments; and iii) authorization by the appropriate officials within MOLD. Last but not least, one must find a petrol station which accepts GOK vouchers. Suppliers are reluctant to accept government vouchers because of long delays in the payment of bills. The nearest station to Kiboko accepting vouchers is in Nairobi.

transmission line which should largely eliminate fuel utilization for electricity generation.

5. Research Program: Since 1980 there has been a major restructuring and rejuvenation of the research program. The current research program has as its mission the increase of red meat and milk production while maintaining or improving rangelands (soils, plants, animals) and associated human resources in ecological zones four and five. Specific areas of research include: grazing management trials; soil/water/plant/animal relationships; burning for control of unwanted plants and/or to provide fresh forage production for animal use; improved production of range livestock; livestock-wildlife relations; supplemental feeding of livestock; water management; and control of insects. There is also one study of pastoralist systems which is in progress and a study of technology transfer which is planned.<sup>1/</sup>

There have been a number of contacts with other livestock research and development activities in Kenya such as ILCA and IPAL, but formal (or informal) collaboration has been very limited to date. Two notable exceptions are, i) the field trips which bring groups of Egerton College students to Kiboko to spend a few weeks familiarizing themselves with the activities of the station, and ii) the teaching performed by TA team members for the Range Management Department, University of Nairobi.

The design of the research program has been strongly influenced by the following factors:

- (1) The specifications in the Project Agreement as reiterated in the Winrock Report of 1981 on the Kiboko Range Research Expansion Project.<sup>2/</sup>
- (2) The training needs of Kenyan staff, including research projects which would conform to the requirements of the M.Sc./Ph.D. thesis research at Texas A&M and which would provide experience in basic research skills.
- (3) The professional research interests of individual scientists, both US and Kenyan; and
- (4) The perceived need to establish the reputation of Kiboko as a center of excellence in range research in Africa in the eyes of peers in the academic, research, and ranching communities; and to instill a research ethic comparable to that which one might find at a US Agricultural Research Station.

The above orientations have resulted in the adoption of a research program which is largely in conformity with the detailed specifications in

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<sup>1/</sup>A listing of the individual research projects is contained in the 1981 Annual Report for the Winrock Project.

<sup>2/</sup>The Kiboko Range Research Expansion Project: A Plan of Action - 1980-1985. Extracts are presented in Appendix C.

the PP document, but one which appears to be at variance with the stated objective in the ASSP Project. With the exception of the study of pastoralist systems which is being implemented by a single Kenyan agricultural economist with limited experience (and limited petrol), the research program is weighted very heavily in the direction of research of an applied/basic nature and is being carried out on site at the Kiboko station. There has as yet been no systematic effort to assess the relevance of specific research projects to potential client groups, whether they be pastoralist, group farms or commercial ranches. The research program focuses on optimal utilization of grazing land in ecological zones four or five and on strategies which will maximize red meat production in those zones and postpone until some later time the development and testing of practices which can alleviate the constraints to increased meat production as perceived by various categories of livestock producers in the zones. The former perspective places emphasis on what should be in terms of proper range management while the latter view emphasizes what can be easily and effectively integrated into existing production systems. The latter perspective reflects the substantive research utilization concerns of the PP (which goes even further to call for a focus on pastoralists and smallholders as the principal target client group). The evaluation team believes that it is not a question of either/or. Rather the two orientations--applied/basic and adaptive/applied--need to be fully integrated. This is not currently the case.

The above comments are not intended to detract from the considerable accomplishments of the project to date which are associated directly or indirectly with the research program. The principal beneficiaries of the current research program are clearly the Kenyan range scientists at Kiboko who are the recipients of high quality and intensive in-service training which complements their formal degree training in the US. They will have ample opportunity to gain considerable facility in the fundamental research skills of range science and become equipped to carry out range research of an applied and basic nature.

The Winrock Team views their basic task as establishing a base of operations at the NRRS to support sustained range research. They do not believe this requires a thorough understanding of pastoralist and smallholder livestock productive systems at the outset of the institutional strengthening effort. They do feel that such understanding must eventually be obtained, and view this as the primary function of the research utilization plan--extending research findings once they are generated at the Kiboko station. The Winrock Chief of Party and Project Manager have stated that they are guided and legally bound by the terms of their contract, and not by the initial adaptive intent of the PP. In retrospect it was probably unrealistic for the authors of the PP to propose an adaptive smallholder/pastoralist focus in view of the official research mandate of the station and the experience and skills which US range scientists bring to a range research program. The weakness in the social science component of the project noted earlier is an important factor, but the orientation of virtually all the principal parties involved in the direction of the existing program appears far more significant:

The key question which the evaluation team had to wrestle with was whether or not a refocusing of the research program in the direction of serving smallholder and pastoralist systems was desirable and feasible at this time. The conclusion was a qualified yes. There is a significant body of opinion in Kenya--including technical staff in USAID, at NRRS, in the MOA, and the international centers--that believes range research of the type that US Range Scientists and on-station research projects can best provide has little to offer pastoralist systems particularly in the medium term. At the same time there are undeniably major changes taking place in the pastoralist systems as a consequence of over grazing, periodic droughts, disease control, education, and changing market conditions, to name just some of the factors. Improvement measures can quite possibly be devised to at least moderate the adverse effects of these changes, if not facilitate positive changes. We feel the question should be thoroughly explored by individuals more knowledgeable about livestock production systems in the region and the potential role of range research in improving these systems.

Our suggested refocusing of the research program, partially and gradually, toward pastoralists and smallholders is offered more out of hope than conviction that range research of the type that NRRS and Winrock are in positions to provide can be of service to the beneficiary groups. Greater efforts to assist the smallholder/pastoralist group are consistent with the mandate of NRRS and the GOK/Winrock contract.<sup>1/</sup> Refocusing need not mean a total shift of resources away from current programs or the total neglect of other producer groups.

The Range Research component of ASSP has made considerable progress in rehabilitating the Kiboko Station. Despite delays by the GOK in constructing NRRS facilities, there has been a significant improvement in morale and station management. A research program involving substantive cooperation between US and Kenyan research officers is being implemented. Finally, there is ample evidence of enthusiasm, dedication and talent of the Kenyan and US research and technical staff at Kiboko. The future activities under the project (whether or not they incorporate the changes recommended below) should make every effort to preserve and build upon these positive factors and accomplishments.

Above all, the research program and the management system should reflect what all parties believe is sustainable after the conclusion of the Winrock project. Range research requires a long-term commitment and most of the potential benefits of the current research program will be lost if there is a major reduction in effort after 1985. In this regard, the evaluation team

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<sup>1/</sup>The Winrock Chief of Party stated "It would appear that if we go back to the original PP then renegotiations of the contract may be in order." (Telex to Marcus Ingle, March 29, 1982). It is not clear to the evaluation team why this should be the case (especially in view of the projected budget surplus evident at the time of the evaluation), but this issue could be addressed in a report, reviewing the feasibility of refocusing the research program, which our team suggests the NRRS and Winrock prepare later this year.

feels that the original expectation contained in the PP, that a sustainable program would be in place at the conclusion of the current Winrock project, is overly optimistic.

The evaluation team is of the view that changes in research direction will need more time than remains in the current project, although the attempt should begin immediately. NRRS and Winrock should begin by preparing a report this year, detailing what degree of refocusing is desirable and feasible. Some suggestions on this process are included in Appendix C.

With or without the changes, there is serious question in our minds whether NRRS can sustain the research program after 1985 without additional external inputs in the form of training and technical assistance. If the project terminates on schedule without any extension, a collapse similar to the aftermath of the FAO project is a distinct possibility. However, the situation now is different in some respects and, in the view of the Winrock team, a sustainable program is possible by 1985 that will not necessitate further major external inputs.

6. Project Management and Backstopping by Winrock and USAID: The performance of USAID and Winrock in the areas of project management and backstopping appears more than adequate in all areas except guidance in adherence to initial project objectives. As already noted, the problem is largely traceable to inconsistencies between the PP objectives and the formal agreement with Winrock. However, it is unfortunate that no attempt was made to resolve these inconsistencies prior to decisions being taken about recruitment and the research program. Winrock has considerable experience with adaptive research in the developing world and is currently one of the implementing agencies for a multidisciplinary adaptive research program in Kenya, the Small Ruminant Cooperative Research Project. The orientations of the Kiboko and the Small Ruminant projects Winrock projects appear dramatically different and there is apparently limited communication between the two in the areas of research methodology. Indeed there is only limited overlap between the backstop personnel from Winrock for the two projects.<sup>1/</sup>

#### d. Conclusions and Recommendations

##### Conclusion A:

The Range Research component of ASSP has made considerable progress in rehabilitating NRRS, but delays in construction and training make it doubtful that all the project activities will be completed prior to the current PACD.

Recommendation 1: Extend the PACD for one year to complete the training activities and facilitate greater overlap between the TA team and returning participant trainees. The extension should be conditional upon: major

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<sup>1/</sup>The Winrock teams at Kiboko views the two projects as totally different in philosophy and structure. We agree, given the current arrangements. However, we do not believe this either should be or need be the case given the initial "adaptive research" pastoralist improvement objectives of the ASSP project.

progress in completing the outstanding construction; improvements in supplies of fuel; and more effective station management prior to March 1, 1983. If the conditions are not met, USAID should consider an early phase down of all project activities.

#### Conclusion B:

Fuel, and hence power supplied by generators, are likely to be continuing problems hampering all station operations.

Recommendation 2: USAID and Winrock should consider supporting with project funds, electricity hookups to the main transmission line. Recurrent expenditures should remain a GOK responsibility.

#### Conclusion C:

The research program, which is derived from the project agreement with the GOK, does not appear to clearly reflect the project objectives of assisting smallholder and pastoralist production in an adaptive research mode.

Recommendation 3: The focus of the research program should be partially and gradually shifted to work that is more directly relevant to pastoralist systems and that is more adaptive in nature. Research on intensive practices and basic range research should be assigned low priority. Procedures should be installed for reviewing existing research projects and developing new projects which will involve a systematic assessment of the relevance of the research to existing range management systems in Kenya.<sup>1/</sup>

Recommendation 4: Future staffing and training provided under the Winrock contract should reflect this change in emphasis as far as possible. We support the MOLD/Winrock decision not to recruit a full-time hydrologist as a sixth team member. Specific attention should be given to strengthening the social science component.<sup>1/</sup>

#### Conclusion D:

The NRRS/Kiboko has not as yet initiated technology transfer activities to any significant degree. The research program has only recently become fully operational and there are limited results to transfer to extension services. However, stronger connections with client groups, including pastoralists and smallholders, are essential to properly define research priorities and field test results.

Recommendation 5: A minimum of 25% of staff time should be devoted to off 1/N/station work with client groups and extension services.<sup>2/</sup> In addition, NRRS should mount special training programs for range extension agents at Kiboko or elsewhere as research results become available.

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<sup>1/</sup>Specific suggestions to this effect are included in Appendix C.

<sup>2/</sup>Specific suggestions to this effect are included in Appendix C.

## Conclusion E:

There is serious question whether the research activities at Kiboko will be self-sustaining by the termination date for the current Winrock contract in 1985.

Recommendation 6: All parties should begin to consider a possible extension of the Kiboko component. Such an extension should be conditional upon the completion of outstanding construction, improved supplies of petrol and electricity, and significant progress in station management as noted under Recommendation 1. The extension might take the form of additional training and a reduced TA component.

Recommendation 7: Winrock and NRRS should prepare a report outlining how they intend to implement the recommendations in this evaluation report that are accepted by parties concerned. The proposal might detail the financial implications and the extent to which these can be accommodated under the current project. The proposal might also include discussion of a possible extension of the project and a realistic time frame for development of a self sustaining research operation. The proposal should be submitted to MOLD and USAID by September 30, 1982.

Recommendation 8: The report to be prepared in connection with Recommendation 7 should be reviewed by a joint USAID/GOK workshop in the fall of 1982, convened to advise all parties on the desirability and feasibility of the proposed changes. Other potential donors might be included.

#### II.A.4. Agricultural Finance Corporation

The AFC and Cooperative Bank of Kenya are the two dominant institutions in agricultural financing who together account for approximately one-third of credit to the sector. Assistance to smallholders has been expanded in recent years, but it is estimated that only 5% of Kenya's agricultural producers are currently recipients of institutional credit. Although opinions vary as to the extent that the lack of credit constitutes a constraint in the agricultural sector (relative to such items as prices, marketing, extension services and the availability of improved practices suitable for use by farmers--particularly small farmers and pastoralists), the GOK views an expansion of credit facilities as an important mechanism for increasing agricultural production in the country.<sup>1/</sup> Such an expansion is limited primarily by the institutional capabilities of the credit institutions, including AFC. More specifically, the PP cites the following constraints:

- a) Manpower requirements exceed availabilities;
- b) Expansion of programs to "less progressive" farmers and farmers without clear real estate collateral requires higher level skills on the part of both loan and extension staffs given the higher level of risk entailed in such lending, and
- c) The ability of existing financial and accounting systems to handle increased numbers of small loans and the need for new, automated systems and decentralized decision making to keep operations running on an efficient, timely basis.

The AFC has been the recipient of substantial assistance from various donor agencies since it was established in 1963 in the form of technical assistance and training. The AFC has been used as an important vehicle for the on-lending of funds provided under the terms of various donor-financed projects, most notably the current generation of IBRD projects.

USAID assistance to AFC dates from 1969 with a study of agricultural credit (the "Tootell Report") which resulted in the Agricultural Credit Project (615-0148). Under this project, USAID provided AFC with eight advisors (the last of whom left in 1979); long- and short-term training for 32 employees; a management study of AFC; and a study of agricultural credit. The management study<sup>2/</sup> and the evaluation of the project<sup>3/</sup> concluded that

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<sup>1/</sup>There is growing evidence that major increases in credit provided through various special schemes in recent years may be having strong negative side effects on the institutions involved and on incentives to agricultural producers (because of credit-related delays in payments to farmers for produce sold). For further discussion see section II.A.5. on MOCD.

<sup>2/</sup>Research Triangle Institute. Management Study of the Agricultural Finance Corporation. June 1977. AID/afr-C-1144 W.O. 7.

<sup>3/</sup>Dimpex Associates, Inc., Kenya: Agricultural Credit Evaluation, Dec. 1977, AID/afr-C-1269.

although the AFC had made significant progress, further growth required "an acceleration in the pace of delegation of authority in organizational decentralization and in development of a more efficient and responsive accounting and management information system."

Continuing support was recommended in the form technical assistance and training "at least equal to the present level." Accordingly, a credit component was included in ASSP with the objective of "strengthening and broadening AFC's financial and management systems and the capabilities of AFC personnel so as to support expansion of lending directed toward small farmers." (PP p. 93) It is worth noting that Annex XI of the PP suggests that (1) the AFC may not be the most effective way to reach small producers, and (2) the operation of seasonal credit programs (the main vehicle for reaching small farmers) has placed very heavy administrative burdens on AFC staff and has subjected the corporation to increased external pressures. Further, the default rate for such loans is very high. In short, the PP implies that the objective of increasing services to small producers, especially if it is done on a large and significant scale, may not be easily reconciled with the orderly growth of a sound financial institution.

a. Project Activities to Date

The major components of the assistance to AFC include 14 years of advisory services in the areas of audit, financial management, credit review, training, loan appraisal and data processing, 62 person years of participant training, and financing for new in-country training programs.

Although the training activities were initiated in 1980 when the first group of three AFC staff members were sent off for Master's degree programs in the US in Agricultural Economics,<sup>1/</sup> the TA component was not finalized until early 1981 in the form of a contract with PAS/SGV to provide a five person team for a total of ten person-years in the following areas: financial management, fiscal planning, training, loan appraisal, and credit review.

Members of the joint PAS/SGV team arrived in Kenya in mid-1981 soon after the contract was signed. Since then they have been rapidly integrated into the structure and activities of AFC which has considerable experience in utilizing TA personnel. Team members are currently assigned to all three of AFC's divisions and five of the 11 departments. The three advisors provided by PAS in the areas of credit review, loan appraisal and training have been concentrating heavily on developing training materials and assisting with the in-service training programs in collaboration with their Kenyan colleagues. From all reports, these efforts have yielded quite positive results to date, roughly in accordance with expectations in the original scopes of work.

The fiscal planning and financial management advisors have experienced some difficulties in adhering to their original scopes of work, which is in large part attributable to a serious shortage of staff in the financial division relative to the current work load. The situation has been

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<sup>1/</sup>The AFC Training Fund is discussed in section II.A.2.

exacerbated by the problems associated with converting to the new computerized system (MIS). The MIS was installed by a German firm over a year ago, but is still not fully operational. The failure to maintain the old system during a transitional period has seriously complicated the situation. The balance for the fiscal year ending March 31st, 1981, is still not finalized as a consequence.

Although the AFC is making a determined effort to recruit additional staff for the financial division, the heavy burden of current work has resulted in inevitable pressures on the financial management and fiscal planning advisors, in particular, to become involved in operational work. This type of involvement can serve to acquaint the advisors with the problems of the existing systems and provide valuable inputs into the design of improvements where needed. The more important function of such involvement is the professional and personal relationships which develop in the process which can greatly enhance future credibility and general effectiveness. It is often relatively easy to diagnose problems and suggest remedies. It is quite another matter to implement the remedies--a process which can benefit from a good understanding of individuals, local conditions and institutional realities. Further, certain tasks relating to the routine operations may be prerequisite for improvements as is clearly the case with the efforts which the fiscal planning advisor is making to install a budgeting system. In short, the scopes of work for the fiscal planning and financial management advisors implicitly assumed a set of conditions in terms of staffing and procedures which do not yet exist. Progress is being made, but the situation has caused some tension on both sides.

The current shortages of staff notwithstanding, the evaluation team was impressed by the quality of leadership and professional expertise that AFC possesses. A determined effort is being made to continue the orderly growth of an already reasonably strong financial institution that compares favorably with those found throughout the developing world. PAS/SGV has fielded a highly qualified team with extensive experience in financial matters in Third World institutions (including two team members who are citizens of a Third World country, the Philippines) who are in general being quite effectively used by the AFC in this process. Some adjustments in the scopes of work appear desirable to reflect current conditions, but the evaluation team endorses the General Manager's efforts to have TA team members assist with the design and implementation of improvements in existing operations. Improvements in these procedures can greatly alleviate the present pressures on AFC staff.

The PAS/SGV team received generally high marks from their Kenyan colleagues, especially in the areas of the professional competence that team members bring to their jobs and their work relationships with AFC staff members. Team members are perceived, in general, as making quite satisfactory progress in improving their knowledge of Kenya and adapting to local conditions, given the fact that they have been in the country for less than a year.

The AFC and PAS/SGV are quite satisfied with the relations with USAID/Nairobi and the home offices of SGV and PAS. There have been no major problems or demands made in this regard. The TA team appears remarkably self-sufficient.

As intended, the PAS/SGV team is playing an important transitional role prior to the formal initiation of the IBRD 4th Credit Project. Under this project, which is scheduled to get underway this year, the AFC will be given considerable scope in designing its own lending program for the agricultural sector, in contrast to past projects where AFC has served primarily as a vehicle for the on-lending of funds according to fairly precise specifications. The improvement of operational procedures and the general strengthening of management capabilities are prerequisites for the successful implementation of the 4th Credit Program. In fact, the formal initiation of the project has been delayed until certain conditions are met. The TA team is very much involved in assisting AFC in meeting the training and budget preconditions specified in the project. In this regard, the delay in the finalization of the PAS/SGV contract with GOK has probably resulted in corresponding delays in the initiation of the IBRD project. The TA components under ASSP and the upcoming IBRD project are being carefully synchronized. In fact, there is a fairly good possibility that SGV will provide at least some of the technical assistance funded under the Bank project.

Although the project has been in operation for less than a year, it is clear that the TA and training activities provided under ASSP are making positive contributions to strengthening AFC. Whether this will (or even should) translate into expanded credit to smallholders in the short run is questionable. The general view is that the manner of providing seasonal credits to smallholders in the past under the Guaranteed Minimum Return (GMR) scheme was not consistent with the operations of a sound financial institution and resulted in high default rates. The program has been characterized as little more than a welfare program by some observers. Reforms in procedures for seasonal credit loans designed to bring the situation under a greater degree of control are now being instituted (with assistance from the TA team) and are likely in the short run to result in a stabilization or even reduction of credit to smallholders. As the improvement measures become fully operational, expansion of credit should be feasible, but that is likely to take place after the conclusion of the current support under ASSP.

#### b. Future Directions/Recommendations

The evaluation team is generally impressed by the progress and direction of the credit component of the ASSP. The project is less than one year old, but the TA team has been well integrated into AFC operations. The conditions assumed in the original scopes of work did not exist in all instances, requiring some modifications in work programs, particularly in the case of the financial management and fiscal planning advisors.

The General Manager has indicated that he may request the extensions of some of the advisors in view of:

- i) the high probability that the original scopes of work will not be completed within the two year period;
- ii) the desirability of continuity in staffing of TA positions where possible. The TA provisions under the IBRD project have apparently been adjusted in anticipation of some continuation of USAID support

(although the project may be able to pick up support for specific TA's if USAID decides not to).

The evaluation team recommends that USAID give favorable consideration to a request for extension of selected TA team members, subject to the condition of continued GOK support for the efforts of AFC to recover overdue loans and improve seasonal credit procedures. However, it would probably be best not to make a determination on such a request until the current TA team has completed at least one year of service, by which time it is expected that the settling in process will be largely complete. With reference to the objectives of ASSP, it is difficult to see how the assistance to AFC can significantly assist the expansion of credit to smallholders given current conditions without an extension of the project for at least another two years.

## II.A.5. Ministry of Cooperative Development

### a. Background and Objectives of the Project

The cooperatives sector currently holds a key position in any smallholder development strategy in Kenya. It is the marketing agency for the largest smallholder cash crop, coffee, as well as for cotton, milk, pyrethrum and part of the sugar cane crop. The cooperative movement has an annual turnover from smallholders of around KShs.2 billion. It has been the major institution entrusted with passing on agricultural credit to smallholders through a variety of donor credit schemes such as IADP and SRDP. However, lack of trained manpower and the widespread misuse of resources in the movement, highlighted recently in the public statements of the new Commissioner for Cooperatives, are undermining the financial basis on which it depends for long term validity.

The objective of the cooperatives section of the project, as with the rest of the project, is to raise incomes of smallholders. This was in the context of the GOK priority to improve services to smallholder farmers through the expansion of the cooperative movement, and in particular to help traditional farmers move into the commercial sector by this means. GOK recognized the need for more highly trained manpower in MOCD to meet this objective. The project aimed to increase the capacity of MOCD to train lower-level staff through a study of the expansion possibilities and curriculum development at the Cooperative College, in the context of projections of manpower needs. The project also aimed to use technical assistance to raise the quality of in-service training in MOCD and to provide a core of personnel on the ground in Kenya to help carry out the studies required.

### b. Project Activities

Under the ASSP, support was provided to carry out the studies outlined below and to provide technical assistance and training to MOCD. A contract for the studies and TA components was signed with American Cooperative Development International (ACDI) in 1980. The studies were initiated in late 1980, and were completed and presented to GOK in March 1981.<sup>1/</sup> GOK published a response to the studies in 1981.<sup>2/</sup> Finally, three technical assistance personnel have carried out training assignments in Kenya during 1980 and 1981 and one TA training specialist has worked full time in MOCD for a period of nearly two years.

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<sup>1/</sup>Consolidated Report of the Findings and Recommendations of the three studies (ACDI, Jan. 1981)

1. An Evaluation of Cooperative Education and Training in Kenya with Recommendations for improvements.
2. Professional and sub-professional manpower requirements for the Cooperative Sector of Kenya.
3. Feasibility Study for Expansion of the Cooperative College of Kenya.

<sup>2/</sup>The Kenya Government Response to the USAID (ACDI) Consolidated Report of the Findings and Recommendations of the Study on Co-operative Education and Training. MOCD, Nairobi, November 1981.

Studies: The first study undertaken was to improve the quality of the curriculum at the Cooperative College. It was done thoroughly and was well received at the college and by the Government. Many of the suggestions made by the study will be reflected in the new curriculum of the College, to be published shortly. This will help to orient the training at the college more towards the needs of a cooperative society manager, which is the emphasis that will most help smallholders for reasons discussed below.

The third study, laying out detailed plans for the expansion of the Cooperative College, was also well received by GOK, and plans are already well advanced to initiate this expansion in July 1983, provided that sufficient resources can be found. MOCD is currently seeking approximately KShs 200 million from Government or donor sources to finance the expansion of the college from 220 to over 600 students as proposed in the study.

The second study, however, was inadequate in relation to its stated objective of estimating the projected manpower and training needs in the context of available facilities. The data used as a basis for projections was from 1977 rather than 1980 so that the range of the projections (high and low) is too wide to be really useful. Also, it does not estimate the proportion of those now in the movement at various levels who urgently need additional training. For example, there is no estimate of the number of society managers who are at present completely untrained. Nor does it address the implications of this in terms of the turnover of those societies. The reason for the inadequacy of the second study is in part that insufficient time was allowed in the project and in part due to the tight schedule of project implementation after late signing of the project. Moreover, the study team was unable to draw on the results of the first study as it was not yet complete, and some of the TA's who might have contributed to its organization were not available as they were still tied up in the first study.

Technical Assistance: Since all but one of the ACDI technical assistance teams have left Kenya, the evaluation team's comments on the TA component are based largely on interviews with present and former Kenyan staff of the Cooperative College and MOCD that worked most closely with the TA staff. The particular individuals recruited by ACDI who came under this contract received strongly positive ratings from those Kenyans who had close contact with them. The three Kenyans interviewed rated all the TA personnel highly in terms of technical and professional competence, adaptability to Kenyan conditions and their relations with Kenyan coworkers. These TA personnel were compared favorably by the Kenyans interviewed with the many other TA personnel with whom they had been in contact previously. As none of the TA personnel had spent significant time in Kenya previously, none of them were rated highly on their knowledge of Kenyan conditions. The positive response can be traced both to the relevance of the knowledge of the TA staff to the problems being encountered by counterparts in MOCD, and to the particular personalities of the individuals selected by ACDI for this project. MOCD has requested that Mr. Krueger return for a further period to assist in in-service training course preparation. Preliminary discussions have been held already and USAID has indicated it is favorably disposed to consider such an extension of Mr. Krueger's assistance.

Training:<sup>1/</sup> The training component is beset with several problems, but efforts are underway to address them. Participant selection was done by MOCD without reference to USAID or ACDI personnel. However, this is in accordance with the terms of the contract. The Commissioner felt that some bias had crept into the selection process. The participants sometimes were not selected on the basis of the work which they would return to do at the end of their training, and there is some question about the quality of the long-term manpower planning scheme in the MOCD. Recruitment has been slow for long-term courses owing to misunderstandings as to what is involved among potential participants. The usefulness of short-term courses, as planned under ASSP, has been questioned as they have been focused on agricultural credit training rather than business management. Those being trained are also concentrated at the top levels of MOCD rather than being drawn from the cooperatives where they can have a more direct influence on smallholder farmers. No attention has been given by MOCD to how they can retain those gaining MBAs and other marketable skills when they return from their courses in the US. In a meeting of the team with the Commissioner, he indicated that he was aware of these problems, and that he was already taking steps to rectify these difficulties.

### c. Assessment of the Project

If MOCD and the cooperative movement are to play an important long-term role in helping smallholder farmers, training is crucial at all levels and especially at the grass roots. Although the other donors do have a small training component in their projects, the actual manpower and resources available for training from other donors, such as the Nordic countries, is relatively small. Therefore, the USAID emphasis on training is valuable.

The project is based on two underlying assumptions: first, that the cooperatives are performing relatively well at present so it is possible to add credit to their marketing functions; and second that credit is an important mechanism for raising incomes of smallholder farmers even in marginal areas. Both assumptions require careful examination. The cooperatives in general are not keeping basic cost records nor are they paying farmers promptly. Until this is achieved, no other functions should be added. Also, there is little or no empirical evidence in Kenya which suggests that capital acts as a constraint on smallholder production.

As a consequence of these tenuous assumptions, the project has focused on strengthening the upper levels of a top-heavy bureaucracy in MOCD, rather than on improving the efficiency of marketing and farmers' payments at the grass roots. It has focused on training in the provision of rural credit, when in fact the major part of the cooperative movement activity lies in the marketing of smallholder crops (the movement's turnover for smallholder crops was around 2 billion shillings in 1980, compared with total credit disbursed estimated at around 100 million shillings in 1980). The project also does not focus on the weak parts of the Ministry, namely the audit and inspectorate sections.

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<sup>1/</sup>For further discussion of the MOCD Training Fund, see section II.A.2.

At the present time the cooperative movement is actually hindering the development of the smallholder sector in many areas. Farmers tend to receive only 50 percent of the value of their crop in the case of coffee and pyrethrum, and payments are extremely late, often up to 18 months. On the basis of interviews conducted during this evaluation, the situation is deteriorating. The cooperatives at present control as much as 25 percent of the total value of agricultural marketed production in Kenya, and around 40 percent of the smallholder marketed production, primarily owing to their role in coffee and milk marketing. They are still expanding rapidly. However, their role as a source of capital and inputs is relatively insignificant as the amount of credit disbursed and repaid is relatively small and their input distribution is small relative to the Kenya Farmers' Association and other institutions.

The problems of paying farmers little and late are likely to continue for the foreseeable future because the number of trained staff will continue to be grossly inadequate, even if the expansion of the Cooperative College is initiated as early as 1983. The inspection, audit and other supervision facilities will also continue to be far from adequate. For example, there is only one inspectorate team at present in MOCD, comprised of six people, for over 1500 cooperative societies and over 50 unions.

If it is accepted that the major problems of the cooperatives with respect to smallholders lie in their inability to pay farmers quickly and to pay farmers a substantial proportion of the value of their crop, then the primary need is to train society managers and accounts staff at the lowest levels. The studies on the expansion of the Cooperative College may assist in meeting this need by 1986. The study on the curriculum provides more immediate help. Other parts of the technical assistance and training will help little in this regard and thus were not well focused on the basic aim of the project. Only after the lower levels of the cooperative movement have started to function effectively, in terms of providing adequate financial control records and management information, and paying farmers satisfactorily and promptly, should resources be allocated to train higher level manpower in the more sophisticated techniques of credit management and agricultural development policy.

#### d. Conclusions and Recommendations

Further USAID support should be conditional on MOCD taking firm steps to improve the performance of the cooperative movement as a whole. Otherwise, any aid will be vitiated by the effects of inappropriate practices within the movement. Such steps could include any or all of the following:

- (1) make auditing external to the movement and use current MOCD audit staff to add to the inspectorate;
- (2) withdraw the effective GOK guarantee by allowing some cooperatives, which grossly mismanage funds, to go bankrupt as a warning to others;
- (3) separate the credit and input operations from the agricultural marketing operations, although such a separation would leave no obvious source of collateral for smallholder credit schemes. At present, the deductions for credit and inputs payments are resulting

in low levels and delays of pay-out to farmers. Often unions and societies may give credit to one group of farmers but recovery is made from other farmers who sold their produce to the cooperative. The cooperative has no other way to repay the loans to the union or the cooperative bank;

- (4) require that all farmers receive a simple written account statement every time they receive a pay-out, so they can begin to see clearly in writing what has happened to their money and their produce; and
- (5) where possible, systematically eliminate the monopoly position of the cooperatives by licensing alternative marketing outlets for coffee, cotton, pyrethrum and milk, so farmers are in a position to choose where they wish to sell their produce. This will only be possible where credit and inputs have been separated from marketing.

These recommendations were discussed openly and frankly with the Commissioner. He expressed his appreciation to USAID for having taken the trouble to present these ideas. In view of the political difficulty of carrying out such reforms, if in fact they are undertaken by GOK, then USAID could consider providing further support and training in the following areas:

- expansion of the Cooperative College;
- training of audit and inspectorate teams in MOCD;<sup>1/</sup>
- training of junior level accountants at other accounts training institutions in Kenya to serve as low level cooperative society and union staff;
- training of cooperative and union managers in accounting and financial management at other institutions within Kenya or within MOCD.

If any funds are available under the project to supplement the cooperative section of the project, two areas could be considered. First, the manpower study should be revised on the basis of more recent data available, and a field survey undertaken of the training needs of those now in management and of the clerical staff in the movement. The study should highlight the implications of the manpower projections for the timely and adequate payments to farmers over the next five years, and for the capacity of the cooperatives to handle credit and input distribution.

Second, in view of the need to place cooperatives in a more competitive business environment, both to provide them with greater incentives to achieve efficient management and to guarantee smallholders a choice of marketing channels, a study is required of the institutions and

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<sup>1/</sup>Audit and inspectorate teams might be transferred to the Kenya National Federation of Employers so that they are outside the government salary scale system and can be paid at higher rates.

investment required to create a viable alternative. The study should focus primarily on identifying an institution which is politically acceptable and also combines ownership and management. This would obviate the need for substantial trained manpower to provide formal accounting supervision.

## II.A.6. Storage and Marketing System Support

As an outgrowth of a study on smallholder grain storage in Kenya,<sup>1/</sup> which was completed at the time ASSP was being assembled, a storage and marketing component was included in the project as a means of initiating the implementation of the specific recommendations in the study. Specifically the team recommended support for:

- a) A comprehensive study of Kenya's smallholder food storage needs in order to develop project proposals for donor-financed assistance; and
- b) Training in food storage principles, extension teaching techniques, and seed sciences.

Accordingly, support totaling \$419,300 was included in ASSP for a five person team to evaluate on-farm storage and village level storage needs in Kenya with the possibility that the study might result in USAID-supported efforts designed to improve grain storage among smallholders.

A contract for the study was awarded to Development Planning and Research Associates, Inc, (DPRA) of Manhattan, Kansas, in 1979 and a team carried out the study of grain storage in Kenya between September 1979 and March 1980. A report was issued in May of 1980.<sup>2/</sup> The team carried out studies of post maturity grain losses throughout Kenya using cross sectional data from samples gathered in fields, farm level storage facilities and markets. The results indicated that losses for maize were characteristically on the order of 16 percent including both in-field and post-harvest losses. Certain improvement measures were suggested. The report went on to propose a project covering research, training and extension activities in the area of grain storage.

On the basis of this report, USAID/Nairobi issued a Project Paper dated August 1981 proposing support totaling \$7,800,000 for an On-farm Storage Project. The major changes from the original DPRA report included a geographic focus on Western and Nyanza Provinces and the elimination of proposed USAID support to the Faculty of Agriculture, University of Nairobi. The contract for this project is being awarded to DPRA. A DPRA team was in the country for final negotiations with USAID and GOK at the time of this evaluation.

A detailed assessment of the activities supported under this component of ASSP was not attempted by the evaluation team since there were no specific issues which USAID/Nairobi wished to have the team address. Accordingly the team wishes to offer only a few general observations on the storage and marketing component:

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<sup>1/</sup>D. Anderson and H. Pfost, Smallholder Grain Storage in Kenya: Problems and Proposed Solutions. Food and Feed Grain Institute, Kansas State University. Feb. 1978.

<sup>2/</sup>Kenya National Crop Storage Study, DPRA, Manhattan, KN., May 1980.

1. The justification for the component mentions marketing, but the focus of the activities has been exclusively upon grain storage. Marketing and prices are problem areas and there has been considerable research already done in this area. The Mission might wish to review possibilities for support for village and local market level marketing improvements of direct benefit to small farmers. This would be especially critical if the government moves in the direction of decontrolling marketing systems and reducing the defacto monopoly status of some marketing institutions.<sup>1/</sup> Are there ways in which the growth of private sector marketing can be assisted if the government decides to allow greater private sector participation? Decontrol of marketing might well serve a number of important purposes at the present time:

- i) reduction of public sector expenditure (in those areas where the marketing activities are operating at a loss);
- ii) benefits to producers in terms of prompt payments and better services generally; and
- iii) general stimulus to agricultural production.

Further, a compelling case could be made for USAID support for such programs in view of current US administration policy.

2. The proposed work on storage is of considerable potential benefit to smallholders. The evaluation team hopes that the DPRA team can maintain this focus in the project implementation stage.

3. DPRA has made a concerted attempt to link the storage improvement activities with other components of ASSP, including the certificate institutes, Egerton, and the Cooperatives in a substantive fashion. Training funds have been used for programs in post harvest technology.

4. The evaluation team is hopeful (but less than totally convinced) that the DPRA study has been successful in identifying interventions which can be easily and profitably used by smallholders. DPRA efforts might be effectively linked (possibly operationally) to farming systems research type activities currently in existence in order to test the compatibility of the recommendation to specific types of farming systems. It has been suggested to DPRA that they contact Michael Collinson of the CIMMYT Economics Program in Nairobi in this regard.

5. The work under the storage and marketing component is leading to substantive USAID support for a project with considerable potential benefit to smallholders and the work is itself based upon an earlier USAID supported study. Thus the ASSP support has facilitated continuity in the development of this portion of USAID's agricultural program activities.

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<sup>1/</sup>The evaluation of the Cooperative component of ASSP specifically recommends more competition in marketing as a means of improving the performance of the cooperative societies. (See section II.A.5.)

## II.A.7. Coastal Agricultural Certificate Institute

### a. Background and Objectives

As with many other ASSP components, support for studies leading to the establishment of the Coastal Agricultural Institute (CAI) had its origin in the 1978 ATAC Manpower Report.<sup>1/</sup> In order to address a projected gap between the supply and demand for agricultural certificate holders, ATAC proposed the expansion of the three existing certificate institutes at Embu, Bukura and Kabete, and the establishment of five new institutes including one Animal Health and Industry Training Institute (AHITI) and four with an agricultural focus. A portion of this expansion of certificate level training capacity was already being accommodated in the World Bank's Fourth Education Loan. The ATAC study specifically recommended that a certificate level program be established focusing upon coastal agricultural production, to be located in the Coastal Province. Following a review of the ATAC proposals, the MOA formally requested AID assistance in the establishment of a 660-student institute in the Coast Province. USAID support for the basic feasibility studies was accordingly included in ASSP. It was anticipated that provision for the actual establishment of CAI, including capital construction, equipment, development of curricula and training of teaching and administrative staff might be included in a PP revision following (and subject to the results of) the feasibility studies.

### b. Activities

USAID entered into a contract with Pacific Consultants to study the academic and technical feasibility of CAI. A joint Kenyan/American team carried out the two studies simultaneously in 1979 and a joint report was issued. Citing the ATAC report, the study found the project to be feasible and outlined the staffing and facility needs. The curriculum proposed appears essentially similar to that currently utilized by other certificate institutes. The technical section of the report includes preliminary plans and cost estimates. In short, the study appears to conform reasonably well to specifications and expectations.

The feasibility report was made available to the MOA and to the IBRD. MOA included support for the CAI among the activities proposed for the IBRD 5th Project.<sup>2/</sup> A Bank mission appraised the project in late 1980 and the loan agreement was signed in May of 1981. There is no reference to the Academic and Technical Feasibility studies prepared by Pacific Consultants in the Bank's appraisal report with the exception of their being included in the list of documents in the project file.

The appraisal mission had access to an update of the ATAC manpower projections which suggested a significantly lower projected demand by 1988

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<sup>1/</sup>The major findings of the ATAC report are discussed in section I.8.

<sup>2/</sup>The exact manner in which this was done is not clear since CAI does not appear among projects discussed in the formal GOK submission of Oct., 1979 (Fifth World Bank Education Project Proposals, GOK, 1979).

than ATAC. The ATAC study projections of a demand for 15,400 certificate holders by 1988 were reduced to 9,400, assuming lower rates of growth in both public and private sectors and a slower rate of replacement of JAAs with certificate holders.

The lower projections notwithstanding, the Bank appraisal mission concluded that the establishment of a new institute with capacity for 400 students would still leave total output below the new demand estimate. Accordingly, the Bank included support for CAI for construction, equipment, technical assistance (28 person-years) and training (20 person-years). The training provided would be essentially similar to that of the existing institutes, but curriculum would focus on the ecological conditions and agricultural production systems of the coastal zone. The possibility of an exchange program among the three institutes is being explored in order to provide students with exposure to the different ecological zones of Kenya.

Under the terms of the loan, the GOK was to submit a technical assistance plan for the end of 1981 and annual progress reports on staff development beginning at the end of 1981. As of March 9, 1982, the Bank's Nairobi office had not received copies of either document. Architects for CAI have, however, been appointed; drawings have been prepared; and tenders have been opened. Contracts for construction should be signed in mid-1982.

### c. Assessment

The idea of assisting with the creation of a new certificate level agricultural institute is quite consistent with the general objectives of ASSP, namely the improvement of services to smallholders and pastoralists. AA's, together with JAAs are the front lines of the extension services and have direct contact with farmers. Support of a new institute is consistent with the idea that as far as AAs are concerned, more is better. Other than locating CAI in an ecological zone that is not currently served by such a facility, the new institute appears to basically be a replica in terms of curriculum to existing institutes. Some observers of the extension services suggest that more AAs may not be better unless there is a more than proportional increase of supervisory personnel at the TO and AO levels, suggesting that ASSP may have been correct in assigning a higher priority (and significantly more support) to Egerton. The Coast Provincial Director of Agriculture, however, emphasized that the greatest shortage of trained personnel in Coast Province was at the certificate level.

The CAI section of the PP strongly implies that a request for support for construction, technical assistance and training based on the findings of the feasibility study would be given serious consideration by USAID. There was some communication on the matter between MOA and USAID, but in the end CAI was included in the Bank project.

The evaluation team concurs that services to smallholders and pastoralists can be improved through more and better trained AAs (if a number of supporting factors are also present such as effective input delivery systems, adequate prices, markets and technological improvements attractive to farmers, etc). However, there is some question whether the US has a comparative advantage in this area, either in providing technical assistance or training for Kenyan staff in the US. Peace Corps Volunteers might be

useful as teachers in selected subject areas which do not require a special knowledge of Kenya or Africa. The experience and expertise of other Third World countries with functioning extension services might be far more relevant and less costly sources of training and technical assistance. USAID involvement in CAI has consisted of a single episode in a sequence of events. In our judgement, this has been an appropriate move for USAID. The AID-assisted report assisted Kenya in having support for CAI included in the Fifth Education Project.

## II.A.8. Faculty of Agriculture, University of Nairobi

This component was designed to assist the GOK in effecting an overall increase in the Faculty's student enrollment capacity to an ultimate target of 805 students, representing a USAID input of 200 student places. The Faculty offers a three year B.Sc. program in agricultural fields with graduates entering the MOS extension service as Agricultural Officers (a superior grade to that of Technical Officer to which Egerton graduates are appointed).

Design and implementation of this component was to proceed in two Stages: Stage I was to fund the academic and feasibility studies necessary for the preparation of preliminary sketch plans; while Stage II was to be supported under a PP revision and provide for the construction and teaching staff development identified and specified in the Stage I feasibility studies. Grant funds totalling \$60,000 were included in ASSP for Stage I.

Action on this component has been delayed and overtaken by events. Two key issues need attention. First, the University of Nairobi currently does not operate on academic credit system and has no mechanism for awarding credit for academic work done at other institutions. Consequently, Egerton diplomates who wish to attend the university have to start as freshman and spend a full three years to obtain a bachelor's degree, notwithstanding the fact that they have already covered considerable parts of the syllabus. The Ford Foundation has plans to provide consultancy assistance to the University of Nairobi to advise on a possible conversion to a credit system which may help in resolving the accreditation issue.

A second issue is the uncertain future status of the Faculty of Agriculture. The Mackey report on the Second University has recommended that the Faculty of Agriculture should form part of the Second University, though it is not clear whether it would remain at the existing Kabete site or move elsewhere. Moreover, a formal announcement of GOK intentions may not be forthcoming for some time.

Finally, the World Bank Fifth Education Project for Kenya contains provision for the expansion of the Faculty of Agriculture to increase its capacity to 855 students, so the need for the ASSP contribution appears to no longer exist. We recommend no new initiatives in this area until it is determined there is a possible role for USAID assistance, and the issues of accreditation and the relationship of the Faculty to the Second University and Egerton have been resolved.

## II.A.9. ASSP Evaluations/Special Studies

The PP called for an ASSP evaluation system with three components--annual USAID-GOK reviews, individual component evaluations (or special studies), and three comprehensive in-depth evaluations. The in-depth evaluations were to be preceded by a baseline study. A total of \$465,000 was set aside to conduct the special studies and in-depth evaluations.

In support of this substantial level of evaluation effort, the PP argued,

"Because this project is complex and involved primarily in institutional support, it is extremely difficult to predict social benefits. For this reason it is especially important that the evaluation system for this project go beyond simply determining whether or not the project goals and objectives are being achieved. To assure that project outputs reach the intended beneficiaries with minimal negative consequences, it will be necessary to develop an evaluation or assessment system which is an integral part of project implementation."

The PP went on to state that the evaluations should review linkages between individual components, assess ASSP's contribution to strengthening Kenya's agricultural services overall, and determine how well ASSP is reaching smallholders and pastoralists. It also specified the topics specific to each component which the evaluations should address.

### a. Detailed Evaluation Planning

As part of the development of the ASSP Implementation System for USAID--a system funded out of the ASSP evaluation funds and assessed below--a detailed evaluation plan was developed in late 1979. This plan called for several special component studies and in-depth evaluations.<sup>1/</sup> Evaluations were scheduled to coincide with important events and with the completion of ASSP components.

### b. ASSP Implementation System (Special Study)

The first special study funded under the ASSP was a USAID Implementation System. The development of an implementation system was intended to serve two purposes:

- (1) To assist in accomplishing agreed upon ASSP project objectives within the Mission's time, budget and personnel constraints; and
- (2) to serve as a possible precursor to similar systems for other USAID funded projects.

In August 1979, a Washington D.C. based firm -- Practical Concepts Incorporated (PCI) -- was contracted under an IQC to develop, and to assist USAID/Kenya, GOK, and contract personnel in operating, an integrated project

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<sup>1/</sup>See the Master Physical and Financial Implementation Bar chart, ASSP, 1979 for the planned evaluation schedule.

implementation system. PCI provided consultancy services on two occasions, a month in August 1979 and a one-week follow-up visit in February 1980.

Upon their arrival in Kenya in August 1979, the PCI consultancy team found that the ASSP was off to a slow and difficult start. Many of the components originally scheduled to begin or be operational in the year following the project agreement were lagging. The review of project design documents and interviews with GOK and USAID personnel at that time revealed several reasons for the slow and problematic start of ASSP:

- Underestimates of the time and effort involved in properly staffing the USAID/Kenya Mission to handle the fourteen ASSP components;
- Inability on the part of the GOK to quickly meet the conditions precedent and provide timely support to the various ASSP activities;
- Misunderstandings of the actual USAID personnel time involved in executing various contracting and start-up tasks;
- Misinformation with respect to the lead-time and difficulties involved in contracting procedures, especially for central AID and host country contracts;
- Untenability of a few key assumptions made at the time the Project Agreement was signed; and
- Lack of sufficient management attention to the timely implementation of those ASSP components which were on the "critical path."<sup>1/</sup>

The overall complexity of ASSP, combined with its numerous USAID implementation arrangements (e.g., various contracts, participant placements, monitoring actions, visitations, reviews, and reports) and multiple actors, argued for the development of a comprehensive, yet immediately useful, management approach. It was agreed -- primarily due to limited resources -- that the system should emphasize USAID implementation roles and responsibilities but that every attempt should be made to involve GOK and contract personnel where appropriate, and as time permitted.

The system jointly developed by PCI and ASSP personnel attempted to address several major inadequacies in the development project implementation process:

- \* Lack of consensus among key implementation actors on project performance objectives;
- \* Unclear specification of implementation roles and responsibilities; and
- \* Unrealistic schedules and budget estimates built into the project design.

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<sup>1/</sup>USAID Implementation Manual, Volume I, Page III-1, 1979.

The implementation consultancy team followed a dual approach in assisting USAID to resolve these implementation inadequacies:

- engage key USAID and GOK ASSP personnel in an intensive implementation planning process and
- develop an implementation manual and back-up charts that could be referred to by implementation personnel to see whether components were meeting time, cost, and performance specifications.

From the outset, priority was given to the engaged implementation planning aspect of installation effort.<sup>1/</sup>

The implementation planning sessions held with key ASSP staff in August of 1979 relied on a variety of management techniques and group processes. More specifically, ASSP objectives were clarified and targeted by having key actors work together to produce and critique an ASSP "Objective Tree" and component "Implementation Logical Frameworks." Roles and responsibilities were clarified with the assistance of "Responsibility Charts" and "Implementation Subroutines." Finally, schedules and budgets were revised with "Bar Charts" and a "Master ASSP Physical and Financial Implementation Schedule." Throughout, an attempt was made to develop a functioning ASSP Team, and subteams, that could continue to function effectively and respond to implementation changes as they occurred. The February 1980 follow-up trip concentrated on working with ASSP personnel to further modify the implementation plan, and develop an internal review and reporting function.

In summary, the PCI consultancies were intended to be instrumental in developing an effectively functioning joint ASSP implementation team of USAID-GOK-contract personnel. By effectively functioning is implied that the team would share a consensus on key project objectives, understand who is responsible for doing what, and be operating in a setting of realistic schedules and budgets.

The evaluation team's assessment of the implementation system consultancies relies on several previous reviews during the last two years as well as our own evaluation.

The first review of the Implementation System development effort was built into the original contract, and was made by the senior staff of PCI in October 1979.<sup>2/</sup> The senior staff saw the overall effort as very positive, but incomplete in several respects. First, the "system" was actually not yet a system because the focus of the effort was too much on USAID staff. Second, the manual of modules, diagrams and charts was not self-standing. Only those closely involved in the planning process could be expected to

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<sup>1/</sup>See Kenya ASSP: Log of USAID Implementation System Installation, PCI, December 1979.

<sup>2/</sup>See "PCI Senior level comments and suggestions: ASSP Implementation System and manual", submitted to K. Eubanks, October 1979.

understand the manual's use. Third, the system was potentially versatile enough to extend to the other ASSP actors but this would not be done automatically.

Another assessment of the effort was made in April 1980 by PCI following their follow-up visit to the USAID mission to review implementation progress. Reflecting on the system, the Director of the installation effort stated,

"Key to the success of the installation effort is the periodic clarification of objectives and a shared agreement among key actors on important objectives and activities. In the final analysis the system is probably most valuable to the individuals in AID who are most concerned, both about development and being professionals. At minimum, therefore, this approach allows them to make professional judgements with respect to the use of their own time and it helps them in communicating and justifying their activities to others...even in lieu of a commitment from Washington or from high levels in the Bureau or the Mission, the installation of a system such as this can still assist the project officer in AID to do the job that he is committed to doing in a more timely, efficient, and effective manner.

...Given this perspective, one should not judge the success of the system based only upon an assessment of whether the charts are being used on a day to day basis or whether they are being updated regularly over a longer period of time. Rather, the ultimate success of the system should be viewed in terms of whether individuals working on the project more clearly understand their specific roles and responsibilities and have at their disposal a set of operational criteria based on time, cost, and performance for deciding what activities to emphasize and to de-emphasize on a day to day basis."<sup>1/</sup>

Our current assessment of the ASSP implementation system is that the implementation system consultancies were valuable in several respects. First, they allowed USAID and GOK personnel who are typically caught up in a day-to-day routine to step back and reach a tentative consensus on project and subproject objectives, responsibilities, and preferred phasing of activities. Second, and possibly most importantly, it educated implementation staff about the "leadtimes" associated with different USAID and GOK implementation subroutines--especially those associated with various forms of contracting and participant training. Third, the effort pointed up major flaws in the initial design concerned with both the unrealistic PACD date at 6 1/2 years and unrealistic internal USAID workload within the first two years of the project. As a result, more realistic expectations were forged and accepted by the Mission leadership. Finally, the planning effort set out the boundaries of an implementation effort agreed to by the GOK, USAID, and key contract staff (both Winrock and SECID personnel were involved). As the USAID project officer reported to us, this has greatly facilitated internal reviews, and in essence has given the agriculture office what the system was intended to do--"provide something to deviate from."

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<sup>1/</sup>Letter from M. Ingle of PCI to D. Christensen of USAID/Kenya dated April 3, 1980.

On the other hand, again according to early predictions, the USAID Implementation Manual and numerous detailed charts developed by the consultancy team has not--with the exception of one or two individuals involved in the original development process--found sustained use. This point is clearly made in a recent memorandum suggesting how the ASSP Implementation System should be revised.<sup>1/</sup> The report states that the "...system was for the most part ignored by the Agriculture Division due to its complexity and seemingly irrelevant information." The report goes on to outline a simpler system "...which has been reduced to include only those components which are deemed relevant to day-to-day project implementation."

In summary, the ASSP project staff assessment of the implementation improvement effort is mixed, but generally favorable. They point out that the ASSP, since 1980, has had fewer implementation difficulties than other USAID efforts even though it is extremely complex and encompasses a myriad of time-consuming implementation arrangements. One plausible, though only partial, explanation for this success, is that the Mission properly invested in a much needed implementation planning exercise before problems became serious.

c. Special Studies (Research by David Leonard)

One of the critical assumptions of ASSP efforts to improve services to smallholders and pastoralists is that the agricultural extension services can somehow be made to work effectively. There was also an acknowledgement (or at least the strong implication) that these services were not currently very effective. Support for Egerton and the Coastal Agricultural Institute are primarily directed at increasing the supply to AAs and TOs. Although there are discussions about improving the curriculums at these institutions, there is nothing in ASSP which is aimed directly toward the effectiveness of the extension services. Presumably, it was assumed that the problems of the extension services were being solved in other ways or that there would be positive trickle up and down effects from the support to training on the one hand and the support for Range Research on the other.

A memo dated May 8, 1978, from Kevin O'Donnell (TSS) to Ernest Wilson (A/DIR) expressed similar concerns with reference to ASSP which was then reaching final draft form. O'Donnell went on to suggest that the PP should include some discussion of the problems impeding the effectiveness of the extension services. Even if support for solutions was not to be included in ASSP perhaps there should be some effort (in the form of special studies) to try and understand the problems and suggest possible solutions for future attention.

The MOA concurred, and in December 1980 a PIO/T was finalized under which the services of David Leonard from the University of California, Berkeley, would be provided to undertake studies on the extension services for agriculture and livestock. (See Appendix D) Support for this ASSP activity

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<sup>1/</sup>Memo from J. Finnell to C. Hash, "Revised Management Information System (MIS)", dated Jan 20, 1982.

would complement that provided by S&T/RAD through a cooperative agreement with UC Berkeley titled "Managing Decentralization." Dr. Leonard, who already had extensive Kenyan experience and is author of the book Reaching the Peasant Farmer: Organization Theory and Practice in Kenya (University of Chicago, Press, Chicago, 1977) based on earlier research in the country, was to combine the study of the extension services with duties as the regional coordinator of the Managing Decentralization Project. He returned to Kenya in late 1980 and has been resident ever since.

During 1981 Leonard, in collaboration with Kenyan colleagues, carried out field research and analysis of the extension services in accordance with the scope of work in the PIO/T. The work encompassed a review of current extension practices as well as suggested improvement measures.

As the work progressed, the focus shifted increasingly toward possible improvements, and Leonard assisted the USAID Mission with the development of a PID for an extension/farming systems project which incorporated many of the key findings emerging from the studies. In the course of events, this work was included in the Second IADP Project funded by the World Bank and will soon be implemented on a pilot basis. The suggested approaches combine the training and visit system as developed by the Bank and a variant of farming systems research.<sup>1/</sup>

Leonard and colleagues are now in the process of finalizing the formal reports to be submitted to USAID on the livestock and agricultural extension services. The evaluation team was able to review a draft of the livestock portion of the report and discuss the findings with Leonard. The team is of the opinion that

- the reports will be completed within the next month or two; and
- the results will be practical and valuable to those concerned with improving extension services in Kenya and perhaps other countries of the region.

The evaluation team gives a strong endorsement to these studies which could well have the most profound impact on services to small farmers of any of the components of ASSP. In short, USAID is getting its money's worth (\$65,000 from ASSP added to \$74,928 from the cooperative agreement for a total of \$139,928. Actual expenditures may be slightly lower).

The evaluation team is concerned that the linkages between Leonard's work and other components of ASSP appear limited to the point of being nonexistent. The SECID team at Egerton barely know of his existence, to say

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<sup>1/</sup>The evaluation team did not have the opportunity to review the PID or the IADP Appraisal Report prior to departure from Kenya, but the evaluation team leader will be commenting on these reports in a separate memorandum. Two specific issues that will be addressed are: i) operational linkages between IADP activities and the research agencies operating in Kenya; and ii) possible roles for USAID in supporting farming systems research-type activities in Kenya.

nothing of the results of his work. This strikes us as a very critical nonlinkage within ASSP since Leonard's findings seem directly relevant to efforts to improve the Egerton curriculum. The Winrock project at Kiboko, with its absence of any significant off-station adaptive research of the type proposed by Leonard, is an example of another unfortunate nonlinkage which Mission project management should address.

d. In-depth Evaluations

The first in-depth evaluation was intended to be done in the summer of 1981. USAID/Nairobi decided that the ASSP implementation system study served the same general purpose as a baseline study and that further baseline work would be unnecessary. Due to Washington contracting difficulties, the first (and current) in-depth evaluation did not begin until January 1982.

Our assessment of ASSP's current and projected status suggests that only one more in-depth evaluation is needed before the project phases out. The next evaluation should have two major points of focus:

- (1) providing recommendations on the appropriate phase-down and institutionalization of remaining ASSP activities; and
- (2) assessing progress and impact of ASSP in accomplishing stated purposes and goals.

Our suggested date would be in 1984. Given the complexity of ASSP, the next evaluation should be conducted by a multidisciplinary team of four specialists for a minimum in-country period of 6 weeks. In addition, provisions should be made for a weeklong US team orientation. We strongly feel that the five weeks in country allotted for the current evaluation was insufficient.<sup>1/</sup>

Prior to the next in-depth evaluation it is anticipated that the following events will take place which will involve detailed assessments of individual ASSP components:

- (1) A decision on the proposal submitted by Egerton College;
- (2) A determination on the disposition of unutilized portions of the Cooperative and AFC Training Funds;
- (3) Preparation and review of proposals by NRRS/Winrock on future directions at NRRS Kiboko;
- (4) A decision on a possible request by AFC for the extension of selected members of the PAS/SGV TA team;

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<sup>1/</sup>DPAAC had proposed six weeks in-country, but this was reduced to five by the USAID Mission. As a consequence, the time available for the in-country discussion of the draft report was very limited. The mission may have short changed itself.

- (5) A decision on a possible request from MOCD for assistance in the expansion of the Cooperative College; and
- (6) Decisions on the specific recommendations in David Leonard's studies on extension services.

We feel that component evaluations might best be undertaken in conjunction with the USAID/GOK decision making processes on the above issues and their timing determined accordingly. The Mission should retain at least \$200,000 in the remaining funds under this component for the next in-depth evaluation and needed special studies.

e. Conclusions and Recommendations

Conclusion A:

The ASSP Implementation planning exercise, and to a lesser degree the system, eg. the USAID Implementation Manual and charts, were useful in clarifying the intent of the initial ASSP design and developing a functioning implementation team.

Recommendation 1: USAID should periodically revise those portions of the implementation system that were proven most useful, with the involvement of key USAID, GOK and contract personnel.

Conclusion B:

The special studies undertaken to date by Dr. Leonard have the potential of improving Kenya's extension service.

Recommendation 2: USAID should consider assisting implementing Leonard's recommendations, as appropriate, and determine how it can best make use of his work to improve the linkages between ASSP components and other agricultural research and development activities.

Conclusion C:

Further evaluation studies are required to assess ASSP's progress and impact, and to plan for an orderly phase-out of the project.

Recommendation 3: Another in-depth evaluation should be conducted in 1984. Any component evaluations should be closely synchronized with upcoming decisions in each instance.

## II.B. Overall Project Assessment

In this section the evaluation team presents its assessment of the entire ASSP effort. Our guide is the list of issues agreed to in the evaluation workplan which cross cut the several ASSP components. Most importantly, we review the current validity of ASSP's underlying development rationale and review overall implementation progress and management to date. Conclusions and recommendations are included at the end of each segment.

### 1. Current Validity of ASSP

As noted in Section I, the goal of ASSP is smallholder and pastoralist development (in terms of production, productivity and income increases). ASSP attempts to assist this rural population by alleviating the key constraints of: agricultural manpower, access to credit and services, and adaptive research. In general, ASSP relies on an "institution building" strategy to accomplish these policy objectives.

The USAID and GOK policy context has shifted markedly since 1978 when ASSP was designed. For instance, the current USAID/Kenyan CDSS--in line with AID's overall policy shifts--places highest priority on improving pricing and marketing policies, supporting institutional development, fostering technology exchange, and working through the private sector. There is a move away from explicit "targeting" strategies back to a "sector development and growth" approach. Likewise, the priority given to pastoralist groups has diminished. On the GOK side, there are major new concerns over food production and balance of payment issues.

In spite of these changes, we find the ASSP focus on smallholders, and to a lesser extent pastoralists, to be consistent with the current policies of USAID and the GOK. However, there is less acceptance for the position that all or a majority of ASSP benefits should be channeled to the smallholder/pastoralist group. Thus, we believe that the underlying approach implicit in the project intent--that the institutional arrangements of all ASSP components should be clearly, though not exclusively, constituted to impact favorably on the intended smallholder/pastoralist target group--is still warranted as being minimally consistent with current AID and GOK priorities.

In assessing ASSP, all of the major components currently meet this condition. Therefore, our conclusion is that the basic rationale for the project remains valid.

In reaching this conclusion, however, we were taunted by two other issues:

(1) Is it appropriate to use an institution building strategy to directly or indirectly (but not exclusively) benefit rural smallholders and pastoralists? and

(2) Does the ASSP portfolio include activities which have the best chance of reaching these rural groups given current conditions?

In regard to the first issue, the team feels that institution building

strategies do presently exist that permit institutions to be strengthened and targeted at the same time.<sup>1/</sup> This is not an easy task, but it is possible, and experience suggests increasingly doable.<sup>2/</sup> The major ASSP institution building components--mainly Kiboko, Egerton, AFC--can be reoriented to incorporate more appropriate mechanisms that emphasize smallholder/pastoralist production. Specific suggestions in this regard are included in the discussions of the individual ASSP components.

The second issue, namely whether the current ASSP activities represent the best way to assist the ASSP target group, needs to be assessed in terms of feasible alternatives, and USAID/Kenya's comparative advantage. In the view of some Kenyan observers, a more effective means to rural development would focus on

- i) pricing policies;
- ii) marketing services;
- iii) adaptive research on crops and small ruminants focusing on small producers;
- iv) delivery systems for inputs other than credit; and
- v) the operational effectiveness of the extension services.

Major ASSP components deal peripherally with the above issues or not at all.

In terms of USAID's comparative advantage, i.e., current GOK policies, current and prospective conditions in Kenya, the current US policy environment, and US expertise and resources, the situation is more complex. Certain types of graduate training may be suitable to Kenyan development needs. Adaptive research is certainly needed, but the US still has much to learn about it. Applied research (assuming it is linked to adaptive research) might be an exception, i.e., breeding and varietal selection work as in the Kitale Maize project. Most other useful items that USAID might support appear to require GOK policy changes as preconditions, or a more developed institutional infrastructure.

In conclusion, therefore, the basic rationale for the project appears to be still valid in three respects:

- (1) the smallholder/pastoralist focus is still appropriate;

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<sup>1/</sup>See Managing Benefits for the Poor: Approaches, Strategies and Strategies for Improvement, M. Ingle et al., S&T/RAD/AID, April 1981.

<sup>2/</sup>See Management Development Strategy Paper: AID's Response to the Implementation Needs of the 1980's, S&T/RAD/AID, June 1981.

- (2) a targeted institution building strategy is feasible; and
- (3) there are very few suitable alternatives to the current approach (particularly in terms of alternatives where US institutions and expertise have a clear comparative advantage).

Based on this, we recommend that the ASSP be given continued support by executive level USAID and GOK officials. However, we caution that if the policy context changes further--to significantly reduce the smallholder/pastoralist focus or alter USAID's comparative advantage--the rationale of the project should again be seriously questioned.

## 2. ASSP Implementation and Management

The ASSP got off to a very slow and difficult start. As discussed in Section II.A.9, the project a year after its initiation was fraught with unclear objectives, nonspecified roles and responsibilities, and major delays. But by 1980, with exceptions like the Kiboko TA component, this situation had turned around. Now, nearly three years into the project, many of the start up pains that are endemic to the implementation of a complex and multifaceted project like ASSP have been successfully overcome--or have been overtaken by events as in the case of support for feasibility studies on the expansion of the Faculty of Agriculture, University of Nairobi. Yet, in retrospect, there are several points that should be made about project implementation. These include ASSP progress and projections, inter-ASSP linkages, linkages between ASSP and other USAID activities, and USAID management of the project. Each of these are briefly discussed below.

a. Implementation Progress and Projections. Three important variables in project implementation are time, cost, and performance. ASSP is here reviewed in light of these three factors.

In terms of time--or schedules--ASSP has made substantial improvements since 1979. Most components are on schedule, or even if they are behind schedule, they will be completed before the PACD.<sup>1/</sup> However, there is one major exception, one which also surfaced during the Implementation System installation in 1979--the Kiboko research, participant training, and construction situation. We have recommended in the Kiboko component review that actions be taken to deal with this situation--namely extending the PACD date one year and using this as a lever within the MOLD to improve the current situation.

Our review of ASSP budgets and expenditures (actual and projected) reveals that although some components are over expended and others are under expended, largely due to inflation factors and the recent devaluations,

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<sup>1/</sup>These projections are based on a recent updating of the ASSP Master Bar chart and the Kiboko Performance Network. See J. Finnell memo to C. Hash on "Revised Management Information System", January 1982.

sufficient funds remain to accomplish objectives within the initial budget constraints.<sup>1/</sup> Most if not all of this money will be needed for the corrective actions outlined in this report's recommendations.

The only potentially serious financial issue surfaced by the team has to do with the SECID home office's costing and billing procedures. The current financial audit of SECID will hopefully clear up outstanding issues. We urge that the Agriculture Office of USAID remain actively involved in laying these concerns to rest so that they do not affect the performance of the SECID TA team at Egerton.

The review of "performance" revealed a more complex and problematic set of concerns. As was pointed out in 1979, there is considerable ambiguity in the performance targets and specifications of almost all components with regard to "purpose" or "expected outcome".<sup>2/</sup> Thus, it is difficult to precisely measure performance achievement, although substantial progress is evident.

A second issue, and much more serious, is an apparent tendency--most evident in the Winrock and SECID TA contracts--to not precisely reflect the intent of the PP and Project Agreement in the contractors' terms of reference. Specifically, in neither case were mechanisms for reaching smallholders and pastoralists in evidence in the scope of work, although they are mentioned in detail in the PP social soundness section and in other sections. In our component evaluations, we have suggested several ways for dealing with this situation.

b. Internal ASSP Linkages.

One question the evaluation team has been asked to address is whether the functioning of ASSP would be improved through a strengthening of linkages, and if so, what form should these improved linkages take.

The desirability and feasibility of internal project linkages is related to:

- (1) the necessity and specification of linkages for project integrity; and
- (2) the knowledge about these linkages among USAID, GOK or contract staff so that connections can be facilitated where they are required.

For a variety of reasons, only a paucity of internal linkages are evident to date in the ASSP implementation. For one thing, ASSP represents an amalgamation of many distinct components that require little formal integration. ASSP was not intended to be a highly integrated project; integration of services was assumed to be done at the village level--by the

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<sup>1/</sup>See Appendix E for a detailed analysis of the ASSP financial situation.

<sup>2/</sup>Memo to K. Eubanks and D. Christenson, subject: Special Issues--The ASSP Implementation System, Sept. 13, 1979.

smallholder. Secondly, as pointed out in Section I.A., the linkages that should exist were not clearly articulated in the design, and then sometimes not built into implementation documents or subsequent implementation arrangements. Finally, the project has only recently progressed far enough into the operations stage for linkages to become of major relevance.

A few critical linkages are now evident, but many others are lacking. On the positive side, Winrock staff have been assisting a staff member from the Range Science Department at Egerton College in a program at Texas A & M, and a series of field trips has been worked out for Egerton students at Kiboko. The study of crop storage suggested operational links with other major ASSP components.

On the other hand, there is little evidence of D. Leonard's ASSP work at either Egerton or Kiboko as pointed out in Section II.A.9. Likewise, it does not appear that there is any relation between the MOCD and AFC TA efforts although both components are concerned with smallholder credit improvement in the area of staff development and training. Such a relationship may or may not make sense. But no one is to know since it has not been pursued. Our tentative assessment of the linkage issue leads us to strongly believe that a more active role needs to be taken by USAID and contractors in this area.

c. Linkages Between ASSP and Other Development Activities. The guiding principle in developing linkages external to ASSP should be in doing what makes sense for the accomplishment of project objectives. This issue is quite aside from considering whether a collaborative link is or is not funded by USAID. In this regard, the most serious nonlinkage is between NRRS and both the ILCA and IPAL projects, and possibly with the NSF supported Turkana work. Specific recommendations on ILCA relations are contained in Appendix B.

Within USAID, there has been some communication between the Drylands Cropping Systems Project and NRRS, but this has not yet translated into any formal collaboration. One reason for this may be that NRRS has an applied/basic research orientation. If Kiboko moves more to an adaptive/applied research orientation, as we have recommended be done, these two projects might find increased collaboration to be in their mutual interest.

d. USAID Management of ASSP. ASSP was designed as a management intensive effort, especially during its first 2 years. The Log of the Implementation System Consultancy Team, referred to in Section II.A.9, indicates that in late 1979 the responsible office in USAID--the Office of Agriculture--was actively involved in no less than 7 different types of ASSP contract procedures and numerous start-up activities associated with overseas participants and procurement. Indeed, it was pointed out at that time, that,

"One of the reasons for initial slippage in ASSP project implementation...is the extremely ambitious expectations of the original workplan regarding the insitutional capacity of USAID/GOK to address numerous responsibilities simultaneously. Developing contracting documents and letting contracts have proven to be particularly time consuming, and the original workplan envisaged numerous contracting

activities taking place within the first year of the project. In such circumstances, the workload of USAID...can easily become the pacing factor in project implementation."<sup>1/</sup>

In addition, a predominant mode of contracting was of the "Host Country" type. Whatever the long term benefits this mode has for strengthening self-sustaining development performance, in the early stages of implementation Host Country contracts require substantial USAID involvement and nurturing both of the host country and contractors. They also involve a different type of relationship with the host country--one where USAID retains substantial responsibility for what is done but plays a nondirective and facilitative role in assuring results are actually accomplished. Finally, since the components of ASSP do not come together administratively in the GOK at any level lower than the President of Kenya, the task of project coordination and integration by default falls on project staff within USAID. This is an additional responsibility of substantial importance, and requires high-level access to many agriculture related Ministries. It also requires a clear sense of purpose and understanding of key linkages.

Given this extensive list of responsibilities and tasks, we feel the Agriculture Office and USAID Engineer are to be complemented on their overall performance during the start-up phase of this project. A large part of their effectiveness, we feel, stems from the continuity of implementation management over the life of the project as reflected in Table 3. This is not to suggest that several areas for improvement--including the preparation of scopes of work which more clearly reflect project objectives (as was not adequately done for SECID and Winrock) and improving GOK support for various components--are not evident. However, under the circumstances, the effort to date is commendable for a project of this size, complexity, and initial design inadequacies.

Our assessment indicates that the ASSP "start-up" phase has ended for all components, and that the project is well into "operations". Many interim "outputs" are now being generated as studies are completed, participants return, and facilities are opened. And, as the nature of project implementation changes, so should the role of USAID project staff. The USAID staff should now be spending less time with contracting and participant start-up, and much more time in actively monitoring developments to assure that outputs are of high quality and continued relevance. Operationally, this translates into being concerned about whether trained students and participants are properly placed and used, whether research and study results are quickly disseminated and understood, and whether new systems and facilities are in place and being maintained. It also calls for a different style of USAID management--one where more time is spent out of the office monitoring results and fostering required linkages than has hitherto been necessary. Finally, the current implementation phase demands an efficient review and reporting system with access to high level executives throughout the GOK. This is needed in order to assure that important decisions are made as improvement opportunities become evident.

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<sup>1/</sup>Memorandum to K. Eubanks and D. Christenson on "ASSP--Special Issues", Sept. 13, 1979.

The evaluation team also feels that this is an appropriate time to begin giving serious thought to an orderly phase-down of ASSP. Decisions will need to be made on whether enough progress has been made to assure that various ASSP supported institutions are self-sustaining. Options for continued USAID or other donor funding will need to be considered. We recommend that, due to the long project documentation lead times within AID, planning for phase-down be started now. We have suggested that this issue receive priority attention in a later in-depth ASSP evaluation.

e. Conclusions and Recommendations.

Conclusion A:

While implementation progress is commendable given a project of this size and complexity, there is room for improvement in several areas--actions to assure that the project is completed only one year later than initially expected, actions to assure that performance objectives are met, and actions to assure that additional internal and external linkages are fostered.

Recommendation 1: Immediately extend the PACD date by one year while gaining a commitment from the GOK to initiate their Kiboko actions. If this is not done, then seriously consider an immediate phase out of the Kiboko component.

Recommendation 2: Review the existing Winrock and SECID contracts with the GOK, and determine ways to upgrade their smallholder/pastoralist focus.

Conclusion B:

USAID's management role is evolving as ASSP moves from the start-up phase into operations and phase-down.

Recommendation 3: The Agriculture Office management style should become more field oriented and focus on active monitoring of project accomplishments.

Recommendation 4: USAID should begin to seriously plan for an orderly phase-down and institutionalization of project components.

APPENDIX A - EGERTON COLLEGE EXPANSION

This Appendix includes the following materials related to the Egerton College Expansion component:

- A.1 SECID Technical Assistance Team
- A.2 Egerton College Staff
- A.3 Egerton College Student Enrollment
- A.4 The Pros and Cons of Sending Egerton Department Heads for Ph.D.'s
- A.5 Scope of Work for Updating the ATAC Agriculture Manpower Survey

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A.1. SECID Technical Assistance Team

Table A.1: Academic Qualifications of SECID TA Staff at Egerton College<sup>1/</sup>

POSITIONS	Ph.D. (or D.V.M.)	MASTER'S DEGREE	BACHELOR'S DEGREE
Administrative	1	1 (MBA)	-
Teaching:			
Animal Health	2 (D.V.M.)	-	-
Animal Science	1	-	-
Biology	1	1	-
Chemistry	1	-	-
Crop Husbandry	2	-	-
Dairy Technology	1	-	-
Economics	1	1	-
Education	<u>2</u> <sup>2/</sup>	1	-
Engineering	1	4	1
Home Economics	1 (Ph.D. & D.V.M.)	2	1
Range Management	1	-	-
Library	-	<u>1</u>	-
Totals	15	11	2

<sup>1/</sup>Of the 28 SECID TA team members, 17 were on the payrolls of the subcontracting Universities before going to Egerton under the GOK/SECID contract; two were hired directly by SECID and are not currently affiliated with any University; two are the spouses of SECID team members hired for the GOK/SECID contract; and seven were newly hired by the subcontracting Universities to fill positions under the SECID/GOK contract. Of the seven, two were fresh from graduate school. Six persons have previous relevant experience in East Africa.

<sup>2/</sup>One additional Ph.D. in Education has already departed.

## A.2. Egerton College Staff

Table A.2. Egerton Staff: 1978 and 1982<sup>1/</sup>

<u>Principal Officers</u>	<u>1978</u>	<u>February 1982</u>
Principal	1	1
Deputy Principal	1	1 (on study leave)
Registrar	1	1 (on study leave)
Dean of Students	1	1
Finance Officer	1	1 (acting)
Planning Officer	-	1
<u>Ag. and Home Economics Department</u>		
Head of Department	1	1 (acting)
Lecturers	4	4 (3 on study leave)
Demonstrators	1 (on study leave)	-
<u>Animal Science Department</u>		
Head of Department	1	<u>2</u> <sup>2/</sup>
Lecturers	6 (3 on study leave)	5 (3 on study leave)
Demonstrators	3	5 (3 on study leave)
Technician		1
<u>Biology Department</u>		
Head of Department	1	1 (acting)
Lecturers	3	4 (3 on study leave)
Demonstrators	1	3 (1 on study leave)
Technician	1	-
<u>Chemistry Department</u>		
Head of Department	1	1 (acting)
Lecturers	2	3 (1 on study leave) <sup>3/</sup>
Demonstrators	1	2
Technician	1	1

<sup>1/</sup>This list does not include general administrative, financial, medical, housekeeping, stores, estates, transport and sports staff. SECID TA personnel are not included in this list.

<sup>2/</sup>The former Animal Science Department has now been split into two Departments, Animal Health and Animal Science, each with its own Head of Department.

<sup>3/</sup>This department also has a Catholic Mission Father on temporary loan from the Diocese as a Lecturer.

Table A.2. (Cont.)

Crop Husbandry Department

Head of Department	1	1 (on study leave)
Lecturers	5	4 (all on study leave)
Demonstrators	1	5 (1 on study leave)
Technician	-	-

Dairy and Food Technology Department

Head of Department	1	1 (acting)
Lecturers	3 (+1 Danish TA Lecturer)	4 (+ 1 Danish TA Lecturer, 1 Kenyan Lecturer on study leave)
Demonstrator	3	4 (1 on study leave)
Technician	-	1

Ag. Economics Department

Head of Department	1	1 (acting)
Lecturers	3	2 (1 on study leave)
Demonstrator	2	2 (1 on study leave)
Technician	-	-

Ag. Education Extension Department

Head of Department	1	1 (acting)
Lecturers	6	7 (2 on study leave)
Demonstrators	1	1
Technician	1	-

Ag. Engineer Department

Head of Department	1	1
Lecturer	7	9 (1 on study leave)
Demonstrator	7	8 (2 on study leave)
Technician	-	1

Range Management Department

Head of Department	1	1 (presently acting as Registrar)
Lecturer	1	3 (1 acting as Head of Department, 1 on study leave)
Demonstrator	1	3
Range Assistant	1	-

Library

Librarian	1	1
Assistant Librarian	-	1
Library Assistant	1	2 (1 on study leave)

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Table A.2. (Cont.)

Studies

Senior Executive Officer Studies	-	1
Studies Assistant	2	1

Teaching Farm

Manager	1	1
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Totals	85	106
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### A.3. Egerton College Student Enrollment Tables

Table A.3.1. Egerton College Enrollment of New Students - 1979

1979 Intake	Total	Foreign	Women
Agriculture	24	4	2
Ag Education	26	-	6
Soil and Water Engineering	16	1	-
Farm and Power Machinery	14	-	1
Animal Husbandry	35	6	7
Animal Health	18	2	1
Farm Management	34	2	-
Horticulture	22	1	7
Dairy Technology	14	0	2
Food Science and Technology	16	2	2
Ag and Home Economics	22	-	22
Ranch Management	11	-	-
Range Management	15	-	-
Totals	267	18	50

Table A.3.2. Egerton College Enrollment of New Students - 1980

Streams	Total	Foreign	Women
Agriculture	22	2	4
Ag Education	20	1	4
Soil and Water Engineering	19	-	3
Farm Power and Machinery	20	1	-
Animal Husbandry	36	7	2
Animal Health	18	3	1
Farm Management	41	1	1
Horticulture	22	1	7
Dairy Technology	16	1	1
Food Science and Technology	18	1	7
Ag and Home Economics	21	-	21
Wild Life Management (new specialization)	10	-	-
Range Management	23	5	-
Total	286	25	51
Increase Over 1979	19	7	1
Percent Increase	7	38.9	2

Table A.3.3. Egerton College Entrollment of New Students - 1981

Streams	Total	Foreign	Women
Agriculture	31	1	6
Ag Education	40	-	13
Soil and Water Engineering	27	-	-
Farm Power and Machinery	24	-	1
Animal Husbandry	45	4	4
Animal Health	28	3	1
Farm Management	45	1	3
Horticulture	27	1	8
Dairy Technology	28	2	3
Food Science and Technology	23	-	5
Ag and Home Economics	31	-	31
Wild Life Management	18	-	2
Ranch Management	16	-	-
Range Management	39	3	-
Totals	422	15	77
Increase over 1980	136	-10	26
Percent Increase	47.6	-40	51
Increase over 1979	155	- 3	27
Percent Increase	58.1	-16.7	54

#### A.4. The Pros and Cons of Sending Egerton Department Heads for Ph.D.'s

Arguments in favor are as follows:

1. Ph.D. degrees will give the Heads of Department needed "status." This becomes a greater concern if Egerton becomes a degree granting institution where Heads of Department could reasonably be expected to have the same level of qualification as at other universities.
2. The fact that Egerton, through the ASSP, has sponsored their training will give them the motivation to stay at Egerton.
3. That, as more emphasis is placed on research at Egerton, there will be a need for people with research degrees.

The Counter Arguments as as follows:

1. Holders of Ph.D. degrees are not now given an automatic salary increase at Egerton on obtaining the degree. Other factors are also taken into account in fixing salaries. On the other hand the value of a Department Head on the open job market increases following completion of the Ph.D. Thus, advanced training may exacerbate the attrition situation.
2. Heads of Department in an institution are not necessarily the most academically oriented members of faculty. Many other factors including seniority and administrative ability are taken into account in selecting Heads of Department. It is highly unlikely that the 8 Heads of Department are those likely to gain most from a Ph.D. Nor are they likely to be the 8 people who can complete Ph.D. programs in the shortest time. The selection of Heads of Departments only for Ph.D. programs may adversely affect the morale of other staff members, who may move elsewhere.
3. Egerton College already has had a rather rigid hierarchical structure. It would benefit from a more collegial climate at all levels of the faculty. Having Heads of Departments as the sole faculty members with Ph.D.'s will tend to further reinforce the rigid hierarchical pattern. The changes in terms of service and new procedures from selecting Heads of Departments may help to change this situation.
4. Ph.D.'s may wish to emphasize their newly acquired knowledge and research skills. There is a possible danger that this will be at variance with the pragmatic applied approach which has been an important ingredient in Egerton's success. The presence of too many Ph.D.'s at Egerton may in fact detract from the program rather than improve it. A move by Egerton staff to emulate the University of Nairobi Agriculture faculty is undesirable.
5. Three years have been allocated for each Ph.D. (including the combined M.Sc./Ph.D.) One person has already managed to complete a Ph.D. in 2 1/4 years. Our experience suggests, however, that the

majority of the Ph.D. candidates are unlikely to complete their degrees within the 3 year period. Doing so demands high academic aptitude, a nonstop, all-out effort, and a conventional dissertation topic of probably very limited relevance to Kenya. (A dissertation topic of relevance to Kenya is likely to involve increases in expenses and time).

Since Ph.D. trainees have been selected on the basis of position rather than academic aptitude, we would have expected several of them, if not a majority, to require extensions of time. In fact we are aware that one of those selected has already had problems in meeting the academic requirements of the programs at two US universities and that an alternative program, possibly in Kenya, is being sought. The damage to the morale of a staff member who is sent on a degree program he/she cannot complete successfully is devastating and such people are likely to leave Egerton. We have been informed, however, that all other Ph.D. participants to date are doing well and are not likely to require extensions.

6. Sending most of the Heads of Department away for training during the period when the vital task of major curriculum revision is taking place almost guarantees that they will not be in sympathy with the changes upon their return.

#### A.5. Scope of Work for Updating of the ATAC Manpower Survey:

In 1978, GRC/ATAC performed a survey of professional and subprofessional agricultural manpower in Kenya which established 1977 staffing patterns and made demand projections to 1983 and 1988. We recommend that the survey be updated since the ATAC longer term projections were tenuous and intervening events have resulted in significant changes in the agricultural scene in Kenya. Among these changes have been:

- i) the almost completed expansion of Egerton College;
- ii) the creation of new certificate level training institutes;
- iii) the coming on line of the new community founded institutes of science and technology;
- iv) the formal announcement of the creation of a second university based in Eldoret with constituent colleges on other campuses;
- v) the announcement of coming changes in the post-primary education system and the abolition of A Levels;

The implications of some of these events are as yet unknown. Important decisions are still to be announced. (For example, there has as yet been no announcement as to whether Egerton College is to be a constituent college of the second university and, if so, in what way the role of the College may change).

The objectives of the 1977-1978 ATAC study were on two levels. The objectives of the manpower survey were:

- 1) to determine the numbers of agricultural professional and subprofessionals which the agricultural sector of Kenya would require by 1983 and 1988 in addition to those in post in 1977;
- 2) to determine the status and effectiveness of training institutions; and
- 3) to determine the efficiency with which agricultural manpower was currently utilized in the Ministry of Agriculture.

The objectives of the manpower study, however, were:

- 1) to specify, on the basis of the survey results, the number of people that needed to be trained at the university, college (i.e. diploma) and institute levels to meet sector requirements; and
- 2) to make recommendations for expansion of training institutions, and for improvement of personnel utilization in the Ministry of Agriculture.

The objectives of the proposed new study would be to provide GOK decision makers with revised, updated manpower data and recommendations which

can provide a basis for policies regarding the further development of the professional and subprofessional elements of the Nation's agricultural work force. The study should take into account the needs of all Government Ministries involved in the agricultural sector, including agricultural education and agricultural research. These Ministries include: the Ministry of Agriculture, the Ministry of Livestock Development, the Ministry of Environment and Natural Resources, the Ministry of Cooperative Development, the Ministry of Higher Education and the Ministry of Science, Technology and Regional Development. It would also assess the needs of the agriculture related parastatal organizations, such as the Agricultural Finance Corporation and the Kenya Tea development Authority, and the commercial agricultural subsector.

To provide the necessary information and data, the following activities will be required:

- 1) the updating of baseline data of current agricultural professional and subprofessional manpower in employment in:
  - a) the agricultural ministries (MOA, MOLD and MONR);
  - b) other public sector organizations (MOCOD, MOHE, MOSTRD and the parastatals); and
  - c) the private commercial agricultural subsector to show the 1982 position.
- 2) the provision of revised forecasts for effective demand up to 1988; effective demand being the needs for additional professional and subprofessional staff constrained by the availability of funds to hire them.
- 3) the identification of the extent to which the redefined effective demands can be met by the training/educational institutions currently in existence or in current process of development.
- 4) the identification of short comings in the deployment and use of existing staff.
- 5) the formulation of ways and means to increase the supply of professional and subprofessional staff to meet the effective demands by 1988 and to ensure their optimal use.
- 6) the calculation of costs for implementing the recommendations. In order to obtain the relevant data and formulate recommendations, consultations will be held not only with the users of trained agricultural manpower but also with the Directorate of Personnel Management, the Public Service Commission, the Central Bureau of Statistics and the educational and training institutions.

We recommended that a team of three professionals consisting of a manpower economist, a staff development expert and an agricultural economist be employed for a minimum of 18 person weeks to carry out the study. They should be provided with back-up support in the person of a member of the USAID/Kenya agricultural division who knows the key personnel involved and

can brief the team members on the necessary background of Kenya's agricultural structure, plus secretarial and logistical support.

Any study that is undertaken before the future role and status of Egerton College has been clarified, and before the implications of the proposed changes in Kenya's post-primary educational system are known, would be in danger of becoming obsolete as soon as these decisions are announced. We therefore recommend that the study should be scheduled for the fall of 1982 or the spring of 1983. It is also to be hoped that the extent of recurrent financing limitations will be more clearly known by this time.

A suggested summary of terms of reference for the study team is given below:

Bearing in mind the changes that have occurred in Kenya since the 1978 ATAC report was written, we propose a new effort to:

- 1) update the comprehensive manpower survey of professionals and subprofessionals currently employed by the Ministries of Agriculture, Livestock Development, Cooperative Development, and Environment and Natural Resources, other public service employers including parastatals, and the commercial agricultural subsector that will be needed by 1988.
- 2) analyze these needs and their implications for the future developments of Agricultural, Veterinary and Educational facilities/colleges in Kenya's University systems and training facilities.
- 3) study the effectiveness with which the agricultural work force is currently being utilized by the concerned Ministries and parastatal organizations with recommendations for improving its use, giving special attention to the problems of transportation.
- 4) estimate the approximate costs of implementation of the recommendations.

## APPENDIX B - TRAINING FUND

This Appendix includes the following materials related to the Training Fund component:

B.1 Fields of Study of Long-term participants

B.2 Technical Short Courses Sponsored by USDA

**B.1. Fields of Study of Long-term Participants:**

**Agriculture Fund**

Agricultural Census Training

Agricultural Economics

Agricultural Education

Agricultural Extension Programs/  
Education

Agricultural Engineering

Analytical Chemistry

Animal Production

Animal Science

Dairy Technology

Livestock Breeding

Education

Epidemiology

Food Science and Home  
Economics

Home Economics Extension/  
Education

Horticulture

Plant Pathology

Poultry Nutrition

Ranch Management<sup>1/</sup>

Rural Sociology

Veterinary Medicine

Zoology

**Cooperative Fund**

Business Administration

Business Education

Guidance and Counseling

**AFC Fund**

Agricultural Economics

Business Administration

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<sup>1/</sup>A special one-year course organized at Egerton College

## B.2. Technical Short Courses Sponsored by USDA

The USDA-coordinated short courses range from 2 to 13 weeks in length, but many of them run from 6-8 weeks. Each course is supposed to be a mixture of technical instruction, exercises, practice and field observation. The focus is on the need for participants to return to their jobs with a higher level of practical skill as well as a stronger scientific understanding of their jobs. The cost varies depending on length and content from approximately \$3,000-\$9,000 per participant, which includes the course fee and maintenance allowance. In addition, transportation is figured at \$2,000 per participant, half of which is paid by the Kenyan Government. A list of courses follows:

### Animal Science and Natural Resources

- \* Resource Development of Watershed Lands
  - Land Use Planning in Natural Resource Management
  - Range Management and Forage Production
  - Intensive Poultry Production Systems
  - Small Ruminant Production Techniques
  - Ecological Analysis for Management of Tropical Forests and Related Natural Resource Areas

### Economics and Policy

- \* Agricultural Policy Seminar (for senior level officials)
- \* Agricultural Project Planning and Analysis
- \* Strategies for Developing the Agricultural Sector
- \* Basic Statistics with Emphasis on Agricultural Statistics
- \* Small Farmer Credit Policy and Administration
- \* Establishment and Management of Agricultural Cooperative Organizations
  - Organization and Operation of Rural Electric Distribution Systems
- \* Agricultural Project Implementation
- \* Agricultural Policy Formulation and Analysis
- \* Economic Forecasting for Agricultural Policymaking and Planning.
- \* Establishing Data and Analytical Systems for Economic Decisionmaking in Agriculture
  - Effective Livestock and Crop Management for Small Farms
- \* Regional Agricultural Resource Development
- \* Contract Administration in Rural Development.
- \* Developing Markets for Agricultural Products
- \* Agricultural Communications and Media Strategies (for communications specialists)
- \* Development and Operatin of Agricultural Extension Programs (two sections)
- \* Application and Diffusion of Agricultural Research Results to the Community Level
- \* Agricultural Trainer Development
- \* Vocational Agricultural Education Systems in Developing Countries
  - Communicatins Planning and Strategy (for program managers of any technical specialty)

## Communication Skills for Development Professionals

- \* Management and Organizational Change - An Organizational Development Approach (for senior and executive officials)
- \* Management and the Role of Women in Development, for Senior Women officials)
  
- \* Management of Agricultural Organizations (for entry- to mid-level managers)
- \* Management of Agricultural Research
- \* Initiating and Managing Integrated Rural Development Programs: Keys to Agricultural Development at the Local Level (six sections)

## Production and Technology

- \* Agricultural Research Methodology
  - Irrigation Problems and Practices
  - Soil Testing, Soil Classification, and Fertility Management
  - Technical and Economic Aspects of Soybean Production
  - Soybean Processing for Food Uses
  - Assessment and Improvement of On-farm Irrigation Systems
  - Water Harvesting for Agricultural Production
  - Seed Improvement
  - Plant Quarantine
  - Integrated Pest Management
- \* Vegetable Crop Production and Marketing
- \* Grain Storage and Marketing
  - Determination and Prevention of Postharvest Food Losses.

\* Signifies courses that ASSP participants have taken to date.

APPENDIX C - RANGE RESEARCH SYSTEMS SUPPORT - KIBOKO

This Appendix includes the following supporting materials related to the Range Research Systems Support Component:

- C.1 NRRS Research Program
- C.2 NRRS Staffing and Participant Training (Tables)
- C.3 Suggested Procedures for Reviewing Research Projects
- C.4 Strengthening the Social Science Component of the NRRS Research Program
- C.5 Off-Station Activities

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## C.1. NRRS Research Program

### a. Extracts from the Winrock Report, (The Kiboko Range Research Expansion Project: A Plan for Action, 1980 - 1985)

#### Goals of the Range Research Expansion Project

- Goal I: Winrock International will assist the GOK with institutional development which will enhance the research capabilities of NRRS and its associated experiment stations.
- Goal II: Winrock scientists will work with and advise their Kenyan counterparts in reactivating and initiating expanded research activities.
- Goal III: Scientists and other personnel will assist NRRS staff to develop strategies for transferring technologies to the users of the rangeland resources.

#### Project Activities to Meet Stated Goals

Goal I - Institutional Development. The following objectives were developed for NRRS through a series of station staff seminars and discussions:

1. Improve the income level and quality of life for people in the arid and semiarid rangelands of Kenya through research directed at conserving and enhancing the natural resource base from which livestock products and services are derived.
2. Improve the quality and marketing of range livestock and the efficiency of their production so that increased domestic and foreign demands can be met.
3. Conduct research, develop technology, and disseminate research results through publications, training meetings, public information media, field days, and off-station demonstrations.
4. Develop a cadre of well-trained research officers, technical officers, and supporting staff at each station and provide financial, physical, and moral support for them so that their effort will be productive in meeting national goals as well as achieving their own professional objectives.
5. To implement a planned management system for NRRS and associated research stations that will ensure efficient use and sustained production from the available land, human, animal, physical, and financial resources.

Goal II - Research Implementation. A goal-oriented systematic approach to solving national needs for range resources management in arid and semiarid rangelands was initiated. The research efforts of scientists and their Kenyan counterparts was of an interdisciplinary and cooperative

nature. An ecosystems approach was the basis for evaluating each project and its potential for contributing to Station and project goals. Each project contributed to one or more of the five interrelated components of the system:

1. Soil and Climate or the Abiotic factor
2. Plants or the Producer factor
3. Animals or the Consumer factor
4. Economic or Human Manipulation factor
5. Microorganisms or the Decomposer factor

The research was both basic and applied in nature. This is essential since sound applied research must be founded on sound principles developed from basic investigations.

Goal III - Technology Transfer. The goal of technology transfer has not been implemented to date, but will be addressed as soon as facilities and information become available.

b. Research Projects

A detailed description of the individual research projects is contained in the 1981 Annual Report for the Winrock Project. The following summary was prepared by the evaluation team.

The mission of range research is to increase red meat and milk production while maintaining or improving rangelands (soils, plants, animals) and associated human resources. Decisions on management of rangelands are based on availability of technology, economic, political, and social factors. The availability of technology requires multidisciplinary studies in the relationships among weather, water, soils, plants, animals, and humans. Intensive practices include chemical and mechanical control of unwanted plants, revegetation, and range fertilization. Less costly (extensive) practices include grazing management, burning for control of unwanted plants and/or to provide fresh forage, management of surface water to increase forage production or for animal use, improved production of range livestock, and improvement of life. At Kiboko, research on extensive practices include the following studies: 1) grazing management; 2) burning; 3) water management (infiltration of water into various treatments, runoff and sedimentation of various sites, and potable water for animal use); 4) livestock-wildlife relations (diets and behavior of small and large mammals); 5) supplemental feeding of livestock grazing on rangelands; 6) animal improvement (use of improved males or semen for herd improvement and detailed records of animal performance); 7) control of insects of livestock grazing rangelands (use of insecticide, impregnated ear tags and dust bags); 8) cost/benefit analyses of various practices; 9) animal production system for pastoralists; and 10) technology transfer.

C.2. NRRS Staffing and Participant Training (Tables)

Table C.1. Staffing at NRRS Kiboko and Buchama Substation

<u>Position</u>	<u>Kiboko</u>	<u>Buchama</u>	<u>Total</u>
Research officers & Related Staff	15	1	16
Technical Officer	19	3	22
Technical Assistants	11	7	18
Executive Assistants	1	1	2
Clerical Officers	27	4	31
Other Support Staff	47	8	55
Subordinate Staff	<u>169</u>	<u>63</u>	<u>87</u>
Total	289	87	376

### C.3. Suggested Procedures for Reviewing Research Projects

Procedures for reviewing existing research programs and getting new research proposals might involve some combination of the following:

1. Internal reviews by all staff and/or a committee composed of staff members representing different disciplines (this is already being done).
2. External reviews of specific projects, new and ongoing. Such external reviews might be formal or informal in nature depending on the type of project. The research committee would be responsible for sending project descriptions out to external reviewers for comment or simply obtaining verbal comments.
3. The Range Research Advisory Committee has not been effective to date and might be reactivated to provide general guidance on the research program.
4. Annual in-house reviews of the research program involving presentations by research staff on research projects and discussion by colleagues and invited external reviewers from such agencies as MOLD, ILCA, Faculty of Agriculture, etc. The initial in-house review might focus primarily on the question of the relevance of specific research projects for various types of production systems and parts of the country. In addition to specifying the target group(s) and area(s), researchers should consider the sequence of activities, including complementary or follow-on research (adaptive and applied) needed before research results might be ready for formal incorporation into extension programs. As far as new projects are concerned, preference in use of resources might be given to collaborative efforts with other institutions such as ILCA and MOLD extension projects and multidisciplinary activities involving biological and social scientists.
5. An advisory committee composed of commercial ranchers might be formed to assist in devising research projects that reflect the interests of this group. It is also expected that this committee will provide a means of arranging off-station testing and demonstrations of improved practices on commercial farms, the costs of which will be at least partially covered by individual ranches or by a special fund established and administered by the advisory committee with contributions from the commercial ranch community. Such a fund might also be used to support on-station research projects of specific interest to the commercial ranching community in so far as such work does not divert station resources excessively from the core program activities.
6. Committees are generally not effective mechanisms for representing the interests of poorer producer groups including smallholders and pastoralists. Thus it is suggested that the current limited investigations of pastoralist systems be expanded to include the full range of farming systems research activities including:

- a) reconnaissance work to understand existing systems and the constraints to expanded production as perceived by producers;
- b) design and field testing of improvement strategies with the involvement of producers (as much as possible these improvement strategies should emphasize elements and practices which are already fairly well developed and require only limited site specific adaptation);
- c) reexamination and possible redesign of specific research projects in light of a) and b); and
- d) transfer of favorable results to extension services for further dissemination.

The extension services should be involved in the above work and might carry out simplified versions of the above sequence of activities in various parts of the county with some supervisory assistance from NRRS staff.

#### C.4. Strengthening the Social Science Component of the NRRS Research Program

For reasons discussed in section II.A.3., the social science component of the research program at Kiboko has been relatively neglected. The single agricultural economist needs support and more experience in working in a multidisciplinary team context. Some combination of the following measures are suggested.

1. Efforts should continue to locate a second social scientist to join the Kiboko staff. The exact discipline of the individual is less important than the experience with multidisciplinary team research on range management, preferably including work in pastoralist systems in Africa. Efforts should continue to locate a Kenyan to fill this position, but serious consideration should be given to the inclusion of social scientist in the resident Winrock team if one can be found with the requisite background.
2. Expansion of informal cooperation with ILCA and possible formalization of portions of the relationship. ILCA and Kiboko complement one another to a fair extent in terms of disciplinary mix. In addition, most of ILCA's work in Kenya to date has involved surveys and reconnaissance work focusing on pastoralist systems and their experience/perspectives can be of great assistance in assessing the relevance of existing and proposed research activities to these systems. Formal cooperation with ILCA might include:
  - a) the posting of one or more staff members of MOLD, including someone in animal health, to work with ILCA and based at Kiboko;
  - b) the provision of office space for ILCA researchers at Kiboko;
  - c) collaboration in research activities, including but not restricted to the research by the Kiboko agricultural economist;

- d) examination of methods for carrying out off-station trials in pastoralist systems and refinement of the methodology for Kenyan conditions;
  - e) conducting off-station trials and demonstrations in cooperation with MOLD extension services; and
  - f) joint sponsorship of seminars, training/workshops and conferences. Such cooperation might also, informally at least, include the CIMMYT East Africa program (which, in fact, already is taking place).
3. Training of Kenyan social scientists should include a good grounding in biological sciences and multidisciplinary team research, in addition to social sciences, as much as possible. In this regard, consideration should be given to sending the agricultural economist for the International Course for Development Oriented Research in Agriculture at Wageningen. Ideally two or three Kenyan staff members of different disciplines might attend the course together.
  4. The resources for consultancy work should be used to bring in someone of the caliber of Jon Moris of Utah State to assist in reviewing the research program with special attention to the role of social scientists and off-station activities.

#### C.5. Off-Station Activities

It is specifically suggested that more emphasis be given to off-station work including regular contacts with various producer groups and extension staff with a view to improving the two-way flow of information on producer needs and research results which reflect those needs. It is important that the clients of Kiboko's research, the producers and extension services, be made increasingly aware of the existence of Kiboko and feel that an attempt is being made in the research program to reflect their needs. This will hopefully increase the effective demand for Kiboko's services in the future and lay the basis for sustained support after the conclusion of the Winrock Project. Specifically, we suggest:

- a) reconnaissance and survey work in pastoralist systems (which should not repeat what has already been done);
- b) involvement, formal or informal, in the monitoring, evaluation and adaptive research activities of on going development projects serving pastoralist societies;
- c) field trials and tests in cooperation with producers and extension services; and
- d) research extension liaison activities to transfer research results to the extension services and producers. Researchers might also benefit from participation in some group ranch committee meetings as observers.

A major operational theme of off-station activities might be some version of what has been generally termed farming systems research. The producers

and sequence of activities involved in farming systems research have been described extensively elsewhere, including in several publications of the CIMMYT Economics Program based in Nairobi.<sup>1/</sup> The experience of ILCA should also be of considerable value in designing feasible approaches to off-station trials and survey work.

The initiation of off-station work by Kiboko at the present time has been questioned on the following grounds:

- a) the first priority should be to get the Kiboko station in full operation which will take time and off-station work might divert attention from this primary task;
- b) there is insufficient staff time and finances to support both on-station and off-station work at the present time;
- c) the Winrock and Kenya staff at Kiboko at the present time have a comparative advantage in doing on-station research since their experience in off-station work in Africa is very limited; and
- d) other agencies including ILCA and IPAL are doing off-station research.

There are several problems with the above arguments. The major difficulty is that the lack of operational linkages between on and off-station activities runs the danger of having some or all of the research prove to be unusable in the real world. The reputation of Kiboko will suffer if they do not produce usable results even if their on-station research methodology is impeccable. Second, the orientation toward on-station research may become entrenched. Third, under current arrangements, financial support for travel, including petrol, is likely to be a chronic problem. The idea that it will somehow get better by itself may be wishful thinking. If MOLD is committed to the view that off-station activities should commence in the near future rather than await a second phase a few years off, a way must be found to improve the supply of petrol. Finally, NRRS needs to develop support among client groups including producers and extension agents which it can only do through demonstrating its utility to these groups. Off-station work at a minimum indicates to clients that NRRS is concerned about understanding their problems and needs.

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<sup>1/</sup>Two examples of CIMMYT publications growing out of work in Eastern Africa are "Demonstrations of an Interdisciplinary Farming Systems Approach to Planning Adaptive Agricultural Research Programmes" (Research Report no. 1, Nairobi, 1977) and "Deriving Recommendation Domains for Central Province, Zambia" (Research Report no. 4, Nairobi, 1979). A general discussion of farming systems research is the subject of "Farming Systems Research: A Critical Appraisal" by E. Gilbert, D. Norman and F. Winch (MSU Rural Development Paper No. 6, Mich. St. U., E. Lansing, 1980).

## APPENDIX D - TERMS OF REFERENCE FOR CONSULTANT SERVICES (D. Leonard)<sup>1</sup>

### Terms of Reference For Consultant Services to Evaluate the Crop and Livestock Extension Services and to Prepare Action and Project Recommendations

#### Background

Extension services in the Ministries of Agriculture and Livestock Development are facing an increasing load in servicing agriculture in the high and medium potential smallholder area and in implementing a wide array of existing production programmes in livestock and crop production.

There is growing evidence that the service is not performing adequately and, entering a period when agriculture must achieve a high rate of growth in production, there is an urgent need to have the extension services functioning effectively.

#### Scope and Duties

The consultant will be required to cover extension services in agriculture and livestock development and:

1. Review, with senior Ministry officials and field staff, the current:
  - (i) organization and management of the extension services
  - (ii) management information and reporting systems
  - (iii) support and transport facilities
  - (iv) deployment of field staff on farm visits, demonstrations and field days
  - (v) communications and publications offered to farmers
  - (vi) qualification of extension staff
  - (vii) training courses and facilities available to extension staff
  - (viii) adequacy of the technical package offered to farmers
  - (ix) system for attaining feedback to research scientists of farmers production constraints.
2. Following the review of the current situation and of Ministry initiatives to improve deployment of resources and introduce an improved management information system the consultant will:
  - (i) assess and recommend on action and resources required to implement effective personnel management, information and reporting systems.

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<sup>1</sup>/Attachment C of PIOT 615-0169-3-00041 of Dec. 1980.

- (ii) assess and recommend an effective programme of farmer contact through demonstrations, field days, direct farm visits and farmer publications and detail the resources required to implement such a programme.
  - (iii) recommend the support and transport services required by the extension and their management.
  - (iv) assess and recommend on the training services and facilities required for both initial training and in-service training of extension staff.
  - (v) assess and recommend the system needed to assure an adaptive crop and livestock research program responsive to farmer demands and small farm constraints.
3. Following a review of the consultant's recommendations by Ministry staff the consultant will prepare an approved project for donor financing and will work with Ministry staff to implement steps to improve management and deployment of existing resources.

#### Timing

1. The consultant services should commence on or about November 1, 1980,
2. Review of current situation to be carried out by December 15, 1980,
3. Preliminary action recommendations to be completed by December 31, 1980,
4. Final evaluation, action recommendations and project proposals to be complete by May 31, 1981.

#### Reporting

The consultant will report on a bi-weekly basis to senior staff in the Department of Agriculture and Livestock Development involved in the development of projects to implement the food and livestock policy priorities.

APPENDIX E - FINANCIAL ANALYSIS

For the purpose of this analysis, the budget figures in the Project Agreement were used to determine authorized funding in each subproject category.<sup>1/</sup> The estimated expenditures for each component until the life-of-project (LOP) were derived from discussions with project managers.

The following sections describe the financial standing of each component of the ASSP. It should be noted that in some cases the Contract Agreement differs from the Project Agreement budget. The discrepancies are listed in Table E.1.

Table E.1. ASSP: Comparison of Differences between the ASSP of Project Agreement and Contract Funding

<u>PSI NO.</u>	<u>COMPONENT</u>	<u>PROJECT AGREEMENT</u>	<u>CONTRACT</u>	<u>DIFFERENCE</u>
01	Egerton TA & Participant Training	\$10,240,600	\$10,240,000	\$+ 600
03	Coast Institute Study	150,000	\$ 253,306	\$-103,306
05	Kiboko TA and Participant Training	5,142,100	\$ 5,141,419	\$+ 681
07	AFC TA	1,276,800	\$ 1,268,000	\$+ 8,800
10	Cooperative Studies	604,500	\$ 685,500	\$- 81,000
14	Grain Storage Study and Training	419,300	\$ 250,468	\$+168,832

<sup>1/</sup>In examining the Project Agreement between the GOK and USAID, minor discrepancies were discovered between the preface and the budget in the document as follows:

	<u>PREFACE</u>	<u>BUDGET</u>
GRANT	\$26,118,000	\$26,131,300
LOAN	\$23,600,000	\$23,558,000
TOTAL	\$49,718,000	\$49,689,200

There is a difference in these two totals of \$28,800. The binding amount in the Project Agreement with the GOK is \$49,728,000.

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### PSI No. 01 - Egerton: SECID Contract

ASSP grant funding for the SECID Egerton College Expansion contract totals \$10,240,000. SECID has recently notified the GOK that a total budget of \$10,784,667 will be necessary to achieve the original objectives of the project, i.e., for SECID and its member institutions to be able to pay for all of the 978.6 person-months of technical assistance and 131 participant years of participant training. This would require additional funding in the contract of \$544,667. If no additional funds are available, SECID will have to reduce its costs within the framework of \$10,240,000 total funding.

If additional funds for SECID are not available, then it is argued that none of the remaining balance of the 35 participant years can be provided. The remaining funds would instead be used to finance the 978.6 person/months of technical assistance.

The Audit Report (June 30, 1981) discussed the need for better management by SECID. Two major problems discussed in that report were noncompliance of the contractor with financial reporting requirements and the need for improvement in backstopping activities and field support provided by the Home Office. Although these audit issues have reportedly been satisfactorily resolved, individuals interviewed still cited both issues as matters of concern. The auditor's report pointed out that under USAID policy, it is GOK's responsibility to audit these records. Neither USAID or the GOK has reviewed the contractor's home office financial documentation supporting the expenditures under these contracts; however, we understand that an audit is imminent and hope that these issues will be cleared as a result.

### PSI No. 02 - Egerton: Capital Investment

This PSI category includes a \$23,600,000 loan which was provided to the GOK by USAID/Kenya to finance a major physical expansion of the college. The construction is generally on schedule and is expected to be completed by early 1985. This component was not included in the current evaluation's scope of work.

The Project Agreement also authorizes grant funding under this PSI of \$504,000 which was designated to procure furniture for the Egerton Technical Assistance Team. Currently, these funds have not been used since expenditures for furniture have come out of the SECID contract. Consequently, these funds should be available for reprogramming to the SECID TA and training effort or another part of the project.

### PSI No. 03 - Coast Agricultural Institute Study and the University of Nairobi Expansion Studies

The amount of \$216,000 was authorized in the Project Agreement for these studies. USAID/Washington, through the Small Business Administration, signed a contract with Pacific Consultants to determine the feasibility of establishing a Coast Agriculture Institute. The study cost \$253,306 and was completed by June 30, 1980. The final report met the requirements stated under the contract. However, there were problems with the financial aspects of the contract which are the subject of a separate Inspector General Investigation. A feasibility study on the expansion of the Faculty of

Agriculture at the University of Nairobi does not appear warranted at the present time and the funds allocated to this activity should be considered for reprogramming.<sup>1/</sup>

PSI No. 04 - Agriculture Training Fund

It is estimated that the authorized funds of \$3,460,000 will be totally used. As of December, 1981, \$766,496 had been spent leaving a balance of \$2,693,504 for additional training.

PSI No. 05 - Range Research Expansion: Technical Assistance and Training

The GOK/Winrock contract authorizes \$5.1 million for training and technical assistance for NRRS. As a consequence of the delayed arrival of the TA team, it is currently estimated that the project will run an overall surplus by PACD of \$350-400,000. The savings on TA costs are partially offset by higher training expenses associated with the increased costs and extended training time involved in sending participants for joint B.Sc./M.Sc. programs. Details on a line item basis are presented in Table E.3.

PSI No. 07 - Agricultural Finance Corporation: Technical Assistance

A Contract let to PAS/SGV totalling \$1,268,000 provides for approximately 10 years of long-term U.S. technical assistance. It is estimated that there will be no remaining funds in this category.

PSI No. 08 - Agricultural Finance Corporation: Participant Training

There are \$1,390,400 in funds authorized for this component of the project. As of December, 1981, \$201,502 had been spent. It is projected that an additional \$404,000 will be spent during the LOP leaving a surplus of \$784,898 which could be used elsewhere in the project. Detailed calculations follow:

1,390,400	Total Funds authorized
201,502	Expenditures as of December, 1981
<u>- 404,000</u>	Remaining expenditures projected
784,898	for LOP
	Total surplus funds

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<sup>1/</sup>See section II.A.9. for further discussion of the Faculty of Agriculture.

Projected expenditures for LOP:

AFC will use:

40,000	2 years long term @ \$20,000
X        4	per year per
	participant:
160,000	for 82-83
+ 160,000	for 83-84
<u>320,000</u>	Total for long-term
	training
+ 6,000	3 months training in
X        4	third country per
	participants @ \$6,000/year
24,000	for 82-83
24,000	for 83-84
<u>24,000</u>	for 84-85
<u>72,000</u>	Total for short-term
	training in third
2,000	country.
X        2	in-country training @
	\$2000/year per
4,000	participant:
4,000	for 82-83
<u>4,000</u>	for 83-84
	for 84-85
<u>12,000</u>	Total for in-country
	training
\$ 404,000	TOTAL

PSI No. 10 - Cooperative Studies

A Contract in the amount of \$686,500 was let to ACDI to perform three studies. These studies have been completed satisfactorily. Some technical assistance was also included in this contract. The total amount will be expended by PACD. As noted in Table E.2., there is a discrepancy of \$81,000 between the Project Agreement and the Contract in this category.

PSI No. 12 - Cooperative Training

Authorized funds available for training are \$2,412,500 of which \$474,814 was spent as of December, 1981 leaving a balance of \$1,937,686. It is estimated that these funds will be used by LOP.

PSI No. 14 - National Grain Storage Study and Training

Under this component, a contract was let to DPRA to undertake a study storage in Kenya. Expenditures of \$250,468 were made for the study which has been satisfactorily completed. In addition, USAID/Kenya was to fund participants in related studies. To date the participant training portion of this component has not begun. Consideration is being given to cancelling the training component segment in favor of other project needs.

PSI No. 15 - Evaluation

The Project Agreement authorized \$465,000 to be used for evaluation. USAID/Kenya contracted with Practical Concepts, Inc. to develop an approach for USAID personnel to operate an integrated ASSP Implementation system for \$52,000. Various diagrams, operational costs and a final report were prepared in compliance with the contract.

A contract for \$65,000 has been signed to increase funding of the University of California-Berkeley Cooperative Agreement with David Leonard to prepare various reports regarding the Agricultural Extension Service in Kenya.

The current evaluation contract with USDA is \$55,000. It is anticipated according to the Project Paper that an additional comprehensive evaluation and one or more in-depth component studies will be initiated before LOP requiring an estimated \$200,000. LOP expenditures are thus estimated at \$372,000.

## APPENDIX F: EVALUATION METHODOLOGY

This Appendix includes the following material on methods used in the ASSP evaluation:

- F.1 Initial Workplan for the Kenya ASSP Evaluation Team
- F.2 Egerton College Expansion
- F.3 Range Research Systems Support - Kiboko
- F.4 Training Fund
- F.5 AFC
- F.6 Cooperative Component
- F.7 ASSP Evaluation/Special Studies
- F.8 Other Components
- F.9 Overall ASSP Assessment

List of contacts and references used are contained in Appendices G and H respectively.

## F.1 Initial Workplan for the Kenya Agriculture Systems Support Project (ASSP) Evaluation Team

Team Members: Elon Gilbert, Team Leader; Ian Mayo-Smith, Manpower Specialist; Carlton Herbel, Range Research Specialist; and Marcus Ingle, Management and Evaluation Specialist and Director.<sup>1/</sup>

### A. Evaluation Scope and Major Issues

As specified in the Terms of Reference, the aim of this evaluation is "... to determine the likelihood of attaining stated project objectives within the present time and resource availabilities." The primary user group for the evaluation results will be the USAID/Kenya and Government of Kenya (GOK) officials who share management or executive decision making responsibility for one or more components of the ASSP development effort. Secondary users of the evaluation results include ASSP contract personnel, AID/Washington back-stop staff, and other groups interested in the progress and outcomes of this important project.

In the conduct of the evaluation, the contract team will focus on several major issues that cut across the project components. These include:

1. Is the basic rationale for the project still valid given current GOK and USAID policies, priorities and other circumstances?
2. Is the present and planned configuration of the several project components valid given a current assessment of constraints to expanded smallholder and pastoralist production?
3. What is the progress, and the factors instrumental to it, towards the achievement of the stated project outputs and purposes (EOPS)?
4. How effective and appropriate have the AID and GOK inputs been, either directly or through contractors?
5. How satisfactory are linkages both within ASSP and between ASSP and other AID assisted development efforts?
6. What impact has inflation/devaluation/budgetary constraints had on the project?
7. Based on the evaluation findings and the Team's conclusions, what changes can be recommended for improving ASSP performance?

### B. Delineation of Evaluation Priorities

In the interest of more systematically and efficiently allocating the brief time available for the evaluation, the ASSP evaluation team

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<sup>1/</sup>Drs. Gilbert, Herbel and Mayo-Smith will spend 5, 4 and 3 weeks in Kenya respectively, beginning Feb. 6/7. Dr. Ingle will join the team for the first two weeks of March.

attempted to translate the terms of reference into a general ranking of the various components and subcomponents in terms of the priority to be assigned during the evaluation mission. A high (H), medium (M) or low (L) priority was assigned to each component and major subcomponents on the basis of the following criteria:

1. focuses on known or potential problem areas
2. sufficiently advanced to allow reasonable assessment of progress
3. high probability of continuing or future USAID/GOK involvement
4. areas where decisions/changes are imminent
5. areas of high potential impact on smallholder/pastoralist production
6. specific competence on evaluation team to handle component

Application of the above criteria resulted in the following suggested rankings:

<u>Project Component/Sub-component</u>	<u>Ranking</u>
1. Egerton College Expansion	H
a. Construction	(M)
b. Tech. Assistance	(H)
c. Training	(H)
2. Kiboko Range Research Support	H
a. Construction	(M)
b. Tech. Assistance	(H)
c. Training	(H)
3. MOA Training Fund	H
4. MOCD System Support	M
5. Evaluation/Special Studies	L/M
6. Ag. Credit System Support	L
7. Storage and Marketing	L
8. Coast Institute	L
9. University of Nairobi	<u>L/</u>

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1/A medium priority is assigned to the specific question of the transferability of Egerton course credits to the University of Nairobi.

Although all components will be treated in the evaluation, high priority components will be given more detailed attention in terms of the time of team members and coverage in the report. As a very rough indication, it is expected that no more than two weeks out of a total of fourteen person weeks available for the field investigations under the evaluation will be devoted specifically to medium and low priority components/subcomponents. This does not take account of time spent on issues which cut across many or all components of the project such as the impact of inflation/devaluation/status of GOK public finances on project progress and prospects.

The evaluation team welcomes discussion of the above rankings with USAID/Kenya mission and representatives of GOK upon arrival in Kenya, keeping in mind the fact that in-depth evaluations of all components are impossible given the limited resources available for the effort.

### C. Issues Specific to ASSP Components

In this section, the issues specific to individual ASSP components are presented. It is proposed that these issues be treated in addition to the major concerns present in Section A.

#### 1. Egerton College

- a. Do any predicted or possible changes in the status of Egerton have implications for this component? E.g., if Egerton becomes the Faculty of Agriculture of a new University, will it continue the diploma level training or will this be phased out or transferred elsewhere?
- b. Given the recent creation of new institutions to train agricultural technicians, are the project needs for Egerton diplomates still valid?
- c. Is there evidence that increasing the number of Egerton diplomates should result in higher productivity by smallholders/pastoralists?
- d. What is the appropriate roll for Egerton to play as an in-service training center for extension agents? E.g., upgrading of lower level staff? Refresher programs introducing technological advances to Egerton diplomates? Or what?
- e. Are Kenyan participant trainees receiving training that is appropriate to the needs of Kenyan agriculture in general and of Egerton College in particular?
- f. Is the system of selection for counterpart training effective? I.e., are the most suitable people selected on merit and are they retained at Egerton after training for periods of at least twice the length of the training?
- g. Is the training/experience/orientation of the TA component such as to both compliment available Kenyan staff and reinforce the official focus or improving the relevancy of training in efforts to assist smallholders/pastoralists?

- h. What changes have been made in the curriculum since the inception of the project and are further improvements required?
- i. What are the constraints preventing the University of Nairobi Faculty of Agriculture from giving credit to holders of Egerton diplomas?

## 2. Range Research Support (Kiboko)

### Research

- a. How are research priorities determined? What are they and do they appear to correctly reflect the needs of improving smallholder/pastoralist production?
- b. Does the research plan reflect an appropriate mixture between basic, applied and adaptive research activities? What should be the mixture in the light of Kenya's needs?
- c. What are project linkages to related research activities such as the Arid and Semiarid lands project, other range research activities in Kenya and applicable research in other countries?
- d. Is there adequate staff (including Kenyan and expatriate staff) to implement the current and proposed research program (specific attention will be given to the need for a hydrologist)?
- e. Are the qualifications and experience of the existing (and prospective) staff adequate to implement the proposed research program? What additional expertise is required, if any?
- f. Are there adequate financial resources and physical facilities (buildings and equipment)?

### Training

- g. Is the participant training subcomponent being implemented satisfactorily? (Are qualified candidates being identified in sufficient numbers? Is their progress in their training programs satisfactory? Are the training programs themselves relevant in terms of the Kenya situation and the proposed research program?)
- h. Is there on-the-job training for future scientists and extension personnel?

### Linkages to Extension

- i. What are the specific mechanisms by which researchers interact with extension personnel in defining research priorities and field testing of research results?

- j. Do research staff participate in special training (in service) or formal certificate training of extension personnel?
- k. What is the quality, quantity and relevance of publications/communications?

3. MOA Training Fund

- a. Is the selection system effective? (Same question as letter f., for Egerton.)
- b. Is the training received appropriate to the needs of Kenyan smallholders/pastoralists?
- c. Is the back-up support provided by USDA adequate?
- d. Are returning trainees being assigned to their earmarked positions?
- e. Can MOA retain trainees after completion of training for at least the bonded period?
- f. Are there changes in the predicted needs for the manpower trained under this component?

4. Coast Agricultural Institute

- a. What are Ministry of Agriculture's plans to staff the Institute?
- b. Should AID have any role in staff training and curriculum development?
- c. What is the extent of World Bank and other donor support for follow-on activities?

5. University of Nairobi Agricultural Faculty

- a. Should the University of Nairobi study await the decision on the proposed "Second University"?

6. Cooperative Systems Support

- a. GOK has still not formally responded to the study prepared under the terms of this component. When can a response be expected and what aspects of the report (if any) are likely to have difficulty in gaining acceptance? What are the implications for the implementation of this component of the delay in a response to the report and the possible nonacceptance by GOK of specific aspects of the report?
- b. Do cooperatives remain a high priority mechanism for assisting smallholders to improve agricultural production?

7. Agriculture Credit

- a. Should the USAID respond favorably to the AFC's request to extend the TA team to three years?
- b. What is the turnover rate of the AFC staff that have been trained under this project and what does this suggest for a continuation of the training component? Should this be an area where the USAID pulls back and lets the World Bank or some other institution provide support?

8. Evaluation

- a. What are the implications of Dr. Leonard's report for the overall direction of the ASSP project? Are fundamental changes required to improve the likelihood of accomplishing its long-term goals?
- b. What additional evaluation activities should be contemplated under the ASSP project and when should these be scheduled? Does the initial design need revamping? If so, why and how?

9. Grain Storage

No issues.

## F.2 Egerton College Expansion

The evaluation team developed a draft work plan for this component during the orientation week in Washington.<sup>1/</sup> Telephone contact was made with Virginia State, and the SECID home office. The team leader had preliminary discussions of an informal nature with the SECID Project Manager enroute to Nairobi and soon after arrival in country.

In Nairobi, discussions were held with the USAID Project Officer and officials at MOA and the Directorate of Personnel Management on the specific evaluation issues. Approval was given to move ahead with the evaluation work plan. During the first few days, background documents were assembled and reviewed.

A week-long visit was made to Egerton College by one member of the Evaluation Team accompanied by the USAID Project Officer and a member of USAID's Program Office. Late in the week, the Evaluation Team member was joined by three other members of the Evaluation Team.

The purpose of the visit to Egerton was to obtain information and data on the Egerton expansion program generally and, specifically, to assess the effectiveness of the Technical Assistance Team and the progress and impact of participant training. Interviews were conducted with approximately 40-50 people, among them the following: the Principal of Egerton College, Kenyan teaching and administrative staff, the SECID Chief of Party and team members, and Egerton students. In addition, relevant documents were collected and perused.

Subsequently, after returning to Nairobi, a draft report was prepared and reviewed. Several more discussions were held with the SECID Chief of Party, the Principal of Egerton, and members of the USAID staff in the course of which extensive comments were made on the draft. A revised draft was prepared in Kenya following a review meeting during week four of the evaluation. A copy of the edited draft report was left with USAID prior to the Team's departure.

Upon returning to the US, the Director for the evaluation mission forwarded a copy of the Egerton section of the draft report to the SECID home office. In April, the SECID home office submitted a written critique of the evaluation methodology and findings. The draft report was revised to incorporate legitimate SECID concerns.

## F.3 Range Research Systems Support - Kiboko

As with other ASSP components, the Evaluation Team prepared a draft workplan in Washington, D.C. prior to departure which included a list of specific questions related to the Range Research component. In view of the number and complexity of the issues involved in the Kiboko project, the technical assistance and training subcomponents were assigned a high

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<sup>1</sup>See section F.1 of this Appendix for a list of the overall and component-specific issues in the draft work plan.

priority in the evaluation exercise. The team included a range scientist who devoted virtually all of his three weeks in Kenya to the Kiboko component. In addition, the Evaluation Team Leader (an agricultural economist) also devoted in excess of three weeks solely to Kiboko and was ably assisted by a staff member from the Agricultural Division, USAID, Nairobi. The MOLD assigned the Assistant Director of Livestock Research to participate in the evaluation who was a most valuable addition to the team. Thus, Kiboko received a larger allocation of the Evaluation Team's time than any other component (with the possible exception of Egerton College).

Upon arrival in Nairobi, the team was briefed by the USAID Mission on ASSP and the workplan was reviewed. The Range Research Support section was endorsed by the Mission as presented. Team members spent the better portion of a week in Kiboko reviewing the details of the research program and holding discussions with TA and Kenyan staff. A visit was also made to nearby Kiboko group ranch with an anthropologist from ILCA and the agricultural economist from Kiboko Station. Back in Nairobi, a series of discussions were held involving USAID, IBRD, the Winrock Chief of Party, the project officer from the Winrock Home Office, the director of the research division of MOLD, and staff members of ILCA and CIMMYT who had in some way been associated with NRRS, Kiboko, or shared common interests. These discussions centered on the preliminary findings and our recommendations and were designed to obtain feedback from the parties most directly concerned with the project.

### F.3 Range Research Systems Support - Kiboko

The Range Research specialist was only on-site in Kenya for the first three weeks of the evaluation period. Before his departure he worked closely with the Team Leader on completing an initial draft of the Kiboko review. The responsibility for completing the Kiboko assessment--including subsequent meetings with GOK, USAID, and contract personnel, and incorporation of comments into the report--fell primarily to the Team Leader with the editorial assistance of the Evaluation Director. Unfortunately, the USAID Project Officer assigned to Kiboko only overlapped with the team during the last week, so his comments were not available until after the team's return to the U.S.

The Team received and spent considerable time integrating the written comments and suggestions of three parties: the USAID Kiboko Officer, the Winrock/Kiboko Chief of Party in Kenya, and the Winrock Home Office. The Team's Range Specialist also reviewed the Draft Report and suggested revisions, several of which have been incorporated.

### F.4 Training Funds

Before departing for Kenya, USDA staff responsible for administering the MOA fund were interviewed. In Kenya, initial discussions were held with the USAID Project Officer and the Training Officer; the documents and files provided by them were reviewed. A meeting was held with an official in the Directorate of Personnel Management, Office of the President, who deals with approving nominees for training.

Subsequently, the training officers at each of the three Ministries (MOA, MOLD, MOCD) and at AFC were interviewed to: i) solicit their general

impressions of the training funds; ii) discuss the selection process; iii) ascertain the present posts of returned participants; and iv) request their assistance in setting up appointments with some returned participants. In some cases this process required several visits.

The questionnaire outlined below was used as a guide in interviewing returned participants. A total of 14 short-term and two long-term participants were interviewed.

Throughout this process, contact was maintained with the USAID Project Officer and Training Officer who promptly and efficiently supplied needed information, assisted with contacts, and reviewed and commented upon a draft report prior to the departure of the evaluation team.

#### Questionnaire for Returned Participants

1. Name and Title (before and after)
2. Ministry/Department
3. Type and Place of Training
4. Dates and Duration of Training
5. How long have you worked in this Ministry/Institution?
6. How were you selected?
7. Was the assistance, orientation, etc., received satisfactory?
8. Did you encounter any problems during your program in the US?
9. Do you feel the training was of relevance to your work here in Kenya?
10. Has this training helped you to be more effective in your work? How?
11. Would you have preferred to be trained in a different program or in a different place/country? Where?
12. Do you have any suggestions on improving the program? (Selection, placement, content, etc.)
13. Have you received or are you likely to receive a promotion as a result of your training?

#### F.5 AFC

In view of the relatively short period of the PAS/SGV technical assistance in the AFC, it was felt that a major effort would not be warranted for this component. Further, the USAID Mission indicated that a low priority should be assigned to the AFC-TA component in terms of the time of the evaluation team. The only specific questions with reference to the component in the draft work plan related to: i) the possible extension of the existing TA component for an additional period to facilitate better synchronization

with the World Bank project; and ii) whether USAID should phase out in view of support available from the World Bank and other sources.

Accordingly, an abbreviated evaluation of the AFC-TA component was carried out as follows:

1. Review of documentation, including PP, the Appraisal Report of the 4th IBRD Agricultural Credit Project and the quarterly reports and attachments prepared by the TA team, and briefing by USAID's Project Officer.
2. Interviews with TA team members, both as a group and individually, covering their activities to date.
3. Interviews with AFC staff members who work most closely with the TA team members. During these sessions, AFC staff were asked to score the PAS/SGV team as a group in the following areas of: i) professional/technical experience; ii) knowledge of Kenya and adaptability to local conditions; and iii) relations with AFC staff members. Scores were based on a scale of 1 (poor) to 5 (excellent) with 3 being satisfactory.
4. Discussions with the General Manager and Chairman of the Board of Directors on the performance of the TA team to date and future plans/prospects.
5. Discussions with the IBRD Nairobi Office on the relationship of the TA Team's activities to the support that will be provided under the upcoming 4th Credit Project.
6. Preparation of a draft report for review by USAID Nairobi and the PAS/SGV Chief of Party and revision of the report to incorporate comments prior to the departure the of Evaluation Team.

#### F.6 Cooperative Component

The approach used for evaluating the Cooperative component was essentially similar to that followed for the AFC. However, in view of the fact that, i) a medium priority had been assigned to this component (as opposed to low for the AFC); ii) most of the TA activities under the component had been completed; and iii) there were a considerable number of developments in progress in MOCD as a direct consequence of the appointment of a new Commissioner, the evaluation team decided to engage the services of a local consultant--Dr. Michael Schluter--to assist with the review. Dr. Schluter had extensive experience in Kenya and first hand knowledge of cooperatives which enabled the evaluation team to relate ASSP inputs more systematically to general developments in MOCD and the Cooperative Movement as well as address general questions posed by USAID/Nairobi in a fashion that would not have otherwise been possible. A concluding review session with the Commissioner of Cooperatives in which the findings were opening and frankly discussed proved to be a stimulating and valuable experience.

## F.7 ASSP Evaluation/Special Studies

The evaluation team included a member of the team that prepared the ASSP Implementation plan in 1979. This facilitated the assessment of activities supported under the evaluation component. Primary attention was given to discussions with USAID/Nairobi staff on the utility of the implementation plan and lessons learned for similar engagements on other projects.

The special studies undertaken by Dr. David Leonard and colleagues were (partially) reviewed in draft form and discussions were held with Leonard on a variety of issues related to various ASSP components. Individuals with whom Leonard has worked inside and outside of the mission were also consulted on the quality and usefulness of his studies .

## F.8 Other Components

All of the other components were evaluated by basically the same methodology used for the AFC component. Relatively little time was allocated (or available) for any single component. By prior understanding (as specified in the draft work plan) the following components were assigned a low priority: i) storage and marketing; ii) Coastal Agricultural Institute; and iii) Faculty of Agriculture, University of Nairobi.

## F.9. Overall ASSP Assessment

The crosscutting evaluation issues--including the overall validity of ASSP, linkages, and USAID's management performance--listed in F.1. above could only be addressed following the initial assessment of the individual project components. The task of reviewing each component and making the overall assessment was given to the Evaluation Director during the team's final week in Nairobi. The Director was guided by the Team Leader and USAID Project Director in completing this analysis. As with other segments of the evaluation, the overall ASSP findings, conclusions and recommendations were presented in a joint USAID/GOK review session. Written suggestions on the overall review were received from USAID and have been incorporated into the Final Report.

## APPENDIX G - CONTACTS\*

1. Acquah, Dr. E.T., Lecturer (SECID), Economics Department, Egerton College.
2. Alai, H., Head, Technical Services Division, AFC, Nairobi.
3. Alvarez, Winfredo E., Financial Management Advisor (PAS/SGV), AFC, Nairobi.
4. Amiani, E.K., Training Division, MOLD, Nairobi.
5. Ayuko, Lucas J., Deputy Director, Range Management Division, MOLD, Nairobi.
6. Asila, Florence, Senior Cooperative Officer, MOCD, Nairobi.
7. Bailey, M.A.W., Assistant Librarian, Egerton College.
8. Bartinge, J., Research Officer, NRRS, Kiboko.
9. Bekune, Solomon, International Livestock Center for Africa, Nairobi.
10. Birgen, , Commissioner of Cooperatives, MOCD, Nairobi.
11. Bishnoi, Dr. U.R., Lecturer (SECID), Crop Husbandry Department, Egerton College.
12. Buisa, Mrs., Training Division, Ministry of Agriculture.
13. Bunge, J., Lecturer (SECID), Home Economics Department, Egerton College.
14. Burzlaff, Don, (Winrock), Research Management Specialist, NRRS Kiboko.
15. Cappook, Larry., NSF South Turkana Ecosystem Project.

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\*This list does not include USAID staff who assisted with and supported the evaluation.

16. Cruz, Catalino E., Fiscal Planning Advisor (PAS/SGV), AFC, Nairobi.
17. Chambeda, A.E., Research Division, MOLD, Nairobi.
18. Chema, Dr. S., Deputy Director (Research), MOLD, Nairobi.
19. Childs, Dennis, (Winrock), Range Ecologist, NRRS Kiboko.
20. Choudhry, Dr. M.S., Lecturer (SECID), Dairy Technology Department, Egerton College.
21. Clarke, Dr. W.S., Lecturer (SECID), Education Department, Egerton College.
22. Cohen, Dr. John, Advisor (HIID), MOA, Nairobi.
23. Collinson, Dr. Michael, CIMMYT Economics Program, Nairobi.
24. Corley, H.A., Procurement/Administrative Officer (SECID), Egerton College.
25. David, Milton L., President, DPRA, Manhattan, Kansas.
26. Ellis, Jim, NSF South Turkana Ecosystem Project.
27. Gachago, Miriam, Training & Manpower Development Division, MOCD, Nairobi.
28. Gathiri, E., Extension and Manpower Development Division, MOA, Nairobi.
29. Gehres, Donald, OIT/OICD/USDA, Washington, D.C.
30. Gicheru, Ester, Senior Cooperative Officer, MOCD, Nairobi.
31. Goodine, Isaac, IBRD Regional Mission in Eastern Africa, Nairobi.
32. Grindin, Barabara, ILCA Nairobi.
33. Guderyon, J.J. (ACDI), Project Leader MOCD.

34. Gurevich, R., Project Manager, (Egerton Contract), SECID, North Carolina
35. Haji, Abdul I., IBRD Regional Mission in Africa, Nairobi.
36. Harmon, L., Lecturer (SECID), Home Economics Department, Egerton College.
37. Haverlock, Sir William, Chairman, Board of Directors, AFC.
38. Hopcroft, David, Game Rancher, Nairobi.
39. Hopcroft, Dr. Peter, IBRD, Washington, D.C..
40. Hunt, Lawrence J., Loan Appraisal Instructor (PAS/SGV), AFC, Nairobi.
41. Hyden, Dr. Goran, Regional Representative, Ford Foundation, Nairobi.
42. Ingling, Dr. A., Lecturer (SECID), Animal Health Department, Egerton College.
43. Ireri, E.K., Acting Head of Department, Economics Department, Egerton College.
44. Johnson, Dr. L., Lecturer (SECID), Chemistry Department, Egerton College.
45. Jones, David, Agricultural Program Advisor, Ford Foundation.
46. Kaburi, A. Financial Comptroller, AFC.
47. Kallavi, Javid, Planning Officer, Project Management and Evaluation Division, MOA.
48. Kamau, P.C.G., Training Institutions Officer, MOLD.
49. Kange, Charles, Research Officer, Project Management and Evaluation Division, MOA.
50. Kanjumba, P.O., Cooperative Officer, MOCD.

51. Karanja, A., Lecturer, Engineering Department, Egerton College.
52. Karau, Dr. P.K., Department Head, Animal Science Department, Egerton College.
53. Karr, Dr. B.L., Lecturer (SECID), Range Management Department, Egerton College.
54. Karr, Dr. L.G., Lecturer (SECID), Education Department, Egerton College.
55. Katherman, M.J., Lecturer (SECID), Biology Department, Egerton College.
56. Kaufsky, Peter, OICD/USDA, Washington, D.C.
57. Khaemba, Margaret, Home Economist, MOA, Coast Province.
58. Kimani, Lillian, Training Officer, MOA, Nairobi.
59. Kimani, John, Deputy Director, MOA, Nairobi.
60. Kimni, Tabitha, Trainer, Agricultural Information Center, MOA, Nairobi.
61. Kinoti, F.M., Extension and Manpower Development Division, MOA, Nairobi.
62. King, A., Lecturer (SECID), Engineering Department, Egerton College.
63. Kizer, M.A., Lecturer (SECID), Engineering Department, Egerton College.
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