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DEPARTMENT OF STATE  
BUREAU OF INTERNATIONAL ASSISTANCE  
WASHINGTON, D.C. 20521

PROJECT PAPER

Proposal and Recommendations  
For the Review of the  
Bilateral Assistance Subcommittee

KENYA - AGRICULTURAL SYSTEMS SUPPORT

AID/BAS-026

UNCLASSIFIED

DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, D.C. 20523

UNCLASSIFIED  
AID/BAS-026  
July 21, 1978

MEMORANDUM FOR THE BILATERAL ASSISTANCE SUBCOMMITTEE

SUBJECT: Kenya - Agricultural Systems Support

Attached for your review are recommendations for authorization of a loan for Twenty-Three Million Six Hundred Thousand United States Dollars (\$23,600,000) and a grant for Twenty-Six Million Two Hundred Thousand United States Dollars (\$26,200,000) to the Government of Kenya (the "Cooperating Country") to assist in financing certain foreign exchange and local currency costs of goods and services required for the project.

This loan/grant proposal is scheduled for consideration by the Working Group on Bilateral Assistance on Monday, July 31, 1978, at 2:30 p.m., in Room 3886 New State. If you are a voting member, a poll sheet has been enclosed for your response.

Working Group on Bilateral Assistance  
Office of Policy Development and Program  
Review

Attachments:

Summary and Recommendations  
Project Analysis  
Annexes II - V

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AGENCY FOR INTERNATIONAL DEVELOPMENT  
**PROJECT PAPER FACESHEET**

1. TRANSACTION CODE  
 A ADD  
 C CHANGE  
 D DELETE

2. DOCUMENT CODE  
PP  
3

3. COUNTRY/ENTITY  
Kenya

4. DOCUMENT REVISION NUMBER

5. PROJECT NUMBER (7 digits)  
615-0169

6. BUREAU/OFFICE  
 A. SYMBOL AFR  
 B. CODE 06

7. PROJECT TITLE (Maximum 40 characters)  
Agricultural Systems Support Project

8. ESTIMATED FY OF PROJECT COMPLETION  
FY 84

9. ESTIMATED DATE OF OBLIGATION  
 A. INITIAL FY 78  
 B. QUARTER 4  
 C. FINAL FY 82 (Enter 1, 2, 3 or 4)

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) - K. Shs. 7.9)

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C - C	D. TOTAL	E. FX	F. L. C	G. TOTAL
AID APPROPRIATED TOTAL	12,600	17,700	30,300	32,100	17,700	49,800
(GRANT)	6,500	200	6,700	26,000	200	26,200
(LOAN)	6,100	17,500	23,600	6,100	17,500	23,600
OTHER U.S.						
HOST COUNTRY	-	18,100	18,100	-	18,100	18,100
OTHER DONOR(S)	-	-	-	-	-	-
TOTALS	12,600	35,800	48,400	32,100	35,800	67,900

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 78		H. 2ND FY 79		K. 3RD FY 80	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	600	630	630	3,720	23,600	2,793		3,075	
(2) FN	250	031		1,480		1,150		1,170	
(3) FN	111	946		1,300		1,035		1,055	
(4) FN	150	240		200		222		-	
TOTALS				6,700	23,600	5,200	-	5,300	-

A. APPROPRIATION	N. 4TH FY 81				O. 5TH FY 82		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED MM YY 19 82
	P. GRANT	Q. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN			
(1) FN	2,900		2,281		14,769	23,600			
(2) FN	1,105		889		5,794				
(3) FN	995		830		5,215				
(4) FN	-		-		422				
TOTALS	5,000		4,000		26,200	23,600			

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

1 = NO  
 2 = YES

14. ORIGINATING OFFICE CLEARANCE

SIGNATURE: *Hariadene Johnson*  
 TITLE: Office Director, AFR/EA for Director, USAID/Kenya

Hariadene Johnson  
 DATE SIGNED: MM DD YY

15. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS. DATE OF DISTRIBUTION  
 MM DD YY

PROJECT PAPER

KENYA: AGRICULTURAL SYSTEMS SUPPORT PROJECT

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## GLOSSARY

<b>AAO</b>	<b>Assistant Agricultural Officer</b>
<b>AO</b>	<b>Agricultural Officer</b>
<b>AFC</b>	<b>Agricultural Finance Corporation</b>
<b>AHITA</b>	<b>Animal Health and Industry Training Institute</b>
<b>ASL I</b>	<b>USAID financed Agricultural Sector Loan, number 1.</b>
<b>ASSP</b>	<b>Agricultural Systems Support Project</b>
<b>ATAC</b>	<b>American Technical Assistance Corporation</b>
<b>CBK</b>	<b>Cooperative Bank of Kenya</b>
<b>CBS</b>	<b>Central Bureau of Statistics</b>
<b>DAO</b>	<b>District Agricultural Officer</b>
<b>DAP</b>	<b>Development Assistance Plan</b>
<b>FAA</b>	<b>Foreign Assistance Act of 1961, as amended.</b>
<b>FTC</b>	<b>Farmer Training Center</b>
<b>GOK</b>	<b>Government of Kenya</b>
<b>IADP</b>	<b>Integrated Agricultural Development Program, World Bank financed. Designed to provide agricultural credit and technical services to small and medium sized farm holdings.</b>
<b>IBRD</b>	<b>International Bank for Reconstruction and Development</b>
<b>ILO</b>	<b>International Labor Office</b>
<b>IRS</b>	<b>Integrated Rural Survey, Central Bureau of Statistics</b>
<b>JAA</b>	<b>Junior Agricultural Assistant, farmer contact agent</b>
<b>JAHA</b>	<b>Junior Animal Health Assistant</b>
<b>KSU</b>	<b>Kansas State University</b>
<b>MOA</b>	<b>Ministry of Agriculture</b>
<b>MOCOD</b>	<b>Ministry of Cooperative Development</b>

**MDE** Ministry of Education

**MOFP** Ministry of Finance and Planning

**PAO** Provincial Agricultural Officer

**SPSCP** Small Producer Services and Credit Program, see ASL I.

**TA** Technical Assistant, certificate graduate

**TO** Technical Officer, Egerton graduate

MOA ORGANIZATION: ABBREVIATIONS

DA	Director of Agriculture
DDA	Deputy Director of Agriculture
DOR	Director of Research
HRMD	Head, Range Management Division
HLMD	Head, Livestock Marketing Division
HLFMD	Head, Land and Farm Management Division
HAPD	Head, Animal Production Division
HICD	Head, Industrial Crops Division
HHCD	Head, Horticultural Crops Division
HFCD	Head, Food Crops Division
EMDD	Extension and Manpower Development Division
ADA (SR)	Assistant Director of Agriculture, Services Research (extension)
ADA (DR)	Assistant Director of Agriculture, Development Research
ADA (APR)	Assistant Director of Agriculture, Animal Production Research
PDA	Provincial Director of Agriculture
PLMO	Provincial Livestock Management Officer
PRMO	Provincial Range Management Officer
PL & FMO	Provincial Land and Farm Management Officer
PAPD	Provincial Animal Production Officer
PCO	Provincial Crops Officer
P. EXT. & TRAIN. O	Provincial Extension and Training Officer

DAO District Agricultural Officer  
 DEO District Range Officer  
 DL & FMO District Land and Farm Management Officer  
 DAPO District Animal Production Officer  
 DCO District Crops Officer  
 D. EXT. &  
 TRAIN. O District Extension and Training Officer  
  
 DIV. AGRIC.  
 OFFICER Division Agricultural Officer

SUMMARY OF EXTENSION STAFF TITLES

<u>Category</u>	<u>Abbreviation</u>	<u>Education Level</u>
Agricultural Officer	A.O.	Degree or above
Technical Officer	T.O.	Diploma
Technical Assistant	T.A.	Certificate
Agriculture Assistant	A.A.	Certificate
Junior Agricultural Assistant	J.A.A.	No formal pre-service training

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# AGRICULTURAL SYSTEMS SUPPORT PROJECT

## Part I - Summary and Recommendations

### A. Recommendations

1. Loan \$ 23,600,000

Terms : 30 years, 10 years grace  
Interest : 2 percent during grace period,  
3 percent thereafter

2. Grant 26,200,000

Total new AID obligation \$49,800,000

### 3. Waivers

a. Of source and origin requirements contained in A.I.D. Handbook 1, Supplement B, and Section 636(1) of the Foreign Assistance Act to allow procurement of eight project vehicles (approximate cost \$153,000) from Code 935 sources rather than from the U.S. only (Code 000). 1/

b. Of source and origin requirements contained in A.I.D. Handbook 1, Supplement B to allow procurement of approximately \$1,000,000 of construction materials from Code 935 sources rather than from Code 941 only by removing the componentry limitation for commodities produced locally. 1/

c. Of source and origin requirements contained in Handbook 1, Supplement B to allow procurement of construction services from firms of Code 935 nationality rather than from Code 941 (and Kenya) nationality only by allowing procurement from firms incorporated in Kenya or Code 941 countries but not beneficially owned by citizens of such countries. 1/

d. An increase in the life of project and life of project funding limitations, as set forth in Handbook 3, Chapter 3. (See Part I., D., Issue No. 6).

### 4. Borrower

The borrower is the Government of Kenya (GOK) acting through the Ministry of Finance and Planning. Executing Agency for the loan is the Ministry of Agriculture (MOA). Egerton College will oversee construction activities financed under the loan. Grant funded activities will be divided between the Ministries of Agriculture, Cooperative Development and Education.

1/ for details, see Annex XIV

## B. Project Objectives and Justification

Kenya's development strategy aims at alleviating poverty and meeting basic human needs. The cornerstone of this approach is development of rural areas with special emphasis on development of smallholder agriculture.

The proposed Agricultural Systems Support Project (ASSP) is directly supportive of this strategy by addressing three of the four constraints\* which inhibit achievement of Kenya's agricultural development goal. These three constraints are: (1) trained agricultural manpower; (2) smallholder access to agricultural credit institutions, services and infrastructure, and (3) adaptive research.

The ASSP purpose is the substantial alleviation or reduction of these sectoral constraints. ASSP contributions will also provide the necessary complement to related activities financed by AID and other donors and to the expected successful implementation of GOK macroeconomic policies. These projects and policies (discussed in Annex XVI) concentrate on:

- (1) the importance of agriculture in the Kenyan economy;
- (2) the importance of the smallholder within the agricultural sector;
- (3) the importance of increasing smallholder productivity, and
- (4) the desirability of more equitable income distribution favoring the smallholder.

These projects and policies also presuppose appropriate levels of support for agricultural institutions and infrastructure, and ASSP will contribute to furnishing this support. Therefore, ASSP is intended to contribute significantly toward GOK and USAID goals of greatly enhanced smallholder productivity and (in real terms) per capita income.

## C. Project Components: Summary

In attempting to meet each of the constraints referenced above, ASSP has necessarily been designed as a multi-faceted project focused on several related systems: the extension, research, storage and cooperative systems through manpower training; the research system through support for range research and manpower training; the marketing and cooperative systems through efforts in grain storage, and the credit and cooperatives systems through a range of technical assistance activities and manpower training.

\*As identified most recently in the Kenya Development Plan of 1974 and the DAP Supplement of 1975. The DAP Supplement also identified a fourth constraint, namely, macroeconomic policies; however, this constraint is not to be directly addressed by ASSP resources. See Part II A of this PP for further discussion of constraints.

ASSP may be summarized as follows:

<u>Constraint</u>	<u>ASSP Component</u>
1. Trained agricultural manpower	Egerton College expansion; support for Faculty of Agriculture, University of Nairobi; support for Cooperative College; support for Coastal Agricultural Institute; agriculture and cooperatives training funds.
2. Smallholder access to institutions/services/infrastructure	Support to Agricultural Finance Corporation, various cooperatives institutions; storage.
3. Adaptive Research	Range research component and manpower training provided in MOA Training Fund.

Project components identified above may conveniently be grouped, for purposes of this PP, under the headings of Agricultural Manpower System Support, Credit System Support, Cooperative System, Range Research Support, and Storage System Support.

However, the reader will note that each component contains a significant training element, reflecting the pervasiveness across the board of the manpower constraint. Each element is as follows:

1. Agricultural Manpower Systems Support

Drawing from a recent agricultural manpower survey <sup>1/</sup> and numerous other studies concerning the relationship between the quantity and quality of agricultural manpower and the efficient delivery of services to the smallholder farmer, it is proposed that AID finance a set of agricultural manpower support activities, listed below. These activities all have the goal of bringing the supply of trained manpower into long-term equilibrium with its projected demand. Such equilibrium is clearly necessary in order to optimize, through the provision of extension and related services, production opportunities and payoffs in the smallholder-oriented agricultural sector. The proposed activities for ASSP funding then are:

a) Egerton College

Egerton College provides a three-year program leading to a diploma in one of nine agricultural fields. The program is very technically and practically oriented, with the majority of class hours spent in field and laboratory work. The Egerton graduate occupies the front-line technical and administrative positions in the agricultural extension service, a service which is being redirected

<sup>1/</sup> ATAC. Professional and Subprofessional Agricultural Manpower in Kenya. AID/afr-C-1142 W.O. 52.

toward the smallholder. ASSP will provide \$34.4 million in grant and loan funds for construction, equipment, training of Kenyan staff, and U.S. technical assistance teaching staff to enable expansion of the College from a student enrollment of 686 to an enrollment of 1,632.

b. Coastal Agricultural Institute

In conjunction with the World Bank's investment in expanding three agricultural institutes, ASSP will assist the GOK to establish a new, fourth agricultural institute with a student enrollment of 660 to be located in Coast Province. Agricultural institutes offer a two-year program leading to a certificate and to positions in agriculture extension service. Design and implementation of this activity will move forward in two stages with Stage I (funded with \$150,000 under this PP) to consist of the academic and technical feasibility studies leading to preliminary sketch plans and other data relevant to the new institute, and Stage II (to be funded under a PP Revision) to consist of the construction and staffing of the new institute. The latter depends on funds being available and a decision at the time to proceed.

c. Faculty of Agriculture, University of Nairobi

Supplementing World Bank assistance to expand the Faculty of Agriculture from the present level of 300 to a level of 605, AID will assist the GOK in effecting an overall increase in the Faculty's student enrollment to an ultimate capacity of 805 students, representing an AID input of 200 student places. The Faculty offers a three-year BSc program in agricultural fields with graduates entering the Ministry of Agriculture's extension service as technical officers and field administrators.

Design and implementation of this activity will proceed in two stages: Stage I (funded with \$66,000 under this PP) will finance academic and feasibility studies necessary for preparation of preliminary sketch plans while Stage II (to be funded under a PP Revision) may presumably provide funding for construction and teaching staff development as identified and specific in the Stage I feasibility studies. Stage II would be dependent on funds availability and necessary reviews and decisions being made to proceed at that point.

#### d. Ministry of Agriculture Training Fund

ASSP will also provide for specialized but essential in-service training for Ministry of Agriculture staff, training which is neither available in Kenya nor funded under existing donor assistance programs. Included in this package are a significant number of participants in various agriculture research specializations, except range research since that component includes training, reflecting the seriousness of the manpower constraint for that farmer support system. Annual training plans to be prepared by the MOA and reviewed and approved by AID will set forth the participant nominations and the precise fields of study to be financed each year. ASSP provides \$3.5 million for 25 new training positions for each year for four years.

#### 2. Range Research

To complement (a) ongoing AID-financed range and ranch development activities, (b) the marginal lands development program now in the identification stage, (c) drylands research being funded by FAO and AID (Food Crops Research Project), and (d) plant protection research to be supported by the UN, AID will provide \$5.1 million under ASSP for range research. An AID-funded study of Kenya's agricultural research activities identified this as a high priority area. 1/ ASSP will fund a significant input into Kenya's range research program, including technical assistance, equipment, and training. The AID-funded activity will promote communication linkage among the research station, the extension service and the pastoralist and other range-dependent "poor majority" Kenyans. Together with training for other research staff under the MOA training fund, the Food Crops Research Project, and other donor efforts, this component will constitute a significant effort to develop the Kenya agriculture research system.

#### 3. Credit System Support

The Agricultural Finance Corporation (AFC) is the primary agricultural credit institution in Kenya. In accordance with the recommendations of an AID-financed project evaluation and an AID financed management study it is proposed that under ASSP AID continue necessary and appropriate technical assistance and staff training for AFC. AID assistance totalling \$2.7 million will be aimed at expanding and improving AFC's smallholder lending capabilities.

#### 4. Cooperative System Support

The Ministry of Cooperative Development (MOCD) is instrumental in providing agricultural support services to smallholders including delivery of credit, inputs and marketing services. MOCD has an expanding and increasingly important role in serving smallholders 1/ American Technical Assistance Corporation (ATAC), Agricultural Research in Kenya, November 1977. AID/afr-C-1142, W.O. 52.

and wishes to approach its enhanced responsibility in a rational fashion. In line with this goal ASSP will fund the following studies and activities within MOCD's jurisdiction:

- (a) a management study of the Kenya Cooperative Bank and the banking sections of cooperative unions.
- (b) manpower and education surveys of the cooperative sector, technical assistance and participant training activities focusing on improved extension training technologies and in-service training programs, and
- (c) a study of a proposed expansion of the Cooperative College.

Under this PP academic and technical feasibility studies leading to sketch plans and other data relevant to this expansion will be funded as Stage I. Stage II (funded under a PP Revision) will include construction and technical assistance required to carry out the expansion in accordance with the conditions specified above for similar activities. Estimated cost of this component is \$5.1 million.

#### 5. Storage and Marketing Systems Support

Grain storage in Kenya is plagued by inefficient on-farm and cooperative-level storage facilities as well as by a national storage system which fails to accommodate to the needs of both the national grain storage and marketing system as well as the smallholders' storage requirements. A study of Kenyan smallholders' storage problems 2/ has proposed two immediate actions:

- (1) participant training for a limited number of extension and research officers working on storage matters, and
- (2) a national storage study to evaluate alternative means of alleviating farm-level and cooperative storage problems and to design specific assistance activities, presumptively for AID funding in FY 1980.

This PP will fund the national study and housing, estimated at \$419,000 while a PP Revision (Stage II) would presumably fund the assistance activities identified and designed by the national study.

#### 6. Project Evaluations

Three in-depth project-wide evaluations are proposed. For details see Part V, D. Evaluations will focus on linkages between components, impact of the components on the extension

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2/ Anderson and Pfost. Smallholder Grain Storage Problems in Kenya and Proposed Solutions, March 1978

service, the extension service's ability to re-direct its efforts towards the smallholder farmer, and the ultimate impact of the project on the smallholder population.

<u>7. Total ASSP Financing: Summary (\$'000)</u>			
	<u>AID</u>	<u>GOK</u>	<u>Total</u>
Grant: Agricultural Manpower	\$14,421	\$7,038	\$21,459
Range Research	5,142	4,025	9,167
Agricultural Credit (AFC)	2,667	875	3,542
Cooperative System	3,099	582	3,681
Storage & Marketing	419	51	470
Project Evaluations	<u>465</u>	<u>61</u>	<u>526</u>
Subtotal	\$26,213	\$12,632	\$38,845
Loan: Egerton College Construction/ Equipment	<u>23,558</u>	<u>5,472</u>	<u>29,030</u>
Total	<u>\$49,771</u>	<u>\$18,104</u>	<u>\$67,875</u>
	\$49,800	\$18,125	\$67,925

(GOK contribution represents 26.7 percent of total project costs).

#### D. Project Issues

The USAID has identified issues discussed below:

##### 1. Project Cohesion and Interrelationship

ASSP is a broad approach toward meeting the sector-wide constraint 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, inter-dependent 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 need for improved technologies, better access and more and better trained manpower effect production and income potentials in both marginal agriculture lands and higher potential areas. While the technologies needed in these differing regions will vary (deliveries or technology support in transfer) the agriculture system is rational in scope. Therefore, ASSP's components will contribute to efforts in all three sub-sectors of the Mission's agriculture program.

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.

##### 2. ASSP Studies/Phase II Follow-on Financing

In several categories--food storage, Cooperative College, University of Nairobi, Coastal Institute--ASSP is financing studies leading to follow-on projects (obviously of some magnitude) which presumably may in due course be funded through a PP revision or by other donors. These presumptions of USAID/Kenya and the GOK are well short of commitments. Phase II financing will obviously depend, in each particular case, on receipt and evaluation of the relevant studies, a mutual (AID/GOK) decision at the time to proceed, availability of AID funds, and consideration of other donor funding possibilities.

##### 3. USAID/Kenya Management Capability

This many-faceted project will not be easy to implement and manage; quantity and quality of Mission manpower deserve close scrutiny. USAID/Kenya is a fully constituted mission and has requested staff increase needed to discharge project management responsibilities. USAID/Kenya staff directly involved in ASSP management will include for FY 1979 three full or part time agricultural specialists in agricultural credit, cooperatives/storage/marketing, and agricultural manpower; one full-time engineer; one half-time agricultural research

officer, substantial time of one economist, one capital development officer, one training officer, and substantial time of USAID senior staff as required.

Of these, one is already assigned and three are new positions included in the FY 1980 ABS-MOB submission. The remainder are already on board. In addition, REDSO legal, contracting and supply management officers will be available as required. FYI, the USAID project management approach used for a number of activities, including ASL I and the Livestock Loan, is to appoint a committee combining a range of appropriate skills, chaired by the individual designated as "the" Project Manager. In complex projects management of separate functional components has been assigned to different individuals, one of whom plays the predominant coordinating role, and is "the" project officer.

#### 4. Recurrent Cost Financing

Recurrent cost financing has proven to be a serious problem for many LDCs. particularly for projects like ASSP where on-going institutional operating costs and employment of additional government workers are involved. Kenya's past performance indicates that the Ministry of Agriculture (MOA) field staff have often not received the logistical support necessary for carrying out their duties. This issue is detailed below - with respect to each component of the project.

Manpower Training - Additional recurrent cost associated with operating an expanded Egerton College are estimated to be \$2.3 million per annum. The GOK has stated in the request for assistance its willingness to finance form through Covenant Number 4 (Annex V, page 4).

While there have been serious problems with the delivery of logistical support by the Ministry of Agriculture (MOA) headquarters to the field staff, the Government is increasingly moving to investigate these problems and seek solutions. For example, the Government recently took action to eliminate recurrent financing problems which were impeding the effective operation of the Farmer Training Centers. This entailed a 35 percent (\$478,000) increase in the recurrent budget allocation for Farmer Training Centers.

The Government has utilized the ATAC Manpower Study - together with several other studies listed in Annex XVI, to bring into focus the principal elements of the MOA's field support problems. The ATAC study concluded that the efficient operation of the MOA extension service has been hampered by two factors: the underutilization of existing resources - due to weak management; and an unmotivated staff - resulting from an inadequate wage scale and a faculty promotion system. ATAC made 25 specific recommendations for improving manpower utilization. Some of these recommendations have already been acted upon. For example, the MOA has recently submitted a revised wage scale to the GOK's Directorate of Personnel Management. As a result of Condition Precedent "e" (Annex V, page 3), the GOK will periodically update for donors the status of each ATAC recommendation and the GOK's

plan of action for implementing the recommendations. Toward the same end, AID will periodically review the GOK's progress toward effective implementation of the recommendations using project evaluations called for in Covenant No. 1.

Finally, it should be pointed out that the recurrent costs associated with employment of the incremental graduates trained by Egerton College and the future Coast Institute will represent approximately 11 percent of the MDA's estimated personnel budget for the Year 1995, or 1.7 percent of the Ministry's overall budget. The Ministry's budget currently represents about 7 percent of the total GOK budget.

Range Research - The ASSP will train 18 Kenyans over a five-year period for range research positions. The trained research officers will work out of existing research stations and adequate provisions have been made to increase operating budgets of the existing stations to provide for their arrival.

Agricultural Credit Systems - ASSP will improve the operating efficiency of an existing institution. No additional staff hires are implied nor additional recurrent costs anticipated.

Cooperative Support and Storage and Marketing - ASSP will finance in-service training and specific studies. No additional recurrent costs are directly associated with these activities.

Overall - Kenya's fiscal management has been prudent and conservative by LDC standards. Budget deficits are a relatively new phenomenon and serious efforts are being made by the GOK to increase revenues and to monitor expenditures tightly. Government expenditures have increased slightly from 26 percent of Gross Domestic Product in 1972/73 to 29 percent in 1977/78. Tax buoyancy has averaged 1.3 during 1971 through 1975, impressive by LDC standards. The macro-economic analysis (Annex VII) suggests that Kenya will be able to meet incremental recurrent expenditures associated with ASSP.

##### 5. Impact of Egerton Expansion on Smallholder Beneficiaries

Institutional investments generally result in gradual and long-term payoffs for the smallholder farmer. Alternative investments, such as assistance to the cooperatives or para-statal organizations, might impact more directly on the target group.

During the design stage of the ASSP project, useful insights were gained on the role of cooperatives in smallholder agriculture by examining AID's ASL I and the World Bank's Integrated Agricultural Development Program. Portions of these two activities have focused on channeling smallholder production inputs through the cooperative system. These two projects have highlighted such problems as: the deficiency of trained manpower within the field staffs of the Ministries of Agriculture and Cooperative Development; the absence of farm, cooperative, and village level storage facilities; and the inefficiency of the cooperative banking system. The ASSP has been designed to address these problems through: an expansion of agricultural training institutions and programs, along with the study of manpower problems specific to the cooperative sector; a feasibility study of farm, cooperative, and village level storage

systems; and a comprehensive study of the cooperative banking system. With respect to para-statal extension efforts in Kenya, these have largely concentrated on single cash-crops. Successes in these activities have not significantly benefited the poor smallholders.

ATAC's manpower-demand projections largely reflect additional staff needed to provide effective extension services to the smallholder group. Reviews and changes in Egerton's curriculum, to be undertaken during the course of the project by the AID financed teaching staff and the Egerton faculty, will focus on curriculum changes which support a reorientation of the extension service to the needs of the smallholder farmer. Investment in Egerton will not, however, preclude employment of Egerton graduates in alternative extension systems which may develop from experiments now underway or planned for the future. Since the manpower constraints are felt across the agricultural sector, the demand for additional Egerton graduates will continue as alterations to the extension service are made over the next decade.

Diploma holders occupy the middle ranks of the extension service. (Of Egerton's 1978 graduates, 82 percent were employed by the MOA with 81 percent of this group in extension positions.) They advise and supervise field extension staff, work as farmer-contact agents themselves, organize local training programs, teach special courses for farmers and more junior extension contact-agents at FTCs, and conduct in-service training for MOA staff. They also staff research facilities. Therefore, diploma holders are crucial for bridging the gap between the smallholder and the overall agricultural support systems provided by the GOK. Egerton College is a rural institution, instructing students from predominately rural backgrounds, in skills appropriate for Kenya's rural areas.

The impact of Egerton graduates on the production and income of the smallholder population will be monitored through periodic reviews of the Egerton curriculum, evaluations of the effectiveness of the extension staff in serving smallholders (supported by Covenant No. 1), and programmed linkages between the Egerton education process and research facilities.

#### 6. Life of Project

ASSP will be completed--following the proposed implementation schedule--within the normal AID maximum of six years with one exception: the proposed Range Research activity is estimated for completion in six and a half years. This longer period is justified in view of the need to provide end-of-project overlap and continuity between departing U.S. technicians and returning Kenya participants (see Part II, B. 2 of this PP for further discussion).

#### 7. Cost-Effectiveness of the Egerton College Expansion

Given the significant amount of funds entailed in the Egerton College expansion, it has been necessary to examine alternative extension systems in order to insure that the technology transfer system selected will provide the greatest diffusion of technology at the least cost. Project designers had to consider whether an increase in the quantity of trained manpower required might be achieved by using less formal and

shorter training periods (with less sophisticated content) than that currently called for in the Egerton curriculum.

The Egerton College expansion is based on the ATAC study of Agricultural Manpower (Demand, Supply, Education, Utilization). That study, supported by others discussed in Annex XVI, began with an examination of the effectiveness of the current extension system and a discussion of alternative extension forms, including an objective (commodity based) extension system, a private association system, and a government farm extension system. The first of these alternatives is currently practiced in Kenya and the last is not appropriate given the insignificant number of Government-owned farms. The private association system could be village or cooperative based but in Kenya, "villages" as such do not exist although loosely-structured, less cohesive "communities" do. Cooperative based extension is still in the experimental stages. ATAC concluded that the current extension system represented a sound structure for reaching the smallholder farmer, but that inadequate management of the system resulted in an inefficient utilization of MOA resources.

ATAC examined the current agricultural education structure in Kenya and offered 35 specific recommendations, eight of which deal with Egerton College. The ATAC study concluded that Kenya should retain its three-tiered educational structure <sup>1/</sup>, that Egerton College was serving a needed role in Kenya's agricultural training system, and that the Egerton College facilities and curriculum were appropriate considering Kenya's training needs and budgetary resources.

In addition to the Egerton expansion, ASSP will finance a feasibility study for the construction of a new certificate institute in Coast Province. The World Bank is financing expansion of two other certificate institutions and construction of a third. Egerton graduates and certificate holders staff Farmer Training Centers which teach both farmers and in-service MOA officers. The ASSP Training Fund will make a significant contribution to in-service training within the MOA. Thus, a major joint effort is being made to improve agricultural manpower training in Kenya with the Egerton expansion being only one part.

Finally, recommended construction conforms to the criterion of "essential least-cost" design. Building specifications and space utilization factors are well within accepted AID standards.

#### 8. Reasonableness of the Egerton Expansion/Future Demand

This PP will finance a significant expansion of Egerton College, increasing the student enrollment for 686 (approximately 220 graduates per year) to an enrollment of 1,632 (approximately 516 graduates per

<sup>1/</sup> The three-tiers are: (a) degree - three-year university level training  
(b) diploma - three-year high level vocational education, (c) certificate-  
two-year low level vocational education

year). The ATAC Manpower Survey projected demand levels for diploma holders into the 1990's and this proposed ASSP expanded output of ~~diplomates~~ closely matches those projections. Given an 8.5 percent growth in annual demand for agricultural manpower (a growth rate which conforms with Ministry of Finance and Planning budget projections), there will be short-fall of approximately 700 Egerton graduates by the year 1990, even with the project. From the demand data currently available one can predict with a fair degree of confidence that the expansion of Egerton College will not result in a glut of diploma graduates.

Forecasting over a 20-year horizon is most difficult, especially in an LDC where the last 20 years have disappointed forecasters of manpower supply and demand. When discussing capacity utilization issues 20 years beyond the completion of this project, the best one can truthfully say is that the proposed facilities will still be standing and could be used for whatever agricultural education needs Kenya may then identify. The proposed facilities could easily be adapted to some other educational use if Egerton should be transformed into a multi-discipline educational facility, absorbed into some larger national higher-education program, or converted to a degree-granting institution.

#### 9. Smallholder Orientation of GOK Extension Service

Accomplishment of ASSP objectives--enhancing the lot of the Kenyan smallholder--obviously depends on an effective extension service, oriented toward that beneficiary. This is just beginning to be the orientation of the Kenyan extension service and is reflective of a long-term GOK commitment which has resulted from experience with ASI I, Part C and IADP. The curricula of ASSP-assisted institutions training extension personnel is expected to reinforce and support the reorientation. As to ASSP's range research component, linkages and feedback mechanisms will be promoted between the "producers" and "consumers" of the research. Finally, project evaluations (treated in Part V) will include within their Terms of Reference review of the effectiveness of delivery of service, inputs and technology to the smallholder as a result of ASSP-funded component activities.

Having reviewed the above issues and given the supporting information and rationale in succeeding sections of the PP and in its annexes USAID recommends this project be authorized for FY 1978 funding.

#### Project Committee

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 Robert Lester, Lawyer, REDSO/EA  
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Part II: Project Background and Description

A. Development Strategy - See Annex XVI

B. Detailed Component Descriptions  
(Full descriptions provided in Original ASSP PP)

1. Agricultural Manpower Support

a. Summary

Incremental small holder production requires increasing the quantity and quality of the agricultural support services reaching the target beneficiary group. These include research, farmer training and information, credit, storage and marketing. The MOA's extension service is the central GOK structure directly or indirectly facilitating the delivery of many of these support services.

The ATAC Manpower Survey has analyzed different aspects of the manpower constraint as they currently inhibit the efficient and effective operation of these services, especially extension and particularly with regard to smallholder agriculture. Significantly, the ATAC re-research report 1/ found manpower to be the most serious problem for the research system. The manpower report recommended various steps which the GOK and/or donors might take to address these constraints and has detailed the agricultural manpower requirements necessary for implementing the recommended steps.2/ The identified problems include management and administration of the extension service, technical support, inadequate staff numbers in the service, insufficient in-service training, inappropriate pre-service training, and the lack of motivation due to the existing pay scales and schemes of services. At the core of the ATAC analysis is the question of the effective and efficient operation of the agricultural extension services and the direction of the extension service towards providing technologies and services based upon production modes which are in harmony with traditional agricultural production technologies and which contain a minimum dependence upon cash inputs.

The proposed assistance for agricultural manpower systems is based on an analysis of:

- The level and type of agricultural manpower training required in order to support smallholder agricultural production.
- The appropriate institution base(s) for the identified training

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

2/ ATAC. Professional and Subprofessional Agricultural Manpower in Kenya. March 1978. AID/Afr-C-1142, W.O.52.

- The most appropriate training methods and activities.
- The least cost method for providing the required output.

As AID's contribution to addressing these various constraints, it is proposed that AID fund:

1. An expansion of Egerton College from 686 to 1,632 students with AID financing construction, equipment, technical assistance, teaching staff, and curriculum revision as needed, and training for new and existing Kenyan staff. The Egerton graduate occupies the crucial middle-level technical and administrative field positions in the extension service, but they also may serve as research staff and faculty for certificate-level agriculture institutes

2. A technical feasibility study, including preliminary construction plans, for a new agricultural institute in Coast Province. The new institute would complement World Bank efforts to expand the number of certificate graduates. Certificate holders are posted primarily as field extension agents and will gradually replace the current stock of untrained and aging Junior Agricultural Assistants.

3. A technical feasibility study and preliminary plans, complementing World Bank assistance to the University of Nairobi, for construction leading to an expansion of the Faculty of Agriculture from a student capacity of 300 to 805. AID would finance 200 of the 505 new places.

4. In-service training for MOA staff through a training fund which will finance U.S. and in-country academic and non-academic training. Administrative, technical, and field staff will be eligible for training under the fund in accordance with annual training plans.

#### b. Background

##### (1) Problem Identification and Resoultion

Implementing the GOK's smallholder-oriented development strategy requires the effective delivery of an appropriate technology, production inputs, credit, and and marketing services to the smallholder population. In order to effect this delivery the agricultural extension service must be oriented towards serving the needs of the smallholder farmer. Through a re-orientation of the national extension service towards the smallholder farmer and the development of objective-targeted extension activities (such as the GOK's Integrated Agricultural Development Program) the GOK is seeking to address the needs of the target smallholder farm population

##### (2) Agricultural Education in Kenya

Formal agricultural education in Kenya, above the secondary level, is provided under a three-tier system: the degree, the diploma, and the certificate.

### Degree Holders

Graduates generally serve as Agricultural officers (AO's) and are placed either in District Agricultural Officer (DAO) posts or as support staff at the provincial level. 1/

### Diploma Holders

Graduates serve as Assistant Agricultural Officers (AAO's) and Technical Officers (TO's), serving as either Divisional Agricultural Officers or TO's at the district level.

### Certificate Holders

Graduates generally serve as Agricultural Assistants (AA's) and Animal Health Assistants (AHA's) working at the divisional level. These positions involve direct contact with farmers; AA's and AHA's may also be assigned to sub-divisions or locations.

### Non-Graduates

Junior Agricultural Assistants (JAA's) and Junior Animal Health Assistants (JAHA's) rarely have more than primary educations. They have no formal training in agriculture but do receive some on-the-job training. This personnel category works directly with the farmers at the sub-location level. There are approximately 6,800 individuals in this grouping and over the next 20 years the GOK plans to replace and re-train the existing cadre so that JAA's are phased out and upgraded through replacement with certificate holders (AA's).

### (3) Agricultural Manpower Analysis

In 1976 the GOK requested AID assistance in undertaking manpower survey of the agricultural sector. In 1977 the American Technical Assistance Corporation (ATAC) fielded a team to conduct a manpower survey of the agricultural sector, to examine agricultural education and training facilities and programs currently in operation, to review the utilization of agricultural manpower in the Ministry of Agriculture, and to make recommendations for alleviating identified problems.

1/Kenya is divided into the following administrative units listed in descending order from the largest to the smallest local unit: provinces, districts, divisions, locations, and sub-locations.

Table B-1

Shortfalls in Training Output <sup>1/</sup>  
(Cumulative From 1977)

	1983			1988		
	<u>BSc*</u>	<u>Dipl*</u>	<u>Cert*</u>	<u>BSc</u>	<u>Dipl</u>	<u>Cert</u>
<u>Low Effective Demand*</u>						
Output Required <sup>2/</sup>	1,136	1,782	6,390	2,350	3,876	14,052
Output at Current Rate	900	1,500	2,250	1,650	2,750	4,150
Shortfall	236	282	4,140	700	1,126	9,927
<u>High Effective Demand*</u>						
Output Required	1,361	2,100	7,641	2,899	4,468	16,830
Output at Current Rate	900	1,500	2,250	1,650	2,750	4,150
Shortfall	461	600	5,391	1,249	1,718	12,705

Source: ATAC, op. cit. Tables 11 and 13, pp. 43 and 45

<sup>1/</sup> Shortfalls are cumulative from 1977 through the referenced year.

<sup>2/</sup> Trained personnel requirements are based on effective demand multiplied by training wastage rates

\*NB: BSc: Includes BSc and MSc.

Dipl: Diploma graduates from Egerton.

Cert: Certificate graduates from Embu, Bukura, AHITI.

Low effective demand: 7 percent MOA budget growth

High effective demand: 8.5 percent MOA budget growth

The ATAC Manpower Survey indicates that there will be critical shortfalls in trained manpower over the next decade.<sup>1/</sup> To overcome these shortfalls the ATAC report recommends:

1. Expansion of the Faculty of Agriculture, University of Nairobi, from a student capacity of 300 to a new level of 805 students, increasing the number of graduates from 100 to 250 per year.

2. Expansion of Egerton College from a student enrollment of 686 to an enrollment of 1,500, increasing graduates from 220 to 516 annually.

3. Expansion of the student capacity of Embu and Bukura Agricultural Institutes from 250 students each up to 660 students each, increasing graduates from 125 to 330 per year.

4. Establishment of a new Animal Husbandry Industry Training Institute (AHITI) at Ndomba and four other certificate institutes, one in Coast Province, one in the drylands, one in a range area, and a fourth in an undetermined location.

5. A set of education, facility-specific recommendations for improved training.

6. A series of changes in MOA personnel and administrative procedures.<sup>2/</sup>

c. Egerton College - Expansion

(1) Background

(a) Basic Facts

Egerton College was founded in 1939, was raised to the status of an agricultural college in 1952, and became a diploma grant-college in 1955. The current (January 1978) student enrollment is 686, up from 200 in 1964 and 500 in 1970. The College currently offers three year courses in nine agriculture diploma programs. Each diploma program represents a specialization within the agriculture sector and is designed to produce middle-level personnel (Technical Officers) capable of handling extension, advisory, and management work at the District and Division level. The currently offered diploma programs include: General Agriculture, Home Economics, Agricultural Education, Agricultural Engineering, Animal Husbandry, Dairy Technology, Farm Management,

<sup>1/</sup> See ATAC. op.cit. for a full listing and description of recommendations.

<sup>2/</sup> See Annex IX.D for a description of the current status of ATAC's recommendations.

## Horticulture, and Range Management.<sup>1/</sup>

The College Faculty numbers 42 senior teaching staff and 32 junior teaching staff with a support staff of 431. <sup>2/</sup> College facilities include 14 teaching buildings a dining hall, three administrative and support buildings, six dormitories, 344 staff houses for senior, junior, and support staff, a library, a 400-hectare teaching farm and a 1,100-hectare commercial/training farm.<sup>3/</sup>

### (b) Role of Egerton Graduates in the MOA

Eighty-two percent of the Egerton's 1978 graduates are being initially employed by the Ministry of Agriculture, and another 14 percent are being employed by the Ministry of Education as secondary school teachers ag agriculture

Egerton graduates enter the Ministry of Agriculture as Technical Officers (TO's) and are generally assigned to the middle ranks of the extension service, usually posted as direct-level support officers or Divisional Agriculture Officers. TO's and Divisional Agriculture Officers advise and supervise field extension farmer-contact agents, the Technical Assistants (TA's) trained at certificate institutes and the Junior Agriculture Assistants (JAA's). They also may serve as contact agents, organizing village-level training activities and teaching special farmer training courses at FTC's. Egerton graduates also conduct in-service training courses for JAA's and TA's at FTC's and are involved in district and division-level agriculture planning activities.

### (2) Proposed Activity

The ATAC report identified agriculture manpower shortages and recommended increases to Kenya's existing capacity for training such manpower in quantities sufficient to meet projected demand. Combining the ATAC recommendations with GOK plans, and suggestions by the Egerton expansion ... team has lead to the recommendation that Egerton be expanded from 686 students to 1,632 students. The ATAC survey projected by 1988 there would be a shortfall of between 1,126 and 1,718 diploma graduates given Egerton's existing training capacity.

AID inputs for the proposed expansion will include construc teaching staff and participant training. Construction, which is to be fina with loan funds, will be phased over a three-year period. Construction act are divided into three parts: New works, renovations, and infrastructure. New works include construction of, and additions to, approximately 20 buildings and construction of 513 staff houses (the majority being simple two-room structures for the subordinate staff). Many of the existing buildings will undergo some renovation, including improvements to the plumbing, electrical system, fire protection equipment, and remodelling

<sup>1/</sup> See Annex IX.A for a detailed description of Egerton College and its current diploma program.

<sup>2/</sup> Including administrators, accountants, artisans/drivers, cooks, secretaries, livestock handlers, laborers, security guards, cleaners, nurses.

<sup>3/</sup> See Annex IX.B for details of current facilities

in those cases where building use is being altered. Infrastructural works include additions to the water system, waste water treatment, electrical system, telephone, and minor realignment of one campus service road. In addition to construction costs per se, loan financing will also finance equipment to be installed in the expanded facilities. For details see Parts III.C.2. and IV and Annex IX.B.

Technical assistance, including provision of U.S. teaching staff and participant training, is to be grant funded. The proposed Egerton College expansion will include an increase in the teaching staff from the current level of 42 to a projected level of 76. During the staff development period a significant number of U.S. teaching staff will be required in order (1) to fill the gaps created by Kenyan staff's being away in training, (2) to provide counterpart training for staff not in training, (3) to review and modify curricula as needed, and (4) to assist in other academic and campus life matters requiring attention to facilitate a smooth expansion of the College.

It is projected that approximately 86 person years of supplemental teaching staff assistance will be required under grant financing for 28 teaching positions. (See Annex IX.C. for detailed listing of staff requirements.) It is further proposed that in connection with provision of U.S. faculty 43 of Egerton's Kenyan teaching staff undergo U.S. academic training in order to provide the necessary Ph.D., MSc., and BSc. degree-level staff required for the expanded College. Therefore, it is proposed that AID grant finance the required 139 person years of training for the 43 Kenyans.

In addition to teaching staff and related training AID will finance the services of a procurement/administrative officer.

### (3) Beneficiaries and Rationale

Egerton graduates are employed throughout the public and private agriculture sectors. Within the Ministry of Agriculture they play a significant role in the extension service and also become staff for agriculture research facilities and for training the farmer contact agents--the JAA's and TA's--at the agriculture institutes and FTC's. The multiplier effect to be achieved from improved and expanded training of diploma-level personnel upon providing smallholders with increased technical knowledge and improved agriculture technologies is significant.

Project-wide evaluations will focus, among other things, on linkages between the various ASSP components and on how improved, expanded training, increased adaptive research, and revised curricula improve the quality and amount of available extension services and through such services, reach smallholders as a result of ASSP.

Bolstering the administrative and technical capacity of the extension service, through addressing the service's training and manpower constraints, represents a significant complementary output which supports other components detailed in this Project Paper. The farmer production response to the delivery of agricultural credit, for

example, is directly related to the degree to which the MOA field staff can provide necessary technical support. The effective dissemination of range research findings from the station to the farmer/pastoralist is a direct function of the effectiveness of the MOA's extension staff. While the range research component of this project seeks to address the issue of distributing research results from the station to the extension staff, the capabilities of the extension staff are dependent, in part, on the output of the agricultural manpower component. While not all problems of each agricultural support system can be solved by increasing the nation's stock and improving the quality of agricultural manpower and improving the administrative and technical support provided to the extension service, these outputs do address central and common constraints facing each element of the agricultural support system. Egerton College and its graduates as demonstrated above play a central role in the above overall process.

Taking the 1976 stock of Kenya diplomates (1,282) and comparing the growth rate of diplomates with and without this project, in 1990 the stock would be growing at 8.8 percent per annum with the project and 5.3 percent without. By 1995 the growth rate of diplomates with the project would be approximately 6 percent, which is below the "low" budget growth of 7 percent per annum. As well as one can forecast some 20 years in the future, the growth rate of diplomates which will result from this project is in line with the projected increase in demand for diplomates.

#### d. Coast Certificate Institute - Establishment

##### (1) Background

Kenya currently operates three certificate training institutes: Embu, Bukura, and the Animal Health and Industry Training Institute (AHITI) at Kabete. These institutes provide two-year agricultural courses leading to a certificate in agriculture. At Bukura, for example, six programs are provided: crop production, animal production, agricultural engineering, farm management, home economics, and extension and administration.

The ATAC manpower report reviewed the demand for certificate holders through 1988 and compared this demand with the current output levels. To meet the projected demand ATAC suggested the expansion of the existing institutes and the establishment of a new AHITI along with four new Bukura-type agricultural institutes. Under the World Bank's Fourth Education Loan funds will be provided for the expansion of Embu and Bukura and the construction of a new AHITI at Ndomba.

Certificate holders enter the Ministry of Agriculture as Agricultural Assistants (AA's) working at the sub-division or location level. They serve as contact agents, and provide guidance to the JAA's.

The principal subjects of their extension work are crops, livestock, farm management, and home economics.

(2) Proposed Activity

ATAC has recommended as part of expanded efforts to train new certificate holders that a certificate-level program be established which would specialize in coastal agriculture production and related agricultural activities in Coast Province. None of the existing institutes can by virtue of their locations and existing teaching responsibilities devote the needed attention to coastal agriculture. The Ministry of Agriculture reviewed this ATAC recommendation and, subsequently, requested that AID provide assistance leading to establishment of a 660-student new certificate institute in Coast Province.

Establishment of a new agricultural institute requires a two-stage process, with Stage I including the basic academic design work and technical feasibility study (including preliminary plans and cost estimates) while Stage II would include capital construction, provision of equipment, development of curricula, and training of teaching and administrative staff. The last item might entail provision of U.S. teaching staff and training of Kenyan faculty (both in the U.S. and on-the-job).

It is proposed that funds be provided in this PP for the Stage I design and feasibility studies. Upon completion of that work and the necessary reviews a PP Revision might be prepared seeking funds for final architectural and engineering design, capital construction, and related technical assistance. Had there been sufficient time between the presentation of the ATAC recommendations and the submission of this Project Paper, Stage I might have been completed in time to enable inclusion herein of funds for Stage II.

(3) Beneficiaries and Rational

As indicated certificate holders now serve as the direct farmer-contact agents within Kenya's extension service. At present they represent the best trained core (some 3,342) of the total 11,000 farmer-contract agents, the remainder being the less well trained JAA's. The role of TA's in the extension service will be crucial as they replace the JAA's, as their numbers increase to provide needed services to a larger number of smallholders under new and existing agriculture development programs, and as, increasingly, emphasis must be given to the transfer of technologies appropriate to intensifying production. Therefore the assistance can be expected to impact upon smallholder farmers, particularly as these are able to intensify their production and thereby earn more from their farm produce.

e. Faculty of Agriculture, University of Nairobi - Expansion

(1) Background

The Faculty of Agriculture was established in 1967

and was designed for the graduation of 40 BSc's per year. Located 14 kilometers north of Nairobi, adjacent to a 500-acre field station, the Faculty began instruction in five departments: Crop Production, Soil Science, Agricultural Economics, Applied Plant Science, and Animal Production. With funding from the World Bank's Second Education Project the Faculty's capacity was increased to 300 students in 1970.

BSc degrees, and in most, but not all cases, MSc degrees are currently offered in Agriculture, Food Science and Technology, Agricultural Engineering, Agricultural Extension, Plant Breeding, Plant Pathology, Agricultural Economics, Agricultural Marketing, Agronomy, Animal Production, and Soil Science. It is proposed by the MOA, ATAC, and the World Bank that programs in Agricultural Education and Range Management be added to the curriculum.

## (2) Proposed Activity

Proposed AID assistance for the Faculty will follow the same procedure used for the preceding manpower systems component-- a two-stage process with Stage I consisting of the basic academic design work and technical feasibility studies, including preliminary plans and cost estimates. Stage II, then, might include capital construction and equipment, and technical assistance.

## (3) Beneficiaries and Rationale

Management of the extension service has been identified as a crucial problem affecting the system's effective operation. The degree holder is often the senior administrative and technical officer in the field and as such plays a central role in overall management and direction of the extension service.

### f. Training Fund - Ministry of Agriculture

#### (1) Background

The GOK has expressed the desire to make a "breakthrough" in donor-funded participant training. Under existing donor-assisted training programs the MOA is able to place approximately 60 participants into overseas academic training each year. For these 60 positions there are about 130 applications each year from the MOA's various divisions. Although the numbers vary from year to year, depending upon the resources each donor is able to provide at any one time, the annual shortfall is approximately 70. In order to cover this shortfall the MOA has recently begun provision of stop-gap, in-service training at the Faculty of Agriculture, University of Nairobi, for some 60 individuals each year. This training is primarily of a short-term nature and in most cases is a poor substitute for a rigorous academic training program in areas not currently included in the Faculty's curriculum.

It is proposed that the Training Fund finance training of up to 25 academic participants each year for an average training period of two years per participant.

Participants will be drawn from division staff at Headquarters, field research staff, and Provincial and District-level field staff, including TO's, TA's, and even selected JAA's who might qualify. Particular attention will be given to training of research personnel based on the findings of the ATAC research report.

(2) Beneficiaries and Rationale

Both the ATAC research and manpower-education reports discuss the need for, and importance of, in-service training. The research report, for example, indicates the constant need for training and upgrading of staff which requires academic as well as on-the-job training and in which external aid has assisted and can continue to assist. This project in the manpower component items described above gives predominant attention to pre-service training although citing instances where such training will affect in-service training. As Nairobi 477 indicates, USAID is also concerned with in-service training, which the MOA Training Fund addresses directly. The MOA has underway a review of in-service training which at its conclusion may result in further assistance for in-service training being requested from aid donors at some future date.

## 2. Range Research

### a. Background

#### (1) Importance of Kenya's Range Areas

Rangeland accounts for about 80 percent of Kenya's total area suitable and available for productive agriculture. These areas support a human population of about 2.5 million and a livestock population of about 10 million indigenous cattle, 12.5 million sheep and goats, plus considerable wildlife. The basic life support of the range is the range grass and forage for which domestic livestock and wildlife compete.

The GOK intends to give concerted attention to alleviating poverty, developing marginal/semi-arid areas, and meeting the basic human needs of its populace as part of the 1979-83 plan. As the Livestock Loan PP and the IBRD Appraisal Report for the Fourth Education Loan make clear, the nomadic pastoralists resident in the dry areas are among Kenya's poorest people and those with most limited access to the benefits of development. For these above problems to be overcome and national objectives to be met efforts must be directed to increasing knowledge among range area residents, proper range utilization, including halting of further range degradation caused by poor grazing and pasture management, improper land usage, and overstocking.

#### (2) Agriculture Research in Kenya

Agriculture research policies and programs in Kenya were strongly oriented toward export crops and large farm agriculture although research benefitting smallholders has been carried out successfully as the experience with research on hybrid maize demonstrates. A shift in priorities toward the problems of small farmers and livestock producers is now occurring, accelerated by the need to give particular attention to marginal and semi-arid areas, including range research. Unquestionably, increasing emphasis on crop research (maize, edible legumes, and sorghum) and on research into range management practices suitable for these areas will benefit small holders and pastoralists as long as research findings are communicated to extension personnel and the ultimate "user" target group and are relevant to the users.

Of all the Division's research areas range management is the newest, and its importance is growing with the increasing emphasis being placed on marginal/semi-arid lands development. An impressive beginning has been made in range research with establishment of Kiboko Range Research Station and its sub-stations, which are concerned with research on drylands, and range management and ecology, including the interaction between the natural wildlife of the area and domestic cattle.

#### (3) The ATAC Research Study

ATAC carried out a comprehensive review of agricul-

ture research in Kenya in late CY 1977. The report concluded that the primary problem facing Kenya's agriculture research was attraction and retention of competent technical staff resulting from a pay scale which is too low in comparison with other institutions and a scheme of service which offers inadequate prospects for promotion and too low a status to career-oriented individuals.

The report identified broad research areas in which the Division already had good work in progress but for various reasons, mainly scarcity of personnel, was not advancing as rapidly or covering the grounds as thoroughly as might be desired. These areas were judged to be ones where foreign assistance might be needed. The report recommended attention be given in the ecological area, in order of priority, to drylands agriculture, tropical (coastal) agriculture and range management, and in the substantive area to multiple cropping and mixed farming, high protein sorghum and rice research. Finally, the document identified fields of study where the Division lacked or was very thin in personnel--plant pathology, entomology, horticulture and economic botany, and weed science--and recommended the mounting of a training program to correct these deficiencies.

At the time of presentation of the report and follow-up discussions with the Ministry in December USAID was advised that steps were already being implemented to address problems identified in the document. Specifically, the MOA has submitted to the Directorate of Personnel Management, Office of the President, proposed revisions to both the salary structure and scheme of service for research officers.

#### (4) Range Research Priorities

Range research priorities have been clearly stated in the 1975 report, "Range Research in Kenya: A Technical and Organizational Plan for Future Range Research in Kenya", by D. J. Pratt. This report presents a thorough analysis of range management problems and past research and development efforts undertaken by the GOK.

##### a. Proposed Activity

Drawing on the above background, the ATAC and Pratt reports, and review by AID/W TDY and USAID technical staff, the GOK has requested support from USAID for range research in the following three subject areas which either have not been addressed previously or need further study:

- Plant and ecology studies--priority areas 2.f, 3.e., and 4.c. as identified in the Pratt Report. (See Annex X.)
- Animal studies--priority areas 2.g., 3.f., and 4.e.
- Environmental studies--2.d., 3.d., and 4.b.

AID proposes 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 smallholder and pastoralists, and to augment capabilities for disseminating research findings to various users. This assistance shall include provision of 31 person years of long-term U.S. experts, 84 person months of short-term specialists, long-term academic training for 18 participants, short-term non-academic training for a like number of participants, commodities and research-related equipment, and in-country computer analysis services for the use of U.S. experts.

The Government of Kenya contribution to the ASSP range research component will consist of recurrent costs for operating the Kiboko Range Station as well as one-way international air travel, salaries and allowances while in training for participants.

b. Beneficiaries and Rationale

Reaching the ultimate target group--smallholders and nomadic pastoralists--with results of ASSP-sponsored range research poses more challenges than reaching the direct beneficiaries. The latter consist of MOA research personnel working at the Kiboko Range Research Station. There are various ways of disseminating research results--directly from U.S. and Kenyan personnel assigned to the station to smallholders who may raise some livestock along with food crops and to nomadic pastoralists through performance of extension type activities; less directly from the U.S. and Kenyan staff to "intermediate" users, i.e., extension agents, through inputs into their in-service and pre-service training, through circulation to them of printed research materials and reports, and through involving them in research activities by means of visits to research sites and monitoring of research field trials. A third dissemination channel is to other researchers and/or MOA headquarters staff. The above listing is assumed not to be exhaustive, and the Team Leader, U.S. contract staff and Kenyan experts are to be encouraged to seek innovative, new ways of delivering research results to smallholders and pastoralists in a readily understandable way. This will be particularly important for reaching pastoralists since their nomadic, transient life style poses a special challenge.

To address the dissemination problem range research experts, both U.S. and Kenyan, will develop and implement a research utilization plan. Crucial to plan implementation will be working out close relationships with officials, agencies and institutions involved in range management, research, and extension and farmer training.

As part of efforts to maximize dissemination of research findings and their utilization by smallholders and pastoralists the U.S. and Kenyan research personnel should as a team describe and make recommendations for complete range management systems, such as pastoral systems, group ranches, cooperative ranches, and company ranches. To do

**this analysis must move from partial systems to complete systems.**

Systems analysis in the Pratt Report was used to define and analyze major pastoral systems and to determine the nature of, and interplay between, social, economic, environmental and biological factors affecting husbandry practices and livestock performance. It involves determination of critical population densities for different categories of rangeland with reference to the effect of varying standards of living, and employing alternative strategies of resource utilization.

The ASSP range research component must have a particularly close relationship to drylands agriculture research, ATAC's highest priority research area. USAID through the revised Food Crop Research Project at KARI (Muguga) and FAO through its Drylands Farming Research and Development (DFRD) project at the Katumani Drylands Research Station will address this area. The FAO project, now being initiated, ultimately may place four-to-five researchers at Katumani.

Beyond the above considerations USAID involvement in livestock and marginal/semi-arid lands development makes range research an appropriate component for inclusion in ASSP. The Mission and project researchers are, thus, able to capitalize on the experience and expertise developed as a result of the National Range-Ranch Development, Livestock Loan, and Marginal/Semi-Arid Lands Pre-Investment Study projects. Support for range research will complement both these activities and follow-on marginal lands development programs in which livestock may well play an important role.

The ASSP research component, combined with the ASSP MOA Training Fund and Food Crops Research Project, represents a broad-based approach to addressing the agriculture sector research constraint and problems affecting the research system. At the same time support for range and drylands research together with other marginal/semi-arid lands and livestock development activities constitutes broad-based support for a significant GOK development priority.

### 3. Agricultural Credit System Support

#### a. Background

##### (1) Agricultural Credit in Kenya

Kenya has evolved a relatively extensive agricultural finance system. The dominant institutions are the Agricultural Finance Corporation (AFC) and the Cooperative Bank of Kenya (CBK) which account for about one-third of all institutional agriculture financing. Numerous private banks provide in aggregate an additional 30 percent, and the remaining input is provided by Government agencies and parastatal bodies and from monies generated within the cooperative system for relending to members.

The AFC currently provides production loans to about 30,000 smallholders while the CBK reaches about 40,000 through its loans to cooperatives unions and societies. The combined efforts of these two institutions result in about 5 percent of Kenya's 1.5 million small farm families having access to agricultural credit.

The Government of Kenya recognizes that many farmers currently excluded from institutional credit sources could make effective use of capital. Investment in this neglected group of farmers is seen as an important element in national development. The limiting factor on further extension of small farmer credit is not that of financial resources nor of policy. Rather, expansion is limited by the institutional capabilities of AFC, the cooperative credit institutions, and the extension service. Specifically, the demands of program expansion have met 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.

Because the CBK and its operations are part of the larger cooperative system further discussion of this institution will be covered in cooperative system component of ASSP and this credit component will deal exclusively with the AFC.

##### (2) AFC and Previous USAID Assistance

The Agricultural Finance Corporation was established in 1963 as a statutory body and is the primary agricultural credit institution in Kenya. Its purpose is to assist in the development of agricultural and agricultural industries to making loans to farmers and other persons engaging in agriculture and agricultural industries. It is anticipated that 1978 loan fund balances will be over Kshs. 500 million (\$62.5 million).

Under the Agricultural Credit Project (615-0148), USAID provided eight advisors, three of whom are currently serving in the positions of Audit Advisor, Financial Manager and Credit Review Officer. In addition AID financed short and long-term training for 32 AFC employees, a management study of the AFC, a study of agriculture credit in Kenya, and an outside evaluation of the project.

The AFC and the Agricultural Credit Project, were submitted to external evaluation in 1977. <sup>1/</sup> The project evaluation seconded the AFC management study's finding of significant progress in the development of AFC, citing AID inputs as having been a critical element in this evolution, and concluded "The AFC should continue to receive a sustained level of support in technical services and participant training at least equal to the present level." The above two documents are the basis for further assistance as proposed below.

b. Proposed Activity

Proposed assistance under ASSP for the credit system represents both a continuation and an expansion of the terminating Agriculture Credit Project. (That activity will conclude in April 1979 at the end of the current tour of the Credit Review Officer with ASSP assistance being phased in gradually beginning as soon as possible after authorization.) The credit component will have 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. New technical assistance will include 14 years of advisory services, including six additional years of services in the three areas in which TA personnel are now working under Project 0148 and eight years of service in training, loans appraisal, and data processing.

As suggested in the Dimplex Evaluation, this project proposes both that long-term training be continued and that it include specialized training in several technical fields (approximately 50 person years total). The criteria for selection of these trainees will be a review by the training advisors to determine areas where higher level skills are required by AFC which can not be met by the University of Nairobi.

Finally, continued short-term training (12 person years) is also proposed. This training would be specialized training for periods of up to six months. Its primary purpose will be a) to expose top and middle-level AFC officials, who cannot be spared for long-term training, to management methods employed by U.S. credit institutions and b) to send AFC training personnel to USDA courses in preparation for their assisting in the conduct of similar courses in Kenya.

1/ a) Dimplex Associates, Inc. Kenya: Agricultural Credit Evaluation. December 1977. AID/afr-C-1269.

b) Research Triangle Institute. Manpower Study of the Agricultural Finance Corporation. June 1977. AID/afr-C-1144 W.O. 7.

GOK support for the credit systems will include provision of adequate and appropriately furnished office space for each U.S. advisor and necessary secretarial and in-country travel support a housing allowance. Counterparts will be assigned to each of the four new U.S. advisors; AFC shall pay one-way international air fare and salaries and allowances to each trainee. Finally, AFC shall arrange for and provide the necessary resources for a training site for in-country training as well as secretarial and other services which may be required by course instructors. The AFC shall provide course materials, travel costs and per diem for AFC officers enrolled.

c. Beneficiaries and Rationale

The above assistance package is expected to result in the following:

- (1) Improved management of AFC due to implementation of more efficient systems of financial management, internal audit and loan review.
- (2) An institutionalized capacity for in-house training within AFC.
- (3) Expanded capacity for service on the part of AFC to enable it to develop new types of lending and to extend lending to smallholders hitherto excluded from existing programs, including the capacity to appraise loans on a basis other than real estate collateral, to provide technical assistance to branch offices for evaluating loan proposals, and to initiate agri-business lending in rural areas.
- (4) Development of computerized financial and other records systems and the capacity of the AFC to maintain, operate and revise these systems as necessary.
- (5) Improved performance of AFC employees trained under the project.

The immediate beneficiaries of AFC assistance will be the AFC staff and the AFC organization, both of which will be strengthened through training and advisory services. This overall increase in capabilities will result, in turn, in more efficient and expanded services to borrowers. Previous USAID technical assistance to AFC contributed to increasing the number of small farmer loans granted by AFC from 10,000 to 30,000 and a reduction in processing time of small loans from six to less than three weeks. Small farmer numbers can be increased further, and time consumed in loan operations reduced even more through continued assistance. Small farmers will also benefit from more decentralized decision making and operations. Responsibility for small-scale loan approval has through previous assistance been moved from headquarters to 22 of 34 Branch Offices, and authority for loan disbursement is now being decentralized to field offices in order to

reduce current delays in making credit funds available for loanees' purchases of agricultural inputs.

USAID in the past has been the primary donor of technical assistance to the AFC followed by assistance from the Federal Republic of Germany. The FRG is concluding its support of four TA experts who focus mainly on development of electronic data processing systems, thus complementing current USAID efforts to improve management. Sweden and the Netherlands have provided some short-term technical assistance but have no major on-going program. Several donors, including USAID, the United Kingdom, the IBRD, the Netherlands, West Germany and BADEA, have provided credit funds to AFC. Given this history and AID's demonstrated success so far, it is believed important that AID provide further assistance under ASSP.

Details of:

- U.S. Technical Assistance

Financial Management Advisor  
 Internal Auditor  
 Credit Review Advisor  
 Training Advisor  
 Data Processing Advisors (2)  
 Loan Appraisal Instructor

- In-country Training

USDA courses in:

Capital Project Analysis and Small Farmer  
 Credit Distribution offered  
 In-country for AFC employees

#### 4. Cooperative System Support

##### a. Background

##### (1) Role of Cooperatives

Government has selected the cooperative system to play a significant role in its efforts to alleviate poverty and, particularly, in providing various services--credit, input delivery and marketing--to small "non-progressive," i.e. traditional, farmers. At present only about 40 percent of Kenya's small farmers are members of cooperatives. Most of these belong to cooperatives devoted to commercial crop production--coffee, tea, pyrethrum, dairy, etc.--although as the result of LADP and ASL I, Part C, some of these groupings are now beginning to **provide** similar supportive service for food crops (maize, beans).

Over the years the system has been the vehicle for assisting traditional farmers to move into the commercial sector. This role the GOK wishes to see expanded significantly, recognizing that new members coming from the "non-progressive" group may have limited new production potential due to small farm size or residence in lower potential agriculture areas, that they may have limited knowledge of new technologies and little capital with which to apply them, and that they may have little or no credit repayment history or (currently) acceptable collateral. Here, the transformation task will be much greater and involve higher risks, thus requiring more skills and more intensive efforts by cooperative personnel. Further, Government hopes to see the pace of the expansion speeded up and the numbers of farmers involved greatly increased, thus, in effect, reversing the previous conscious policy of keeping cooperative expansion to a relatively slow pace.

##### (2) Donor Assistance to Cooperatives

The longest and most concerted assistance effort has been that over the last 10 years by a consortium of Scandinavian countries. This assistance however, was focused on the farmers in high potential areas and emphasized provision of services to small commercial farmers, particularly those involved in the production of export crops. Nordic assistance is now being phased down, and other donors are being encouraged by both Government and the Nordics to increase their involvement in this sector. The IBRD sponsors a Small Farmer Development program involving the cooperatives--the Integrated Agricultural Development Program and the Danes. sponsor a farm input supply scheme. DANIDA and West Germany have both provided credit funds to the CBK.

USAID support for the cooperatives system to date has been exclusively through the Smallholder Production Services Credit Program (SPSCP) (Part C) of Agriculture Sector Loan I which focuses on providing agricultural credit and other support services to subsistence farmers.

SPSCP provides resources for, among other things, training member education and substantial increases in the size of the cooperative management staffs. Some technical assistance was arranged through the Peace Corps, which fielded 10 volunteers to introduce improved business and

management systems.

The above programs provide resources for cooperatives to enable them to expand their operations. They do nothing to improve the capacity of the MOCD to serve the movement nor do they investigate and seek solutions to the overriding cooperative constraint, i.e. sufficient, qualified manpower. It is these problems which ASSP would address.

b. Proposed Activity

The Ministry of Cooperative Development and the CBK have requested AID assistance in strengthening the cooperative system so that it can expand its membership among, and, thereby, its services to small-holders. Proposed assistance, all to be provided under grant financing, has several components, but all involve manpower development and/or improved management. Each of these is discussed below.

(1) Cooperative Banking System

The Cooperative Bank stands as the apex credit institution of the co-operative movement. Plans for the further development of the co-operative system require that there be a strong Cooperative Bank offering efficient financial services. To assure that this will be the case it is proposed that the Bank's role in cooperative development be examined and that a management study be undertaken to assess the institution's current capabilities and to determine what the management requirements will be under an expanded program.

In part the future role of the Cooperative Bank will depend upon the development of the cooperative union banking sections. Such sections have been established in 13 stable cooperative unions. The development of banking sections is important. They represent small farmer-owned or controlled institutions which provide economic services to rural people previously having little or no direct access to such services. Some banking sections have become strong, viable organizations and seek to expand operations into small but full service banks, offering checking services and expanded loan operations, both in terms of loan types and clientele.

The MOCD believes that such expanded services would be desirable but feels that an independent study should be undertaken to evaluate the institutions, their current operations and their potential for expanded services. USAID shall assist the CBK and the MOCD in these efforts by providing a management study team to undertake a comprehensive management review of both the DBK and the cooperative banking sections.

(2) Cooperative College

Future manpower requirements for the cooperative system have not been projected, nor has the quality of current training been evaluated. It is herein proposed that a comprehensive manpower and training requirement study be initiated for the system, similar to that which was undertaken by ATAC for the Ministry of Agriculture. It is also proposed that prior to the above a companion study be undertaken, to evaluate the quality of on-going cooperative education programs. The results of these studies will constitute

the framework for developing strategies for addressing problems identified with the College's programs and curricula as well as MOCD training programs.

When these studies have been completed and the magnitude of manpower and training requirements established, it is proposed that a team be fielded to conduct academic and engineering feasibility studies leading to a proposal for expanding the College. Funds for construction costs and implementation of the Cooperative College expansion would be requested in a subsequent PP Revision.

### (3) Ministry of Cooperative Development

Assistance to the MOCD Education and Training Division will entail provision of TA advisors. One, a cooperatives education expert will play a direct role in the project-financed evaluation of various MOCD and Cooperative College training programs. Additionally, working with his Kenyan counterparts, he will be expected to develop and conduct training courses a) for MOCD trainers of members of cooperatives, union and society managers, and union and society professional office personnel and b) for MOCD officials who supervise, advise and assist cooperatives' credit and banking staff as well as for such staff themselves.

To assist in carrying out these tasks the services of the Training Advisor will be supplemented by 18 months of services of a Cooperatives Business Management instructor and seven months' services of a Cooperative Credit specialist. In addition, six months' services of a Cooperative Training Materials specialist are proposed to assist in developing training manuals for the above and other courses. Finally, it is proposed that six months' services of a Cooperative Education Audio-Visual specialist be provided to assist in the reorganization of MOCD's audio-visual section for an expanded cooperative training program.

### (4) Cooperative Personnel Training

It is important to the overall training program that a flexible external training mechanism be established to enable the system to build immediately upon the finding of the studies outlined above. It is proposed, therefore, that a training fund be established, similar to that which has been proposed for the Ministry of Agriculture earlier in this PP. Specifically, it is proposed that 120-person years of training be funded, in approximately equal increments over a period of five years, with 60 person years for long-term academic training abroad, 40 person-years of local academic training, and 20 person-years of short-term, non-academic training.

GOK inputs are detailed elsewhere. Basically, they entail provision by the various cooperatives system recipient agencies specified above of office space and furnishings, secretarial support, in-country travel and counterparts for study teams and/or TA personnel. Each recipient agency shall also finance a share of participant costs. The MOCD shall, in addition, provide a site for in-country training, course materials, and in-country training costs for MOCD officers attending these courses. Where appropriate and agreed by USAID, cost of in-country training may be met from ASL I reflows.

c. Beneficiaries and Rationale

As with other systems described in this PP, manpower is a constraint inhibiting the cooperatives from adding to the services offered and extending them to greatly increased numbers of small farmers. Manpower problems affect the cooperative unions and societies as well as the supportive structure which backstops them--the MOCD, CBK and Cooperative College. The cooperative system component of ASSP, therefore, seeks to increase the supply and improve the quality of trained manpower for the system and, also to assist the system determine an appropriate growth strategy for the CBK and union banking sections.

The mix of studies, TA personnel and training proposed for the ASSP cooperative system component may be the precursor of much expanded AID support for this system. This expansion reflects Mission experience with ASL I, the Agriculture Credit Project evaluation, and technical advice of the PASA cooperatives expert who was part of the PP design team. It also follows from the role and significance of cooperatives for reaching small farmers not now being served and their potential role in mobilizing human and financial resources for rural development. That this potential stands a good chance of being realized is supported by GOK policy decisions taken on cooperatives and their service functions re smallholders and by the demonstrated success of the system in moving "non-progressive" small farmers into commercial production in the past.

## 5. Storage and Marketing System Support

### a. Background

Storage problems are evident in both the input and output markets and interfere with the orderly marketing of many products. Of particular concern are the food grains, of which maize, wheat, paddy rice, sorghum, millet and various legume seeds are produced in greatest quantity. These are storable crops and crops which must be stored to meet both short and long-term consumer needs. ASSP is focusing on agricultural support systems and most particularly those systems which impact smallholder agricultural production. Storage and marketing systems play a central role in determining the real income which the smallholder ultimately derives from his agricultural production. The Kansas State University team among others, has identified some of the deficiencies in the existing storage and marketing system and has suggested assistance activities which might address those problems.

### b. Donor Assistance Activities

The Government of Kenya has a firm commitment to expanding and improving grain storage facilities. That commitment is reflected in research into stored grain insect problems undertaken by the National Agricultural Laboratories and assistance sought from various donors, in courses taught at Farmer's Training Centers, and in work underway at the University of Nairobi, at Egerton College and at other educational units.

### c. Proposed Activity

A Kansas State University study team visited Kenya in March 1978 for the purpose of examining Kenya's grain storage system particularly as it related to smallholder farmers, and to recommend an assistance strategy. <sup>1/</sup> This team recommended that AID fund:

- a) A comprehensive study of Kenya's smallholder food storage needs in order to develop project proposals for donor-financed assistance. The Kansas State University (KSU) team recommended that the comprehensive study focus on training requirements for extension manpower in the storage field (extension workers, engineers, researchers), design of demonstration smallholder and cooperative food storage facilities, provision of loans for on-farm and cooperative-level storage, and long-term storage research needs.
- b) Training in food storage principles, extension teaching techniques and seed sciences.

To implement the above recommendations a five-person team will evaluate on-farm and village-level storage needs in Kenya.

<sup>1/</sup>See D. Anderson and D. Pfof, "Smallholder Grain Storage Problems in Kenya" and "Some Parting Thoughts", Kansas State University Study Team, March 1978.

While the study will examine training needs in great detail, sufficient information is available at this stage to recommend a limited training program:

- 1) Six participants, 14 months each, for U.S. academic training in extension teaching techniques and grain storage principles.
- 2) One participant, 26 months, for MSc. training in seed sciences and grain storage.
- 3) Five participants, three months each, for U.S. non-academic training in pest management.

Participants will be selected from MOA extension and NAL staff with emphasis on those teaching at FTC's.

#### d. Beneficiaries and Rationale

Storage problems in Kenya's agricultural sector have become increasingly critical over the last decade. Rapidly increasing population growth (3.5 percent per annum) and increasing urbanization have placed ever greater strains on storage and marketing systems for the timely delivery of agricultural produce. Expansion of cropped areas and increasing agricultural productivity have resulted in significant increases in agricultural production, in products being marketed, and in products being stored.

Two major problems in the storage area were identified by the KSU team. First, storage losses at the farm level are estimated to range from five to 30 percent. On-farm losses can be reduced by providing improved storage methods to farmers and also by shifting some of the storage responsibility from the farm level to higher levels, cooperatives, for example.

Second, farmers are not benefiting from the price support and stabilization activities of the Maize and Produce Board (MPB) to the extent which they might. Farmers receive prices in the unofficial private market which are well below the official MPB prices. Farmers are forced into selling on the unofficial private market because: 1) they lack access to the MPB or one of its licensed agents, or 2) the MPB will not accept the grain because MPB stores are already filled and/or the grain's moisture content does not meet MPB standards. Financial obligations at harvest time are often heavy, and the farmer cannot wait for MPB depots to resume purchases or for the sun to dry

### Part III - Project Analysis

#### A. Economic Analysis - Summary (Detailed analysis provided in Annex VII)

##### 1. Project Overview

A cost-effective analysis of this project demonstrates that it is a best-cost alternative with reasonable quantifiable costs associated with the expected, but non-quantifiable, benefits. An assessment of Kenya's ability to service the debt accruing from this project and the relationship of defense to development expenditures is made in Annex VII; it is concluded that Kenya should experience no debt servicing problems and that Kenya is not funding defense costs at the expense of development programs.

The components of the ASSP do not lend themselves to a rigorous quantification of social costs and benefits necessary for a comprehensive and meaningful cost-benefit and internal-rate-of-return analysis. Where departures from more traditional methodologies are taken, a full explanation is provided in the relevant methodological section in Annex VII.

Based on current output levels, the potential for incremental smallholder agricultural production could realistically range between \$200 million and \$400 million per annum. While the ASSP does not claim to provide all the inputs required to effect such an increase, the project will provide inputs which are directed at assisting the GOK's efforts to achieve increased production of this magnitude. Overall, the GOK is expecting that the non-monetary sector of the Gross National Product will grow at approximately 3.2 percent per annum from 1979 through 1984. Applying this rate to the agricultural and forestry portion of the non-monetary sector implies increased annual production of \$147 million between 1979 and 1984. The inputs from the ASSP will directly support the GOK's efforts to support such a production increase. The interrelationships between project inputs, increased production, and increased real income are discussed in detail in Annex XVI.

A component-specific recurrent cost discussion is presented in each component section of the Annex VII analysis. When summing the project components the implications for incremental GOK recurrent expenditures are considerable, most notably for the educational institutions and the research station. The agricultural credit, cooperative sector, and storage and marketing support activities imply quality improvements to the existing institutions but not a massive increase in staff. Therefore, recurrent costs in these areas should not increase dramatically as a result of this project. The agricultural educational institutions, however, require incremental operating funds to accommodate the new student levels proposed, as well as incremental salary expenses for the MOA to hire the graduates generated by these projects components.

## 2. Agricultural Manpower Systems Support

### a. Egerton College Expansion

#### 1. Overview

Based on cost-effective analysis, and the linkage between Egerton graduates, the incremental delivery of agricultural support services, and incremental smallholder agricultural production arising from these services, the proposed Egerton College expansion is considered to be an economically sound development assistance activity.

Egerton graduates enter positions requiring considerable administrative and supervisory responsibilities as well as technical skills in particular technical fields of agriculture. Overcoming some of the extension service's constraints, including inadequate management, and insufficient numbers of qualified staff, will require an increase in the type of individual being trained by Egerton College.

#### 2. Cost-Effectiveness

The fixed assets and recurrent costs, per Egerton student, are not out of line with the other agricultural educational facilities in Kenya. On a unit cost basis, the World Bank has concluded that capital expenditures at the University and the certificate institutes compare favorably with similar institutions in other LDCs.<sup>1/</sup>

If the current education costs at Egerton are considered to be reasonable (and the comparison with existing alternatives indicates that they are reasonable) and no significant alteration in the education of diplomates has been recommended, it can be concluded that the current educational program offered at Egerton College is cost-effective.

When valuing all fixed assets in 1978 prices it is apparent that the proposed capital construction is not out of line with the existing assets. Existing assets range between \$8,700 and \$11,600 per student while the incremental assets are valued at \$14,360 per incremental student.

Recurrent costs per student are currently \$3,030. Drawing on the rather detailed budget prepared by Egerton and projections of new staffing and student enrollments, incremental operating expenses have been estimated through 1985 as detailed in Annex XV. Translating 1985 prices into constant 1978 prices, the incremental recurrent cost, per incremental student, is estimated to be \$2,480 by FY 1985.

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<sup>1/</sup> World Bank. Staff Appraisal Report: Fourth Education Project in the Republic of Kenya. February 1978. Report No. 1839A-KE.

In terms of alternative agricultural education programs in Kenya, Egerton College program's costs are reasonable. The existing curriculum has been judged to be relevant to Kenya's needs and no radical restructuring of the Kenya's agricultural education process has been proposed. When adjustments are made for inflation and the replacement cost of existing facilities, the proposed construction costs are in line with the cost of the existing facilities; unit costs compare favorably with other LDC's. The proposed expansion program, is therefore, considered to be cost-effective.

### 3. Recurrent Cost Implications

The MOA's recurrent 1977/78 budget is \$42,198,000 and the DPM recurrent budget is \$5,908,815<sup>1/</sup>The GOK has expressed a desire to expand Egerton College's enrollment and to hire the graduates produced by that expansion. The GOK is aware of the recurrent cost implications, is ready to meet them, and the Annex VII budget analysis indicates that the GOK can meet these expenses within the resource limitations of the budget.

### 4. Beneficiaries

Agricultural output is the primary source of benefits which flow from the rural sector. While there is a strong presumption that increases in the development and transmittal of improved technology will lead to increases in agricultural output, it is extremely difficult to trace a direct cause and effect relationship between a single factor of production and a particular increase in output. While additional specialized manpower is necessary to develop and extend technology needed for expanding production, by itself it is not sufficient to increase production. Combining the agricultural sector support activities proposed under this project with the on-going and proposed donor and GOK programs for increasing smallholder agricultural production (such as ASL I, Part C and the Integrated Agricultural Development Program) one can assert, with greater authority, that the necessary and sufficient conditions for incremental agricultural production are being addressed.

The extension service is supposed to reach all Kenyan farmers, with special emphasis on the 1.5 million smallholders. The MOA admits that performance to date has not resulted in contacts with all smallholders and that perhaps only one-half the smallholders are being reached. In an effort to improve the extension service's performance, the MOA is embarking on a major effort to improve utilization through improved administrative and technical support services (a role of the Egerton graduate) and up-grading the existing contact agent staff through in-service training and the gradual replacement of uneducated Junior Agricultural Assistants with certificate-holding Agricultural Assistants.

#### b. Coast Agricultural Institute

A fuller economic analysis of the proposed certificate-level institute will be made in the subsequent Project Paper Revision.

<sup>1/</sup> Directorate of Personnel Management

c. Faculty of Agriculture, University of Nairobi-Expansion

A fuller economic analysis of the proposed expansion will be the subject of a subsequent Project Paper Revision.

d. Training Fund-Ministry of Agriculture

The MOA training is designed to provide needed training opportunities for in-service MOA staff, training which is considered appropriate to the MOA and to the individual selected for training. It, therefore, complements the pre-service training provided also under this manpower component. The MOA will prepare annual training plans which AID will review and approve. The plans will include a description of the benefits the MOA expects to derive from the training and how the training relates to the MOA's objective of increasing smallholder farm production.

3. Range Research

Constraints to incremental livestock production have been examined in the Pratt Report and priority research areas have been identified. 1/ While no reasonable estimates can be made of the incremental livestock production which is expected from the range research proposed in this project, a suggestion of the potential magnitude can be gleaned from combining the livestock unit potential identified by Chemonics with the research priorities outlined by Pratt and the livestock research experiences documented by Belshaw et. al. 2/ The conclusion drawn from such analysis indicates that range research would be able to make a considerable impact on livestock production provided that the appropriate research is undertaken and that the dissemination of results is achieved. The Pratt Report provides sufficient background to insure that the appropriate research will be undertaken. Inputs to in-service training proposed for extension workers in the range areas under the range research component will increase the dissemination and application of research results to the target beneficiary group.

4. Credit Systems Support

Proposed assistance to AFC builds upon and continues assistance activities initiated under a previous project, Agricultural Credit (615-0148). The purpose of that assistance was to increase the capability of the AFC central and field offices to implement and manage an effective credit program directed towards expanding credit available to Kenyan farmers, including a shift in emphasis to make more credit available to smallholder farmers. Objectives were stated in quantitative terms (e.g., increased numbers of small farmers receiving loans, reduced time in loan processing, decline in delinquency rates, increased number of branches with loan approval authority) but could not and cannot be analyzed economically. While it would be possible to conduct micro-economic analysis to determine the economic benefits derived, for example, from the additional loans and from reduced time in loan processing, making attribution of these benefits to project-provided advisory service and training would be conjectural at best.

1/ D. J. Pratt. Range Research in Kenya: A Technical and Organizational Plan for Future Research. March 1975. Prepared by the Ministry of Overseas Development

2/ Belshaw, Hall, Musangi, and Jensen. "Applied Scientific Research for Crop and Livestock Development in Uganda: A Review", in Mbilinyi (ED). Agricultural Research for Rural Development. East African Literature Bureau. 1973

Although not the only input required for incremental agricultural production, credit is a necessary input, the provision of which is directly related to incremental production.

Assistance to the AFC builds upon a successful program of streamlining AFC operations and redirecting efforts to provide credit to small farmers. The AID-financed inputs, therefore, are based on a model of proven success. Emphasis has shifted from high-cost U. S. experts to participant training and the long-term returns which accrue to such training. The AFC is the predominant agricultural lending agency in Kenya and is actively involved in expanding its small farm credit portfolio. This assistance activity is considered to represent a cost-effective technical assistance package aimed at addressing one portion of the agricultural credit system; as such the component is considered to be an economically sound development assistance activity.

#### 5. Cooperative System Support

Assistance to the cooperative banking institutions focuses upon a management study which will review the current operations and make recommendations for alternative strategies for their future development. Strengthening of cooperative credit institutions is critical to Government's strategy of providing the rural poor with increased access to institutional credit. The absence of the study inhibits the capabilities of Government to implement its strategies and of donors to support this highly desirable strategy. Such a study needs to be undertaken if donor assistance in the area of cooperative credit is to be efficiently channelled to Kenya's rural poor.

The lack of sufficient quantities and quality of cooperative manpower appears to be the primary constraint to efforts to expand the outreach of the cooperatives to enable them to serve increased numbers of small farmers. GOK and USAID agree that it would be imprudent to rely wholly upon piece-meal solutions to this important problem. It has been proposed, therefore, that a comprehensive study be undertaken to assess the magnitude of the manpower problem over the next decade as a prelude to committing resources to overcome the problem.

#### 6. Grain Storage

Grain storage in Kenya, particularly on-farm and village level storage, was the subject of a Kansas State Study Team. The two major problem areas in grain storage are the significant storage losses now being experienced at the farm-level and the marketing problems which prevent the farmers from obtaining the full benefit of the Maize and Produce Board price support levels. Farmers often sell their grain to private traders at prices substantially below the official Board price. The GOK has indicated that pricing policies, especially in Agriculture, and revisions thereto will be an important element in the 1979-83 Development Plan. While the specific policies and pricing changes are not yet known, it would be surprising, indeed, if the MPB's marketing role does not come under close scrutiny given the seriousness of the widely publicized storage problem now existing and the stated intention in the new Plan to implement programs directed toward "non-progressive" small farmers.

## B. Social Soundness Analysis - Summary

The material presented below is basically a summary of Annex XV to which the reader is referred for a more complete presentation.

### 1. Background

Since Independence the GOK has attempted to increase agriculture production with some success. The 1974-78 Development Plan has two goals--improved equity and increased employment--with particular stress being placed on developing rural areas, including agriculture, as the means for achieving them. The 1979-83 Plan, now in preparation, will continue these emphases but will have a single goal--alleviation of poverty--and will add attention to basic human needs, including food and nutrition.

Agriculture is the USAID's principal sector of program concentration. The Agriculture Systems Support Project is directed toward the overall AID bilateral program goal of improving rural incomes and the sector goal of improved smallholder access to agriculture services, institutions and infrastructure. The ASSP seeks to support the reorientation of various agriculture systems toward a focus on smallholders and to make possible extending the outreach of these systems to that sizeable group of smallholders and pastoralists not now being served. The two key sociological issues, therefore, are whether project outputs will reach smallholders and, if so, will smallholders and pastoralists, the ultimate users of the services provided by the agriculture support systems involved in ASSP, benefit from these services.

### 2. Socio-Economic Characteristics of the Target Population

Much data on smallholder income, holding size, crops produced, and use of existing agriculture support systems has been provided in Parts II.A. and III.A. This will not be repeated here.

About 98 percent of Kenya's population is African, belonging to more than 30 ethnic groups. The Kikuyu, Luo and Luhya are the most numerous with the Kikuyu constituting about twenty percent of the total population. About 87 percent of Kenya's population live in rural areas with population densities reflecting climatic conditions. Highest densities are found in western Kenya, having generally over 1,000 people per square mile, while the lowest densities--less than 10 persons per square mile--are found in the dry northern half of the country.

Approximately 85 percent of the population depend on agriculture for their livelihood. Even so almost a third of the 1.5 million smallholdings are smaller in size than the 2.5 acres considered to be the minimum needed to support an average family. The average-sized holding is 5 acres of which only three acres may be cultivated at any one time.

Most small farmers primarily grow food crops, principally maize, for family subsistence. Perhaps 25 percent systematically produce crops for sale, and about half of these may use improved agriculture practices. Cash crops or some food crops are sold to obtain money needed for school fees, taxes, consumer goods, food, or other essential items. Off-farm employment is essential given generally low income levels derived from farming, and income may be further supplemented with remittances from family members who have migrated to urban areas seeking employment.

Significant out-migration from rural areas does take place directed towards urban centers or towards other rural areas where population densities may be lower and land more available. One result is that responsibility for cultivating the shamba falls upon the women who remain behind. Presently, one-third of all rural households are headed by women. Even so, women still have very limited access to credit and other agriculture support systems.

Pastoralists, of whom there are about 300,000, come from different ethnic groups and may practice differing types of pastoralism. For example, the Kamba and Pokot practice a mix of pastoralism and settled farming while the Masai, Somali and Boran are primarily nomadic pastoralists. The former groups live a more settled existence in the medium (agriculture) potential areas while the latter live a trans-humance existence in the low-to-medium potential areas. Pastoralists as a whole are considered to be among Kenya's poorest people, reflecting not only the comparatively low potential of the areas where they live but also the need to better integrate their animals into the agriculture production system, the comparative lack of support services (agriculture, health, education, roads etc.) in their districts, and difficulties of providing such services to a population so often on the move, locating water and forage.

### 3. Social Impact

The smallholder-pastoralist group which will be the ultimate beneficiaries of ASSP tend to be less progressive, the most difficult to reach, and the most numerous of all Kenya's agriculture producers. At the same time they embody much of that share of Kenya's agriculture potential which has not yet been exploited. Central to realizing the as yet unexploited potential will be increasing production in both high potential and lower potential areas on lands already being used for agriculture purposes.

The agriculture producers resident on these lands lack access to services and institutions which will enable them to realize fully that potential. The manpower training, research, credit, cooperatives and storage systems included in ASSP are all intended to be national in scope but for various reasons have not, in fact, been national in

the extent of their actual outreach or capacity, particularly in reaching the project's ultimate beneficiaries. Government has recognized the need to provide access to these agriculture support systems to those in the target group not at present so benefitting. Government has chosen to do so through reorienting the existing systems to focus on small, poor farmers and pastoralists and improving these systems' capacity to reach the target group through a combination of expanded and improved manpower training, improved managerial efficiency, and in some cases, increasing the range of services provided by a specific system. ASSP seeks to support this broad effort. The technical outputs of the project occurring together within the same general time frame and sharing a common focus--reaching the smallholder-pastoralist target group with technical information and services suited to his needs--make this project socially feasible. Specific mechanisms are built into the project to ensure component linkages, to bring about the desired focus, and to make possible diffusion of project benefits.

a. Bridging the Gap Between Beneficiaries and Agriculture Support Institutions

Traditionally, it was believed an effective means for assisting smallholders was to introduce new technology to progressive farmers, assuming it would eventually be adopted by less progressive smallholders. This approach has been demonstrated not only to be ineffective but to have the effect of widening income inequities. By contrast, ASSP seeks to develop communications channels and techniques which will permit agricultural innovations to reach the ultimate users more effectively. Of particular emphasis here will be project efforts to extend the outreach and services offered, i.e. storage, banking facilities and credit, by the cooperative system and to reorient, to improve the efficiency, and to extend the services of the extension system so that it with the cooperatives can reach the very sizeable segment of smallholders not now benefiting from these systems. Secondly, ASSP will try to ensure that the agriculture innovations and/or technology being introduced are relevant to needs of small producers. Here, the research, storage and credit components will be more significant.

The project strives to bridge the gap between agriculture support institutions and the less-progressive small farmers and pastoralists by assisting the GOK in its efforts to build a foundation of skills within the project's component systems which are needed for working more effectively with the target group. For example, curricula and counterpart and participant training provided to Kenyan training institutions should instill 1) the practical technical knowledge needed by the immediate beneficiaries in their later work, 2) the ability to add to that knowledge as a result of experience and/or later training, 3) supervisory and administrative skills as may be needed by the beneficiaries, 4) communications techniques for transferring knowledge, and 5) an understanding of their roles with particular regard to smallholders and the role of the system of which they are members in Kenya's agriculture development.

The second task in bridging the gap is ensuring that innovations are relevant to small producers needs. The storage study is to identify smallholder on-farm and cooperatives storage problems and to propose means for solving them. Research under ASSP will be practical in its focus, geared to smallholder-pastoralist problems and needs, with findings later to be communicated to field extension staff, training facilities, and farmers. Efforts to identify and implement new forms of credit security in addition to real estate also are directed to the relevancy question.

b. Diffusion of Project Outputs

There are three areas of spread effect in this project. The first is the diffusion of project outputs, such as range research findings, Egerton College graduates and agricultural credit from agricultural institutions to smallholders. A second is the spread of outputs among agricultural institutions. For example, range research findings should diffuse to other institutions, like Egerton College, and the extension system. The third type of spread is among livestock holders and farmers themselves.

Component specific means or mechanisms for assuring the spread of project outputs are discussed for each component in the project implementation section of this paper (see Part II.B. 1 - 5). A summary of these is presented in the Social Soundness Analysis, Annex XV. Since this project is not directly involved in extension activities, these mechanisms generally facilitate diffusion among institutions and between institutions and smallholders.

Such diffusion facilitating mechanisms are very important in this project. This project has complex linkages among its components; the ultimate beneficiaries may be one or more steps removed from the project outputs, and the social, cultural and economic context is complex. It cannot be assumed that activities of this project will automatically effect smallholders, negatively or positively. If they are to benefit, the project must contain specific mechanisms which will ensure that project benefits reach the small producer both during and after the life of the project. The means described in Annex XV and Part II.B. have been designed to do just this.

The extension service will be a particularly significant channel for diffusing project benefits given its role as principal employer of graduates of Egerton and its relationship to AFC and the cooperatives. Extension systems have proven efficient means for reaching farmers when they have adequate logistics support and efficient management and when their services are provided as part of an integrated package of other inputs and services. The project aims to facilitate creation of these conditions by providing support across a broad front to various systems - credit, cooperatives, research, storage, and, most importantly, manpower training and by fostering linkages among them. The extension system in Kenya exists and has in the past played a role in diffusing technical information to smallholders.

c. Participation of Beneficiaries

Mechanisms for facilitating diffusion of benefits provide opportunities for participation of beneficiaries on several levels - between U.S. and GOK counterparts, between teachers and students, between technicians and smallholders. Another level is between project-trained Kenyan extension, cooperatives, AFC and research staff and JAA's/JAHA's. The latter live in the areas where they work, have been members of these communities for years, and also farm there. These extension staffers, while formally untrained, are a reservoir of knowledge about their rural communities. U.S. personnel through field trips and demonstrations, through contacts with district MOA officers and other members of DDC's (as well as divisional MOA officers and planning committees which may exist at that level), and through visits to or special courses at FTC's will have opportunities for direct contacts with the ultimate project beneficiaries.

d. Overview

It is difficult to determine if all the objectives of this project have an equal chance of being realized. Nevertheless, this project is as firmly based from a social perspective as can be reasonably expected given its complexity. Available studies have been examined to identify issues that could effect the attainment of the goals of the project. Means have been designed into the project to ensure that project outputs not only reach the targeted beneficiaries but that they have minimal negative effects. If these measures are followed, the project should make a significant contribution to the small producer and to the overall long-term agricultural development of Kenya.

### C. Technical Analysis

#### 1. Agricultural Manpower Survey - Methodology

See Annex IX.E for a full discussion of the manpower survey methodology.

#### 2. Engineering Analysis

##### Egerton College Expansion - Construction, Equipment and Furnishings

##### a. Description of the Activity

The project will finance the construction of new buildings, water supply system, waste water treatment, electrical supply system, telephone system and roads, and renovation of existing buildings. Also included in the project financing is the cost of equipment and furnishings for the new buildings and some of the existing buildings. New buildings to be constructed are as follows:

- (1) Animal Science Department: One lecture room for 64 students, one animal health building, one feedlot for 120 cattle, one nutrition laboratory, a methane gas unit, and a butchery.
- (2) Biology Department: Two laboratories, one herbarium and two greenhouses.
- (3) Chemistry Department: Two laboratories and one lecture room for 64 students.
- (4) Crop Production Department: One tool repair workshop and one teaching arena.
- (5) Dairy Technology Department: Extension of existing cold room and preparation room.
- (6) Home Economics Department: One classroom for 32 students, one model rural house and one model urban house.
- (7) Agricultural Engineering Department: One lecture theater for 64 students, one drawing room for 64 students and one laboratory.
- (8) General Classrooms: Two lecture rooms, each for 64 students, and one lecture room for 32 students.
- (9) One administration building.
- (10) One library building.
- (11) Extension to sanitarium (dispensary).
- (12) Nine halls of residence for 1,000 students (two student room).
- (13) Two warehouse-type storage facilities.
- (14) Estates Department: Maintenance workshop.

- (15) Transport Department: Storage and repair facilities for vehicles.
- (16) Tatton Demonstration Farm: One teaching arena, one animal handling complex and two silos for grain storage.
- (17) One kitchen and dining room for 950 students.
- (18) Staff Houses: 54 three-bedroom houses for lecturers, 72 two-bedroom houses for junior teaching staff and clerical staff, 97 two-bedroom houses for technicians and senior drivers, and 290 one-bedroom houses for subordinate and maintenance staff. 1/
- (19) Chemron Range Demonstration/Teaching Area: One teaching arena, one dormitory for 32 students, one dining hall/kitchen and one hostel for six lecturers.
- (20) One practice teaching/child care demonstration nursery school for Home Economics Department.

Also, adequate offices, stores and bathroom facilities will be provided for each department.

Renovation of existing buildings will consist of reroofing, improvements to plumbing, electrical and fire-fighting systems, remodelling for changed-use, and related works.

A detailed description of the project site, new construction, renovation of existing buildings, equipment and furnishings is included in Annex IX.B.

b. Architectural and Engineering Plan

A detailed evaluation of present and projected demand of college facilities (buildings and equipment), preliminary architectural and engineering designs, and cost estimates to accommodate the proposed expansion of Egerton College have been prepared by a team of Kenya-based consultants. 2/ The report is available in AFR/DR/EAP.

Before recommending construction of new facilities, such as the library, dining hall and the administration building, the consultants, the College and USAID/Kenya considered various alternatives to satisfy the new space requirements which accompany the expansion of the College, including variations on the future use of existing facilities as well as the construction of new facilities. After an exhaustive exploration of alternatives and the implications of each, the consultants recommended the least-cost and most practical alternative.

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1/ Note that the staff housing activity is designed to: 1) replace condemned subordinate staff housing, 2) provide sufficient housing for the existing staff, and 3) provide sufficient housing for the incremental staff.

2/ Mutiso Menezes International, op. cit.

The consultants were led by Mutiso Menezes International, a leading architectural planning firm, principally owned by a Kenyan. The firm has provided architectural services for various institutions in Kenya such as the Kenya Technical Teachers Training College and United Nations Environment Program's temporary headquarters. Other members of the team included: (i) Technical Consultants International, (space scheduling and equipment specialists); (ii) Kitololo and Partners, (civil and structural engineers); (iii) Bikro Consultants, Service Engineers (civil, mechanical and electrical); Geosurvey International, (surveyors), and (iv) Davison and Ward, (quantity surveyors). All members of the team have been practicing their profession in Kenya for a number of years, and all are considered highly qualified in their profession.

The report prepared by the consultants includes the following:

- (i) Recommendations for space requirements for instructional facilities (classrooms, laboratories, workshops, etc.), administration facilities, student boarding facilities (dormitories, cafeteria, common rooms, etc.), and staff housing.
- (ii) Schedules showing space utilization of facilities.
- (iii) Recommendations for the potable water, irrigation water, waste water treatment, electrical supply, and telephone system.
- (iv) Floor plans of proposed buildings.
- (v) Site plans showing the location of existing and proposed buildings, water supply system, waste water drainage, electrical supply, and access and interior roads.
- (vi) List of all major proposed built-in equipment.
- (vii) List of proposed movable furniture and equipment, including essential laboratory and workshop equipment.
- (viii) Preliminary cost estimates for construction, site works, engineering and construction supervision, equipment, and furniture, broken down into local currency and foreign exchange costs.
- (ix) List and cost estimate of all major construction materials which are not of local source and origin.
- (x) Construction schedule.

To assist in the preparation of preliminary designs and cost estimates, and to review the report prepared by the local consultants, USAID/Kenya entered into a PSC with Professor H. James Miller, of the University of Illinois. Professor Miller has broad experience in the design of education facilities with agriculture curricula and has previously provided consultancy services to U.I.D. and the World Bank. Professor Miller was in Kenya from March 1 through March 15, 1978, and worked very closely both with the consultants and the college administration and staff. He evaluated the utilization of the existing college facilities and discussed with the consultants design philosophies and space requirements for the proposed expansion program. He recommended the following approach for future development:

"Two important objectives should guide the design of new buildings. Egerton College is established as a diploma training center for students from rural backgrounds, who will return to the same areas to educate others to improve their standard of working and living in an agrarian economy. This suggests that appropriate facilities should be designed as simple, frugal, one or two story buildings of indigenous character. At the same time, they should provide functional, efficient and comfortable support for student and staff living and learning activities. That implies use of indigenous materials, such as exposed local stone; simple rectilinear buildings with sloping tile covered roofs, open corridors and verandahs. It implies virtually no dependence upon mechanical means of comfort support; but rather upon passive means of correct building orientation, natural ventilation and sun shielding.

The second objective is to provide buildings, though simple in concept, that are relatively low in recurring maintenance demands. Instead of wood shingles, built up roofs and thatch; tile roofs, when properly installed, should provide years of maintenance-free service. By using natural stone and other natural unpainted materials, recurring painting costs can be kept to a minimum. The same principle should be applied in the choice of other materials."<sup>1/</sup>

Mr. Miller's report is available in AFR/DR/EAP. He has reviewed the Mutiso report and his comments have been incorporated into his own report.

<sup>1/</sup> J. Miller, op.cit.

### Technical Soundness

New buildings have been designed, to the maximum extent possible, around partly open or enclosed courtyards. Each new building is carefully located to form part of a group having basically the same functions. The halls of residence, dining hall, and teaching spaces have been located to encourage smooth and natural flows of pedestrian traffic from one part of the campus to another. Wherever possible, teaching facilities and equipment have been centralized to provide the best utilization, supervision and maintenance. By limiting the width of new buildings, spans have been kept within economic limits and the scale of existing buildings has been maintained. Building design is based upon the maximum use of natural lighting and cross ventilation. In general, the design and siting of new buildings will provide functional, efficient and comfortable support for both learning and living activities.

To keep the construction, operating, and maintenance costs to the minimum, all new buildings are constructed of local stone walls and clay tile roofs. All buildings, except the halls of residence and the administration buildings, are single storey. The halls of residence and the administration buildings will have two stories. With mostly single storey buildings, the construction methodology will be relatively labor-intensive and foundations will be simple concrete footings.

The roofs of most existing buildings leak. The buildings have pitched roof coverings of asbestos, wood shingles, iron sheets and built-up felt. It is proposed to replace entirely the existing roof coverings with clay tiles or roofing felt for some buildings and to make spot-repairs to roofs of other buildings. The experience in Kenya has been that the clay tile roofs give long (15 to 25 years) practically maintenance-free services. In some instances it will be necessary to strengthen existing timber roof trusses. Also, remodeling of some existing buildings will be necessary to convert them for a different use than originally intended.

The existing water supply system will be expanded and reorganized. The expansion and reorganization will basically consist of:

- 1) drilling one or two new boreholes to meet the estimated 1985 demand of 1,020 cubic meters per day (270,000 U.S. gallons), and
- 2) Constructing appropriate water treatment facilities, storage tanks, and a new distribution system.

According to tests carried out by the Ministry of Water Development, prospects for striking water in the area are good, but water contains a high flouride content. Appropriate water treatment facilities will be provided to reduce the flouride content to the WHO standard for potable water. The main aquifer is encountered at the depth of 150-190 meters. Therefore, the depth of the proposed boreholes will be approximately 200 meters (660 feet).

The present sewage treatment, consisting of oxidation ponds, will be expanded to treat sewage from all new buildings and some of the existing buildings which are not presently connected to the system. Adequate electrical supply will be available from the East African Power and Lighting Company which is responsible for supplying electricity to all consumers in Kenya. The on-site distribution system will be upgraded to meet the additional demand, and new wiring for many of the existing buildings will be necessary. A new telephone system is planned to provide better communications. One ring road will require minor realignment.

Adequate equipment and furnishings to meet the needs of the increased student population for teaching, maintenance, administration and living will be provided with project funds.

The construction cost estimates have been prepared by the Quantity Surveyors. The estimates have been based on current construction costs (March 1978) for similar types of buildings and related works in Kenya. Based on building costs indices published in Kenya Statistical Digests since 1973, the building costs are expected to go up by 10 percent per year over the life of the project. These escalations in cost have been included in the estimates prepared by the Quantity Surveyors. A contingency of 15 percent has been added to the construction costs and architectural and engineering fees to compensate basically for the unpredictability of bid prices and possible quantity overruns.

The costs of equipment and furnishings have been estimated by Technical Consultants International. These costs include an appropriate percentage for price escalation and contingency.

The preliminary plans, specifications, and cost estimates for the construction activities and equipment have been reviewed by the USAID/Kenya Engineer and have been found to be sufficient to assure that cost estimates are reasonably firm. The requirements of Section 611(a) of the FAA are accordingly satisfied.

### 3. Other Components

The above two sub-sections of Part III. C. deal with the manpower component and the Egerton expansion in particular. The Coast Institute and Faculty of Agriculture elements of the manpower system are studies designed to assess the technical and economic feasibility of construction assistance as are the education evaluation and feasibility studies proposed for the Cooperative College. These studies are standard AID practice in such cases and are a similar approach to that used to develop the Egerton assistance package.

The other components--credit, cooperatives, range research and grain storage--reflect findings and recommendations of a variety of studies and technical experts and discussions among USAID, the GOK and as appropriate, other donors. To illustrate, the design of the range research component is based on reports analyzing range and agriculture research requirements in Kenya<sup>1</sup> and was developed jointly with officers in the MOA Division of Scientific Research, the National Range Research Station, Kiboko, and the Range Research Station, Buchuma. FAO was also consulted about the technical feasibility of the design since FAO had assisted in the initial development of a range research program and had constructed a significant portion of the physical facilities at Kiboko. In addition the USAID Mission's direct-hire livestock specialist and its engineer and an AID/W agricultural economist participated in design of the range research component. Further technical inputs are expected by the contractor's team leader and the Officer-in-Charge, Kiboko Range Research Station, in refining the supposed range research plan, finalizing the mix of research skills of the U.S. research officers to be recruited, and establishing the training plan for participant training.

The combination of technical assistance and training and the recommended input levels of each is in accordance with standard AID design procedures and agreements reached with the GOK concerning types of training needed and staff availabilities. It is considered reasonable and important for the successful implementation and completion of

1/D.J. Pratt. Range Research in Kenya; A technical and Organizational Plan for Future Range Research in Kenya, 1975. Ministry of Overseas Development.

ATAC. Agricultural Research in Kenya, November 1977. AID/Afr-C-1152, W.O. 52.

this ASSP component. The ATAC agricultural research report noted that the Division of Scientific Research was progressing towards establishing range research projects, but that their major constraint was the lack of technically qualified personnel, especially at the professional level. The input of U.S. research officers meets the short-term manpower needs until Kenyan research officers can be trained to replace them for the long-term. By the end of the project the combination of these two inputs (and some commodities) with GOK actions now in train on personnel problems should establish a viable range research capability at Kiboko which not only can be utilized and maintained solely by Kenyan staff but which should also be more attuned to the needs of small producers and pastoralists.

Other combinations of U.S. experts and training were examined but subsequently dropped from consideration. For example, an input of training alone would not have met the pressing demands to establish a range research program focussed on the growing problems of rangelands. Further, it would mean that the physical facilities at Kiboko established by FAO would continue to be under-utilized until trainees would have returned. Provision of only technical assistance personnel would not have met the long-term professional research requirements, thereby providing absolutely no assurance of continuity once the project was completed. Increased inputs of both technical assistance and training are not feasible since it would put an undue strain on the Research Division's human and financial resources.

Training for range research is considered vital to the success of this component. Therefore, a specific training program has been established for the special needs of range research while the MOA training grant will be utilized for broader-based manpower needs of the Research Division as well as for other sections of the Ministry.

A similar approach to that described above was used for the credit, cooperatives and storage components.

Based on studies' findings, technical input of U.S. and Kenyan personnel participating in project design, agreements reached with the MOA, MOCD and AFC, and the analysis presented above ASSP is judged to be technically feasible and appropriate.

## D. Administrative Feasibility

### 1. Egerton College

Expansion of Egerton College will involve the College in matters of procurement, contract supervision, staff expansion, and greatly increased student administrative responsibilities. This analysis focuses on the College's ability to carry out the new responsibilities with which it will be charged.

#### a. Structure

Egerton College operates under Ordinance No. 21 of 1955 and the Revised Bill of October 1960. Egerton College is administered by a 16-person Governing Body whose members are appointed by the Minister of Agriculture. The Governing Body is corporate, it may acquire, hold, manage, and dispose of movable and immovable property and may enter into such contracts as may be necessary or expedient.

The Principal is appointed by the Governing Body with the consent of the Minister of Agriculture. The Principal is the chief administrative officer responsible for the administration of the College, the academic management of the College, the enforcement of decrees, and the discipline of students. The Principal may be removed by the Governing Body with the approval of the Minister of Agriculture.

#### b. Leadership and Administration

The current Principal has been associated with Egerton College since 1966 and assumed his present post in 1969. Numerous evaluations of Egerton College (including the ATAC Agricultural Manpower Survey) have commented on the solid leadership being provided Egerton College by both the administrative staff and the Board of Governors with particular references to the Principal's administrative capabilities.

The College's daily administration is independent of the MOA. The College administration has successfully undertaken regular curriculum reviews, hiring and firing of staff, purchase by tender of annual supplies, and oversight of several construction activities (classrooms, staff houses, and most recently a swimming pool).

The College currently undertakes an annual tendering procedure for the supply of foodstuffs, maintenance materials, stationery, animal feeds, and assorted building materials.<sup>1/</sup> While additional staff will be required to administer the procurement and contract supervision required under this project, experience to date indicates that Egerton possesses a solid nucleus of administrative and financial staff who have demonstrated an ability to manage the College's procurement in an efficient manner.

From an evaluation of the College's administrative experience, therefore, it is considered likely that the College is capable of acting as the consignee for building materials and equipment, as the client for the final architectural services, as the administrator of the construction contract, and as the supervisor of the U.S. technical assistance contract. Expansion related responsibilities, including GOK costs related thereto, have been discussed with the College and the College had indicated its willingness to undertake these responsibilities.

Egerton College's financial management is considered first rate. A review of the annual budget, internal financial reports and an inspection of the Finance Division indicate that accurate record keeping and detailed "cost-center" accounting is providing management with a comprehensive picture of Egerton's financial position. An examination of the "Report of the Auditors to the Governing Body of Egerton Agricultural College, October 14, 1977" confirms that the accounts are a true and fair representation of the College's financial state of affairs.

#### c. Resources

Egerton finances are derived from two sources: academic fees and the Ministry of Agriculture's development budget. Egerton's recurrent cost budget is meant to be financed entirely by the academic fee (called the "economic" fee) which is levied on each student.

The academic fee is currently Kf850 per student per academic year (\$2,200). The fee was established in 1975 and is now insufficient to cover all operating costs. It is estimated that out of 1977/78 operating expenditures of \$2,091,000, Egerton College will

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<sup>1/</sup> Egerton College. List of Appointed Suppliers and Their Tender Prices. December 30, 1977.

experience an operating deficit of \$462,000. The Ministry of Finance and Planning has agreed in principle to provide Egerton College with the necessary subvention (subsidy) of \$462,000.

Discussions have taken place between Egerton College officials and representatives of the Ministries of Agriculture, Education, Finance and Planning, and the Directorate of Personnel Management in order to increase the academic fee. While this issue remains unresolved at this time, all parties are well aware of the problem. The deficit is being monitored and current budget estimates are considered reliable. No unexpected budget surprises are anticipated.

While the deficit will be funded by the GOK, it is the GOK itself which provides the largest number of scholarships (sponsorships) for Egerton students. Of 682 students enrolled as of June 1977, 565 students (83 percent) received their sponsorships from the GOK.

Egerton's development budget is financed entirely out of the Ministry of Agriculture's development budget. In the 1977/78 MOA development budget, \$63,000 was provided for Egerton, primarily for the construction of buildings and water supplies. Additional development expenditures at Egerton are independent of the academic fee, but are dependent upon the MOA's budget.

## 2. Range Research

### a. Structure

The Division of Scientific Research is a regularly constituted branch of the Ministry of Agriculture. The Division is headed by the Director of Research who per the MOA organizational chart in Part II.B.1 is one of the most senior technical officers within the Ministry and its Department of Agriculture. The current Director has been in this position for over three years and, presumably, may remain at this post for much or all of the project implementation period.

The Kiboko range research station is a national research station located southeast of Nairobi on the main Nairobi-Mombasa highway. Although a relatively new station it is part of Kenya's national agriculture research system and is responsible for research

in an area of growing significance. The Officer-in-Charge reports to the Director of Research through one of the Assistant Directors of Research in the Division, and the U.S. team leader will be the counterpart of the Officer-in-Charge. It is expected that both the Officer-in-Charge and the team leader will have easy access to the Director should the need arise.

b. Leadership and Administration

Considerable information on Research Division organization is included within the ATAC report on research institutions. It is not expected at this time that there will be any change in the Division's standing within the MOA. The Division has had relevant experience with foreign donors - recent directly related experience being that with the UNDP/FAO range research project. Some of the administrative and technical staff connected with that activity should be working directly with the USAID project, such as the present Officer-in-Charge of the Kiboko Range Research Station.

At Kiboko, the Division of Scientific Research will provide the necessary administrative staff to support the activities of both Kenyan and U.S. research officers. To do this the Division will add to the staff already there an administrative assistant and three stenographer/typists to be specifically assigned to the staff of this project.

Maintenance of equipment has been a serious problem in many research stations, including Kiboko. Well-trained Executive Officers and Mechanics for these stations are vital, and a central workshop within the Division of Research would do much to overcome this problem. These are some of the recommendations in the ATAC Agriculture Research Report for consideration by the Government of Kenya. In this project the Government of Kenya will assign an Executive Officer and a Grade 1 Mechanic at Kiboko. Presently, there is no Executive Officer and only one Grade 3 Mechanic, which would meet neither the administrative nor vehicle maintenance requirements of the proposed expansion at Kiboko.

In addition this project plans to provide vehicles (three station wagons, three pickups, one 2-wheel drive five-ton truck and one 4-wheel drive seven-ton truck) which can be maintained and repaired in rural and/or with existing Government facilities, equipment, and skills, thereby not further exacerbating the present problem. Vehicles that can be repaired in the rural areas are extremely important since project vehicles will be used primarily

for travel and transport in remote areas between research stations, areas of range field trials, and training centers such as the Gariftu Pastoralist Training Center (located north of Wajir in the Northeastern Province). All of these locations are in rural areas off main roads and often very remote. Consequently, breakdowns will most likely occur in the field where repair facilities and spare parts are suitable primarily for non-U.S. vehicles, such as Landrovers and Bedford trucks. A vehicle procurement waiver (source/origin) is being submitted for the above-mentioned vehicles.

Commodity procurement has in other AID projects proven to be a problem, particularly when it must be effected through the lengthy, involved competitive bidding process under the GOK Central Tender Board for all purchases over \$2,500. However, the ATAC research report found laboratory and field testing equipment generally to be sufficient and quite impressive. Budget availabilities did not seem to be a constraint Equipment constraints when they existed were quite minor, requiring small capital outlays or transfers of unused equipment between stations. Project funds will finance some equipment (in addition to vehicles) needed for the expanded range research program. Spare parts for these and the vehicles will be obtained as part of initial project procurement and subsequently from local agents in Nairobi. Based on the ATAC report no special waiver is requested at this time for non-vehicle commodity procurement; however, this matter should be carefully monitored during project implementation, and any changes which appear necessary or desirable should be addressed at the time of anticipated PP revision.

### c. Resources

The Kiboko National Range Research Station is located on a site of 29,000 ha. in area and has physical facilities as listed in Part II.B.2. With regard to land area although the Division of Research personnel are satisfied with the size of the land area attached to the station, there might be too much land for at least existing research activities and for those of the foreseeable future. As a result financial and human resources which could be used in research activities may be diverted to such activities as keeping land areas clear of bush since they are too large to be kept clear solely by grazing of the existing livestock. This problem will have to be addressed during the course of the implementation of the project.

As indicated earlier, housing is more than adequate for present staff needs. The already planned construction of additional houses by the GOK will definitely meet the needs of this project. USAID

understands that senior-level housing, now occupied by more junior staff, could be made available for U.S. or Kenyan project staff.

Housing at the station is important since it is located 150 kilometers from Nairobi, the nearest major urban center, and commuting will be impractical. Contract personnel assigned there will be entitled to a 10 percent salary differential. As no shopping, medical and educational facilities are available at Kiboko, U.S. experts and their families will need to rely on those available elsewhere, most likely Nairobi or in some instances, Machakos.

The USAID does not anticipate at present any inadequacies of budgetted funds for research or research-related construction. This is based on the ATAC research report on the fact the 1977/78 Supplementary Estimates (No.2) added in May \$40,000 for electricity, water and conservancy, and plant and equipment to the recurrent range research budget and \$72,000 for building construction to the development budget to meet new needs and to cover originally underestimated requirements. Presumably, then, additional funds can be obtained if a case can be made for them. There is little information on adequacy of POL and other logistic support for research activities. Based on experience in the past with other projects and knowledge of extension problems, this could well be a constraint. It is USAID's understanding that the MOA is taking steps to improve logistics support for its field staff but their effect and adequacy is not yet known.

Although a library is present at Kiboko, recent copies of research publications once available under the auspices of the previous UNDP/FAO project are no longer available. An up-to-date library is essential for researchers to keep up with range research developments. AID will provide funds for research publications for the first two years of this project. From the third year the Division of Scientific Research will provide the necessary funds. As soon as instrumentation commences the U.S. contractor should immediately place orders for relevant range research publications and the Division begin budgeting funds for the time when it will have to take over funding from AID.

Obviously, from the above, funding for POL, or other items may be a problem, and a covenant on recurrent budget financing has been included in Part V. The USAID will keep this matter under review and may need to consider various alternatives at the time of PP revision.

As indicated availability of research staff has in the past been a serious constraint. Steps initiated by the Division to revise the scheme of service and the salary scale are expected to make a major contribution to resolving the problem. Additionally, particular attention will be given to participant selection in order to select personnel having

an aptitude and an inclination to remain in research. Emphasis on counterpart training, training of more participants than are needed to replace U.S. experts on a one-for-one basis, and participant bonding are all expected to contribute toward developing a trained, qualified Kenyan research staff for the Kiboko station by project conclusion.

The USAID anticipates the use of host country contracting with a U.S. university, possibly under the provisions of Title XII of the FAA and AAPC. The Ministry of Agriculture in the Rural Planning project (615-0162) has shown itself capable of doing such contracting although it is expected USAID may have to monitor the process carefully. Host country contracting should also give the Ministry a closer association with, and more direct involvement in, project implementation than otherwise might be the case and, hopefully, will facilitate development of an enduring relationship between the U.S. university and the Kiboko research station.

The U.S. contractor should be responsible for participant training and for commodity procurement. These responsibilities plus preparation of the variety of reports and implementation plans in which the team leader will play a major role will place a significant administrative burden on the team leader. The administrative assistant mentioned above will help to relieve this burden.

### 3. Agricultural Finance Corporation

Basic to consideration of the administrative feasibility of proposed support to AFC are the following: The primary objective of the proposed assistance is to improve AFC capabilities for managing an expanded credit delivery program; AFD now provides assistance similar in nature, but smaller in magnitude, to that proposed for AFC, and the RTI management study provides considerable information pertinent to administrative concerns.

#### Structure

The AFC is a semi-autonomous body created by act of Parliament functioning under the guidance of a Board of Directors with certain controls exercised by the Ministers of Agriculture and Finance. It is a permanent organization with sufficient authority to have become the largest agricultural credit institution in Kenya. The General Manager is selected by the Board of Directors in consultation with the Ministers of Agriculture and Finance. He in turn, selects and appoints other officers, whenever possible, from within the organization itself. The structure is flexible and has been able to absorb a number of innovations and new activities in the past.

b. Leadership and Administration

Much of AFC's senior management has grown up with the Corporation and is considered to be both knowledgeable and skillful. There has been continuity in senior staff--the current General Manager having been in that position for over four years--and middle-level staff have been trained and promoted to more senior positions.

The AFC administrative section should be consolidated and strengthened--a need acknowledged by the Corporation. This problem is addressed in a Condition Precedent.

Past experience with TA provided to AFC has been positive. AFC regularly and promptly pays amounts due to the Mission local currency fund and has been similarly responsible in handling allowances owned to TA personnel. It is expected that current contract provisions regarding allowances and housing will be continued so that past problems experienced re adequacy of AFC housing should not reoccur.

c. Role and Commitment

AFC aggressively seeks to improve Corporation services to its existing clientele and to develop the capacity to serve a larger clientele. USAID assistance directly supports this initiative through advisory services and participant and in-service training. Aware of the need to provide improved incentives to employees, AFC is developing plans to conduct a job classification and wage survey as has been recommended by the Management Study. USAID feels that this survey is urgently needed and has made it a C.P. that such a study be arranged.

d. Resources

The AFC, operating as a semi-independent Government financial institution, generates abundant resources for carrying out its operations and is not restricted to Government pay scales. Current pay scales fall between those of the public and private sector, enabling the organization to attract personnel who would otherwise have moved into other Government agencies while sometimes losing personnel to the private sector. While the latter situation has not been serious in the past, the incentive gap is increasing and should be rectified. AFC seeks to accomplish this through the above mentioned job/wage survey.

#### 4. Cooperative Entities

##### a. Structure

The Ministry of Cooperative Development, Cooperative Bank of Kenya and Cooperative College are all duly constituted bodies of the Government of Kenya. See Annex XII for details. All are believed to be organizationally sound.

##### b. Resources

The GOK is the principal source of funding for all these although the Nordic project provides some financial support to the College and various donors to the CBK. The MOCD, having a total staff of about 1,100, has increased its staff by 19 percent and its budget by 100 percent since 1975/76. For the purposes of assistance provided herein it is expected that resource availabilities will not pose any constraint. The only exception now conceivable is ability of any, or all, of these institutions to make counterparts available on a full-time basis for the various studies. Counterparts on a part-time basis should be available, and while this is not the ideal or desired situation, it should be adequate, especially since interest in the studies is judged to be high enough to assure easy and ready access to designated counterparts when the need arises.

##### c. Leadership

There is strong, well motivated leadership in MOCD. Leadership appears good with technically qualified individuals in key positions. There is some movement of personnel between MOCD and MOA but stability of leadership is not viewed as a problem. The same is true for the College.

##### d. Role and Commitment

All the cooperatives agencies are committed to their roles and the expansion thereof. It is expected that various studies of each will, in turn, further examine their respective future roles.

#### 5. Training Funds

The MOA and MOCD through their respective manpower training departments will be responsible for administering the two training funds. Both are capably led, and the MOA, Head of Extension and Training, who was very closely involved in the AIC manpower and education study,

should play a particularly positive role. USAID has directed the ministries' attention to the need to relate proposed numbers of new participants to staffing considerations and availabilities, and the projections resulting from subsequent conversations are embodied in the PP. Annual training plans will serve to update these projections as well as to adjust the training proposed as may be deemed necessary by either, or both, the USAID and the participating ministry. Based on past experiences and with the above flexibility, USAID anticipates no administrative or resource problems.

#### 6. Storage Study

It is anticipated that this study will be conducted and reviewed in a manner similar to that used for the earlier ATAC agriculture studies. The MOA has reviewed the proposed scope of work (Annex XIII) in the course of reviewing drafts of this PP. The only impediment may be slowness of AID contracting--which may affect other ASSP components as well. USAID from its end, therefore, will seek to utilize advance implementation procedures to the maximum degree possible.

PART IV - FINANCIAL PLANA. Summary

The Agricultural Systems Support Project will address key constraints in several areas within the agricultural sector. The project will provide construction services, equipment and furnishings for Egerton College and a wide range of participant training, technical assistance and studies in an effort to strengthen the technology and services necessary to support expanded agriculture production. A summary of the total project funding is presented below:

	TOTAL PROJECT FUNDING SUMMARY (In Millions U.S.\$)						%
	LOAN		GRANT		TOTAL		
	FX	LC	FX	LC			
1. AID	6.1	17.5	26.0	.2	49.8	73.3	
2. GOK	-	5.5	-	12.6	18.1	26.7	
TOTAL	6.1	23.0	26.0	12.8	67.9	100.0	

The GOK project funding of \$18.1 million represents 26.7 percent of costs, thereby exceeding the minimum host-country contribution requirement of the FAA, Section 110 (a).

B. Agriculture Manpower System Supporta. The AID Contribution

Within the manpower systems project component AID will finance construction, renovation and equipment for the expansion of Egerton College to permit total student enrollment to increase from the current level of 690 to 1,632 by 1985. The construction will be financed through a host-country contract following procedures outlined in H R. 11. Funds to local contractor will be disbursed on a cost reimbursable basis to the GOK. The Project Committee considered utilizing Fixed Amount Reimbursement procedures but, because of the magnitude of the construction effort and the linkage between the construction and other inputs in creating a viable expanded college, FAR procedures were considered inappropriate. Similarly, use of FAR for the staff housing construction at Egerton was judged inappropriate because all construction is to be done by a single contractor and use of two different reimbursement procedures was felt to be confusing and unacceptable.

Equipment and residential furnishings for technical assistance staff will also be financed via a host-country contract using the services of AAPC. This contract will be financed through a Direct L/Comm - the same method used previously by AID to finance GOK/AAPC procurement contracts.

To enable the Egerton College faculty to expand quickly in line with the phased enrollment increase, the GOK will contract with a U.S. University to provide 91 worker years of teaching technical assistance. It is anticipated that the contract will be financed through a Federal Reserve Letter of Credit, the usual procedure with university contracts. AID will also fund participant training for 43 Egerton Kenyan faculty members for a total of 138 training years. The training will be financed through the technical assistance contract and managed by the U.S. University.

In the broad effort to upgrade the GOK agriculture manpower resources, AID will provide a training fund for the Ministry of Agriculture to train 100 participants from the MOA in many areas of agriculture. AID will also contract for two studies to determine the feasibility of establishing a Coast Agriculture Institute and expanding the Faculty of Agriculture of the University of Nairobi. See Annex XVII for detailed cost estimates of all project inputs.

b. The COK Contribution

The GOK will finance all architectural, engineering and quantity surveyor costs for both design and construction supervision services at Egerton. Also, the GOK will finance part of the building renovation cost, the construction of sports facilities, purchase of two vehicles and provide all building furnishings. Egerton College will also finance the increased College operating costs and one-way participant training travel to the U.S. for faculty members. The MOA will finance the one-way travel expenses of participants trained through the MOA training fund. The studies for the establishment of a Coast Agriculture Institute and the expansion of the University of Nairobi will both receive counterpart support, office support and in-country transportation from the GOK.

AGRICULTURE MANPOWER SYSTEM  
FUNDING SUMMARY  
(U.S. \$ 000)

	<u>AID</u>		<u>GOK</u>
	<u>LOAN</u>	<u>GRANT</u>	
1. Egerton Long-Term TA		7,862.4	5,863.7
2. Egerton Capital Investment	23,558.0	504.0	5,471.7
3. Egerton Participant Training		2,378.2	43.0
4. Coast Institute Study		150.0	21.8
5. University of Nairobi Study		66.0	10.2
6. MOA Training Fund		<u>3,460.0</u>	<u>1,100.0</u>
TOTAL	<u>23,558.0</u>	<u>14,420.6</u>	<u>12,510.4</u>

C. Research System

a. The AID Contribution

AID will finance through a host-country contract 31 worker years of technical assistance in specialized areas of agriculture research. All personnel will work at the GOK National Range Research station at Kiboko. AID will also finance contract consultant services to provide short-term research technical assistance. It is anticipated that the technical assistance will be provided through a contract with a U.S. university utilizing the FRLC disbursement procedure. Vehicles, camping gear and computer analysis services will be procured locally (see Annex XIV.A for local vehicle procurement waiver) while a variety of commodities, including water trailers, agricultural machinery and lab equipment will be purchased through a host-country contract with AAPC. The Direct L/Comm disbursement procedure will be used with AAPC as with the procurement under the Egerton College expansion. A total of 57 years of academic/non-academic training will be provided to upgrade GOK personnel research skills. Participant training will be financed through the university contract with contract personnel responsible for coordination and management of training activities.

All AID range research inputs will be financed on a grant basis.

b. The GOK Contribution

The GOK contribution will finance the operating expenses of the Kiboko research station, construction of 19 houses and one-way participant travel in support of the U.S. research training.

RESEARCH SYSTEM  
FUNDING SUMMARY  
(\$ 000)

	<u>AID</u>	<u>GOK</u>
1. Kiboko Long Term TA	3,152.7	3,988.5
2. Kiboko Short Term TA	608.4	
3. Research Commodity and Services Procurement	346.0	
4. Academic Participant Training	925.2	18.0
5. Non-Academic Participant Training	<u>109.8</u>	<u>18.0</u>
	<u>5,142.1</u>	<u>4,024.5</u>

D. Agriculture Credit System

a. The AID Contribution

AID will contract for 14 years of long term technical assistance to upgrade the management skills of the Agriculture Finance Corporation and provide on-site training skills. Additionally, AID will fund 50 participant years of U.S. academic training, 12 participant years of U.S. non-academic training and an AFC in-country training program to improve the management of agriculture credit resources at all levels within the Kenyan credit system. All AID credit system inputs will be financed on a grant basis.

b. The GOK Contribution

The AFC will finance general office support, partial quarters allowance, local travel expenses and professional counterparts for the technical assistance staff. The AFC will also finance one-way participant travel and salary expenses for the U.S. academic and non-academic training plus classroom facilities and participant salary expenses for the in-country training program.

AGRICULTURE CREDIT SYSTEM  
FUNDING SUMMARY  
(\$ 000)

	<u>AID</u>	<u>GOK</u>
1. AFC Long Term TA	1,276.8	206.1
2. AFC Academic Training	865.0	275.0
3. AFC Non-Academic Training	395.2	88.0
4. AFC in-Country Training	<u>130.2</u>	<u>306.5</u>
TOTAL	<u>2,667.2</u>	<u>875.6</u>

E. Cooperative System

a. The AID Contribution

AID will contract for 61 worker months of long and short term technical assistance to provide advisory training services to the Ministry of Cooperative Development. AID will also contract for four studies: 1) Cooperative Bank, Union Banking Sections Management Study, 2) Cooperative Education and Training Evaluation Study, 3) Cooperative Professional/Sub Professional Manpower Study, and 4) Cooperative College Technical Feasibility Study. These studies will generate data on the development needs and constraints of the cooperative systems in Kenya.

U.S. academic training will be provided for 50 participants, two years each and U.S. non-academic training will be provided for 45 participants for a total of 250 training months (including 10 months of training for CBK board members). Training will be conducted in various selected specialized cooperative fields.

b. The GOK Contribution

The GOK through the Ministry of Cooperative Development will provide general office support, field transportation and professional counterparts for the AID funded training advisors and for each of the four study teams. One way participant travel and participants salary costs will also be provided by the GOK for U.S. academic and non-academic participants.

COOPERATIVE SYSTEM  
FUNDING SUMMARY  
(\$ 000)

	<u>AID</u>	<u>GOK</u>
1. Cooperative Training Advisory Services	509.7	52.8
2. Cooperative Education and Training Evaluation	28.0	2.6
3. Cooperative Manpower Study	21.8	2.6
4. Cooperative Academic Training	1,730.0	300.0
5. Cooperative Non-Academic Training	682.5	212.0
6. Cooperative Feasibility Study	45.0	3.4
7. Cooperative Banking Sector Study	<u>82.0</u>	<u>8.3</u>
TOTAL	<u>3,099.0</u>	<u>581.7</u>

F. Storage and Marketing System

a. The AID Contribution

AID will finance a contract for 24 worker months of technical assistance to prepare a food storage study to determine the feasibility of smallholders on-farm storage and cooperative storage. Financing will also be provided for 110 months of U.S. academic training and 15 months of U.S. non-academic training.

b. The GOK Contribution

The GOK contribution will provide office space, in-country transportation and professional counterparts to the technical assistance team conducting the storage study. The GOK will also finance one-way air travel for U.S. participant training.

STORAGE AND MARKETING SYSTEM  
FUNDING SUMMARY  
(\$ 000)

	<u>AID</u>	<u>GOK</u>
1. Storage Academic Training	172.0	7.0
2. Storage Non-Academic Training	43.3	5.0
3. National Grain Storage Study	<u>204.0</u>	<u>39.0</u>
TOTAL	<u>419.3</u>	<u>51.0</u>

G. Evaluation

a. The AID Contribution

AID will contract for an initial evaluation design team to develop the methodology and evaluation plan. It is expected that evaluation activities will also require three formal evaluations (FY 1980, FY 1982 and FY 1984), a total of 27 consultant months, plus an additional 10 consultant months for component specific evaluation. The estimated cost of AID evaluation activities is \$465,000.

b. The GOK Contribution

The GOK will provide complete office and secretarial support, field transportation and profession counterparts to the evaluation teams. The estimated cost of the evaluation activities is \$61,250.

COMPONENT FUNDING SUMMARY  
(\$ 000)

	<u>AID</u>	<u>GOK</u>	<u>TOTAL</u>
1. Agriculture Manpower System	37,978.6	12,510.4	50,489.0
2. Research System	5,142.1	4,024.5	9,166.6
3. Agriculture Credit System	2,667.2	875.6	3,542.8
4. Cooperative System	3,099.0	581.7	3,680.7
5. Storage and Marketing System	419.3	51.0	470.3
6. Evaluation	<u>465.0</u>	<u>61.3</u>	<u>526.3</u>
TOTAL	<u>49,771.2</u>	<u>18,104.5</u>	<u>67,875.7</u>

#### H. Obligation of Funds

It is proposed that full life of the project funding be provided for the ASSP in FY 1978 in accordance with AID/W guidelines contained in 77 AID circular 86. The project will require appropriated funds in the amount of \$23,600,000 for the Loan and \$26,200,000 for the Grant.

#### I. Conclusion

The investment package described in this financial analysis represents a broad approach to addressing many key development constraints within the GOK agriculture sector.

In estimating the costs of the project inputs, provision has been made for inflation and a relatively small but necessary amount has been included for contingencies. Given the foregoing, the project financial plan is deemed to be adequate and firm.

Part V: Implementation Planning - Summary  
(See PP Draft for Details)

**A. Administrative Arrangements**

**1. Government of Kenya (Borrower)**

**a. Agricultural Manpower**

The GOK agency responsible for implementation of the Egerton College, Coast Institute, and agriculture training fund is the Ministry of Agriculture. Direct responsibility for the Egerton College expansion has been assigned to Egerton College.

The GOK agency responsible for the implementation of the University of Nairobi expansion is the Ministry of Education.

**b. Range Research**

The GOK agency responsible for this component is the Ministry of Agriculture.

**c. Credit**

The GOK agency responsible for the credit component is the Agricultural Finance Corporation.

**d. Cooperatives**

The GOK agency responsible for this component is the Ministry of Cooperative Development.

**e. Storage and Marketing**

The GOK agency responsible for implementation of the storage component is the Ministry of Agriculture.

**2. Reports**

There are a number of reports required under both loan and grant financing, responsibility for which shall be as specified below:

- a. Egerton College, acting for the GOK, shall submit the following reports required under the loan, the contents of which will be spelled out in PIL's:

- 1) Quarterly progress report.
- 2) Quarterly shipping report.
- 3) Final report on the Egerton College expansion.
- 4) Other reports as required by AID, including annual work plans and maintenance plans and annual audits of College finances.

- b. GOK entities shall provide reports for grant-financed activities.
- 1) MOA and MOCD - Annual training plans for the agriculture and cooperatives training funds.
- 2) Range Research
  - a) A range research inception report.
  - b) An initial range research implementation plan.
  - c) Annual research reports.
  - d) Annual training plan.
  - e) Equipment procurement plan.
  - f) In-service training plan.
  - g) A "systems plan" outlining ways to integrate the various research components into a comprehensive whole for use in alternate range management systems.
- 3) AFC - An in-country training plan.
- 4) Other reports as may be required by AID and/or the GOK, including semi-annual contractor reports, final contractor reports, and reports of various studies financed with grant financing.

### 3. AID

USAID/Kenya has necessary delegations of authority to implement this project. For AID implementation purposes most ASSP components will be housed in the new Agricultural Development Section of USAID's Technical Services Staff. The section is to be headed by an Agricultural Development Officer (ADO) who will supervise two assistant ADO's and an engineer. One assistant ADO will be engaged full time with ASSP, the second and the engineer at least half time. Range Research, will be the responsibility of another TSS Assistant Agricultural Development Officer who is also responsible for an ongoing Food Crops Research Project and for assisting in implementation of the Mission's Livestock and National Range and Ranch Development Project. REDSO/EA will provide contracting, legal and procurement services. Other USAID staff may also be utilized as needed.

### B. Implementation Schedules

Detailed implementation schedules and supporting data for each ASSP component make up Annex XVIII.

### C. Implementation Arrangements

#### 1. Egerton College Expansion

a. Technical Assistance

In order to provide the large number and widely specialized technical assistance teaching staff required during the College's expansion phase, it is recommended that a competitively-bid host-country contract be let with a U.S. consortium of universities.

All contracting will be undertaken at post, relying upon the services of the REDSO Contracting Officer. All prospective bidders will be required to make an on-site inspection of Egerton College before their bid will be placed in consideration. Proposals will be reviewed by AID and the GOK, and close collaboration is expected during the negotiation of the contract.

Immediately following execution of the contract, the contractor will send one senior staff member (the anticipated team leader would be the optimal choice) to Egerton College in order to:

- 1) Review with the College the exact teaching requirements and translate these requirements into clearly defined specialities and degree levels.
- 2) Review with the College the exact phasing of technical assistance.
- 3) Review the College's plant and equipment.

The contractor will prepare an Inception Report which shall be discussed with and approved by Egerton College and AID. This report will detail the teaching positions to be filled, the qualifications required, and the phasing of technicians' arrivals.

b. Training

The contractor's Inception Report (see above) will also include a detailed schedule of academic training for the Kenyan staff.

c. Construction

Architectural and Engineering Design

It is proposed that as part of the GOK's contribution to project costs the GOK enter into a contract with a team of Kenya-based architectural and engineering consultants.

As a condition of loan disbursement AID will review the final plans and bid documents prepared by the consultant team.

Construction Materials and Fixed Equipment

Specifications and quantity determinations will be made by a Quantity Surveyor, working with the Kenyan architectural design team.

d. Movable Equipment

To equip the classrooms, laboratories, and other facilities specifications will be prepared by Egerton College and the U.S. technical assistance staff for the precise equipment required.

2. Coast Institute

It is suggested that AID contract for the academic and technical feasibility studies directly from among its IQC contractors, utilizing AID/W contracting services. However, USAID will contract locally for needed architectural support services.

3. Faculty of Agriculture

Contracting for the Stage I academic and technical feasibility studies shall be as for the Coast Institute.

4. MOA and MOCD Training Funds

The respective ministries will each submit an annual training plan to USAID and the Directorate of Personnel Management.

All participant training will be on a direct-AID basis and handled by the USAID Training Officer in coordination with responsible TSS staff.

5. Cooperatives

a. Studies

The tightness of the schedule suggests use of an IQC contractor for some, or all, of the studies, if possible, or a "Quick Response" contractor. It also suggests use of many of the same individuals for the various studies in those cases where the identical expertise is needed.

b. Technical Assistance

It is suggested that these be contracted from a single source. Given the desired timing for arrival of the above, a University contractor may not be the most appropriate, assuming recruitment is from on-campus sources.

c. Contracting

For the cooperatives component USAID believes direct AID contracting is most appropriate. Reasons for this choice are the MOCD's inexperience with U.S. and AID contracting to date and the need to proceed urgently with the studies and contracting related thereto.

## 6. Credit-Agricultural Finance Corporation

Three advisors (Internal Audit, Credit Review and Financial Management) are currently on the job under a direct AID contract with ACDI. It seems administratively most feasible to extend that contract.

Participant training will not be added to the ACDI contract but will continue under direct AID financing and procedures. See also Annex XVII for logistic support provisions.

## 7. Range Research

Technical assistance experts and participant training are to be provided under a host-country contract with a U.S. university. Title XII provisions of the FAA seem well suited to this component, and possible also to the Egerton College expansion. The contract should be competitively bid. As with the Egerton expansion all contracting shall be carried out in-country by the REDSO/EA Contracts Officer and USAID staff. These AID personnel shall also be responsible for any local contracting.

While training will be contract-financed, the USAID Training Officer can provide pre-departure briefings for participants.

Commodity procurement for the range research component will be done by the USAID for items to be procured locally while AAPC will undertake off-shore procurement (see below and Annex XVII).

USAID is not specifying under the range research component that potential contractors visit Kenya for an on-site inspection of Kiboko prior to submitting their bids. However, the Mission does believe that familiarization may be useful.

## 8. Contractor Orientation

USAID expects to hold orientation sessions, involving GOK officials, which will focus on the nature of the ASSP project, ASSP component cross-relationships, GOK agriculture programs and emphases, the AID bilateral program in Kenya and the AID target group, contractor relations with GOK counterparts and USAID project management and training staff, divisions of responsibility between USAID and the GOK, reporting requirements, and other subjects judged important. When possible, orientations will be held simultaneously for staff of all contracts, but at a minimum the respective contract team leaders will be asked to participate in orientation of each other's staffs.

## 9. Logistic Support

The responsibilities of the GOK and USAID for such support are clearly indicated in Part II.B. in the "Proposed Activity" sub-sections of each component description and also in Annex XVII.

## 10. Disbursement Procedures

### a. Loan

#### 1) Foreign Exchange

The GOK will select a procurement agent, presumably the Afro-American Purchasing Center per the above, to implement the FX procurement for the Egerton College expansion. Accordingly, disbursement will be made under the Direct Letter of Commitment method how being used with AAPC. Otherwise, the Standard Letter of Commitment method will be used.

#### 2) Local Costs

Local costs will be reimbursed to the GOK for eligible project expenditures based on actual costs.

### b. Grant

AID grant funds will finance technical assistance for the various ASSP components through either host-country or direct-AID contracts as indicated above. It is assumed the university contractors will be desire use of Federal Reserve Letter of Credit procedures as stated in Part IV. Full disbursement arrangements will be described in the Project Agreement.

Commodity procurement financed with grant funds will presumably be made either through AAPC, utilizing Direct L/Com procedures, or locally by the USAID per the above (see waivers in Annex XIV).

## 11. Procurement Plan

To facilitate procurement of equipment and spare parts from off-shore sources it is intended that a procurement agent be utilized, such as AAPC, for the Egerton College expansion and part of the range research component. Procurement will be carried out in accord with AID Handbook 11 - Country Contracting. Further details regarding commodity procurement are as follows:

#### a) Egerton Equipment and Furnishings

All such materials shall be procured from AID Geographic Code 941.

#### b) Range Research

All procurement shall be from the U.S. and Kenya. Waiver requests for procurement of eight project vehicles of Code 935 sources are included in Annex XIV,

c) Spare Parts

Provision for procurement of fast moving spare parts has been made under both the Egerton College and range research components (see Annex XVII).

d) Construction Materials

These shall be procured in Kenya by the MOA for the Egerton College expansion. A waiver of the Kenya source and origin requirement is attached in Annex XIV.C.

e) Excess Property

Use of excess property will be reviewed for applicability and for suitability. However, the GOK as a result of recent unfavorable experiences is very concerned about provision of second-hand equipment by donors and investors, and USAID has reason to believe Government would not accept excess property. Another factor to be considered is compatibility of project procured new equipment with existing equipment in Kenya and availability of servicing and spare parts.

D. Evaluations1. Background

Because this project is complex and is 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.

2. Evaluation System

The evaluation system to be followed shall have three components-- annual USAID-GOK evaluations, individual component evaluations as these may be deemed necessary, and special in-depth evaluations.

In addition to reviewing the linkages between individual components, ASSP's contribution to strengthening Kenya's agriculture support services overall, and how well ASSP has reached smallholder's and pastoralists, the in-depth evaluations should review certain topics specific to each component. At a minimum USAID believes the following should be included:

a. Egerton College

In-depth evaluations should focus on progress to date of the technical assistance contract team, the participant training program, counterpart on-the-job training, and development and evaluation of the

**Egerton Curriculum.** A central concern will be whether the curriculum and the teaching being provided by AID technicians is appropriate to the needs of smallholder farmers and pastoralists and the effective operation of the extension service. The review should also examine some of the ATAC manpower demand projects in light of development activities and programs being undertaken and proposed at the time of the evaluation and in light of construction status.

b. Range Research

Monitoring the implementation of this component's activities and assessing the achievement of its goals and objectives is an important part of these evaluations. However, their primary focus will be to ensure that implementation is proceeding such that research findings reach the pastoralist and small livestock holder in a meaningful way with minimal negative consequences.

c. Agriculture Credit

In-depth evaluations of AFC activities should review the technical assistance and training provided in order to assess the impact of these activities on the AFC's provision of credit to increased numbers of smallholder farmers.

d. Cooperative System

In-depth evaluations of technical assistance advisors and training provided in this component should cover the impact which AID inputs are expected to have on the MOCD's ability to provide improved services to the smallholder farmer; changes in content of cooperative training programs; impact on cooperatives employees, officers, and members; increased participation of members, and any alterations in component inputs over the remainder of the project's life should such changes be deemed necessary.

3. Evaluation Team Staffing

Personnel for the special, individual component evaluations will be determined by the nature of the problem giving rise to the particular review, and this is left flexible for the USAID and GOK to determine.

The in-depth evaluations will be more complex and should involve both USAID and GOK personnel in addition to outside expertise.

E. Conditions, Covenants and Negotiating Status

1. Conditions Precedent: See Annex V
2. Covenants: See Annex V
3. Negotiating Status

The full PP, and specifically the conditions and covenants,

have been discussed with the Government of Kenya. The Government is in agreement as to the scope of the project and the requirements imposed on it by the above conditions and covenants.

5C(1) - COUNTRY CHECKLIST

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Listed below are, first, statutory criteria applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Security Supporting Assistance funds.

A. GENERAL CRITERIA FOR COUNTRY

1. FAA Sec. 116. Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in consistent pattern of gross violations of internationally recognized human rights?
 

1. Kenya has not been determined to be a human rights violator. The ASSP components have been selected and the assistance designed so as to make possible expansion of available agriculture services as to benefit smallholders, 88% of whom have annual per capita incomes below \$150 and half or more do not now have access to these services.
2. FAA Sec. 481. Has it been determined that the government of recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?
 

It has not been so determined.
3. FAA Sec. 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement?
 

Kenya is not a part of, or controlled by, the international communist movement.
4. FAA Sec. 620(c). If assistance is to government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?
 

No.
5. FAA Sec. 620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?
 

No. The expropriation case involving ruby mining operations by a U.S. citizen, John Saul, is now being closed by amicable agreement between Mr. Saul and the GOK.

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6. FAA Sec. 620(a), 620(f); App. Sec. 107, 114. Is recipient country a Communist country? Will assistance be provided to the Socialist Republic of Vietnam, Cambodia, Laos, Cuba, Uganda, Mozambique, or Angola? No.
7. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression? No.
8. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property? No.
9. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason? Kenya has instituted the program.
10. FAA Sec. 620(o); Fishermen's Protective Act, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters, Kenya has not seized, or imposed any sanction or penalty against, any U.S. fishing activity in international waters.
- a. has any deduction required by Fishermen's Protective Act been made?
- b. has complete denial of assistance been considered by AID Administrator?
11. FAA Sec. 620(q); App. Sec. 503. (a) Is the government of the recipient country in default on interest or principal of any AID loan to the country? (b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds, unless debt was earlier disputed, or appropriate steps taken to cure default? No.
12. FAA Sec. 620(s). "If contemplated assistance is development loan (including Alliance loan) or security supporting assistance, has the Administrator taken into account the percentage of the country's budget which is for military expenditures, the amount of foreign exchange spent on military equipment and the amount spent for the purchase of sophisticated weapons systems?" (An affirmative answer may refer to the record of the taking into account, e.g.: "Yes as reported in annual report on implementation of Sec. 620(s)." This report is prepared at the time of approval by the Administrator of the Operational Year Budget. Yes, as reported in annual report on implementation of Sec. 620 (s). See also Annex VII of PP. The recently announced increase in defense spending, raising it to 14% of the total 1977/78 budget, did not come about as a result of decreases in any planned development expenditures. Additional spending on purely development programs was increased simultaneously. Total 1977/78 recurrent expenditure is now \$774.2 million of which defense is \$170.2 million, and development expenditure, \$504.1 million, of which defense is \$17.7 million.

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Upward changes in the Sec. 620(s) factors occurring in the course of the year, of sufficient significance to indicate that an affirmative answer might need review, should still be reported, but the statutory checklist will not normally be the preferred vehicle to do so.)

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13. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? Diplomatic relations have not been severed.
14. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? Kenya is not in arrears.
15. FAA Sec. 620A. Has the country granted sanctuary from prosecution to any individual or group which has committed an act of international terrorism? No.
16. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA? No.
17. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it detonated a nuclear device after August 3, 1977 although not a "nuclear-weapon State" under the nonproliferation treaty? No.
18. FAA Sec. 901. Has the country denied its citizens the right or opportunity to emigrate? No.

FUNDING CRITERIA FOR COUNTRYDevelopment Assistance Country Criteria

- a. FAA Sec. 102(c), (d). Have criteria been established, and taken into account, to assess commitment and progress of country in effectively involving the poor in development, on such indexes as: (1) small-farm labor intensive agriculture, (2) reduced infant mortality, (3) population growth, (4) equality of income distribution, and (5) unemployment. Budgetary, implementation, demographic and developmental criteria are periodically supplied to verify country's commitment and progress in involving the poor in development. Furthermore, international organizations such as ILO and IBRD regularly assess and report on Kenya's commitment to the development of the country's poor.

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b. FAA Sec. 104(d)(1). If appropriate, is this development (including Sahel) activity designed to build motivation for smaller families in programs such as education in and out of school, nutrition, disease control, maternal and child health services, agricultural production, rural development, and assistance to urban poor?

c. FAA Sec. 201(b)(5), (7) & (8); Sec. 208; 211(a)(4), (7). Describe extent to which country is:

- (1) Making appropriate efforts to increase food production and improve means for food storage and distribution.
- (2) Creating a favorable climate for foreign and domestic private enterprise and investment.
- (3) Increasing the public's role in the developmental process.
- (4) (a) Allocating available budgetary resources to development.  
(b) Diverting such resources for unnecessary military expenditure and intervention in affairs of other free and independent nations.
- (5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements, and making progress toward respect for the rule of law, freedom of expression and of the press, and recognizing the importance of individual freedom, initiative, and private enterprise.
- (6) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.

d. FAA Sec. 201(b), 211(a). Is the country among the 20 countries in which development assistance loans may be made in this fiscal year, or among the 40 in which development assistance grants (other than for self-help projects) may be made?

e. FAA Sec. 115. Will country be furnished, in same fiscal year, either security supporting assistance, or Middle East peace funds? If so, has Congress specifically authorized such use of funds, or is assistance for population programs, humanitarian aid through international organizations, or regional programs?

Yes. This development activity is designed to increase the smallholders' agricultural productivity and to improve his/her income. See Part III. A. Economic Analysis.

c.(1) Commitment to food production is demonstrated in 1974-78 Development Plan and current budget allocations. See Part II, Section A. 2, GOK Agricultural Policy.

c.(2) Kenya's economy and investment policies are conducive to private foreign investment. Presently, more than 132 U.S. business enterprises have investments in Kenya

c.(3) Program will focus on GOK priority of bringing more small farmers into national and regional economics.

c.(4) Development expenditure in 1977/78 will approximate 39% of the total budget, up from 36% in 1976/77 and about 32% in 1973/74 prior to initiation of the 1974-78 plan. Development expenditure has risen from \$178.4 million in 1973/74 to \$504.1 million in 1977/78. Within these growing development allocations priority has shifted to directly productive outlays and away from social & other services per Part II. A.

c.(5) Since 1963 the GOK has operated a series of settlement schemes whereby large expatriate holdings have passed to African settlers. As of June 1976, 34,282 plots/farms had been allocated. The tax structure has become more progressive, particularly with abolition of the Graduated Personal Tax in 1974. Finally, wage policy measures have per Part II. A. brought about some income shifts in favor of rural dwellers during 1973-77.

(6) The GOK has and is continuing in its policy and actions, as demonstrated by its agricultural programs, to direct resources toward improving the social and economic condition of the people. See Part II. A.

d. Yes.

e. No.

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2. Security Supporting Assistance Country Criteria

- N/A

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- a. FAA Sec. 502B. Has the country engaged in a consistent pattern of gross violations of internationally recognized human rights? Is program in accordance with policy of this Section?
- b. FAA Sec. 531. Is the Assistance to be furnished to a friendly country, organization, or body eligible to receive assistance?
- c. FAA Sec. 533(c)(2). *Will assistance under the Southern African Special Requirements fund be provided to Mozambique, Angola, Tanzania, or Zambia? If so, has President determined (and reported to the Congress) that such assistance will further U.S. foreign policy interests?*
- d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?
- e. App. Sec. 113. *Will security assistance be provided for the purpose of aiding directly the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?*
- f. FAA Sec. 620B. *Will security supporting assistance be furnished to Argentina after September 30, 1978?*

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5C(2) - PROJECT CHECKLIST

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Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT.

1. App. Unnumbered; FAA Sec. 653(b); Sec. 671 (a) Such notification will be made in accordance with the requirements of present legislation.
  - (a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;
  - (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure)
2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance? Yes.
3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance? No further legislation is required.
4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per *the Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973?* N/A
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project? Yes, see Annex III.
6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate? 6. No, the project will consist of the construction of school facilities, research & TA. For reasons of rapid implementation & fact that other donors will be (a) using different equipment & (b) operating in different time schedules and areas. The project is an independent, self-contained activity. While not a multi-donor effort, Project complements existing and planned other donor activities. See Part II.

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7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release? No.

11. ISA 14. Are any FAA funds for FY 78 being used in this Project to construct, operate, maintain, or supply fuel for, any nuclear powerplant under an agreement for cooperation between the United States and any other country? No.

7.(a) The project is designed to improve small farmer agricultural production, including crops with export potential. This will have a positive effect on trade. (b) Project opens up new opportunities for private initiative - small farmers competing in local, national & foreign markets. (c) \$3 million in AID funds directly support & strengthen the Kenyan cooperative movement. (d) N/A. (e) AID funded construction, TA & research is designed to improve performance of agricultural sector emphasizing small farmer production. (f) N/A.

8. To maximum extent possible U.S. firms (consultants) and institutions (universities) will be utilized to carry out the project.

Kenya will contribute \$17.7 million (26%) of total project costs representing about 50% of total local costs.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

The project is designed basically to increase small farmer productivity and income by means of improved extension services and better access to credit, service institutions and storage facilities.

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [Include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

(1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers;

(2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;

(3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;

(4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:

(a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

(b) to help alleviate energy problem;

(c) research into, and evaluation of, economic development processes and techniques;

(d) reconstruction after natural or manmade disaster;

(e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

(f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

- (1) (103) Project consists of following components, each having an obvious impact on productivity and income of rural poor:
- a) Ag. Manpower Systems Support - objective is to increase quantity and quality of ag. manpower and improve and expand delivery of ag. services to the smallholder. This is achieved through expansion of Egerton College, a study of the feasibility of a Coastal Agricultural Institute, a study of the expansion of the Cooperative College, a study into expansion of the Faculty of Agriculture, University of Nairobi, and a training fund to train MOA personnel (25 trainees for each of 4 years).
- b) Range Research Support System - This component includes development and establishment of a range research program, training of research staff and equipping of a range research station and improved range and livestock practices.
- c) Credit Systems Support - Technical assistance to improve AFC's capability to handle smallholder loans.
- d) Cooperative Systems Support - Training of personnel of the MOCD and funding of a management study of Kenya Cooperative Bank and banking sections of cooperative unions.
- e) Storage and Marketing Systems Support The project will fund a study of grain storage problems in Kenya.

(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on; (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

Kenya will contribute 26% of total project costs.

No.

e. Assistance is consistent with GOK strategy to improve conditions for rural smallholder. Project will strengthen cooperatives by training MOCD personnel and studying inputs of cooperative movement. Generally, large number of personnel in MOA and from Egerton College will be trained women. Latter will be able to apply for such training on same bases as men.

f. Project is consistent with GOK objectives. It will build on existing Kenyan institutions (Egerton, AFC, cooperatives, Cooperative Bank) and assist Kenyans to expand scope and efficiency of these institutions. The project will make heavy use of Kenyan teaching, professional and research personnel.

ANNEX II  
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g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(c); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

Development Assistance Project Criteria (Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

Discussions of the project's economic and technical soundness are contained in Part 3 of the Project Paper. It is fully anticipated that project will foster continued growth in Kenya's agricultural sector with special emphasis on the rural smallholder farmer.

The \$50 million AID component finances all foreign exchange costs, totaling \$32 million, consisting of U.S. equipment, TA, and consulting services.

2.a. Kenya has received development financing on reasonable terms from the United Kingdom, the Federal Republic of Germany, Canada, Italy, etc. However additional resources are required. Private U.S. sources do not provide financing of this type.

2.b. Loan terms are concessional & within Kenya's capacity to repay. Interest rate is 2% during grace period, 3%, thereafter.

2.c. Loan meets the requirements of U.S. law and will be subject to condition precedent to initial disbursement with regard to legality under Kenyan law. GOK has submitted application for AID funds. See Annex IV.

Yes. See Parts II and III of PP.

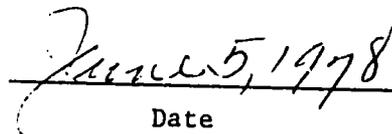
- e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources?
- See Financial Analysis, Part IV of PP.
- f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?
- Assistance is not for a productive enterprise which will compete with a U.S. enterprise.
3. Project Criteria Solely for Security Supporting Assistance
- N/A
- a. FAA Sec. 531. How will this assistance support promote economic or political stability?
- b. FAA Sec. 533(c)(1). *Will assistance under the Southern African Special Requirements Fund be used for military, guerrilla, or paramilitary activities?*
4. Additional Criteria for Alliance for Progress
- N/A
- [Note: Alliance for Progress projects should add the following two items to a project checklist.]
- a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?
- b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?

Kenya Agricultural Systems Support Project  
611(e) Certification

I, Ernest Wilson, the principal officer of the Agency for International Development in Kenya, having taken into account, among other things, the maintenance and utilization of projects in Kenya previously financed or assisted by the United States, particularly the related Kenya Livestock Development project, and the demonstrated capacity and willingness of the Government of Kenya to provide increasing budgetary support for recurrent and development costs incident to the agricultural sector, do hereby certify that in my judgement the Government of Kenya has shown both the financial and human resources capability to effectively maintain and utilize the assistance provided under the Agricultural Systems Support Project.



Ernest Wilson  
Acting Director

  
Date

REPUBLIC OF KENYA  
MINISTRY OF FINANCE AND PLANNING

Telegraphic Address:  
FINANCE-NAIROBI  
Telephone: 334433  
When replying please quote  
Ref. No. DV.9/03.....  
and date



THE TREASURY  
P.O. Box 30007  
NAIROBI  
KENYA

.....9th..June.,... 19..78..

Annex IV  
Page 1 of 2

Mr. Ernest Wilson,  
Acting Director,  
USAID Mission to Kenya  
P.O. Box 30261,  
NAIROBI.

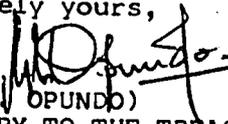
Dear Mr. Wilson,

The Ministry of Finance and Planning of the Kenya Government hereby formally requests AID assistance in implementing the Agriculture Systems Support Project. The assistance requested will be as spelled out in the Project Paper for the Agricultural Systems Support Project for expansion of Egerton College; for studies to assess the academic and technical feasibility of establishment or expansion of a Coast agriculture Institute and the Faculty of Agriculture, respectively; for training funds for the Ministries of Agriculture and Co-operative Development for range research; for advisory assistance and training for the Ministry of Co-operative Development and Agriculture Finance Corporation; for various studies needed by the Co-operative Bank of Kenya, union banking societies, the Ministry of Co-operative Development and the Co-operative College; for a study of on-farm and cooperative storage requirements, and for training for various Kenyan storage personnel. This assistance is judged necessary and important by Government to facilitate reorientation of various agriculture support systems-manpower, including extension, cooperatives, credit, research, and storage towards better serving the needs of small farmers and pastoralists, particularly those not now being reached by these systems.

Project cost estimates, we understand, are now being prepared by the USAID Mission and will be completed soon. Preliminary estimates envision an overall program in the magnitude of \$67,900,000, \$49,800,000 of which will be provided by AID and \$18,100,000 by the Government of Kenya. The AID amount consists of a loan for \$23,600,000 and a grant for \$26,200,000. A cost breakdown of the six and a half year program is enclosed.

Government recognizes the recurrent cost implications of the proposed assistance. We wish to assure AID (subject to approval of annual budgets by Parliament) that full consideration will be given to provision of financing needed to meet necessary recurrent costs as well as provision of all other elements of Government support needed for the project. The various Ministries cooperating in the project request that the proposal be submitted to your headquarters for its review and approval and urge that this be done promptly.

Sincerely yours,

  
(G.C.O. OPUNDO)

for: PERMANENT SECRETARY TO THE TREASURY

	(\$000)		
	<u>AID</u>	<u>GOK</u>	<u>TOTAL:</u>
1. Agricultural Manpower Systems Support	\$37,979 <sup>1/</sup>	\$12,510	\$50,489
2. Range Research	5,142 <sup>2/</sup>	4,025	9,167
3. Credit System Support	2,667 <sup>2/</sup>	876	3,543
4. Cooperative System Support	3,099 <sup>2/</sup>	582	3,681
5. Storage and Management Support	419 <sup>2/</sup>	51	470
6. Project Evaluations	465 <sup>2/</sup>	61	526
	<u>49,771</u>	<u>18,105</u>	<u>67,876</u>
Rounded Totals	\$49,800	18,100	67,900

1/ of this amount, \$14,379,000 is a grant and \$23,600,000 a loan  
 2/ grand funds.

PROJECT AUTHORIZATION AND REQUEST

FOR ALLOTMENT OF FUNDS

Name of Country: Kenya  
Name of Project: Agricultural Systems Support Project  
Number of Project: 615-0169

Pursuant to Part I, Chapter 1, Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize for Fiscal Year 1978 a Loan and Grant to the Government of Kenya, the "Cooperating Country", of not to exceed Thirty Million Three Hundred Thousand United States Dollars (\$30,300,000), the "Authorized Amount", to assist in financing certain foreign exchange and local currency costs of goods and services required for the Project as described in the following paragraph. Of the Authorized Amount, Twenty-three Million Six Hundred Thousand United States Dollars (\$23,600,000), will be loaned to the Cooperating Country and Six Million Seven Hundred Thousand United States Dollars (\$6,700,000), will be granted to the Cooperating Country.

The Project will consist of five components designed to assist the Cooperating Country to strengthen and support agricultural services available to the smallholder farmer in Kenya. These components are: (1) Agricultural manpower systems support - to increase the quantity and quality of trained agricultural manpower in Kenya through, inter alia, expansion of Egerton College, support for the University of Nairobi, and examination of a possible Coastal Institute of Agriculture; (2) Range research system support - to expand Kenya's existing range research program and to examine methods of improving utilization of range resources in Kenya; (3) Credit system support - to examine and strengthen credit facilities available to the rural smallholder farmer; (4) Cooperative system support - to examine existing selected support services offered to the smallholder through the cooperative system and to improve and expand such services by increasing the number of trained personnel; and (5) Storage and marketing system support - to examine the crop storage and marketing situation in Kenya and increase the number of personnel trained in storage and marketing operations. To carry out the objectives of this project A.I.D. will provide financing for technical assistance, commodities, participant training, and construction and other services.

I approve the total level of AID appropriated funding planned for the Project of not to exceed Forty-nine Million Eight Hundred Thousand United States Dollars (\$49,800,000) of which

Twenty-three Million Six Hundred Thousand United States Dollars (\$23,600,000) will be Loan-funded and Twenty-six Million Two Hundred Thousand United States Dollars (\$26,200,000) will be Grant-funded including the funding authorized above for Fiscal Year 1978 and further incremental Grant funding during the period 1979 through 1982 which shall not exceed, in total, Nineteen Million Five Hundred Thousand United States Dollars (\$19,500,000) subject to the availability of funds and in accordance with AID allotment procedures.

I hereby authorize the initiation of negotiations and execution of the Project Agreement either by the officer to whom such authority has been delegated in accordance with A.I.D. regulations and Delegations of Authority or by the principal diplomatic officer of the Government of the United States in the Cooperating Country, subject to the following essential terms and covenants and major conditions together with such other terms and conditions as A.I.D. may deem appropriate.

a. Interest Rate and Terms of Repayment. The Cooperating Country shall repay the Loan to A.I.D. in United States Dollars within thirty (30) years from the date of first disbursement of the Loan, including a grace period of not to exceed ten (10) years. The Cooperating Country shall pay to A.I.D. in United States Dollars interest from the date of first disbursement of the Loan at the rate of (a) two percent (2%) per annum during the first ten (10) years, and (b) three percent (3%) per annum thereafter, on the outstanding disbursed balance of the Loan and on any due and unpaid interest accrued thereon.

b. Source and Origin of Goods and Services. Goods and services financed by A.I.D. under the Loan portion of the project shall have their source and origin in the Cooperating Country or in countries included in A.I.D. Geographic Code 941, except as A.I.D. may otherwise agree in writing. Goods and services financed by A.I.D. under the Grant portion of the project shall have their source and origin in the United States, except as A.I.D. may otherwise agree in writing. Ocean shipping financed hereunder shall be procured in any eligible source country except the Cooperating Country.

c. I hereby authorize the financing of local currency costs in the approximate amount of Eighteen Million United States Dollars (\$18,000,000) related to construction materials and services, equipment, and research related commodities and services

d. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement for the purpose of financing contracts for technical, construction or other services entered into by the Borrower/Grantee, A.I.D. will approve such contracts in writing. This condition precedent may be satisfied separately for each contract action.

e. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance the construction of or technical assistance for Egerton College, the Borrower/Grantee will furnish in form and substance satisfactory to A.I.D. evidence that it will provide all requisite administrative, academic and maintenance staff for Egerton College on a timely basis. The Borrower/Grantee will covenant to submit on a periodic basis, as set forth in Project Implementation Letters (PILs), but at least as part of the Egerton College Staff Training and Work Plan further discussed below, updates of the evidence submitted in satisfaction of this condition precedent; such periodic submissions will deal, at a minimum, with adequacy of staffing levels at such times and efforts taken and proposed to fill staffing requirements.

f. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance the Agricultural Manpower and Range Research systems support components of the Project, the Borrower/Grantee will submit in form and substance satisfactory to A.I.D. plans indicating (1) what actions it will undertake with regard to the American Technical Assistance Corporation (ATAC) Report entitled "Professional and Sub-professional Agricultural Manpower in Kenya", specifically Section III, Manpower Utilization, and recommendations 1-26 contained therein for the manpower component, and (2) what actions it will undertake with regard to the ATAC report entitled "Agriculture Research in Kenya", specifically the "Summary", pages 1-5 thereof, and (3) a schedule for such actions to occur. Where the actions proposed do not accord with the ATAC recommendations, the Borrower/Grantee must indicate the alternative course of action being proposed. These alternative actions will be subject to A.I.D. review and concurrence. The plans submitted in satisfaction of this condition precedent will be updated on a periodic basis as specified in PILs but at least as part of the Egerton College Staff Training and Work Plan and the annual research plans, respectively, both as discussed below. This condition precedent may be satisfied separately for each project component.

g. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance the construction of Egerton College, the Borrower/Grantee will submit for A.I.D. approval in form and substance satisfactory to A.I.D., final plans, specifications and bid documents for the construction, and a work plan indicating the steps Egerton College will take to monitor this construction.

h. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance the Range Research System Support component of the project, the Borrower/Grantee will submit, in form and substance satisfactory to A.I.D. evidence that a Range Research Advisory Committee has been established.

i. Prior to any disbursement, or the issuance of any commitment documents under the Project Agreement to finance assistance to the Agricultural Finance Corporation (AFC), the Borrower/Grantee will submit, in form and substance satisfactory to A.I.D.:

(i) a comprehensive written report on actions which AFC has undertaken or proposes to undertake in relationship to the findings and recommendations of the A.I.D. sponsored AFC Management Study;

(ii) evidence that AFC will undertake or cause to be undertaken a job classification, job appraisal, and salary revision study of its operations;

(iii) evidence that AFC has hired, or that it shortly will hire, a qualified administrative officer who will be responsible for consolidating AFC's various administrative functions into a single administrative division and provide the necessary administrative leadership for this division.

The Borrower/Grantee will covenant to submit to A.I.D., at dates and in a form specified in PILs, reports indicating the implementation status of the aforementioned recommendations.

j. The Borrower/Grantee shall covenant, in substance, as follows:

1. With A.I.D. concurrence and participation, to establish, as part of this project, an evaluation program to examine the progress made towards the attainment of the primary project objective of increasing the availability of services to the smallholder farmer. In this regard, the Borrower/Grantee will covenant to provide, on a timely basis, required administrative technical assistance (not

financed by A.I.D.) for evaluations of the project and its impact on the smallholder through the extension service.

2. To submit, at dates to be specified in PILs and in form and substance satisfactory to A.I.D., annual training plans for the Ministry of Agriculture and Ministry of Cooperative Development Training Programs. The Borrower/Grantee shall also covenant to submit, at dates and in a form described in PILs, an annual Egerton College Staff Training and Work Plan under the Manpower Systems Support component, and annual Research Plans under the project's Range Research Systems Support component.

3. To make available, on a timely basis adequate housing to A.I.D.-financed technical assistance personnel. In the event such housing is not available on the arrival of this personnel, the Borrower/Grantee will take such action as may be agreed to by A.I.D. to provide adequate temporary accommodations until permanent housing is provided.

4. With regard to the Egerton College component, to covenant for the provision, on a timely basis, of (i) the requisite sponsorships for additional student positions above the present sponsorship level, and (ii) funding to meet the recurrent costs, including maintenance of buildings, of Egerton College, by means of a regularized adjustment of the economic fee, a Government subvention, or by such other means as the Borrower/Grantee and A.I.D. may agree. The Borrower/Grantee will report periodically, at dates to be specified in PILs but in any event at least annually as part of the Egerton College Staff Training and Work Plan, on the current status and proposed course of action to provide such funding.

5. With regard to the Range Research component, to provide, on a timely basis, all required research and administrative staff and needed financing to support the research at Kiboko.

Based on the justification set forth in Annex XIV, the following waivers to A.I.D. regulations are hereby approved:

(1) The policy set forth in Handbook 3 limiting the length of a project to six years is waived to allow a project life of approximately six years, six months.

(2) The requirement set forth in Handbook 1 Supplement B limiting procurement of services under loan-financed projects to firms of A.I.D. Geographic Code 941 (and local) nationality is waived to permit procurement of construction services of

approximately \$8,100,000 from firms of A.I.D. Geographic Code 935 nationality. The interests of the United States are best served by permitting the procurement of services from Free World countries other than the Cooperating Country and countries included in Code 941.

(3) The requirement set forth in Handbook 1 Supplement B that commodities procured with loan funds have their source and origin in countries included in A.I.D. Geographic Code 941 (and local) is waived to permit procurement of approximately \$1,000,000 of construction materials which have their source and origin in countries included in A.I.D. Geographic Code 935. Exclusion of procurement of these construction materials from Code 935 countries would seriously impede attainment of U.S. foreign policy objectives and the objectives of the foreign assistance program.

(4) The requirement under Handbook 1, Supplement B that commodities procured with grant funds have their source and origin in the U.S. is waived to permit the procurement of eight project vehicles, at an approximate cost of \$153,000, which have as their source and origin countries included in A.I.D. Geographic Code 935. Exclusion of procurement of the project vehicles from countries included in Code 935 would seriously impede attainment of U.S. foreign policy objectives and the objectives of the foreign assistance program; and special circumstances exist which justify waiver of the requirement of Section 636(i) of the Act.